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The Honorable Hilary Franz
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Re: SEPA File No. 12-042001
The Marbled Murrelet Coalition's Comments on the Draft Environmental Impact Statement for the Washington Department of Natural Resources' Long-Term Conservation Strategy for the Marbled Murrelet

Dear Commissioner Franz, Supervisor Rickerson, Ms. Smith and the staff of the Washington Department of Natural Resources and staff of the United States Fish and Wildlife Service:

Thank you for considering the following comments on the proposed Marbled Murrelet Long-Term Conservation Strategy ("LTCS" or "Long-Term Strategy"). We are non-profit conservation organizations acting in partnership as the Marbled Murrelet Coalition. The member groups of the Coalition are Washington Environmental Council, Olympic Forest Coalition, Seattle Audubon, Washington Forest Law Center, Defenders of Wildlife, Conservation Northwest, and the Washington State Chapter of the Sierra Club. The Regulatory Environmental Law and Policy Clinic at the University of Washington School of Law assisted with preparation of these comments.

I. INTRODUCTION

We respectfully request that the U.S. Fish and Wildlife Service ("Service") and Washington State Department of Natural Resources ("DNR") (collectively, "agencies") consider a range of alternatives in a revised draft environmental impact statement that better responds to the imperiled status of the marbled murrelet. The threatened bird has declined by more than 44 percent over the life of DNR's habitat conservation plan, and the leading cause of that decline in Washington is habitat loss on state and federal land—the same activity for which DNR seeks incidental take authorization. The State expert agency on the species, the Washington Department of Fish and Wildlife Service, recently classified the marbled murrelet as State Endangered in large part due to continued habitat loss from logging. The agency finding concludes in part:

> …the primary threats for initial listing as threatened included loss of old forest nesting habitat from commercial timber harvesting and mortality associated with net fisheries and oil spills. In Washington, nesting habitat losses due to timber harvest since initial listing in 1993 have been substantial, with an estimated 30% loss on nonfederal lands. In conjunction with habitat loss, the population is undergoing measurable decline. At-sea population monitoring from 2001 to 2015 indicated a 4.4% decline annually, which represents a 44% reduction of the population since 2001. The magnitude of the population decline indicates that the status of the Marbled Murrelet in Washington has become more imperiled since state listing in 1993. **Without solutions that can effectively address these concerns in the short-term, it is likely the Marbled Murrelet could become functionally extirpated in Washington within the next several decades.**[1]

Marbled murrelets are in steep decline, headed toward jeopardy if current land use conditions continue, and cannot afford yet another increase in harm. The agencies' modeling in the draft environmental impact statement ("DEIS") demonstrates that the "take first, mitigate later" strategy common to all of the alternatives results in accelerated decline from which the species is unlikely to recover. The best available science and information in the DEIS cast serious doubt on whether any of the alternatives presented prevents jeopardy, meets the Endangered Species Act ("ESA") Section 10 criteria, and makes a significant contribution to the protection of marbled murrelet populations Statewide.

Given the dire context and the documented need for "solutions…in the short-term" in order to avoid rapid extirpation, it is clearly wrong for all of the alternatives to authorize significant short-term harm to marbled murrelets through continued logging of their habitat. The marbled murrelet is at tremendous risk, and the proposed strategy of offsetting concentrated take in the near-term with later mitigation increases that risk. Where an agency action presents uncertainty and risk, the risk must be borne by the project, not the impacted species. *Sierra Club v. Marsh*, 816 F.2d 1376, 1385 (9th Cir. 1987). In passing the ESA, Congress clearly intended that federal agencies give "the highest of priorities" and the "benefit of the doubt" to preserving threatened and endangered species such as the marbled murrelet. *TVA v. Hill*, 437 U.S. 153, 174 (1978). In

[1] Washington Department of Fish and Wildlife Service SEPA DNS 16-039: Uplisting Marbled Murrelets from a State Threatened Species to a State Endangered Species (summarizing agency report) (emphasis added).

order to comply with the goals and requirements of the Endangered Species Act ("ESA"), the National Environmental Policy Act ("NEPA"), and the State Environmental Policy Act ("SEPA"), we request that the agencies consider an additional alternative. We have presented a reasonable and science-based alternative which we refer to as the "Conservation Alternative" in an attached comment letter from Dr. Kara Whittaker and Dr. David Lank, which delays harvest of marbled murrelet habitat in the short-term. This more protective alternative has the best chance to meet ESA approval criteria, arrest the rapid short-term decline of populations, and lead to long-term recovery.

We recognize that protecting more habitat would reduce timber volumes and reduce revenue to trust beneficiaries that are in some instances in dire need of funding. These conflicts are particularly acute with respect to timber dependent counties with a prevalence of marbled murrelet habitat, including Wahkiakum, Pacific, and Clallam Counties. In separate comments on the Sustainable Harvest Calculation, which we incorporate by reference here, we set forth means by which DNR could mitigate economic impacts. We also request that Commissioner Franz convene a high-level task force to craft policy solutions that will provide long-term reliable revenue streams to trust beneficiaries. It does not make sense to choose between basic government services and protecting natural areas and biodiversity for our children when better policies, such as a unitary trust, land pooling, and increased use of targeted contract logging, are available. There are common sense solutions that our State is long overdue in pursuing.

We commend the Service's and DNR's commitment to sound science, as demonstrated by retaining Dr. Peery to perform population analysis and by including an alternative based on the recommendations of the 2008 Science Report. However, we believe that the DEIS errs significantly by considering all current and potential mature forests as mitigation, largely irrespective of location and likelihood of actually providing conservation benefit to marbled murrelets. The DEIS appears to vastly overstate the amount of mitigation the proposed Long-Term Strategy alternatives would provide. Habitat is not a fungible resource that can be taken away in one time and place and added in another without consequence; and the notion that large amounts of low quality habitat equal the conservation value of smaller amounts of higher-quality habitat lacks any scientific basis.

In order to constitute mitigation under the ESA, the measures must be under the control of the applicant, certain to occur, must deliver conservation benefit to the impacted species, and must offset the impacts of the authorized taking. More than half of the acreage that the DEIS refers to as mitigation does not meet these ESA requirements. We encourage the Service and DNR to refine what the agencies consider to constitute mitigation.

This comment letter first addresses ESA Section 10, then the "no jeopardy" requirements of ESA Sections 7 and 10, then NEPA and SEPA. We attempt not to duplicate analysis, and therefore request that you consider comments on ESA criteria and impacts to also apply to NEPA and SEPA analysis of impacts, and vice versa. A separate scientific analysis from Dr. Kara Whittaker and Dr. David Lank presents the Conservation Alternative, critiques of the science in the DEIS, and suggestions for further analysis. A separate letter from the Washington Forest Law Center addresses why the State's fiduciary obligations obligate the State to attain compliance with federal law and allow the State to approve a Long-Term Strategy that benefits the murrelet and all of the State's citizens.

II. ESA SECTION 10'S PUBLIC COMMENT AND MITIGATION REQUIREMENTS

The ESA prohibits harm to a listed species. 16 U.S.C. § 1538(a)(1)(B). However, Section 10 of the ESA provides a narrow exception for when take of a listed species is allowed. *Id*. § 1539 (a)(1)(B). Congress allows individuals of an endangered species to be taken only if the applicant minimizes and mitigates the loss in a way that will "ensure the continued vitality of the species involved overall." *Sw. Ctr. for Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118, 1127–28 (S.D. Cal. 2006), *appeal dismissed and remanded*, 409 F. App'x 143 (9th Cir. 2011). In order to take a listed species, the applicant must submit an application to the Service for an Incidental Take Permit ("ITP"). 16 U.S.C. § 1539(a)(2)(A). The application must include a habitat conservation plan ("HCP") and an explanation for how the application meets permit approval criteria. *Id.* § 1539(a)(2)(A)(i)-(iv). The Service must provide an opportunity for public comment on the application, *Id.* § 1539(c), as well as its proposed findings on the application, *Id.* § 1539(a)(2)(B).

The Secretary shall issue the permit only if he or she finds that: "(i) the taking will be incidental; (ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (iii) the applicant will ensure that adequate funding for the plan will be provided; (iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species . . ." *Id.* § 1539(a)(2)(B). Thus, a permit application and HCP must be compliant with ESA's overall goal of conservation which allows species to survive and recover. *Bartel*, 470 F. Supp. 2d at 1129.

The Services (U.S. Fish and Wildlife Service and National Marine Fisheries Service) have issued regulations that generally copy the text of the ESA Section 10. *See* 50 CFR 17.22, 17.32, and 50 CFR 222.307. The Services have also set forth an explanation of permit application requirements in their Habitat Conservation Planning and Incidental Take Permit Processing Handbook which was recently updated in 2016 (Revised HCP Handbook).

As explained below, we are concerned that the DEIS and the alternatives presented do not meet the requirements of ESA Section 10 and request the agencies to remedy these errors in coordination with a revised or supplemental environmental impact statement to consider a Conservation Alternative. Compliance with the ESA is an objective of the NEPA and SEPA process, and so our comments relating to the ESA also relate to the DEIS and the agencies' compliance with NEPA and SEPA.

A. The Service Must Provide Opportunity for Public Comment on Approval Criteria.

The ESA requires public comment on both an ITP application, 16 U.S.C. § 1539(c), and potential findings, 16 U.S.C. § 1539(a)(2)(B). While the Service may conduct one public comment period to cover the public comment requirements of the ESA and the National Environmental Policy Act ("NEPA"), in order to do so it must provide some indication of the proposed evaluation of ESA Section 10 approval criteria.
The DEIS is deficient in that it is solely focused on meeting NEPA and SEPA requirements without meeting the public comment requirements of the ESA. DNR has not actually presented a draft habitat conservation plan to the public for comment as required by statute. The DEIS

provides no analysis of how the proposed alternatives may or may not meet the ESA Section 10 approval criteria.

Typically, an HCP application explains why a given proposal provides minimization and mitigation of take "to the maximum extent practicable." Where an applicant believes (as DNR appears to), that an alternative fully offsets the anticipated take, it must carefully justify that conclusion. Page 9-30 of the Revised HCP Handbook provides key questions that should be answered in the context of the "maximum extent practicable" requirement:

> [W]hat value did the habitat lost have to the covered species? What value does the replacement habitat have to covered species (e.g., did the replacement habitat provide for the same life stage of the covered species as that lost)? Does the replacement ratio need to be greater than 1:1 to compensate for the lag time between impacts and full eco-function of the replacement habitat, to allow for restoration uncertainties, or is consistent with previously-defined recovery objectives? Is the identified conservation habitat likely to remain suitable in reasonably anticipated future climate scenarios? Is there more value to the species by replacing the habitat that is lost with a different habitat type (e.g., breeding vs. foraging habitat)?

The DEIS fails to fully answer any of those questions. The DEIS appears to assume that a 1:1 take to mitigation ratio fully offsets impacts, when that is often not the case, especially for a species such as the marbled murrelet that is facing rapid declines in habitat on State and private land and corresponding population decline. Many similar HCPs require a 3:1 mitigation to take ratio or more. The DEIS is deficient for purposes of the ESA because there is no analysis or explanation of the apparent explanation that a 1:1 take to mitigation ratio constitutes minimization and mitigation to the maximum extent practicable, and no explanation of whether the mitigation provided compensates both for the impacts of take and the proposed time lag between take and mitigation.

While the DEIS contains extensive high-level analysis of acres of habitat to be logged and preserved over a fifty-year timeframe, the DEIS fails to provide any spatially or temporally specific analysis of the impacts of the taking, 16 U.S.C. § 1539(a)(2)(B)(i), and limited spatial or temporal analysis of the minimization and mitigation of those impacts, 16 U.S.C. § 1539(a)(2)(B)(ii). The DEIS further fails to provide important HCP materials for public comment, such as a draft implementation agreement, which would provide valuable information on how the HCP would actually be carried out, and information regarding DNR's plan to fund mitigation efforts. 16 U.S.C. § 1539(a)(2)(B)(ii).

Because the DEIS provides no information on or analysis of practicability, the public must assume that each of the alternatives are practicable. It is impossible for the public to know if any of the presented alternatives provide minimization and mitigation to the maximum extent practicable, because DNR has not provided a sufficiently specific analysis of impacts of taking or mitigation, and because DNR has not analyzed what would make an alternative impracticable. The Marbled Murrelet Coalition requests that, in coordination with an RDEIS or SEIS to include the Conservation Alternative, the Service provide an opportunity for public comment in compliance with 16 U.S.C. § 1539(c) and 16 U.S.C. § 1539(a)(2)(B).

B. The Service May Only Credit DNR for Mitigation That Will Actually Benefit Marbled Murrelets.

In order to count as mitigation under ESA Section 10, the applicant must be able to ensure that future conservation measures will occur and that those measures will offset the impacts of the permitted taking. 16 U.S.C. § 1539(a)(2)(B). That means that the mitigation measures must correspond temporally and spatially to the authorized taking. According to the Revised HCP Handbook, "Mitigation measures in the HCP must be based on the biological needs of covered species and should be designed to offset the impacts of the take from the covered activities to the maximum extent practicable." Revised Handbook at 9-14.

One of the Marbled Murrelet Coalition's core concerns is that the DEIS takes a broad brush approach to take and mitigation that generally treats marbled murrelet habitat as fungible across space and time.[2] This gives rise to a number of issues, explained below, with the net result of greatly overestimating the degree of mitigation which will actually be provided and underestimating the likely impact of take. The Coalition requests that the Service and DNR distinguish between long-term forest cover and mitigation, and only consider habitat to be "mitigation" if it provides actual conservation benefit to marbled murrelets which offsets the impacts of the authorized take.

1. The Services should not consider DNR's assessment of take and mitigation to measure mitigation under the ESA.

The DEIS relies upon an analytical framework and "P-stage" analysis to provide comparison of the impacts of take to the impacts of mitigation. *See* DEIS at 4-45. That data forms the basis of Dr. Peery's population viability analysis. The DEIS suggests, but does not explain, a conclusion that all of the alternatives therefore fully offset the impacts of the taking. We urge the Service not to accept that conclusion. While the analytical tools provide a broad and useful measurement of long-term forest cover and total acreage, they do not measure "mitigation" as the term is used in the ESA.

Under ESA Section 10, it states that "the applicant will . . . minimize and mitigate the impacts of such taking. 16 U.S.C. § 1539(a)(2)(B)(ii). Mitigation measures included in an incidental take permit must be rationally related to the level of take authorized by the permit. *National Wildlife Federation v. Norton*, 306 F. Supp. 2d 920, 928-9 (E.D. Cal. 2004). The core requirement is that there must be a nexus between the "impacts of such taking" and the minimization that reduces those impacts and the mitigation that offsets those impacts.

What the DEIS refers to as mitigation is more properly termed mature forest or long-term forest cover. The long-term forest cover is not mitigation for purposes of the ESA, because most of it does not relate to the impacts of the proposed taking.

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[2] The DEIS does correctly acknowledge that potential habitat in the "Puget Trough" is less valuable than in other places, and imposes a seemingly arbitrary "discount" to habitat take and mitigation value in those areas. Given that recognition, it is unclear what the justification is to otherwise treat habitat as fungible regardless of location or timing of take and mitigation.

The tables presented are misleading in that they suggest far more benefit to murrelets from existing protections than actually occurs. For example, approximately 70 percent of the long-term forest cover is in riparian buffers, and 12 percent occurs in the urban Puget Trough with little to no benefit and potential harm to marbled murrelets. *See* DEIS at H-18; *See also,* Whittaker and Lank Comment at 19. The Whittaker and Lank Comment on page 1 describes some of the specific potential harms to marbled murrelets including the risk of diurnal predators during long over-land commutes. These areas provide little to no benefit to marbled murrelets. Similarly, of the 47,000 acres of low-quality northern spotted owl habitat included in Alternative F only 10,000 of those acres provide marbled murrelet habitat. *See* Whittaker and Lank Comment at 19.

The DEIS' "mitigation" is also not "minimization" or "mitigation" as referenced in the ESA because there is no spatial or temporal connection to the impacts of the taking, and therefore no rational relationship between the two. As a result, the analytical framework and Peery Model do not serve as an adequate basis for permit approval.

The Peery Model is a population viability analysis model that was intended to estimate the relative effects of the alternatives on marbled murrelet populations in Washington. DEIS 4-46. The model does not "explicitly consider the complex, landscape-scale distribution of murrelet nesting habitat" in Washington. *Id.* at C-5. Dr. Peery explained that if spatially-explicit models had been used they could provide "geographically-targeted (local) estimates of risk, prioritize stands for conservation and management, and generate more realistic insights into how changes in the spatial arrangement of nesting habitat may influence regional murrelet population viability." *Id.* at C-41. In other words, the Peery Model is a meta-analysis that does not link impacts of specific authorized taking with mitigation.

As explained further in a comment letter from Dr. Whittaker and Dr. Lank, spatial connection is particularly important for marbled murrelets because the species requires large tracts of contiguous habitat in biological useful locations in order to successfully reproduce. The Whittaker and Lank Comment notes that averaged relative outcomes that lack spatial connection fail to inform operational and conservation planning for the murrelets. *See* Whittaker and Lank Comment at 21. Additionally, the Recovery Plan (USFWS 1997) and 2008 Science Report (Raphael et al. 2008), along with more recent peer-reviewed literature, conclude that murrelets require preservation of nesting habitat in the short term in specific locations. Those conclusions undermine the broad brush approach of equating habitat of different qualities without accounting for where habitat is located or when it will exist to benefit the murrelet population.

Because the Peery Model is not spatially explicit, and relies upon limited biological data, the effects of the alternatives on marbled murrelet populations are not certain. Where an agency action presents uncertainty and risk, the risk must be borne by the project, not the impacted species. *Sierra Club v. Marsh*, 816 F.2d 1376, 1385 (9th Cir. 1987). If the amount of the impact is uncertain, the amount of mitigation needed to fully offset the take is also uncertain. The courts have found that Section 10 is not satisfied when the mitigation measures are inadequate, unproven, uncertain, and will not protect the species in the long run. *Sw. Ctr. for Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118, 1141 (S.D. Cal. 2006), *appeal dismissed and remanded*, 409 F. App'x 143 (9th Cir. 2011). Some of amount of uncertainty is inherent in a large-scale project and a reclusive species. The agencies should seek to reduce uncertainty by

delaying take and securing actual mitigation in the short- and long-term. To the extent uncertainty remains, the agencies must account for that uncertainty by increasing mitigation. It is highly likely that a spatially and temporally-specific mitigation plan that meets the requirements of ESA Section 10 will require a mitigation to take ratio of much greater than 1:1.

While we appreciate the agencies' willingness to contract with Dr. Peery and the desire for a means to measure take and mitigation across the landscape, we urge the Service not to conflate these tools with the required ESA Section 10 finding. The Service must make an independent determination that directly links the impacts of the authorized taking to specific minimization and mitigation measures required by the HCP, and find that those measures either fully offset the impacts of the take or are the maximum measures practicable. We request that the agencies evaluate the impacts of take compared to only the mitigation measures that will offset those impacts, and provide an explanation of the assumptions underlying the mitigation to take ratio.

2. The DEIS should not count highly fragmented, low-quality habitat areas as mitigation for logging high quality habitat.

The bulk of what DNR considers mitigation is actually very low-quality mature forest in riparian buffers and edges. Only 194,000 acres of the 583,000 acres of long-term forest cover are currently marbled murrelet habitat and these areas are highly fragmented. *See* Whittaker and Lank Comment at 19. Approximately 70 percent of the described 583,000 acres of long-term forest cover are found in riparian zones. *Id.* Riparian zones are typically too narrow to contain any interior habitat away from the forest edge and to provide any habitat that is biologically useful to the marbled murrelet. *Id.* Even where there is interior habitat, those areas are so limited and marginal so as to be of no conservation benefit. Including those areas as mitigation gives the impression that DNR is mitigating take, when that is generally not the case.[3]

The ESA requires that minimization and mitigation measures offset the impacts of the authorized take. 16 U.S.C. §§ 1539(a)(2)(A)(ii), 1539(a)(2)(B)(ii). This means that there must be symmetry between habitat lost and habitat preserved or gained of equivalent area and quality before the impacts of take occur. The Revised HCP Handbook provides a straight-forward and applicable example on Page 9-29:

> Loss: 100 acres of habitat type x are permanently lost. Measure to offset impacts: restore and protect in perpetuity (at least) 100 acres of habitat type x that is of (at least) equal biological value to the covered species before impacts occur.

On page 9-32, in an additional example, the Handbook specifically provides that the quality of habitat mitigated must match the quality of habitat lost. In other words, logging fragmented, low-quality habitat may be mitigated by preserving or creating fragmented, low-quality habitat, and logging high-quality habitat may only be mitigated with high-quality habitat.

In determining whether a HCP has minimized and mitigated the impacts of the taking to the maximum extent practicable, the Service considers "how the species is impacted by the taking

[3] Where riparian management zones contain murrelet habitat directly adjacent to a protected habitat stand, mitigation credit is appropriate with edge discounts.

and mitigation, and not just the quantity of take." *Union Neighbors United, Inc. v. Jewell*, 831 F.3d 564, 581 (D.C. Cir. 2016). The Service states that "[i]mpacts of the taking depend on the specific situation and could include more than just the loss of individuals or loss of habitat." Revised HCP Handbook at 9-29. When analyzing the impacts of the taking, one should consider how this taking will affect the species and consider the type of habit, location of habitat, quality of habit, and timing of the taking. *Id.*

Here, for mitigation and take purposes, the DEIS treats the land as fungible. The alternatives do not effectively differentiate among the forests according to where the forest is located and the forest's value to the marbled murrelet. Also, the mitigation that the alternatives propose are not rationally related to the take. On a broad scale, the DEIS' analysis functions to substitute large amounts of low-quality fragmented habitat in riparian buffers and elsewhere for high quality nesting habitat. This mitigation is not rationally related to the taking because it is focused on the quantity of the take, not the impact of the take.

The DEIS acknowledges that riparian buffers and other fragmented areas with edge effects provide limited habitat value, and accounts for those limits by applying reductions in value. DEIS at 5-8, 9. Those reductions do not solve the underlying legal and biological problem of seeking to exchange unlike resources. The Revised Handbook emphasizes that "care should be given to compare and document the value of what is lost and the expected value of measures to replace what would be lost." Revised Handbook at 9-31. Here, there is no legal or biological basis to assume that many acres of very low quality habitat might offset elimination of high quality habitat. That approach appears to lack any scientific basis.

The appropriate and lawful approach would be to only count riparian buffers as mitigation where they are part of larger patches of habitat and function as interior forest, or where the buffers constitute mitigation for logging similarly-functioning areas. In other words, to the extent edges count as mitigation at all, it may only be to offset logging other similar edge areas.

3. The DEIS may not count uncertain protections as mitigation.

The ESA states that mitigation consists of steps the applicant "will take," which means that only measures that are required constitute mitigation. DNR's general approach is to count any area that it deems to be long-term forest cover (an area that possesses current or potential habitat) as mitigation. The Marbled Murrelet Coalition is concerned that DNR is counting uncertain requirements such as slope stability protections in long-term forest cover calculations and as mitigation. These areas may be protected, but an individual forester may determine that logging is permissible based on a site visit or geotechnical evaluation, such as for a relict deep-seated landslide not considered a hazard. If DNR seeks to consider areas identified for slope stability concerns as mitigation, it must place those areas fully off-limits to harvest for the duration of the HCP.

Areas mapped as wetlands or as locally important sites may only count as long-term forest cover and mitigation if those areas are actually prohibited from harvest. We request that the agencies explain whether all areas in long-term forest cover will be protected from logging, and only count as mitigation only those areas that are unequivocally protected as a condition of the HCP. As part of this analysis, we request that the agencies further consider whether, even if protection exists, if it will actually function for marbled murrelets. As an example (discussed further

above), to the extent the agencies attribute mitigation to riparian buffers, the agencies must consider that the HCP relies upon those same areas to provide large woody debris. A core assumption of the Trust Lands HCP is that large trees in riparian corridors (the same ones that would potentially provide marbled murrelet nesting platforms) will fall into streams to create diverse aquatic habitat. The agencies must avoid relying on conflicting assumptions in the same HCP—the same trees cannot both fall down to benefit salmon and stay standing to benefit marbled murrelets. Similarly, even absent logging, stands in identified unstable areas are prone to disturbance over time, and that the agencies must take that likelihood into account when attributing mitigation value.

The DEIS focuses on mitigation based on steps DNR will not take—namely, refraining from logging in certain areas. To the extent the agencies rely on affirmative conservation measures, those measures only count as mitigation under the ESA if the applicant "will" carry them out. Ecological forestry and thinning to accelerate murrelet habitat restoration only serve as mitigation if those measures are required by the HCP and DNR demonstrates the ability and funding to carry the measures out. We have learned from past implementation in riparian zones that DNR is unlikely to actually carry out expensive or burdensome aspects of the HCP if regional foresters do not believe they can derive commercial volume from those areas.

4. The Service should only count permanent habitat preservation as mitigation, and should ensure that mitigation precedes any allowed take.

The principle that mitigation must correspond to the impacts also applies to duration and timing. Mitigation must persist for as long as the impact. Logged habitat is often converted to plantation and will never regrow, and even in a best case scenario takes at least one hundred years to regrow into habitat. On page 3 and pages 8-9 of the Whittaker and Lank Comment further describes how timber harvest rotations are much shorter than the 100-200 years it takes for habitat to be fully restored. As a result, logging marbled murrelet habitat is functionally a permanent impact. Mitigation of that impact must therefore also be permanent. *See* Revised HCP Handbook at 9-30. We encourage the Services to require DNR to ensure permanent protection of long-term forest cover areas, beyond the expiration of the HCP.

Similarly, the analysis must take into account logging on State land that has already occurred under this HCP because the impacts persist. DNR has already logged approximately 30,000 acres of marbled murrelet habitat, causing permanent harm to the species and intends to log approximately 35,000 to 50,000 more acres. DEIS Table S-2. Combining past and future logging on State land results in around 65,000 to 80,000 acres logged. Because the impacts of already authorized take of marbled murrelets through habitat destruction persist throughout the permit term, the ESA Section 10 analysis must take that past harm into account when considering the extent of mitigation provided by long-term forest cover on State trust lands. A cumulative analysis is necessary to avoid double-counting mitigation. The same areas of long-term forest cover cannot have both mitigated past permanent take under the interim strategy, and also mitigate additional future take under the long-term conservation strategy. For example, if DNR has relied on preserving 30,000 acres of high-quality habitat to offset the impacts of take that occurred between 1997 and 2017, it cannot again rely on those same 30,000 acres to offset additional take. We encourage the Service to review its ESA Section 10 Findings for approval of

the 1997 Trust Lands HCP and to be sure that it does not rely on the same mitigation to offset the impacts of different authorized take.

In regards to timing, mitigation must precede or coincide with the impacts of authorized take. The Service's Handbook states that "[t]he timing of implementing mitigation should prevent any lag time between the occurrence of the impacts of the taking and the realization of the mitigation benefits to offset the impacts." Revised HCP Handbook at 9-27. If species are more susceptible to impacts, "additional or permanent mitigation may be required to offset the impacts." *Id*. at 9-14, 15. The offsets need to be achieved before the impact of the taking occur so as not to affect the survival of the species. *Id*. at 9-27. If the take occurs before mitigation and the species is greatly impacted, this could prevent the mitigation from ever actually being implemented and heightens the risk that the species will never recover. *Id.*

In order to ensure lawful mitigation timing, the HCP must include a certain and specific implementation schedule governing the timing of the mitigation strategy. "[A] mitigation strategy must have some form of measurable goals, action measures, and a certain implementation schedule." *Nat. Res. Def. Council v. Kempthorne*, 506 F. Supp. 2d 322, 355 (E.D. Cal. 2007). There should be a clear timeline for implementing the mitigation so as to determine when the mitigation will occur in relation to the impacts of the taking. Revised HCP Handbook at 9-27. Given the timing of the proposed mitigation measures in the DEIS, each of the proposed alternatives fail to meet these requirements.

Under all of the six proposed alternatives, the mitigation does not occur before the take and there is no specific implementation schedule for the mitigation strategy. The DEIS is unclear as to when harvesting will occur, but under all alternatives envisions and allows logging of all habitat within the first decade. Indeed, DNR apparently could carry out all of the take within the first year if it so desired. The DEIS' analysis of take and mitigation also inappropriately relies upon a "net" comparison of mitigation versus take over a fifty-year time period, rather than ensuring that mitigation precedes or coincides with the impacts of take.

In order to satisfy the ESA, the agencies need to provide a clear implementation schedule for exactly when harvesting will occur and when mitigation will be provided. However, harvesting within the first decade is a possibility under all of the proposed alternatives. DEIS 4-35. In its analysis, the agencies assume that P-stage habitat will be harvested within the first decade of the planning period. *Id*. If harvesting occurs within the first decade, this might not only imperil recovery, but could also jeopardize the species. As explained further in the Whittaker and Lank Comment and supported by studies, because habitat that exists today is more valuable to the marbled murrelet than future habitat, any loss of habitat in the first decade will ensure that the murrelet population will decline. *See* Whittaker and Lank Comment at 8, 9. In order to satisfy the ESA Section 10 requirements, the agencies cannot risk jeopardizing the species by harvesting within the first decade; additional mitigation needs to occur before the take. "[T]he risk . . . must be borne by the project, not by the endangered species." *Sierra Club v. Marsh*, 816 F.2d 1376, 1386 (9th Cir. 1987). Likewise, the benefit of the doubt should be given to the endangered species. *Id*. If the take happens in the first decade of the HCP and there are few if any marbled murrelets left to benefit from mitigation, "the destruction is permanent and the 'mitigation' is illusory." *Sw. Ctr. for Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118, 1142 (S.D. Cal.

2006), *appeal dismissed and remanded*, 409 F. App'x 143 (9th Cir. 2011). In order to ensure that mitigation will be implemented, mitigation needs to occur before the take.

The DEIS claims to account for the greater value of current habitat by applying an adjustment of mitigation value over time. DEIS 4-43. As explained in the DEIS, habitat that is only available for 20 of the 50 years will only be counted as 40 percent of its value (20/50). That approach is flawed because it assumes proportional and linear value over time. In reality, future habitat is far less valuable than current habitat not only because it exists for a smaller period of time, but because it is likely available for fewer marbled murrelets over time and provides less certain benefits. Similarly, take in the early years of the permit is far more impactful than take at the end of the permit term, when there is more habitat available.

Timing of take and mitigation is particularly important for the marbled murrelet given its ongoing steep population decline. There is no biological justification for authorizing additional take for a species that is on a fast path to extirpation. The Marbled Murrelet Coalition requests that the Service require an HCP that delays any authorized take, prioritizes mitigation, and ensures minimization and mitigation to the maximum extent practicable throughout the HCP. If DNR believes that delaying take and prioritizing mitigation is not practicable, it must explain why in the incidental take permit application.

5. The Service should not count existing NAPs and NRCAs as mitigation.

A significant source of DNR's proposed mitigation in the DEIS is in Natural Area Preserves ("NAPs") and Natural Resource Conservation Areas ("NRCAs"), also referred to as "natural areas." DEIS 1-8. Within the HCP and included as long-term forest cover, "there are approximately 85,000 acres of forested natural areas." DEIS 3-18. These NAPs and NRCAs are managed separately under the *Washington Natural Heritage Plan*, site-based management plans, the *NRCA Statewide Management Plan*, and individual management plans. *Id.* Some of them precede the Trust Lands HCP or are not within the HCP covered area. The NAPs and NRCAs in long-term forest cover are not managed specifically for the marbled murrelet's unique needs, but instead they generally protect native ecosystems. DEIS 3-17. Also, within these natural areas there are only "some examples of mature forest," that are beneficial to marbled murrelets. DEIS 3-18. DNR, as the applicant, is relying on these areas that have already been set aside, that are no longer trust lands, and that are funded separately to count as mitigation credit.

The NAPs and NRCAs presented in the DEIS may not constitute mitigation because these areas have already been set aside for conservation and are no longer part of the area managed under the HCP. The ESA requires that the applicant "will, to the maximum extent practicable, minimize and mitigate . . ." 16 U.S.C. § 1539(a)(2)(B) (emphasis added). The language of the statute is clear on its face; the use of the word "will" in the statute means that the minimization and mitigation only refers to affirmative steps in the future by this particular applicant. Thus, the applicant cannot rely on habitat acquisition that already existed for other purposes before the plan was created to count as mitigation.

The NAPs and NRCAs are different from protections on trust land for other species (primarily northern spotted owl) because these areas were fully paid for and replaced with other lands, are

managed under different statutory and regulatory authority, and are no longer trust lands. They are akin to State parks.

The Service has defined mitigation and enhancement measures as "measures, including live propagation, transplantation and habitat acquisition and improvement necessary and appropriate (a) to minimize the adverse effects of a proposed action on listed species or their critical habitats and/or (b) to improve the conservation status of the species beyond that which would occur without the action." 50 C.F.R. § 450.01 (emphasis added). The use of the word "action" in this definition also suggests that mitigation must be something that is actively being done and that is directly related to "improv[ing] the conservation status of the species." *Id.*[4] According to the ESA's statutory language and the Service's definition of "mitigation," wholly past deeds outside of HCP implementation should not count as mitigation credit.

In addition, we request that the Service, in its "practicability" analysis, take into account that DNR and the trust beneficiaries were fully compensated for NAPs and NRCAs. These areas would be preserved regardless of whether or not the HCP is in place, and their presence does not restrict logging in any way. They are essentially free conservation, which enables DNR to protect more and different areas that would otherwise be subject to logging.

C. The Alternatives Do Not Minimize and Mitigate to the Maximum Extent Practicable.

The DEIS does not demonstrate that any of the alternatives will minimize and mitigate the impacts of the taking to the maximum extent practicable. The agencies present no evidence that another alternative that does more for the marbled murrelet is impracticable. In determining whether an applicant meets the standard for minimizing and mitigating take to the maximum extent practicable, the courts consider two factors: "adequacy of the minimization and mitigation program, and whether it is the maximum that can practically be implemented by the applicant." *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv*., 202 F. Supp. 2d 594, 609 (W.D. Tex. 2002). Additionally, "[t]o the extent that the minimization and mitigation program can be demonstrated to provide substantial benefits to the species, less emphasis can be placed on the second factor." *Id*. In determining whether this standard of "maximum extent practicable" has been reached, "minimize and mitigate" are considered jointly, not as independent findings. *Union Neighbors United, Inc. v. Jewell*, 831 F.3d 564, 582 (D.C. Cir. 2016).

In order to satisfy the first factor, the "adequacy of the minimization and mitigation program," the courts look at a whether the minimization and mitigation measures are "reasonably specific, certain to occur, and capable of implementation." *Nat. Res. Def. Council v. Kempthorne*, 506 F. Supp. 2d 322, 350 (E.D. Cal. 2007). If mitigation measures are uncertain then additional minimization measures are required to fully offset the impacts of the take. Revised HCP Handbook at 9-19. Additionally, the level of mitigation must be "rationally related to the level of take under the plan." *Nat'l Wildlife Fed'n v. Norton*, 306 F. Supp. 2d 920, 928 (E.D. Cal. 2004). This means that the mitigation measures should fully replace the biological value that is lost from the take, which may require a mitigation to take ratio of much greater than 1:1.

[4] The HCP Handbook defines mitigation more broadly incorporating the definition of mitigate from NEPA regulations. *See* Revised HCP Handbook at 9-14.

Revised HCP Handbook at 9-28. Applicants are encouraged to develop plans that produce a net positive effect on the species. *Id*. at 2-7.

Courts have generally interpreted "maximum extent practicable" with the emphasis on "practicable." Practicable means "reasonably capable of being accomplished." Black's Law Dictionary (10th ed. 2014). Proposed mitigation measures must be the maximum that can be reasonably required of the applicant. *Nat'l Wildlife Fed'n v. Babbitt*, 128 F. Supp. 2d at 1293. An applicant may do something less than fully offset the impacts of the take through minimization and mitigation only where to do more would not be practicable. *Norton*, 306 F. Supp. 2d at 928. For example, a record should show "not just that the chosen mitigation fee and land preservation ratio are practicable, but that a higher fee and ratio would be impracticable." *Babbitt*, 128 F. Supp. 2d at 1292. The Service, not the applicant, determines whether alternatives providing greater minimization and mitigation are impracticable. *Gerber v. Norton*, 294 F.3d 173, 178-184 (D.C. Cir. 2002). If the Service determines that the applicant rejected another alternative that provided more benefits to the species either by providing more mitigation or causing less harm, and the Service determined that this alternative was feasible, then the Service cannot approve the ITP under the less protective alternative. *Sw. Ctr. for Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118, 1158 (S.D. Cal. 2006), *appeal dismissed and remanded*, 409 F. App'x 143 (9th Cir. 2011).

To determine whether another alternative is feasible, the Service may "weigh[] the benefits and costs of implementing additional mitigation, the amount of mitigation provided by other applicants in similar situations, and the abilities of that particular applicant." *Babbitt*, 128 F. Supp. 2d at 1292. Furthermore, an applicant cannot rely on the speculative future action of others for sources of income to make up for the inadequacy of mitigation. *Sierra Club v. Babbitt*, 15 F. Supp. 2d 1274, 1280 (S.D. Ala. 1998).

There is no evidence in this DEIS that the proposed alternatives minimize and mitigate the impacts of the taking to the maximum extent practicable. The evidence presented demonstrates the opposite: that the take DNR seeks will accelerate habitat and population decline.

Using the best available science, three biological goals for the marbled murrelet were recommended in the 2008 Science Report consistent with the USFWS Recovery Plan (1997) and the DNR HCP (1997) objectives: 1) a stable or increasing population, 2) an increasing geographic distribution, and 3) a population that is resilient to disturbances. USFWS 2011, Raphael et al. 2008. In order to fully replace the biological value that is taken and to satisfy the jeopardy requirements, an alternative must at a minimum not impair pursuit of any of these three objectives.

Currently, all of the alternatives authorize significant habitat loss within the first ten years, with no explanation for why the take is front-loaded. DEIS Table 4.6.2 at 4-36. Habitat that exists currently is more valuable to the species than habitat that exists in the future, yet the agencies have remained silent about why they cannot defer harvest, at least for the first decade of LTCS implementation. The DEIS fails to consider and assess the potential impacts to the species if harvesting occurs in the first decade. The DEIS relies on "habitat that will be developed further into the future (as forests mature)" over the 50-year lifespan of the plan to count towards mitigation. DEIS 4-43. Yet, if the marbled murrelet's habitat is impacted in the first decade and

the species declines further to the point where it cannot recover, then none of the future "mitigation" the agencies rely on will fully offset the impacts of the take. Similarly, the 9th Circuit has ruled that the "short-term" effects of logging cannot be adequately mitigated by natural vegetation regrowth. *Pac. Coast Fed'n of Fishermen's Ass'n, Inc. v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1037–38 (9th Cir. 2001). The agencies cannot rely on these future developing forests, to fully mitigate the impacts.

Nor is the mitigation rationally related to the take. *Norton*, 306 F. Supp. 2d at 928-9. To satisfy this criterion, the Services must articulate why the mitigation is applicable to the specific project and how the mitigation measures meet the relevant criteria. *Nat'l Wildlife Fed'n v. Babbitt*, 128 F. Supp. 2d 1274, 1292 (E.D. Cal. 2000). In the DEIS, the agencies do not meet the relevant criteria because the alternatives do not satisfy the marbled murrelet's biological needs through the mitigation measures. The proposed alternatives range from 10,000 acres of long-term forest cover (Alternative B) to 151,000 acres of long-term forest cover (Alternative F). DEIS Table 2.2.3 at 2-12. Although Alternative F protects the most murrelet habitat out of all of the alternatives and is projected to result in the lowest risk of jeopardy to the species, "the percentage of high-quality habitat in the first decade is lower than most of the other alternatives." DEIS 2-44. This is because a large portion of Alternative F's long-term forest cover that the agency is counting towards mitigation, is northern spotted owl low-quality habitat. *Id*. As discussed in the Whittaker and Lank Comment on page 19, 47,000 acres in Alternative F is low-quality northern spotted owl habitat and only 10,000 acres of this is habitat for marbled murrelets.[5] High-quality habitat is vital to the marbled murrelet's survival and reproduction, and by harvesting high-quality habitat and replacing it with low-quality habitat, the agency is doing far less than fully offsetting the take. Alternative F is the best proposed alternative in terms of acres of conservation, yet it still fails to meet the biological needs of the marbled murrelet and it is clearly not the maximum that is reasonably capable of being accomplished.

The agency has not given any information that shows that an alternative that contains the emphasis areas, special habitat areas, existing habitat patches, and marbled murrelet management areas is not the maximum that can be practicably done to offset the take. In addition, Alternatives A-F provide buffers ranging from 0-100 meters for occupied sites. But, the agency has not provided evidence or explained why it is impracticable to provide larger buffers, even though these narrow buffers do not properly minimize the risk of nest predation and other disturbances. The Whittaker and Lank Comment, page 4, further discusses the inadequacies of these narrow buffers and explains how studies have shown that successful nests were 137-155 meters from the forest edge. As a result, none of these proposed alternatives are protective enough and the Services will not find that the agencies minimized and mitigated the taking to the maximum extent practicable. Also, the agencies do not fully take into account other impacts from the take such as the lingering impacts of roads, fragmentation and predation. While the agency uses some minimization measures for these impacts, there is no evidence that this is the most the agencies can do and that other minimization and mitigation strategies are not economically feasible.

[5] It is unclear why the agencies included the extra low-quality northern spotted owl habitat in Alternative F. If those areas are functionally restricted by other processes (such as the habitat requirements of the Olympic Experimental Forest Land Plan), then the northern spotted owl habitat should be counted as part of all of the alternatives. Failing to do so unfairly creates the appearance that Alternative F restricts far more relative acreage than it does.

Greater mitigation than DNR has proposed is both necessary and practicable. Marbled murrelet populations are in decline, in part due to DNR's past harvest on State trust lands. DNR does not propose creating or adding any conservation benefit, but rather retaining a portion of what already exists. In this context, a mitigation to take ratio of 3:1 or greater is likely required and practicable. The Service should take into account that the proposed conservation forms a relatively small portion of the analysis area (for instance Alternative F's proposed additional protections cover less than 10 percent of trust lands), and that the HCP has provided and will continue to provide substantial economic benefit to the State and trust beneficiaries inside and outside of the analysis area. In addition to consideration of potential volume lost, the practicability analysis must take into account benefit gained as a result of the HCP, including benefit derived from the social license to log on State lands, reduced litigation cost and risk, reduced cost from not having to engage in expensive surveys, and regulatory certainty.

The "practicable" analysis includes some consideration of economic impacts. In doing so, the DEIS regularly conflates volume with revenue and benefit to trust beneficiaries. We encourage the Service to take a more nuanced analysis in its Section 10 Findings and final EIS, and to be very careful not to conflate the interests of mills and logging companies with the interests of the trust beneficiaries. In other words, DNR must return value to trust beneficiaries, not volume to mills. For example, it is likely that an alternative that involved extensive thinning, which involves more local workers in highly skilled jobs, may provide similar or greater revenue than an alternative that featured higher volume with more clearcuts. DEIS at 2-61. Offering small sales to local contract loggers, rather than larger sales to national or international logging companies may similarly provide greater return to trust beneficiaries while producing less volume. Similarly, a mix of thinning and carbon credits may produce lower volume but higher benefit to trust beneficiaries and the State generally.

DNR must reduce timber harvest if required to do so by federal law. If DNR believes that it cannot afford to reduce timber harvest, the ESA requires that it affirmatively demonstrate why. *See* Revised HCP Handbook at 9-33 to 9-35. In order to demonstrate practicability, DNR must thoroughly consider alternative methods of mitigation and alternative methods of practicably achieving greater mitigation. 16 U.S.C. § 1539(a)(2)(A)(iii).

D. Suggestions for Improvement.

We are concerned that DEIS lacks detail on how DNR and the Service will respond to uncertainty. The species' rapid decline, the uncertain and likely increased impacts of climate change, and continued development of science on a relatively mysterious bird create significant risk that the HCP may need to adjust in order to achieve the LTCS objectives. We recommend a shorter permit term and robust monitoring and adaptive management.

Currently, the long-term conservation strategy runs to the year 2067. DEIS 1-16. Thus, a 50-year permit would be needed to implement the plan. In the legislative history of ESA Section 10, Congress discussed how permits lasting 30 or more years may be appropriate but that the Service must consider the possible negative effects with such a duration. H.R. CONF. REP. 97-835, 31, 1982 U.S.C.C.A.N. 2860, 2872. Congress stated that the Service should consider "the extent to which the conservation plan is likely to enhance the habitat of the listed species or increase the long-term survivability of the species or its ecosystem." *Id*. Due to the current lack

of scientific knowledge about the species, a shorter permit would allow the marbled murrelet to benefit from developing science and new recovery strategies.

The DEIS does not explain how the applicants will address unforeseen circumstances or monitor the impact of take over the 50-year duration of the plan. An applicant for an ITP is required to identify the steps they will take to monitor the impacts of the take and identify procedures that will be used to handle unforeseen circumstances. 50 CFR § 17.22(b)(1)(iii)(B). The Revised HCP Handbook describes a practical adaptive management strategy as one that includes scheduled milestones that are continuously updated and reviewed throughout the life of the plan. Revised HCP Handbook at 10-28. The Handbook also warns that adaptive management should not be a catchall for all uncertainties and that "[t]here may be some circumstances with such a high degree of uncertainty and potential significant effects that a species should not receive coverage in an incidental take permit at all until additional research is conducted." *Id*. Monitoring is a critical component of adaptive management. Other conservation plans have included specific monitoring of the species. For example, the San Bruno butterfly conservation plan required constant monitoring. *Friends of Endangered Species, Inc. v. Jantzen*, 760 F.2d 976, 983 (9th Cir. 1985). If over time the species was found to be experiencing additional harm than was expected, the plan included adaptive management techniques to remedy the problem. *Id*. *See also Nat'l Wildlife Fed'n v. Babbitt*, 128 F. Supp. 2d 1274, 1281–82 (E.D. Cal. 2000) (discussing a conservation plan that included adaptive management provisions that permitted the applicant to adjust the strategy based on new information); *Friends of the Wild Swan v. Jewell*, No. CV 13-61-M-DWM, 2014 WL 4182702, at *5 (D. Mont. Aug. 21, 2014) (evaluating a conservation plan that required the applicant to work with the Service to create and implement alternatives if there any deficiencies or inadequacies were discovered). Additionally, the 2005 Washington Forest Practices HCP included effectiveness monitoring and research, as well validation monitoring and research with scheduled time frames. 2005 Washington Forest Practices HCP, Schedule L-2, 2.

These strategies are intended to determine, among other things, where more conservation may be necessary and if there have been any significant biological or habitat changes. *Id*. Likewise, the State Trust Lands HCP, which this proposal is seeking to amend, included an implementation agreement which made the original marbled murrelet long-term conservation strategy part of an adaptive management strategy. 1997 HCP Appendix B Implementation Agreement at B-10, 11. As an amendment to this HCP, the LTCS should continue to provide adaptive management strategies in order to comply with the ESA requirements that the applicants should address unforeseen circumstances. The agency's failure in the DEIS to address how it will respond to unforeseen circumstances and continue to monitor the species is inconsistent with previous HCPs and 50 CFR § 17.22(b)(1)(iii)(B).

While we understand that widespread surveying may not be necessary or cost-effective, we suggest that at a minimum DNR monitor habitat development in identified conservation areas to validate the P-stage habitat model and a sample of surveys to track if nesting birds are populating habitat over time. Habitat monitoring is particularly important if DNR relies upon ecological forestry to accelerate habitat development. The Whittaker and Lank Comment on page 18 also describes the adaptive management incorporated in the proposed Conservation Alternative. The Conservation Alternative provides that in 10 years after implementation of the LTCS, DNR should assess whether the three biological goals have been met and if not, then the agency should

continue a moratorium on take. Assessments should be made every 10 years. We also suggest a mechanism to adjust the timing of take authorization based on information derived from at-sea population surveys (see provisions of the "Conservation Alternative"). If populations endure a steep decline during a given time period, take should be delayed until populations recover to previous levels.

II. ESA SECTIONS 10 AND 7 LACK OF JEOPARDY REQUIREMENT

In order for the Service to approve the LTCS, it must find under ESA Sections 7 and 10 that the approval of the permit will "insure a lack of jeopardy to the species." 16 U.S.C. §1536(a)(2); 16 U.S.C §1539(a)(B)(iv). As noted in the recent WDFW uplisting finding, absent substantive changes in habitat protection extirpation of the marbled murrelet in Washington is a likely outcome within the first decades of the permit term. The agencies therefore should conduct the jeopardy analysis with particular scrutiny and be sure to consider an alternative that is most likely to avoid jeopardy.

The action must neither "appreciably reduce the likelihood of survival" nor "reduce the likelihood of...recovery." 16 U.S.C §1539(a)(B)(iv). In the analysis of an action's affects, survival and recovery are different aspects of population dynamics. An action might not "appreciably reduce the likelihood of survival" but still hinder recovery, by keeping a population's numbers so low that the species is unlikely to ever actually recover. *See, e.g., Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 184 F. Supp. 3d 861 (D. Or. 2016) (*NMFS V*). To avoid violating the ESA, agency action must not be likely to drive a species or distinct population segment to extinction. Beyond this, agency action must not facilitate a "slow slide into oblivion" thus "tip[ping] a species from a state of precarious survival into a state of likely extinction." *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 930 (9th Cir. 2008) (*NMFS IV*); *see also NMFS V*.

"Jeopardiz[ing] the continued existence of a species" involves "engag[ing] in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of <u>both the survival</u> and <u>the recovery</u> of a listed species in the wild by reducing the reproduction, numbers or distribution of that species." 50 C.F.R. §402.2 (emphasis added). Survival means that the species continues to exist; recovery raises the bar. As noted by the ninth circuit, "a species may cling to survival even when recovery is far out of reach." *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 931 (9th Cir. 2008) (*NMFS III*); *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1070 (9th Cir. 2004) ("[T]he ESA was enacted not merely to forestall the extinction of species (*i.e.*, promote a species survival), but to allow a species to recover to the point where it may be delisted."); *Nat'l Wildlife*, 524 F.3d at 936; *S. Yuba River Citizens League v. Nat'l Marine Fisheries Serv.*, 723 F. Supp. 2d 1247, 1258 (E.D. Cal. 2010) (holding that it is not enough to say that an action will improve species, absent a finding that the species population is stable to begin with). Most recently, Judge Simon reiterated that an agency action that keeps a species at low population numbers, just shy of extinction, is impeding recovery. *NMFS V*, at *20. Recovery is determined by "improvement in the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the act." 50 C.F.R. § 402.2. While survival is important, recovery is the actual goal of the ESA. *Id.* § 402.2.

Importantly, actions that hold the size of a species' population at low numbers impede recovery. This is both because species at low numbers are susceptible to chance events, such as forest fire, and because small population sizes lead to inbreeding and genetic drift, thus reducing genetic variability and decreasing a species' resilience to disturbance. *See* Whittaker and Lank Comment at 11; Revised HCP Handbook, at 8 (noting that "the longer a species remains at low population levels, the greater the probability of extinction from chance events, inbreeding depression, or additional environmental disturbance."); Michael Gilpin and Michael Soulé, *Minimum Viable Populations: Processes of Species Extinction*, Conservation Biology, the science of scarcity and diversity 19-24 (1986) (discussing the problem of small population size and the risk of extinction vortices).

The Recovery Plan, created under Section 4(f) when a species is listed by the Service, serves as a guidance document in determining what actions are likely to impede recovery. 16 USC 1533(f); *See also*, Jennifer Jeffers, *Reversing the Trend towards Species Extinction, or Merely Halting It? Incorporating the Recovery Standard into ESA Section 7 Jeopardy Analyses*, 35 Ecology Law Quarterly 455, 478. While these are guidance documents, they provide a basis for analysis of the recovery standard. *Id*. at 477. Indeed, at least one court has noted that "[t]he language and structure of the ESA's provisions for recovery plans shows that FWS must make a conscientious and educated effort to implement the plans for the recovery of the species." *Sw Ctr. for Biological Diversity v. Bartel*, 470 F. Supp. 2d 1118, 1137 (S.D. Cal. 2006).

Ultimately, if it is uncertain whether the actions will impact survival or impede recovery of the species, "the benefit of the doubt" must be given to the endangered species. *NRDC v. Kempthorne*, 506 F. Supp. 2d 322, 388 (E.D. Cal. 2007); *NMFS V*, at FN 28 (invoking the "precautionary principle").

The jeopardy standard under ESA Section 7 and Section 10 are identical with respect to the marbled murrelet. However, the Service's ESA Section 7 analysis must extend to all impacted species, including northern spotted owl. For the jeopardy analysis, the consulting agency must use "the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g); *San Luis & Delta-Mendota Water Auth. v. Locke*, 776 F.3d 971, 995 (9th Cir. 2014). While an agency typically has leeway to identify the "best available science," it must address all available scientific information, even if it decides that some of those data are not to be incorporated into the jeopardy analysis. *San Luis & Delta-Mendota Water Auth.*,776 F.3d at 602 (noting that, although deference to the agency at its highest when it is identifying the "best available science" to use in its analysis, failure to consider available data undermines the agency's assertion that it met the best available science standard.

As explained below, the marbled murrelet's low population numbers and steady decline raise serious concern of potential jeopardy from further authorized take. As noted in the Whittaker and Lank Comment on page 4, the DEIS does not include any links to biological targets such as those outlined in the 2008 Scientific Report. Raphael et al. *Recommendations and Supporting Analysis of Conservation Opportunities for the Marbled Murrelet Long-Term Conservation Strategy*. Washington State Department of Natural Resources (2008). The link between alternatives and population outcomes is represented in the DEIS by a population viability model, the Peery Model. While we understand that the model is relative rather than objective, it is important to note that the model itself predicts declines in population size for the first decade

across all alternatives and both the risk and enhancement scenarios. DEIS C-31, 32, 61, 64. Furthermore, the risk scenario results in increased extinction risk and decreased population size across all alternatives. DEIS C-31, 61. Since the model provides the primary measure of population response to the alternatives the agency has provided, these results raise the concern that this action fails to meet the legal standard for no jeopardy under the ESA.

A. The Alternatives Appear to Risk Jeopardy By Impeding Recovery

An agency action may fail to insure a lack of jeopardy if it impedes recovery of the species. While historically ESA Section 7 analysis has conflated the two prongs of the jeopardy definition, recent cases have confirmed that they require different analysis. For example, in *NMFS V*, the court rejected a biological opinion that found a lack of jeopardy simply because associated mitigation measures would make very small, incremental improvements in habitat conditions. The project prolonged the species' risk by perpetuating low population levels and risked hindering recovery, particularly since "there is ample evidence in the record that indicates that the operation of the [action] causes substantial harm to listed salmonids." *Id.* at *15-17; *NMFS IV*., at 1130.

1. The proposed Long-Term Strategy risks jeopardy by accelerating and continuing the species' decline.

Reduction and fragmentation in nesting habitat is a major factor in the drastic decline in this species. *See, e.g.* USFWS Marbled Murrelet Recovery Plan 1997. Steven M. Desimone. *Periodic Status Review for the Marbled Murrelet. Washington Department of Fish and Wildlife.* 1, 15 July 2016; Sherri L. Miller et al., *Recent Population Decline of the Marbled Murrelet in the Pacific Northwest*. 114 The Condor 771, 778 (2012) (noting at the end of the study the results of a preliminary analysis suggesting that the effects of reductions in forage fish supply are overshadowed by the impact of nesting habitat reduction).

The Service's Recovery Plan indicates that the "objective of stabilizing population size" involves protection of "adequate nesting habitat by maintaining and protecting occupied habitat and minimizing the loss of unoccupied but suitable habitat." USFWS, Recovery Plan for the Threatened Marbled Murrelet, Region *(Brachyramphus marmoratus)* in Washington, Oregon, and California, 1, 119 (1997) (Recovery Plan). The risk of chance events wiping out the species is "exacerbated for the murrelet because populations that have negative long-term growth rates, as does the listed population of the murrelet ...have little or no capacity to overcome catastrophic population losses." Recovery Plan, at 118 (citations omitted). The murrelet is highly vulnerable to environmental variability and disturbance. Recovery Plan, at 117.

To compare the alternatives, the DEIS documents changes in long-term forest cover and a model produced by Peery and Jones (DEIS, The Peery Model, Appendix C) for its population viability analysis of the impact of the alternatives on murrelet populations. The long-term forest cover changes are not informative as to the likely impact on the murrelets because much of the land included in the final acreage count for the long-term forest cover is not suitable for murrelets. Even based simply on a measure of habitat take, all of the alternatives allow for logging within the murrelet's identified habitat. Even the most protective alternative, F, allows logging of

25,000 acres of habitat, in addition to 30,000 acres of habitat already logged since the inception of the HCP.

The Peery model attempts to provide some linkage between the alternatives and murrelet population dynamics. While the Peery analysis may not be relied upon for objective species data, the analysis strongly suggests that under the more realistic "Risk" set of model parameters, none of the alternatives meet the jeopardy standard of insuring that the action does not reduce the likelihood of survival or recovery. For the risk scenario, every alternative shows declines over the first forty years, with the steepest drops initially, presumably as a result of the increased harvest of timber during the first decade. DEIS C-58, Table 4.6.5. Even in the "Enhancement" model, all alternatives show a decline during this first decade, thus increasing the vulnerability of the species to any chance event during this decade or shortly thereafter. DEIS C-61, Table 4.6.5.[6]

The DEIS data shows species trends worse than those in *NMFS V*. Instead of very slow improvements over time, it shows accelerated loss (under both scenarios) followed by continued decline (under the "Risk" set of model parameters). That future would leave the marbled murrelet highly vulnerable to chance events that could push the species from imperiled to extinct. The Peery model acknowledges uncertainty regarding adult survival. Furthermore, according to at least one reviewer, this uncertainty is probably higher than indicated by the discussion of the model itself. *See* Sutherland Review. Given uncertainty, the Service must adopt a precautionary approach and evaluate populations under the "risk" model. Under the risk model, where chronic environmental stressors are included as more realistic background to the impact of nesting habitat loss to murrelet survival, DEIS C-3, 4, every single alternative resulted in population declines. DEIS 4-47, Figure 4 at C-58. The probability, under all alternatives, of the population declining by at least 50 percent is greater than 75percent. DEIS Figure 5 at C-60.

We also believe that jeopardy is likely because of the heightened importance of State lands, a factor not taken into account in the Peery model (which views habitat in a vacuum). *See* Whittaker and Lank Comment, at 1-3. While State lands constitute only a portion of the habitat that the marbled murrelet relies upon, these lands are extremely important for the following reasons: 1) their location as means for maintaining contiguous, non-fragmented habitat within the state and adjacent Oregon and California population, 2) their location near the ocean and thus containing a regional "hotspot" as identified in recent research 3) their potential to serve as a temporal bridge for murrelets until federal lands develop sufficient habitat, and 4) their presence within the jigsaw of private, state, tribal and federal lands with varying levels of habitat suitability and regulatory safeguards. For a more complete discussion of the importance of DNR lands see Whittaker and Lank Comment, at 1-3. *See, also*, Martin G. Raphael et al., *Habitat associations of marbled murrelets during the nesting season in nearshore waters along the Washington to California coast*. 146 Journal of Marine Systems 17 (2015); Lorenz, et al, *Marine*

[6] For purposes of jeopardy analysis, Dr. Peery's "risk" assessment is appropriate because it takes a precautionary approach and provides a buffer for the event that the modeling is wrong. For example, in *NMFS V*, the court rejected the Services' use of a "very specific numerical benefits from habitat improvement" that were too uncertain and did not include any margin of error. *NMFS V*, at *17-19. The court noted very clearly that the consulting agency must, in the face of uncertainty, give the "benefit of the doubt" to the endangered species. *Id*. at 19.

Habitat Selection by Marbled Murrelets (Brachyramphys marmoratus) during the Breeding Season, 11 PLOS One (September 28, 2016).[7]

These State lands are therefore disproportionately important to the murrelet as compared to other sources of terrestrial habitat. The importance of these lands are even more clearly highlighted by initial results examining the impact of ocean versus territorial based effects indicating that the loss of terrestrial habitat rather than forage fish is likely the cause of the murrelet's precipitous decline. Miller et al., *Recent Population Decline of the Marbled Murrelet in the Pacific Northwest*, 114 The Condor 771, 779. This relationship was more recently corroborated by Raphael et al. 2015. Martin G. Raphael et al., *Habitat associations of marbled murrelets during the nesting season in nearshore waters along the Washington to California coast*. 146 Journal of Marine Systems 17 (2015).

Given the drastic initial decline in population modeling on State lands and statewide, along with the crucial importance of State lands for marbled murrelets, a "jeopardy" finding is likely for all of the alternatives presented. It behooves the agencies to include the Conservation Alternative (Alternative "G") and to analyze the impact of a moratorium on the harvest of current and future habitat over the first decade. While the Peery model takes into consideration the possibility of a metered harvest during the first two decades rather than all habitat harvest during the first decade, it only considers this possibility with Alternative D, and it does not consider precluding logging altogether in the initial decade or beyond. DEIS C-23. This is not a sufficient analysis to determine the impact of metering across alternatives and is certainly not sufficient to determine the impact of a moratorium on harvest in broadly identified regions of actual and potential occupancy for at least the first ten years.

2. The proposed Long-Term Strategy fails to present actual population numbers or to adequately account for uncertainty.

While the Peery model is instructive regarding the relative risk to a species based on aspects of the different alternatives, DEIS 4-46, C-6, we note that the results themselves do not supply the answer to whether or not an action will cause jeopardy. DEIS C-6 (noting "it is beyond our purview to provide recommendations as to whether individual alternatives impact murrelets such that '…survival and recovery in the wild is appreciably reduced.'"). *See also* Sutherland Peer Review, Steven R. Beissinger and M. Ian Westphal, *On the Use of Demographic Models of Population Viability in Endangered Species Management*, 62 The Journal of Wildlife Management, 821 (1998) (noting that while population viability analysis ("PVA") is not particularly successful in predicting actual numbers when it comes to survival and recovery it is useful in analyzing relative effects). Thus, the results of the Peery model are limited in terms of what they can tell us about survival and recovery for the marbled murrelet.

Furthermore, as Beissinger and Westphal note, the use of PVA models for addressing issues regarding endangered species is suspect since "[d]oing a credible PVA requires good demography and good ecological modeling." Bessinger, *Demographic Models*, at 836. They state that "[e]ven when little demographic data exist (e.g., the marbled murrelet), someone will construct complex PVA models that are composed of many times more variables parameterized

[7] http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0162670 (last accessed February 5, 2017).

with educated guesses than with data from field measurements. The uncertainty associated with such models is so large that results usually yield no useful or credible guidelines for management." *Id*, *See, also,* Sutherland Peer Review, at 5.

While Peery and Jones produced a strong model given their constraints, limiting the number of variables to avoid compounding uncertainty, the use of this model as the foundation for making long-term decisions regarding management of the marbled murrelet habitat is of concern. Importantly, Raphael's Peer Review includes a figure showing that 97 percent of the variation in population growth indicated by the model results is tied to the amount of raw habitat. *See, also,* Sutherland Peer Review, at 5 (noting that the primary relationship is between nest success and amount of habitat and that the other variables are "noise").

Beissenger and Westphal also indicate that PVA models lose their utility the further into the future they project. *Id*, at 834. Here, in particular, the fact that the steepest declines appear to take place in the first decade (the time period for which the model is likely to be most accurate) is unsettling. DEIS C-71, 72; Fig. 12, 14. The Marbled Murrelet Coalition cautions the Service that absent actual data regarding use of DNR lands by murrelets, the modeling provided by DNR alone is insufficient to determine jeopardy. *See NMFS V* at 17-19.

The modeling and analysis is also insufficient in that it fails to accommodate for climate change, disturbance events, refined spatial relationships, the heightened importance of current habitat versus future habitat, and nest selection processes. All of these variables insert significant uncertainty into the analysis. In order to accommodate that uncertainty and "insure" a lack of jeopardy, the Service must require an alternative with sufficient margin for error.

3. The analysis fails to sufficiently incorporate the impact of climate change.

Climate change will almost certainly have negative impacts on marbled murrelets. DEIS 3-10, 11, 13; *See, e.g.* Case et. al, *Relative sensitivity to climate change of species in northwestern North American.* 187 Biological Conservation. 127. These impacts arise from changes to all ecosystems utilized by the murrelets, including loss of nesting habitat through fire, blowdown and beetle infestation as well as the availability of forage fish. Some likely negative impacts are explored in the Whittaker and Lank Comment, at 9-10. *See, also.* Virginia H. Dale et al., *Climate Change and Forest Disturbances: Climate change can affect forests by altering the frequency, intensity, duration, and timing of fire, drought, introduced species, insect and pathogen outbreaks, hurricanes, windstorms, ice storms, or landslides* 51 BioScience 723 (2001); Van Mantgen, P.J., N.L. Stephenson, J.C. Byrne, L.D. Daniels, J.F. Franklin, P.Z. Fule, M.E. Harmon, A.J. Larson, J.M. Smith, A.H. Taylor, and T.T. Veblen. 2009. *Widespread increase of tree mortality rates in the western United States.* Science 323:21 521-524; Littell, J.S. et al., *Forest ecosystems, disturbance, and climatic change in Washington State,* USA. 102 Climatic Change 129 (2010); Halofsky, J.E., D.L. Peterson, K.A. O'Halloran, C. Hawkins Hoffman, eds. 2011. *Adapting to climate change at Olympic National Forest and Olympic National Park*. Gen. Tech. Rep. PNW-GTR-844. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station (2011).

It is unlawful for environmental analysis to note the existence of climate change but then plan as if it does not exist. For example, in a recent case involving modeling of water temperatures in Washington State, *Wild Fish Conservancy v. Irving* (order on summary judgment),[8] the defendant agency had generally discussed climate change and climate change impacts in its biological opinion. The agency, however, relied on historical stream flow data and modeling to assess impacts to the species. The court overturned this analysis, ruling that it was not sufficient to merely note that climate change exists, but rather that the agency must integrate anticipated impacts into its modeling and analysis. As climate science is increasingly capable of making regional predictions, courts are increasingly requiring that determinations under the ESA include a discussion and consideration of climate change and that the uncertainty with respect to the likely effects is not a barrier to incorporating it into the analysis. *See, e.g. NRDC v. Kempthorne*, 506 F. Supp. 2d 322, 388 (E.D. Cal. 2007); *Alaska Oil & Gas Ass'n v. Pritzker*, 840 F.3d 671, 680 (9th Cir. 2016) (affirming the listing of the bearded seal on the basis of long term climate change modeling expectations); *Defs. of Wildlife v. Jewell*, 176 F. Supp. 3d 975, 1011 (D. Mont. 2016) (concluding that the Service erred by concluding that "climate change and projected spring snow cover would not impact the wolverine at the reproductive denning scale in the foreseeable future"). In *NMFS V*, a central concern of the court was the failure to adequately consider how climate change will impact the salmonid species and the potential for the mitigation attempts to create future potential habitat. *NMFS V*, at 148.

While the DEIS recognizes the impacts of climate change, the analysis fails to integrate the likely increase in disturbance events and reduced forest productivity within the DEIS area, and how that will result in changes of availability of suitable habitat in each of the alternatives. Instead, it suggests, after a qualitative analysis of the direct relationship of emissions and harvest that "little difference in impact of climate change on marbled murrelet...is expected between the action alternatives and the no action alternative, nor between action alternatives." DEIS 4-6, 13. While there is inherent uncertainty in predicting climate change effects, there will be an almost certain increase in disturbance effects and this increase must be integrated into the analysis to generate predictions about population resilience with any validity.

The DEIS also focuses on impacts of the action on climate change, when the more important analysis is to consider the impacts of the action in the context of a changing climate. Climate change creates uncertainty and likely increased volatility in ocean conditions, weather events, disturbance regimes, prey availability, and nesting success. This volatility requires a greater margin for error to insure a lack of jeopardy.

Finally, the DEIS had an opportunity to incorporate mitigation of climate change through carbon sequestration as a part of the analysis, yet this is left out except to say that the effect of the management will be carbon neutral. DEIS 4-10. This fails to recognize that forest systems help a region adapt in the face of a changing climate. Indeed, the extent of the analysis regarding the balance between emissions and sequestration is based only "on area conserved rather than area harvested," an analysis that unnecessarily restricts the understanding of the impacts of the alternatives on climate change. DEIS 4-6. Beyond sequestration, strategically located areas of contiguous habitat can create climate resilience.

[8] This comment letter refers to and relies on documents that are too large to be included with this letter. These documents will be submitted to the SEPA Center on a compact disc on March 9, 2017. This comment letter incorporates these documents by reference, and we request DNR to consider them as part of our comments.

B. The DEIS Fails to Adequately Consider Indirect and Cumulative Effects.

The analysis of whether an action "is likely to adversely affect" a species or its habitat must include the direct and indirect effects. "These effects are considered along with the environmental baseline and the predicted cumulative effects to determine the overall effects to the species for purposes of preparing a biological opinion on the proposed action." 50 CFR §402.02. Indirect effects are "caused by the proposed action and are later in time, but still are reasonably certain to occur." *Id*. While cumulative effects are those effects by other actors that are "reasonably certain to occur" and that include past, present and future events and actions. *Id.* "The environmental baseline covers past and present impacts of all federal actions within the action area. This includes the effects of existing federal projects that have not yet come in for their section 7 consultation." ESA Section 7 Handbook xiv.

1. The analysis insufficiently addresses indirect effects of covered activities.

The DEIS insufficiently considers a number of indirect effects of the different alternatives. Indirect effects include disturbance impacts from anthropogenic activities. *See*, DEIS 4-50-55. While some of these affect murrelet behavior (e.g., aborted feeding attempts, hearing damage, injury, etc.) they also can facilitate predation risk. The DEIS fails to sufficiently protect habitat from disturbance effects during the breeding season under any of the alternatives (but particularly for Alternatives B, E, F). *See, e.g.*, DEIS Table 4.6.8. The Whittaker and Lank Comment, at 5-8, more completely explores the likely impacts of various disturbances on the murrelets.

The DEIS fails to include the indirect effects of road installation, use, and abandonment on habitat fragmentation for years after timber harvest. The marbled murrelet is sensitive to both fragmentation in general and the results of edge effects, for example increased corvid predation, increased risk of blowdown of trees, and increased sound pollution for log and equipment hauling. *See* John M. Marzluff and Erik Neatherlin, *Corvid response to human settlements and campgrounds: Causes, consequences, and challenges for conservation* 130 Biological Conservation 301, 310-311 (2005). In other areas, increased recreational and road access, while not necessarily through an area with identified murrelet occupation, will increase incursion into sensitive murrelet areas, again increasing fragmentation through the degradation associated with human traffic and the effect of anthropogenic food supplies. *Id.* While the DEIS focuses on new roads, road impacts persist for decades even after abandonment.

Finally, the DEIS also does not discuss the impact of choice of harvest scheduling. In particular even-aged harvest requires an increased number of incursions for maintenance. These include multiple entries for the applications of herbicides and fertilizer and pre-commercial thinning prior to removal of the trees for timber.

2. The analysis fails to address cumulative effects, particularly fragmentation, offsite logging, increasing Navy "Growler" activity and risk to the Northwest Forest Plan.

Cumulative effects in the ESA Section 7 analysis include those State, tribal, local or private actions "that are reasonably certain to occur within the action area under consideration." DEIS 4-31. The action area is defined by regulation as all areas to be affected directly or indirectly by

the federal action and not merely the immediate area involved in the action. 50 CFR §402.02. This analysis is not limited to the "footprint" of the action nor is it limited by the federal agency's authority. Rather, it is a biological determination of the reach of the proposed action on listed species. Subsequent analyses of the environmental baseline, effects of the action, and levels of incidental take are based upon the action area. For the ESA, the analysis of cumulative effects requires attention at various scales since with too broad a scale the analysis will miss the multiple small actions that might ultimately result in one large cumulative effect. *Pac. Coast Fed'n of Fishermen's Ass'ns v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1035-37 (9th Cir. 2001); *See, also*, Jeffers, *Recovery Plan*, at 482.

The discussion of cumulative impacts in the DEIS is deficient for ESA purposes because, among other reasons, fragmentation, logging outside of DNR lands and the Navy's increase in military training infrastructure and exercises, including Growler incursions. *See* Whittaker and Lank Comment, at 9-10, 22-25. Fragmentation impacts extend beyond the edge effects analyzed in the DEIS, because fragmentation over time degrades whole landscapes. The marbled murrelet is less likely to nest in habitat that is fragmented and disturbed, and therefore the impact of fragmentation must be considered when predicting the impact of an action on survival and recovery. *See, e.g.*, Wilk et al., *Nesting habitat characteristics of Marbled Murrelets occurring in near-shore waters of the Olympic Peninsula, Washington*, 87 Journal of Field Ornithology, 162 (2016).

The effect of logging on private lands in the action area should also be considered under cumulative impacts. As noted in the DEIS itself, private lands tend to comprise younger stands and there are therefore fewer sites on these lands likely to support murrelets. Approximately 4 percent of "habitat capable area on private lands contains marbled murrelet nesting habitat." DEIS 5-5. However, logging near DNR State lands impacts habitat on DNR State lands. Logging on private lands also reduces the statewide availability of habitat and decreasing marbled murrelet populations, thereby making further take authorization in the LTCS more impactful. We request that the no jeopardy analysis include careful consideration of DNR logging in the context of ongoing loss of habitat on State and private lands. The modeling in the DEIS inappropriately assumes that habitat conditions outside of DNR lands will remain static.

The Navy, under its Northwest Training and Testing Program, proposes adding to its fleet of Growler jets and increasing substantially (estimated at 47 percent increase) flights and aerial combat maneuvers (estimated at 244 percent increase). U.S. Fish and Wildlife Service Endangered Species Act - Section 7 Consultation, Biological Opinion. Navy's Northwest Training and Testing Activities Offshore Waters of Northern California, Oregon, and Washington, the Inland Waters of Puget Sound, and Portions of the Olympic Peninsula. Washington Fish and Wildlife Office, Lacey, Washington (2016). The increase in jet activity in association with the increase in general in military exercise activity (including detonations, explosions and projectiles) will directly affect murrelet survival and reproduction. The Whittaker and Lank Comment on pages 22-25 discusses these impacts more specifically. To adequately address cumulative effects, the impact of these military exercises must be incorporated more completely into the analysis of disturbance events. As part of that analysis, the Service must consider increased development of near-shore infrastructure, included recent submarine facilities near Bremerton and Port Angeles, as well as an increase in in-water training.

Finally, the Northwest Forest Plan ("NWFP") has, for a large part, meant that the federal lands would be managed with an eye to ensuring that habitat persisted and developed for marbled murrelet use. Gary A. Falxa and Martin G. Raphael, *Northwest Forest Plan—the first 20 years (1994-2013): status and trend of marbled murrelet populations and nesting habitat* Gen. Tech. Rep. PNW-GTR-933. U.S. Dept. Agriculture, Forest Service, Pacific Northwest Research Station. (2016). Given the current political climate, however, there is unfortunately a real chance that protections under this plan will reduce. The agencies should build in a habitat cushion to account for the uncertainty surrounding NWFP protections.

C. Declines Due to Other Causes Do Not Excuse Contribution to Jeopardy.

The decline of marbled murrelet populations is caused primarily by logging and changing ocean conditions. Much of that logging occurred historically (Washington retains approximately 5-10 percent of its old-growth), and some occurs on other ownerships. However, even if the state action here contributed only in part to reduce the possibility of survival and/or recovery, it, in "jeopardize[ing] the continued existence" of the murrelet, would violate the ESA requirement not to "jeopardize the continued existence of the murrelet." To jeopardize a species is "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02. Whether or not other actors and/or factors are contributing to the decline of a species is not the question. The inquiry regarding jeopardy is not based on the proportional share of the harm caused by an action but by whether the action causes any jeopardy at all. *See, e.g., Pac. Coast Fed'n. of Fishermen's Ass'ns v. United States Bureau of Reclamation*, No. C02-2006 SBA, 2006 U.S. Dist. LEXIS 24893 (N.D. Cal. Mar. 27, 2006); *Pac. Coast Fed'n. of Fishermen's Ass'ns v. U.S. Bureau of Reclamation*, 2003 U.S. Dist. LEXIS 13745, No. 02-2006 SBA, slip op. at 16 (N.D. Cal. July 15, 2003) (stating that "the ESA does not provide that an agency is only responsible for remediating its share of the harm. Rather, the ESA mandate is simple and clear—agencies may not undertake any action that results in jeopardy to the threatened species.")

Any argument suggesting that the State has limited control over the decline of the species is inappropriate because it considers factors that were not meant to be considered within the framework of the ESA's "no jeopardy" analysis. If this analysis results in uncertainty with respect to the impact of the action on the species, then the benefit of the doubt goes to the species. *NRDC v. Kempthorne*, 506 F. Supp. 2d 322, 388 (E.D. Cal. 2007); *NMFS V.*

D. The Service Should Require Consideration of an Alternative Likely to Avoid Jeopardy.

It appears from the DEIS that all of the alternatives are insufficient to avoid jeopardy. Even the most protective Alternative, F, allows for logging within sensitive areas. In order to approve an LTCS, the Service will likely face either the need to consider a new alternative or the need to develop aggressive "reasonable and prudent alternatives" (RPAs) under ESA Section 7. 16 U.S.C. § 1536. We suggest the former approach because it allows for greater control by the applicant and greater likelihood of state and federal approval.

The Conservation Alternative combines the recommendations of the 2008 Science Team with the more recent information about nesting hotspots and the impact of fragmentation on nesting. *See, also,* Raphael et al. *Recommendations and Supporting Analysis of Conservation Opportunities for the Marbled Murrelet Long-Term Conservation Strategy*. Washington State Department of Natural Resources (2008). Raphael et. al. *Habitat associations of marbled murrelets during the nesting season in nearshore waters along the Washington to California Coast*. 146 Journal of Marine Systems 17 (2015). Wilk et al., *Nesting habitat characteristics of Marbled Murrelets occurring in near-shore waters of the Olympic Peninsula, Washington*, 87 Journal of Field Ornithology, 162 (2016); Lorenz, et al, *Marine Habitat Selection by Marbled Murrelets (Brachyramphys marmoratus) during the Breeding Season*, 11 PLOS One (September 28, 2016).[9]

The new alternative must consider the value of a temporary moratorium on harvest in the murrelet identified areas to allow for the potential of some increase in abundance. Similarly, the new alternative must also take into consideration both the potential negative effects of climate change on murrelet survival and recovery. *See* Whittaker and Lank Comment, at 12-19.

Provided the DNR selects a new alternative that adequately addresses the issues raised in this comment, the Service will more likely be able to rule no jeopardy, or in absence of such a ruling, allow for a takings permit (see below). The Service should also consider developing reasonable and prudent alternatives that include regular decadal evaluation of the status of the species and a moratorium on take until decline is halted and sustained.

III. NEPA AND SEPA

Both the lead agencies have put forth a substantial product in the form of the DEIS, and we commend the substantial time and resources the agencies have invested in development of the alternatives and the DEIS. However, there is need for improvement in order to meet statutory requirements and to fulfill the purpose of NEPA, which is to fully consider impacts prior to taking action in order to reduce impacts to the human environment. While this section references NEPA, its analysis applies to SEPA as well. For analysis specific to SEPA, please see the following Section V.

A. The Purpose and Need Statement is Deficient.

NEPA carries twin aims: to take a "hard look" at the environmental issues and questions posed by the project while adequately informing the public of the decision making process. As it stands now, the DEIS neither takes a hard enough look at how the purpose and need of this project can be satisfied nor properly informs the public of the issues at hand and the potential consequences of different actions. Many of our comments relating to impacts in the ESA context also apply in the NEPA and SEPA context, and we incorporate by reference all of the preceding comments as NEPA and SEPA concerns.

In a purpose and need statement, the agency "shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." 40 CFR 1502.13. A narrow or pre-determined purpose and need statement violates

[9] http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0162670 (last accessed February 5, 2017).

NEPA. *See e.g., Citizens Against Burlington, Inc. v. Busey*, 938, F.2d 190, 196 (D.C. Cir. 1991) (holding that "an agency may not define the objectives of its actions in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality."); *and Alaska Survival v. Surface Transp. Bd.*, 705 F.3d 1073, 1084 (9th Cir. 2013) (clarifying that "a purpose and need statement will fail if it unreasonably narrows the agency's consideration of alternatives so that the outcome is preordained.").

The current presentation of the scope, need, and purpose of the project is deficient because it inexplicably lists DNR's desire to achieve fiduciary objectives as the primary purpose and need, when in truth DNR has already determined that entering into the HCP fulfills its fiduciary obligations, and development and approval of the long-term conservation strategy is a requirement of the HCP. The purpose and need should be limited to attaining compliance with the HCP, which will necessarily fulfill DNR's fiduciary obligations. The current wording of the purpose and need of this project does not adequately inform the public of the legal duties of this proposed action. The Service, in particular, is not and should not be "responding to" DNR's perceived fiduciary obligations, but rather the requirements of the HCP and the ESA. 40 CFR 1502.13.

The statement creates a false perception that the Service and DNR must balance whether a given alternative meets federal law and satisfies DNR's trust obligations. In the "Need" statement of the DEIS the agencies list the need for timber harvest first, and then mention the need to adequately manage the marbled murrelet under the authority of the ESA. DEIS S-1. Similarly, the "Purpose" statement depicts that the development of the long-term conservation strategy for the marbled murrelet is subject to state trust responsibilities. DEIS S-1. These statements provide the public with the understanding that the required protections and recovery actions for the marbled murrelet under the ESA are secondary to DNR's trust responsibilities.

The Service and DNR should not be balancing perceived trust obligations with federal law. DNR's trust obligations are subordinate to federal law. Federal law "shall be the supreme law of the land" that binds all the states. U.S Const. Art VI Cl. 2. Any trust responsibilities carried out by DNR are first subject to the requirements of federal law — namely the ESA and NEPA. DNR's compliance with federal law and all state law of general applicability accords with its trust responsibilities, *see* 1996 AGO 11, and the Board of Natural Resources has already made the determination that entering into a long-term habitat conservation plan is in the best interests of the trust beneficiaries. The primary question posed in the "Purpose and Need" should be meeting federal approval requirements.

The agencies must also avoid including legal conclusions in the elements of the purpose and need statement. For example, the first objective states: "generate revenue and other benefits for each trust by meeting DNR's trust management responsibilities." DEIS S-1. This improperly invokes conclusions before the assessments of impacts. To best avoid demonstrating that a preordained decision has been made on the part of the agencies, the objectives should be reworded. For example, if the first objective were to be reworded to state "enable DNR to generate revenue…" the purpose behind NEPA to make fully informed decisions after analysis of the effects would be more properly met.

B. The Alternatives Presented Fail to Meet the Purpose and Need Objectives.

The lead agencies must limit detailed study to those alternatives that may satisfy all the objectives provided by the proposal. If an alternative fails to meet these objectives, then it cannot be considered a reasonable alternative. *See e.g., Comm. Of 100 on Fed. City v. Foxx,* 87 F. Supp. 3d 191, 216 (D.D.C) (holding that a reasonable alternative must meet that purpose and need); *and Clean Air Carolina v. N. Carolina Dep't of Transp.*, No. 5:14-CV-863-D, 2015 WL 5307464, at *6 (E.D.N.C Sept. 10, 2015) (requiring that "agencies… must rigorously explore and objectively evaluate all reasonable alternatives to meet that purpose and need."). The objectives set forth in a purpose and need statement "dictate the range of reasonable alternatives." *City of Carmel-by-The-Sea v. U.S. Dep't of Transp.*, 123 F.3d 1142, 1155 (9th Cir. 1997). To further the point, the agencies themselves state that the purpose of this DEIS is to "develop a long-term conservation strategy for marbled murrelets… which achieves all of the following [five] objectives." DEIS S-1. Altogether, the lead agencies have presented five objectives within the purpose and need statement of the proposed action. The current range of alternatives unlawfully includes Alternative B, which plainly does not meet Objective Two.

Objective Two of the need and purpose statement describes the goal to protect marbled murrelet habitat. This includes an expectation that the lead agencies will "make a significant contribution to maintaining and protecting marbled murrelet populations." DEIS S-1. Alternative B only provides protection to recognized occupied sites. DEIS Table S-3 at S-3. Because the marbled murrelet is difficult to identify in the wild, and the surveys are over fifteen years old, these occupied sites are inherently under-protective of the true populations.[10] This factor alone would make it difficult for Alternative B to satisfy the second objective by maintaining and protecting marbled murrelet populations. None of the alternatives presently account for the delay of the HCP process. The marbled murrelet population is 44 percent smaller today than it was in 2001. Because the completion of the NEPA process, the Biological Opinion, and the Incidental Take Permit may take years to complete, the chosen alternative should account for these types of delay to better account for declines in marbled murrelet populations.

Another aspect of Objective Two is that the agencies will "minimize and mitigate the incidental take of marbled murrelet" that result from their forest activities throughout the life of the plan. Alternative B is the only action alternative that is predicted to create more habitat loss (impact) than habitat that will be gained (mitigation) over the life of the amended HCP. DEIS Figure S-3 at S-9. All in all, Alternative B cannot be said to meet Objective Two because it is under-protective of marbled murrelet habitat and it does not mitigate the expected take of marbled murrelet for the project. The marbled murrelet is already struggling to survive. If populations are subject to significant additional habitat loss, whatever subsequent habitat that is developed may be meaningless if the marbled murrelet is not healthy enough to take advantage of those habitats. For these reasons, the chosen alternatives do not represent a reasonable range because they do not align with this objective. For a more thorough discussion of this argument please see the ESA Section 7 jeopardy analysis comments above.

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[10] DNR completed marbled murrelet surveys on trust lands from 1998-2002. As set forth in the most recent Pacific Seabird Group surveying protocol, surveys indicating absence that are more than five years old are unreliable. *See* Protocol at 23-24. (This document will be submitted to the SEPA Center on a compact disc on March 9, 2017. This comment letter incorporates the Protocol by reference, and we request DNR to consider it as part of our comments). The fifteen-year-old surveys are insufficient to provide protection to nesting marbled murrelets.

The other action alternatives, Alternatives C-F, may also have a difficult time meeting this Second Objective as well, but at least merit further analysis. We request that the agencies omit Alternative B from an SEIS or FEIS.

Objective Three seeks to achieve "active management" by promoting "active, innovative, and sustainable management on state trust lands." DEIS S-1. Currently, the DEIS provides a brief explanation of innovative treatments such as ecological thinning. DEIS 2-62. However, the lead agencies could provide more context and definition for Objective Three to avoid misinforming the public about active and innovative forest management. The public has a right to understand how each alternative will satisfy this objective under NEPA. More description from the agencies on its Objective Three analysis would assist the public and more readily satisfy the twin aims of NEPA. It is unclear from the DEIS how the alternatives would meet this objective, as the DEIS does not state requirements for active management or discuss the funding necessary to ensure that such management occurs.

Objectives Four and Five aim to "provide operational flexibility to respond to new information and site-specific conditions" and "adopt feasible, practical, and cost-effective actions that are likely to be successful and can be sustained throughout the life of the HCP." DEIS S-1 and 2. These objectives are unduly weighted in favor of DNR's desire to pursue commercial logging, and conflict with the ongoing duty of the Service to prevent jeopardy to the listed species. *See* 16 U.S.C. 1536(a)(2); 50 C.F.R. § 402.16. Operational flexibility must not be prioritized over monitoring and adaptive management necessary to provide ongoing assurance that the conservation measures are implemented, that mitigation is ensured, and that the murrelet avoids jeopardy.

To align with the twin aims of NEPA, the agencies must provide the public with a better understanding of how the objectives will be applied in the decision making process. To avoid undermining NEPA and keeping the public properly informed, the agencies should be more transparent about how these objectives will be used to choose an alternative, including what it means for an alternative to not satisfy an objective.

C. The Alternatives Must Provide a Significant Contribution to Statewide Marbled Murrelet Populations.

In part, the 1997 HCP requires that the long term conservation strategy "should… make a significant contribution to maintaining and protecting marbled murrelet populations in western Washington over the life of the HCP." 1997 HCP IV – 44. The lead agencies apply this requirement in Objective Two, stating: "in accomplishing this objective, we <u>expect</u> to make a significant contribution to maintaining and protecting marbled murrelet populations." DEIS S-1 (emphasis added). The agencies fail to identify this language as a part of the original HCP and potentially muddle a clear requirement. Omitting the fact that this is a carried over requirement from the 1997 HCP misinforms the public about the importance of this language and the binding nature it has on the agencies. Because a permit was granted under the 1997 HCP, this language now carries binding effect on the lead agencies. Accordingly, this requirement must be presented to the public as an objective and requirement in the purpose and need section of the DEIS. As presented, it could potentially create confusion as to whether failure to make a significant contribution to maintaining and protecting murrelet populations is an objective or not. Our understanding is that all alternatives must meet the objective of making a significant

contribution to maintaining and protecting marbled murrelet populations. The "significant contribution" requirement supplements federally mandated protections from the ESA.

The agencies should also clarify when the baseline for marbled murrelet populations starts for purposes of the "significant contribution" objective. The requirement derives from the 1997 HCP, which predicted that a long-term strategy, to be completed within five years, would maintain and protect marbled murrelet populations. As such we believe the appropriate and required baseline should be protecting populations based on 1997 populations. The agencies identify that the marbled murrelet population has been decreasing statewide at an annual rate of 4.4 percent and is 44 percent smaller than it was in 2001. DEIS S-8. The 1997 HCP cannot be reasonably read to allow nearly 20 years to pass while an already threatened species significantly declines in population each year before working to maintain and protect the population levels. Put a different way, maintaining and protecting the marbled murrelet populations at current levels does little to achieve the conservation goals set forth in the binding 1997 HCP.

Because each action alternative emphasizes timber harvest and habitat loss in the first decade of the project, no alternative can be said to satisfy the requirement that a significant contribution is made to maintaining and protecting marbled murrelet populations at 1997 levels. Allowing population numbers to decrease for the first twenty years of HCP implementation plus the first ten years of the amended HCP due to an emphasis on timber harvest and habitat loss is the exact opposite of the desired contribution. Every single one of the alternatives will result in population reductions for the first decade. DEIS C-58, Table 4.6.5. The agencies must delay authorized take and broaden the range of alternatives to meet the objective of maintaining and protecting marbled murrelet populations at 1997 levels.

The agencies must recognize and honor the contractual nature of the 1997 HCP. The Implementation Agreement and Incidental Take Permit both incorporate DNR's compliance with the terms of the HCP as terms. The firm agreement to carry out the HCP and all of its promises is the bedrock of the agencies' past environmental review and commitment to the public. The lead agencies must not be allowed to lessen their obligations simply because they failed to meet them. With the significant decline in marbled murrelet populations since the implementation of the 1997 HCP it may be implausible to expect that the murrelet will be maintained and protected at 1997 population levels for the foreseeable future. However, to best uphold their contractual obligations, the agencies must then aim to get as close as possible to the stated goal in the contract that was the 1997 HCP. Therefore, in conjunction with properly identifying the legitimacy of the requirement to the public in the DEIS' purpose and objectives, the agencies should analyze alternatives that not only protect murrelet populations but also seek to increase the population of the species. If the agencies make legitimate strides towards recovering the population back to 1997 levels through the life of this HCP, the contractual obligation set forth in the 1997 HCP may be satisfied to the best of the lead agencies' ability.

D. The Agencies Must Consider the Conservation Alternative.

The DEIS does not currently analyze a sufficient range of reasonable alternatives to satisfy the requirements of NEPA. Section 1502.14 of the CEQ regulations governs the requirements of alternatives of an EIS, which the regulations refer to as the "heart" of the NEPA process. 40 C.F.R. 1502.14. This section imposes six requirements to be included in the alternatives of an

EIS. There are two that are particularly important to raise before the agencies in regards to this DEIS. First, Section (a) requires that the agencies "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." 40 C.F.R. 1502.14(a) (emphasis added). Second, section (c) requires that an EIS "include reasonable alternatives not within the jurisdiction of the lead agency." 40 C.F.R. 1502.14(c).

"The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." *See e.g., Dubois v. U.S. Dep't of Agric.*, 102 F.3d 1273, 1287 (1st Cir. 1996); *see also Res. Ltd., Inc. v. Robertson*, 35 F.3d 1300, 1307 (9th Cir. 1993). An agency must look at every reasonable alternative, "with the range dictated by the nature and scope of the proposed action, and sufficient to permit a reasoned choice." *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1038 (9th Cir. 2008).

With the current range of five action alternatives, this DEIS is inadequate for three reasons: (1) there are reasonable alternatives that have not been analyzed, (2) each of the alternatives is a variation on the same basic strategy, which is to front-load take and rely on later mitigation in a fifty-year permit lacking monitoring or adaptive management, and (3) Alternative B is not a reasonable or viable alternative,. For these reasons, along with others found in these comments, we suggest that the agencies drop Alternative B from consideration and add the proposed Conservation Alternative.

1. **The agencies have failed to consider all reasonable alternatives as required by NEPA.**

While "reasonable alternative" is not defined in CEQ regulations, under SEPA regulations "reasonable alternative" means an action that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation. WAC 197-11-786. It appears that there are multiple unexamined methods by which the agencies could obtain the stated objectives with reduced environmental cost.

Here, reasonableness should be driven largely by the measures necessary to ensure ESA compliance. In separate comments from Drs. Whittaker and Lank, we explain why the Conservation Alternative is science-based and reasonable. Because the Conservation Alternative is a reasonable alternative, it must be considered in an RDEIS or SEIS in order to comply with NEPA and SEPA and provide the decision maker with a reasonable range of alternatives.

In addition to considering the Conservation Alternative, the agencies should consider updates to the alternatives presented in order that they are more likely to accomplish the stated objectives. For example, in addition to the Conservation Alternative it would be helpful to analyze a combination of alternatives, a delay in take, the addition of monitoring and adaptive management, and increased buffers around occupied sites.

We recognize that a stated objective is also revenue for trust beneficiaries. However, the DEIS provides no variety in the approach taken to generate revenue, and therefore no real decision space for DNR. This DEIS should discuss the varying values that forests can generate for trust beneficiaries based on different management regimes. The agencies address some of these

concerns when analyzing the socioeconomic impacts of the alternatives. DEIS 4-89. However, there are no alternatives that distinguish between varying benefits of different types of timber harvest. As detailed in separate comments on the Sustainable Harvest Calculation, which we incorporate by reference here, uneven-aged harvest and thinning treatments can provide better local jobs and more stable revenue, particularly when paired with other revenue streams. In some instances a broader approach may better serve trust beneficiaries by providing steady employment and increased ecosystem services, rather than the boom/bust cycle of highly mechanized clearcuts ("regeneration harvests").

The DEIS should also at least consider value from sources other than timber harvests. Additionally, there is no analysis of a potential future carbon value of DNR-managed forests. Many tribal governments, local governments, and private timber companies already make use of a rapidly expanding carbon market to derive substantial revenue and continue some degree of timber harvest.[11] Because the agencies must consider alternatives outside of their jurisdiction, they need only address what a potential alternative that received substantial funding from sources other than timber harvest would look like rather than how it would practically take place. These potential alternative sources of funding are worthy of at least brief discussion under the regulations implementing NEPA.

It is important to note that DNR's financial desires do not limit the range of alternatives. The DEIS must recognize that the responsibilities to provide reasonable alternatives for review differ between the Service and DNR. Revised HCP Handbook at 5-7. Specifically, "the alternatives the [Service] select[s] to analyze are not required to be reasonable to the applicant." *Id*. The ultimate determination of whether alternatives are reasonable in light of the ESA and other federal requirements is up to the Service. *Id*. The authority of the Service reiterates the fact that any state questions are subject first to federal mandates. The Service should ensure that the alternatives are reasonable in light of the ESA, the biological context, and the population status of marbled murrelets.

2. The agencies must consider the Conservation Alternative in order to vary the strategy and present a true range of alternatives.

In order to constitute a reasonable range, a set of alternatives must employ recognizably different strategies. The range of alternatives is unlawfully narrow where the alternatives are "not varied enough to allow for a real, informed choice." *See Friends of Yosemite Valley*, 520 F.3d at 1039.

The most glaring issue that is not addressed by the current range of alternatives is the timing of the harvest with respect to the project period as a whole. Currently, all action alternatives emphasis harvest in the initial decade while planning on more mitigation taking place in the latter 40 years of the project period. DEIS S-8. None of the alternatives provide an analysis of how the impacts would differ if the agencies chose to emphasize conservation over the first decade while the species was given time to recover and repopulate and then allow more cutting

[11] Los Angeles Times, "Yurok tribe hopes California's cap-and-trade can save a way of life" Dec. 6 2014 (documenting millions of dollars in revenue derived from Tribe's forests), available at http://www.latimes.com/science/la-me-carbon-forest-20141216-story.html; *see also* https://indiancountrymedianetwork.com/news/environment/carbon-credits-help-tribes-preserve-culture-climate-and-bottom-line/.

later on in the project once the species had stabilized. The present range of alternatives is flawed in that each one allows all of the authorized take in the initial years of the permit, followed by forty or more years of mitigation without further monitoring or analysis.

Delaying harvest on the small fraction of DNR lands that are potential marbled murrelet habitat (at most approximately 10 percent) is reasonable because it would still allow DNR to still harvest other areas in the short-term and derive revenue from murrelet habitat in the long-term. DNR is managing the lands for the foreseeable future; there is no reason it cannot prioritize harvest in non-habitat areas over the next decades.

We request the agencies consider a true range of alternatives by considering a more precautionary approach that ensures mitigation before take and features periodic analysis of population response to the agency action. The Conservation Alternative is a viable and developed alternative that has a different overall strategy from the presented alternatives while achieving the stated objectives. It therefore is a "reasonable alternative" and must be considered in the EIS.

3. The agencies should eliminate Alternative B.

Alternative B cannot be considered a reasonable or viable alternative because it will not satisfy multiple portions of the purpose and need statement, including the requirement carried over from the 1997 HCP, nor will it satisfy the federal standards under the ESA. As previously outlined, Alternative B does not likely meet Objective 2, and may present problems trying to meet Objectives 4 and 5. For the same stated reasons, the alternative is unable to make a contribution to maintaining and protecting 1997 population levels of marbled murrelet populations, let alone a significant contribution. Additionally, Alternative B cannot meet the purpose and need statement of this project because it does not satisfy ESA Sections 7 and 10. We recognize that the agencies have already conducted the analysis necessary to evaluate Alternative B, but given that it is certain not to meet legal requirements, we request that the agencies follow the most transparent public process and eliminate Alternative B from further consideration.

E. Model Weaknesses and Shortcomings

Pages 19-25 of the Whittaker and Lank comment letter provide a substantial critique to the important omissions and shortcomings of the modeling used to support the DEIS. The public cannot be properly informed of the decision making process if the weaknesses of the model are not plainly and explicitly stated. Therefore, we request that the agencies provide more information to the public in the DEIS stating where the model is least accurate and how that may potentially affect decisions and the species in the future.

F. General Comments on Impacts Analysis

The DEIS fails to adequately examine direct, indirect and cumulative impacts to the environment. As noted above, in the jeopardy and mitigation analysis, the DEIS does not sufficiently address the direct impact of the action on the species' survival and recovery within the relatively limited scope required under the ESA. Those deficiencies also apply to the NEPA analysis. This section focuses on additional concerns raised in regards to compliance with the broader requirements of NEPA.

We request significantly more documentation and support for the analysis of direct, indirect, and cumulative impacts associated with forestry activities other than timber harvest. The distances associated with impacts from blasting, road construction, campgrounds, and roads appear to be without scientific basis and generally under predictive. For example, a helicopter or other aircraft is likely to create noise disturbance far beyond 100 meters, and there is no explanation for the source of the 100-meter figure. The same is true of the minimum time periods required. It is also unclear that impacts can be discounted based on the number of days they exist. If blasting occurs for a month during nesting season, then may adversely impact the marbled murrelet for at least a year by preventing successful reproduction.

The agencies correctly identify the fact that they must address the cumulative impacts of this action. DEIS 5-1. NEPA requires analysis of "other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions." § 1508.7. The regulation also specifies that "cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. *Id*. Although the agencies highlight these requirements they fail to fully satisfy them in their analysis.

A complete cumulative effects analysis must consider DNR's proposed logging in the context of past logging on State, private, and federal lands, as well as the continued rapid decline of marbled murrelet habitat on private lands. Under this HCP, DNR has already logged approximately 30,000 acres of marbled murrelet habitat. The DEIS must consider those impacts, in addition to the impact of pre-HCP logging. In regards to private land, it is not sufficient to simply state that Washington Forest Practices Rules will apply on private lands. NEPA requires analysis of impacts, not a recitation of law. Indeed, roughly 30 percent of habitat on non-federal lands in Washington have been logged in the last 20 years (Raphael et al. 2016). The agencies must consider the impacts of DNR's proposed logging in the context of all past, present, and future private, State, and federal logging in the analysis area. That analysis must take into account that current rules are insufficient to protect habitat on private lands, and that impacts are increasing due to decreased rotation age and increasingly intensive forest practices (see Whittaker and Lank comment letter for a more in-depth discussion). We request that the agencies analyze impacts on State lands in the context of inadequate protections on private lands in the region and continued habitat decline.

The agencies inappropriately discount the importance of State lands to the marbled murrelet. For example, the DEIS states that "DNR-managed lands… represent about 9% of the total land area within the range of the marbled murrelet in Washington." DEIS 5-5. The importance of marbled murrelet habitat on State lands cannot be discounted just because it is not a majority of the overall marbled murrelet habitat, particularly in light of the heightened biological importance of State lands in Southwest Washington and elsewhere. Please see pages 1-3 of the attached Whittaker and Lank comment letter for a more in-depth discussion of this topic.

The agencies incorrectly isolate and discount potentially significant cumulative effects as "potentially locally significant" without further analysis of the combined effect of these many potentially locally significant effects. *See e.g.*, DEIS 4-56. The specific example cited is the analysis of how indirect impacts, such as landslide events where forest cover is expected to be lost, may impact long-term forest cover through time. DEIS 4-55. The agencies state without

rationale that these impacts are "anticipated to be generally minor at the scale of all LTFC and insignificant within marbled murrelet-specific conservation areas." *Id*. Still, the agencies recognize the fact that habitat loss may result from such events that could be "potentially locally significant" but "are not expected to be significant at the statewide scale during the planning period." DEIS 4-56. Multiple analyses in Chapter 4 of the DEIS result in a similar conclusion.

The very purpose of the cumulative impacts analysis is to address whether these combined potentially locally significant impacts may have a larger cumulative impact. The agencies discount the impacts to local effects and do not sufficiently consider them together in light of the whole project. We request that the agencies provide a more detailed analysis to better inform the public why cumulative impacts are not of concern if that is the case.

We further request that the DEIS consider impacts in context of non-logging impacts in the region, including but not limited to: the rapid expansion of Navy construction and training on the Olympic Peninsula and elsewhere, continued decline of near-shore habitat in Puget Sound, continued decline of water quality in Puget Sound, and increased oil shipping associated with pipeline construction in British Columbia (including the Kinder Morgan Trans-mountain Expansion proposal). The DEIS must consider unlikely but potentially devastating impacts including an oil spill in Washington waters, especially because there is a history of past incidents such as the Tenyo Maru oil spill that caused severe mortality to murrelets in Washington.[12]

G. Additional Impacts the Agencies Should Consider

While some recognition of the direct effects of harvest are central to this analysis, the DEIS fails to consider the spatial and temporal aspects of these direct impacts that will determine how profoundly the action will affect murrelet populations. Similarly, indirect disturbance effects are analyzed to some extent in DEIS Chapter 4-50-55. However, the DEIS fails to address the long term consequences of fragmentation resulting from road abandonment, logging off-site and the impact of even-aged harvest on number of incursions into murrelet habitat.

Perhaps most importantly, the DEIS fails to adequately address the impact of climate change with respect to the various alternatives. (*See* Jeopardy Climate Change section above.) To the extent the agencies believe the impacts of climate change are overly uncertain to consider, we suggest the agencies look to applicable SEPA regulations. First, the agency is required to obtain information that is non-exorbitant in cost if it regards significant adverse impacts that is essential to a reasoned choice. WAC 197-11-080(1). However, if this information is speculative or unknown, "the agency shall weigh the need for the action with the severity of possible adverse impacts which would occur if the agency… proceed[ed] in the face of uncertainty." WAC 197-11-080(3)(b). If an agency chooses to proceed as it will in this situation, "it shall generally indicate in the appropriate environmental documents its worst case analysis and the likelihood of occurrence, to the extent this information can be reasonably developed." *Id.*

In a recent Ninth Circuit decision, the court found that climate projections through the year 2100 by the Intergovernmental Panel on Climate Change were sufficient enough to support the decision of the National Marine Fisheries Service to list a species of seal as threatened. *Pritzker*,

[12] Description and documents available here: https://www.cerc.usgs.gov/orda_docs/CaseDetails?ID=908.

840 F.3d at 678-679. Publications from the UW Climate Impacts Group (included in materials) provide regional assessments and predictions based on climate models. DNR must at least consider a worst-case scenario of how climate change may affect the environmental impacts of this project. This scenario should address the fate of all landownerships in light of possible effects including: inundation of coasts or sea level rise, decrease in prey availability and resulting vulnerability of marbled murrelet populations, decrease in forest productivity, and increases in disturbance events (fires, blowdowns, and floods). Furthermore, the DEIS must analyze the downstream impacts of harvest on climate change. The emissions associated with activities such as milling and shipping may have a legitimate impact on climate change. The EIS must address the cumulative nature of these activities and their emissions.

In the comments below, we provide a list of specific examples of areas of analysis that would benefit from explanation in the SEIS and FEIS.

Materials Not Provided

- By not providing a mitigation implementation schedule, draft implementation agreement, monitoring plan, adaptive management plan, or plan to respond to unforeseen circumstances, during the 50-year plan, the agencies are not taking the "hard look" and opportunity for public comment that NEPA requires.

DEIS Chapter 3

- The DEIS does not adequately address the impacts to air quality and to run off from potential pollutants and chemicals that are used in relationship with harvesting timber. DEIS 3-2.
- The DEIS states that there is no evidence of declining trends of the marbled murrelet in California or Oregon. This is based on estimates with confidence intervals that include negative (decreasing) values for population growth for these populations. Therefore, this statement is tenuous, at best. DEIS 3-28. *See, eg.* Gary A. Falxa and Martin G. *Raphael, Status and Trends of Marbled Murrelet Populations and Nesting Habitat*. USFS Pacific Northwest Research Station. General Technical Report. PNW-GTR-933 (May 2016).

DEIS Chapter 4

- Due to the "uncertainties over the nature of murrelet responses to the range of potential disturbances" and the lack of science on this topic, more minimization methods should be used to better protect the species. DEIS 4-51, 52, 53.
- The agencies do not adequately consider the possible impacts to the species from landslide events, wind and fire events, or undesignated or illegal land use activities. DEIS 4-55.
- "Alternatives B, E, and F potentially allow more road construction through habitat than Alternatives C and D, which would not only remove potential habitat but could also affect the quality of existing habitat by creating more edges." The agencies do not seem to address this issue at all. DEIS 4-67.
- The analysis of climate change is extremely limited focusing, rather arbitrarily, on "area conserved rather than area harvested." DEIS 4-6.
- The discussion of the risk of disturbance for thinning includes citation to a paper by Mitchell 2000 which is not included in the reference section; therefore it is difficult to assess the assertion that the risk of disturbance is "short-term."

- The discussion of Peak Flow does not incorporate the impacts of climate change on both reduced snowpack and increased precipitation. DEIS 4-21
- The DEIS concludes that there are no impacts to northern spotted owls. This conclusion is completely indefensible, given that northern spotted owls depend on mature forests for nesting and roosting and share habitat with marbled murrelets. The FEIS and the biological opinions for the Trust Lands HCP recognize that marbled murrelet habitat provides benefit to northern spotted owls. Increased logging of murrelet habitat, for example in Alternative B, will clearly impact owls and other species that rely upon mature forest currently protected. DEIS at 4-30 to 31.[13]
- The assertion that roads have "minor impacts in overall habitat quality" ignores the fragmentation effect across the landscape of roads. DEIS 4-41.
- The September 23 date for the end of breeding is based upon a single observation of an actual fledgling. It is worth considering pushing this final date out to September 30 given the likelihood that that there are is some variation around that September 23 date. Furthermore, climate change may result in a shift in timing of breeding meaning the start date of April 1 might need to be shifted as well over time. DEIS 4-51.

DEIS Appendix E.

- The error in the P-stage analysis in predicting occupancy, although in part a result of the constraints of the type of data and the limited number of data, is of concern. DEIS E-8. This error is compounded in the Peery Model by the uncertainty of the rest of the variable estimates.

IV. SEPA FOCUSED COMMENTS

Recent state court decisions have confirmed that SEPA includes a substantive mandate requiring agencies to protect the environment. *Puget Soundkeeper All. v. State, Pollution Control Hearings Bd.*, 189 Wash. App. 127, 148, 356 P.3d 753, 762–63 (2015). SEPA recognizes and mandates the "responsibilities of each generation as trustee of the environment for succeeding generations" and that "each person has a responsibility to contribute to the preservation and enhancement of the environment." *Id.* (citing RCW 43.21C.020(2)(a) and RCW 43.21A.010, respectively). In *Puget Soundkeeper Alliance*, the court found that these responsibilities spoke "with an insistent voice to the Department of Ecology." *Id*. The DNR is similarly situated with Ecology when it comes to the protection of our natural environment. Therefore, the ability to preserve a key species like the murrelet should take special meaning in this project. The DEIS should recognize DNR's substantive SEPA obligations and authority in the purpose and need statement and when considering impacts to DNR's common law fiduciary responsibilities. Substantive SEPA, as a State law of general applicability, applies to DNR's administration of State lands and gives DNR authority to take measures that benefit all Washingtonians. *See* 1996 AGO 11.

SEPA also imposes more specific duties on DNR with respect to mitigation measures. The regulations require that an "EIS shall clearly indicate those mitigation measures [not considered as a part of the proposal or alternatives], if any, that could be implemented or might be required, as well as those, if any, that agencies are committed to implement." WAC 197-11-440(6)(c)(iii) (emphasis added). The DEIS must thus include a separate section of mitigation that DNR

[13] The FEIS and Biological Opinions for the Trust Lands HCP, as well as the Marbled Murrelet Recovery Plan and 2008 Science Report, are publically available documents developed in part by one or both of the agencies. We therefore have not included those documents with these comments but can provide them upon request.

specifically is considering to satisfy this requirement. Examples of mitigation measures that could be considered are presented in the ESA Section 10 analysis of these comments.

V. Conclusion

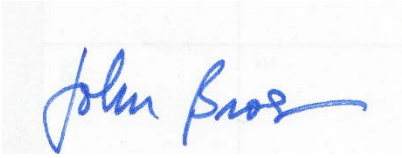
Thank you for considering our comments on the DEIS. We are encouraged that the agencies are cooperating to pursue a LTCS after lengthy delay. Please take the steps necessary to ensure that the strategy truly minimizes and mitigates impacts to the maximum extent practicable, avoids jeopardy, contributes to Statewide populations, and meets the purpose, needs, and objectives. The most important next step is to consider the Conservation Alternative in a revised draft environmental impact statement or supplemental environmental impact statement.

If you have questions, responses, or requests for referenced materials, please direct inquiries to Tina Kaps. Her email address is tkaps@wflc.org, and her phone number is 206-223-4088.

Sincerely,

Marbled Murrelet Coalition

Lisa Remlinger
Evergreen Forests Program Director
Washington Environmental Council



John Brosnan
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Shawn Cantrell
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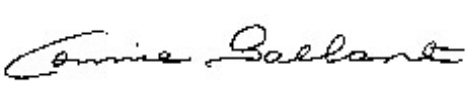
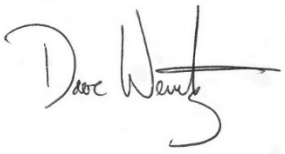
Washington Forest Law Center



Connie Gallant
President, Board of Directors
Olympic Forest Coalition

Mike Town
State Forests Committee Chair
Sierra Club Washington State Chapter



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ATTACHMENT 1

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MEMORANDUM

DATE: March 9, 2017

TO: Lily Smith, SEPA Responsible Official; Washington Board of Natural Resources; Washington Department of Natural Resources; U.S. Fish and Wildlife Service

FROM: Kara A. Whittaker, Ph.D. and David B. Lank, Ph.D.

Re: Comments on the Draft Environmental Impact Statement for the Washington Department of Natural Resources' Long-Term Conservation Strategy for the Marbled Murrelet (DNR SEPA File 12-042001)[1]

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Dear Agency Officials,

Thank you for considering the following comments on the Draft Environmental Impact Statement (DEIS) for the Marbled Murrelet Long-Term Conservation Strategy (LTCS). These comments have been prepared by Kara Whittaker, Ph.D., Senior Scientist at the Washington Forest Law Center and David B. Lank, Ph.D., University Research Associate and Adjunct Professor at Simon Fraser University. Our comments are primarily technical in nature, with an emphasis on four themes: 1) why Washington Department of Natural Resources (DNR)-managed lands are disproportionately important to murrelet conservation, 2) scientific arguments why the proposed range of alternatives are inadequate and why they do not mitigate or minimize the take of marbled murrelets to the maximum extent practicable, 3) a detailed description of the Conservation Alternative we designed, and 4) other technical problems with and omissions from the LTCS DEIS. We conclude with a request that you please analyze the Conservation Alternative in a Supplemental EIS or Revised EIS *before* a preferred alternative is chosen.

[1] This memorandum cites and relies on documents that are too large to be attached. These documents will be submitted to the SEPA Center on a CD by March 9, 2017. This memorandum incorporates those documents by reference, and we request DNR to consider them as part of our comments for SEPA File No. 12-042001.

DNR-Managed Lands are Disproportionately Important to Murrelet Conservation

DNR is minimizing the potential importance of its forests for marbled murrelet conservation by assuming that they are or need be only responsible for the proportion of the murrelet population corresponding with the current proportion of habitat on DNR-managed lands. While 15% (~213,000 acres) of current murrelet habitat in the state occurs on DNR-managed lands, several factors make these forests disproportionately important for murrelet productivity in both the short and long term, relative to federal and private lands.

From a geographical perspective, the DNR-managed forests provide both short and long term advantages. A recent radio-telemetry study revealed long over-land commutes by murrelets between their nests and marine waters, which requires greater energy expenditure in both horizontal and vertical (i.e., elevation) distances and entails a higher risk of predation from diurnal raptors. The authors "encourage measures to protect and enhance terrestrial nesting habitat closer to sea. *This will require protecting nesting habitat on state and private lands*, because the federal lands in Washington are already protected under the Northwest Forest Plan." (Lorenz et al. 2016, emphasis added). Meyer et al. (2002) also emphasized the importance of protecting or creating habitat in low-elevation areas near productive marine habitat to support a higher murrelet occupancy and abundance.

A second geographical advantage is that DNR-managed lands are more widely distributed across western Washington than federal lands. Federal and private habitat is particularly scarce in Southwest Washington, where DNR-managed lands contain 28% of the existing inland habitat base on only 13% of the land area (Raphael et al. 2008) and substantial habitat restoration is central to achieving conservation objectives (USFWS 1997, McShane et al. 2004). Federal lands and private habitat also scarce within the low-elevation Sitka spruce bioclimatic zone (Franklin and Dyrness 1988) of the Olympic Experimental State Forest (OESF), and thus DNR forests have the unique potential to broaden the distribution and resilience of the murrelet population (Raphael et al. 2008). The DNR lands thus compliment the extensive federal holdings in many parts of the state.

DNR forests are also generally of a higher site class, where large trees grow more quickly than in higher elevation (i.e., federal) forests. The DNR-commissioned Marbled Murrelet Science Team (Raphael et al. 2008) projected the rate of habitat development within four analysis units of the state trust lands through the term of the DNR Habitat Conservation Plan (HCP) until 2067. Simulating a strategic design of habitat maintenance and restoration in Southwest Washington and the OESF, the potential habitat capability (K') of those state forests *doubled* due to the development of high quality marbled murrelet habitat, while increases in K' on federal lands were modest in comparison.

From a temporal perspective, existing habitat on DNR-managed lands is needed to serve as a "bridge" to support the murrelet population while it is most vulnerable to extirpation over the next 30-50 years (Raphael et al. 2016, Peery and Jones 2016). Although

relatively little marbled murrelet habitat has been lost on Federal lands since the implementation of the Northwest Forest Plan (~2.5% over the 20-year period), federal scientists "anticipated a challenge in maintaining murrelet populations for 50 to 200 years, until new nesting habitat develops. In light of observed population trends, our findings underscore the importance of the short-term goal to maintain existing nesting habitat" (Falxa et al. 2016). Assuming continued implementation of a robust Northwest Forest Plan, large areas of habitat should eventually become restored on federal lands, but "it is uncertain whether [murrelet] 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 (3-5 decades*)" (Raphael et al. 2016, emphasis added). Population stabilization is expected once nesting habitat sufficiently recovers from previous losses and fecundity increases (USFWS 1997), but further habitat loss on nonfederal lands could cause murrelet populations to fall before then (Raphael et al. In Review).

Unfortunately, barring major regulatory reform, further disproportionate losses of murrelet habitat are expected on private lands. It is unrealistic for DNR to ignore this fact when planning at the statewide population level. Between 1993 and 2012, murrelet nesting habitat in Washington State declined by 30% on state lands and by 39% on other non-federal (i.e., private) lands, almost all of which was due to timber harvest (Raphael et al. In Review). The Northwest Forest Plan effectiveness monitoring team reports: "there appears to be a strong relationship between murrelet population declines and the large loss of higher suitability habitat on non-federal land, especially in Zone 2 [Southwest Washington]" (Raphael et al. 2016). Murrelet populations are likely still responding to these losses, and "*conservation of the threatened murrelet is not possible if such losses continue at this rate into the future*" (Raphael et al. 2016, emphasis added). These trends indicate that current non-federal regulations are inadequate for retaining murrelet habitat and populations.

A large proportion of existing habitat remains at risk of being lost on private lands under the current Forest Practices Rules. For instance, from 2013-2015, the harvest of roughly 300 acres per year of rule-defined habitat was permitted on private lands where protocol surveys demonstrated the habitat was not occupied by nesting murrelets (S. Desimone, unpublished data). Additional harvest of habitat is permitted for small forest landowners who are exempt from Class IV-Special review within critical habitat (state) under the State Environmental Policy Act (SEPA). This exemption is problematic because it permits the gradual, cumulative loss of nesting habitat on small forest landownerships, which constitute roughly *half* of the private forest lands in the state.

In many cases, the habitat criteria defined by the Forest Practices Rules are unattainable and put more habitat as risk of harvest. According to Maxent habitat modeling (Raphael et al. 2016), as of 2012 roughly 15% of all murrelet habitat in the state (~203,000 acres) occurred on private lands. Of this area, only about 74,000 acres of modeled habitat (36%) are located within the regulatory "marbled murrelet detection areas" which have a *lower* threshold for meeting the regulatory habitat definition (minimum platform density

of **2-5** per acre; WAC 222-10-042). The remaining 64% of modeled habitat on private lands (~129,000 acres) occurs outside of the regulatory "marbled murrelet detection areas" and has a *higher* threshold for meeting the regulatory habitat definition (minimum platform density of **7** per acre) making it more vulnerable to harvest.

Additionally, the Forest Practices Rules allow the harvest of lower quality habitat that does not meet the regulatory definition of habitat without being surveyed for murrelets. For example, habitat is partially defined by the density of nesting platforms within a given forest stand depending on its location and history of murrelet detections (WAC 222-10-042). Some platforms that meet the *best available scientific definition* ("a relatively flat surface at least 10 cm **(4 in) in diameter** and 10 m **(33 ft) high** in the live crown of a coniferous tree"; Evans Mack et al. 2003; emphasis added) do not meet the more stringent *regulatory* definition ("any horizontal tree structure such as a limb, an area where a limb branches, a surface created by multiple leaders, a deformity, or a debris/moss platform or stick nest equal to or greater than **7 inches in diameter** including associated moss if present, that is **50 feet or more above the ground** in trees **32 inches dbh and greater** (generally over 90 years of age) and is capable of supporting nesting by marbled murrelets" (WAC 222-16-010); emphasis added).

In summary, these inadequacies in the Forest Practices Rules result in the permanent loss of habitat because timber harvest rotations (as short as 40 years) are far shorter than the time required for habitat conditions to be restored (100-200 years), and no incentives currently exist for landowners to voluntarily restore murrelet habitat on their lands. As disproportionate habitat loss on private lands continues over time, DNR lands will have a greater proportion of the statewide habitat on nonfederal lands. It is prudent for the DNR to accept this reality and plan to take on a larger role at least in the short and medium term than the current DEIS envisions.

<u>Scientific Arguments: Why the Proposed Range of Alternatives Are Inadequate and Why They Do Not Mitigate or Minimize Take to the Maximum Extent Practicable</u>

None of the DEIS alternatives incorporates *all* of the best available science that should be used to recover the murrelet population in Washington State. Alternative (Alt.) F comes closest to representing the best available science as of *2008* (Raphael et al. 2008); the other alternatives include only portions of Alt. F, and incorporation of more recent scientific findings can further improve effective murrelet conservation. For example, the Straits Planning Unit has recently been identified as one of three regional "hotspots" with an exceptionally high current murrelet abundance (the upper 20th percentile with low annual variation), nesting habitat abundance, and nesting habitat cohesion across the species listed range (Raphael et al. 2015). In this unit, nesting habitat attributes explained much more of the variation in local murrelet abundance than variation in marine variables. *This finding strongly supports the hypothesis that increasing terrestrial habitat will lead to larger murrelet populations in this area, as opposed to the hypothesis that*

marine factors or predators are limiting population size or growth rates. The expert Marbled Murrelet Science Team (Raphael et al. 2008) did not have the benefit of these findings when they formed their recommendations for the LTCS in the Straits Planning Unit, which were limited to the deferral and buffering of occupied sites. Under their strategy, the potential habitat capability (K') of forests on DNR-managed lands is projected to increase by 22% in the Straits within the term of the HCP, but if a habitat restoration strategy were also implemented in the Straits, a much greater increase in K' is likely, as was demonstrated in Southwest Washington and the OESF, where K' *doubled* by the year 2067. The need for greater conservation emphasis in the Straits is reflected in Alt. C, D, and E, with the designation of Special Habitat Areas and/or Emphasis Areas around some occupied sites, though these alternatives have other scientific weaknesses (see below) and Alt. E is the only action alternative expected to have a net positive area of mitigation acres, just barely above zero (22 acres; DEIS Table 4.6.4). These larger, contiguous blocks that eventually become fully restored to a nesting habitat condition are essential for supporting the regionally important murrelet "hotspot" in the Straits Planning Unit because they encompass areas with both high cohesion and high amounts of nesting habitat and they support the relatively greatest numbers of murrelets (Raphael et al. 2015).

One of the most consequential omissions of best available science from the DEIS is that it includes no quantitative nor qualitative *population* biological goals for the murrelet population on DNR-managed lands, which are the ultimate conservation goal. The 2008 Science Team developed three population biological goals based on the DNR HCP goal to contribute to the U.S. Fish and Wildlife Service (USFWS 1997) recovery objectives and "…make a significant contribution to maintaining and protecting marbled murrelet populations in western Washington over the life of the HCP" (DNR 1997. p. IV.44). They recommended that DNR manage forest habitat to contribute to a *stable or increasing population, an increasing geographic distribution, and thus a population that is resilient to disturbances.* A wider geographic distribution of habitat across DNR-managed lands is also key to preventing a large gap in distribution of murrelets from occurring (i.e., in Southwest Washington and Northern Oregon) resulting in potential genetic isolation of murrelets to the north and south. The Science Team then conducted a modeling exercise to evaluate how well their recommendations should achieve each of these biological goals over time in each analysis unit, including changes in the population size and in potential habitat capability (K', Raphael et al. 2008, Table 5-3). They concluded that "DNR's broader policies, in concert with the specific approach to marbled murrelet conservation suggested by the Science Team and current policies of federal and other landowners, will result in improved inland habitat conditions, which are likely to support those biological goals." While tallying acres and quality of habitat is a necessary step and the most obvious management tool for the LTCS, failing to adopt population goals or evaluate how they compare among a wider range of alternatives is a serious weakness of this DEIS.

The DEIS alternatives are also inconsistent with the best available science in other ways. Alt. B likely permits take of murrelet nests as it does not protect the additional 16,000 acres of occupied sites identified by the 2008 Science Team. None of the DEIS alternatives adequately ameliorate the edge effects associated with habitat fragmentation. For example, two DEIS Alt. (A and B) completely lack contiguous, blocked-up Conservation Areas (Marbled Murrelet Management Areas, Emphasis Areas, and/or Special Habitat Areas) and Alt. C, D, E, and F each only include a subset of all mapped Conservation Areas. In the Olympic Experimental State Forest (OESF), Marbled Murrelet Management Areas only have a 50% habitat target under Alt. F, which is insufficient for achieving their purpose of minimizing edge effects, especially given recent timber harvest within them since adoption of the HCP. Alt. C and E permit variable retention harvest (VRH: leaving only eight trees per acre standing after harvest) within emphasis areas "where it does not delay achieving future habitat goals for the emphasis area" without explaining how such a harvest could possibly *not* delay future habitat goals or introduce edge effects. Also, discounts for edge effects did not include important stand attributes that influence the likelihood of nest depredation, including the proximity of human activity and complexity of stand structure (Marzluff and Neatherlin 2006, Raphael 2016, Wilk et al. 2016). Conservation Areas designations are important strategies for conserving murrelets because they retain occupied sites and other mature forest; block up, connect, and buffer mature forest; reduce the negative effects of forest edge on nest success; and create large core areas of high-quality habitat over time (Raphael et al. 2008).

Similarly, buffers on occupied sites of 0 to 100 meters (Alt. A-F) are too narrow to protect murrelet nests from predators, maintain an optimal microclimate for nest platform development, and/or prevent windthrow. On average, empirical studies have shown that successful nests were *137 to 155 meters* from the forest edge compared with failed nests that were 27 to 56 meters from the forest edge (Nelson and Hamer 1995, Manley and Nelson 1999, Malt and Lank 2007), and no murrelet nests located more than 150 meters from the edge failed because of predation (McShane et al. 2004). Under the Northwest Forest Plan, occupied sites are protected by retaining all contiguous existing and recruitment habitat (stands expected to become nesting habitat within 25 years) within a *half mile* radius (USDA & USDI 1994). The 50 meter buffer widths around large (>200 acre) occupied sites in the OESF proposed by Alt. C and D, will not deter murrelet nest predators, and some occupied sites in the OESF have an artificially large area where two or more smaller occupied sites are connected by a strip of forest less than 100 meters wide. This pattern results in inadequate buffers (and a greater chance of harm to murrelet nests) on a greater number of smaller (<200 acre) occupied sites. In terms of microclimatic edge effects, appreciable tree mortality decreases substantially beyond *120 meters* from edges in western Washington and Oregon old-growth forests (Chen et al. 1992). Buffers around occupied sites need to be wider than proposed by any of the DEIS alternatives to effectively compensate for edge effects and increase fecundity.

A number of the proposed conservation measures for the action alternatives that define the forest management practices permitted within Long-Term Forest Cover (LTFC; DEIS Ch. 2) contain loopholes or weaknesses that could cause harm to nesting murrelets:

1. All alternatives permit variable retention harvest (VRH) over a half mile from occupied sites within Emphasis Areas, and Alt. F permits VRH within 50% of OESF MMMAs. To achieve the purposes of the Conservation Areas to minimize forest fragmentation and edge effects around occupied sites, VRH should be prohibited throughout 100% of their areas.

2. Under all alternatives, forest health treatments to deal with root rot, pests, and fire damage are not restricted within occupied sites within the nesting season except during the daily timing restrictions (one hour before official sunrise to two hours after official sunrise and from one hour before official sunset to one hour after official sunset) or for prescribed burning (within 0.25 miles of occupied sites). *This puts nest trees at risk of harvest during the breeding season under all alternatives because nest tree locations are typically unknown and no nest surveys are required.*

3. The forest road conservation measures for Alt. B, E, and F (Table 2.2.5) "may result in some road construction through murrelet conservation areas, including occupied sites." Roads introduce predator and microclimate edge effects to the habitat patches they dissect (see reviews by Forman and Alexander 1998, Spellerberg 1998, Gucinski et al. 2001, Seiler 2001, Coffin 2007). For instance, predatory crows and ravens are strongly associated with roads in general and forage for road-killed carrion and other food items along roads (Dean and Milton 2003, Kristan et al. 2004, Marzluff and Neatherlin 2006, Webb et al. 2011, Scarpignato and George 2013). Murrelet nest predation risk is likely to be higher near clearcuts and roads than in interior forest due to the higher abundance of predators in these areas (Burger et al. 2004, Malt and Lank 2007). Roads are also a direct source of mortality for murrelets via collisions with vehicles and transmission lines (Nelson 1997). The probability of murrelet nest site occupancy is greater with increasing distance from roads that produce man-made noise up to 135 meters away (Meyer et al. 2002, Meyer et al. 2004, Golightly et al. 2009). Because of the above impacts associated with the forest edges created by roads, no alternatives should include loopholes such as this for new road construction or reconstruction, especially within occupied sites. Also, because Alt. E is the combination of Alt. C and D, their conservation measures should be together in the right column of Table 2.2.5.

4. All alternatives allow the building and installation of infrastructure needed for harvest activities (i.e., tailholds, rigging, guy lines, landings, and yarding corridors) within occupied sites and their buffers. *These activities may entail the harvest of habitat and introduce disturbances where murrelets nest during the breeding season.*

5. Under all alternatives, salvage operations of wind-blown stands may occur within occupied sites during the breeding season (except during the periods of daily timing restriction), including the removal of standing platform trees. *This could entail the harvest of habitat and introduce disturbances where murrelets nest during the breeding season.*

6. Under Alt. B, E, and F, blasting associated with forest road construction, maintenance, or extraction of valuable materials could negatively impact murrelet nests and adults within occupied sites. *To the extent this disrupts normal nesting behaviors, nest success could be compromised.* Also, because Alt. E is the combination of Alt. C and D, their conservation measures should be together in the right column of Table 2.2.6.

7. All alternatives permit crushing or pile-driving within 110 meters of occupied sites during the nesting season if it's not considered "feasible" to conduct crushing or pile-driving outside of the nesting season. *To the extent this disrupts normal nesting behaviors, nest success could be compromised.*

8. Alt. B, E, and F may involve the removal of nesting habitat and disturbance to nesting birds associated with new or expanded recreation facilities (such as campgrounds, day use areas, sno-park sites, trailheads, motorized and non-motorized trails) and leases. Construction, decommissioning, and maintenance activities may occur within occupied sites during the nesting season if it's not considered "feasible" to conduct these activities outside of the nesting season. *To the extent this disrupts normal nesting behaviors, nest success could be compromised.* Also, because Alt. E is the combination of Alt. C and D, their conservation measures should be together in the right column of Table 2.2.7.

9. Under all alternatives, for non-federal easements and rights-of-way projects on DNR-managed lands, DNR only need avoid siting new powerlines and utilities in marbled murrelet habitat and follow existing roads "when feasible". *This could entail the harvest of habitat and introduce disturbances where murrelets nest during the breeding season.*

10. New or renewed leases, contracts, and special use permits granted by DNR to external parties for valuable materials sales, oil and gas exploration, mining and prospecting, and communications facilities could occur within occupied sites, and related disturbances to nesting murrelets may only be avoided "where feasible" under all alternatives. Furthermore, despite a history of and proposals for future wind energy projects in Southwest Washington and elsewhere, the DEIS conservation measures fail to directly address the impacts of wind energy development on murrelets.

11. Daily timing restrictions on forest practices activities apply only during the daily peak activity periods (one hour before official sunrise to two hours after official sunrise and from one hour before official sunset to one hour after official sunset) during the nesting season. Unfortunately, after the chick hatches adults make visits to and from the nest *throughout the day* and are subject to disturbances from forest practices near the nest throughout the day (USFWS 2012a). Murrelets spend 0.3 to 3.5 hours per day (mean 1.2 ± 0.7 hours per day) commuting to nests during the breeding season (Hull et al. 2001). USFWS (2012a) estimates that up to 10 feedings could occur during the mid-day portion the nestling phase. Noise and visual disturbances throughout the day can cause an adult murrelet to abort one or more prey deliveries to the nestling, which increases the energy cost per food delivery attempt and increases the risk of predation of the adult (Hull et al. 2001, Kuletz 2005). Such disturbances are considered significant because they have the potential to reduce hatching success, fitness, or survival of juveniles and adults (Hébert and Golightly 2006, USFWS 2012a). In its latest definition of the marbled murrelet nesting season, the USFWS (2012b) reported "due to the large proportion [31-46%] of feeding that occurs during the middle of the day (from two hours after sunrise until two hours before sunset) in some areas, we cannot assume that implementation of [limited operating periods] will avoid adverse effects to murrelets, eggs, or chicks."

Although these disturbances may be lessened by the proposed conservation measures, in some cases they will be significant when they cause a murrelet to delay or avoid nest establishment, flush away from an active nest site, or abort a feeding attempt during incubation or brooding of nestlings (USFWS 2012a). Cases such as these constitute take, though *DNR did not account for this in the DEIS* citing excessive uncertainty (DEIS p. 4-51). For this reason, the precautionary principle should be applied to avoid irreversible harm due to disturbances associated with forest practices.

As described above, the maintenance of existing murrelet habitat is considered integral to stabilizing the population, especially on non-federal lands in the near-term (Falxa et al. 2016, Lorenz et al. 2016, Raphael et al. 2016, Raphael et al. In Review). Unfortunately, all DEIS alternatives allow the harvest of some amount of existing murrelet nesting

habitat ranging from 25,440 acres (Alt. F) to 49,431 acres (Alt. B). Only Alt. C and E defer from harvest all high quality habitat (P-stage ≥ 0.47), and *all* alternatives propose more harvest of habitat than the No Action alternative (A) in the Straits Planning Unit (4,082-6,158 acres total), contrary to the best available scientific recommendations for this regionally important "hotspot". Washington's murrelet population may still be responding to cumulative and time-lag effects of nesting habitat losses over the past 20 years (Miller et al. 2012, Falxa et al. 2016), making all existing habitat even more valuable. DNR's "intent is to improve current population trends through conservation and recruitment of additional nesting habitat on DNR-managed lands" (DEIS S-8). To permit "short-term habitat loss" via timber harvest is inconsistent with this intent and with the current needs of the murrelet population, including as wide a geographic distribution as possible across the state (USFWS 1997, Raphael et al. 2008). Further habitat loss on DNR-managed lands at this time cannot be biologically justified for a number of additional reasons.

For a population in a race against extirpation like the marbled murrelet in Washington State (Desimone 2016, Raphael et al. 2016), the restoration of lower-quality habitat over the 50-year term of the HCP does not adequately mitigate for the loss of existing higher-quality habitat now. In the worst case scenario (Alt. B), 51% of the habitat slated for harvest is currently of higher quality (P-stage of 0.36-0.89) than the habitat that will eventually replace it over time (P-stage of 0.25). In the best case scenario (Alt. F), 43% of the habitat slated for harvest is currently of higher quality (P-stage of 0.36-0.89) than the habitat that will eventually replace it over time (P-stage of 0.25). Four alternatives propose that some high quality murrelet habitat (P-stage ≥0.47) be harvested, ranging from 2,891 acres (Alt. F) to 8,482 acres (Alt. B), but the harvest of high quality habitat is not mitigated by gains in lower quality habitat represented by acres that just cross over the habitat suitability threshold (Raphael et al. 2016). Harvesting habitat in the near-term also precludes the restoration of large areas of potential future higher quality habitat, ranging from 91,362 acres (Alt. F) to 121,071 acres (Alt. B; by decade 5 of the LTCS). Habitat quality increases so slowly, it will take many decades for the equivalent area *and quality* of habitat to become restored as was harvested. Although the DEIS alternatives do not reflect this concept, DNR admits that "Habitat that exists today currently provides nesting opportunities to murrelets and is therefore more valuable than habitat that will be developed further into the future (as forests mature)" (DEIS p. 4-43). Likewise, "Because it can take many decades for murrelet nesting habitat to develop, protection of existing habitat for the next several decades will continue to be key to minimizing habitat losses" (Raphael et al. In Review).

To illustrate why not all habitat should be treated as equal, Peery and Jones (2016) showed modeled murrelet population growth was most sensitive to the loss of high quality habitat, where the most negative population change was associated with the loss of the highest quality habitat (Fig. 15). *While all DEIS alternatives have a net increase in habitat after 50 years, any loss of habitat on state lands (on top of expected losses on private lands) in the first decade of the LTCS will virtually ensure that the murrelet population continues to decline, because murrelet abundance is so highly correlated with*

habitat abundance (Raphael et al. 2015) and substantially more habitat on federal forests isn't expected to become restored for at least 30-50 years (Raphael et al. 2016). In its increasingly imperiled state, Washington's murrelet population cannot afford further habitat losses or it may become functionally extirpated before future, low quality habitat is restored gradually over time. If murrelets become functionally extirpated from Washington, the lack of genetic flow and genetic variability will become a more significant threat to the persistence of the species at the range-wide scale (California, Oregon, and Washington). Absent explicit population recovery criteria at the state or federal levels (UWFWS 1997), the adopted LTCS Alternative could *preclude* murrelet recovery if it does not preserve enough existing and future habitat to meet the recovery criteria while it may still be possible. Any alternative that permits the harvest of existing habitat fails to minimize and mitigate the impacts of incidental take and appreciably reduces the likelihood of the survival and recovery of murrelets in the wild (ESA section 10). Under these conditions, a precautionary approach is needed that balances a shorter-term strategy of habitat maintenance with a longer-term strategy of active habitat management that accelerates habitat restoration and cohesion.

The harvest of current murrelet habitat is also unwarranted because some amount of murrelet habitat is already projected to be lost or degraded due to climate-related disturbances across all landownerships throughout its inland range. For instance, increased threats to murrelet habitat are projected due to increases in drought-related fire, tree mortality, extreme flooding, landslides, and windthrow events in the near term (DEIS p. 5-9, Snover et al. 2013). In fact, in the past 17 years, tree mortality rates in unmanaged old forests of the Pacific Northwest have already *doubled*, which is likely due, at least in part, to drought stress associated with regional warming (van Mantgem et al. 2009). Climate projections for the Pacific Northwest indicate likely decreases in Douglas Fir growth from drier summers over the next 20 to 40 years (Littell et al. 2010) increasing the time it will take for murrelet habitat restoration. The generally warmer, drier summers predicted for western Washington (Halofsky et al. 2011) could also hinder moss and epiphyte development and its ability to provide and sustain murrelet nesting platforms, even in interior core habitat. Climate change is expected to act synergistically with other stressors (such as ongoing habitat loss and fragmentation and altered disturbance regimes) to affect wildlife populations (Halofsky et al. 2011). These lines of evidence indicate that DNR's P-stage habitat model probably overestimates the area and quality of future habitat across the analysis area and hence *overestimates the mitigation future habitat is expected to provide under all alternatives*. With an uncertain level of loss of habitat area and quality due to future climate-related disturbances, it is too risky to permit additional habitat loss on DNR-managed lands due to timber harvest.

In light of the above predictions, Raphael et al. (In Review) recommend: "Future management and design of reserves will benefit from accounting for climate change…[for example,] maintaining a broad distribution of large habitat blocks over the…landscape will likely help to minimizing the risk to the population from habitat loss to fire, wind or other disturbance agents." DNR also acknowledges "maintaining existing forest cover is a reasonable strategy to promote west-side forest resistance (e.g., forestall

change) and resilience under a changing climate. Retaining older forested stands would help resist eventual change because older trees are better able to persist through unfavorable conditions created by disturbances than young trees and seedlings" (DEIS p. 4-12). Unfortunately, the DEIS alternatives dismiss these projected climate impacts on murrelet habitat area and quality, citing a lack of "sufficient information to quantify the magnitude of effects to the species from climate change projections" (DEIS p. 5-10). Expected habitat losses can and should at least be accounted for in the LTCS in a qualitative or precautionary sense. With an ongoing loss of habitat area and quality predicted across all landownerships throughout its inland range due to climate-related disturbances, nesting habitat must be preserved where it is already present and restored where edge effects can be minimized.

The DEIS alternatives are also inadequate because the range of habitat area they defer from harvest is too narrow. Currently, the DEIS alternatives only differ by ~24,000 acres of habitat (164,000 to 188,000 acres total for Alt. B and F, respectively). This range can to increase to ~49,000 acres if all current habitat is deferred from harvest. After 50 years of implementation, the DEIS alternatives will differ by ~55,000 acres of habitat (317,000 to 372,000 acres total for Alt. B and F, respectively). This range can increase to ~491,000 acres if all current *and* future habitat is deferred from harvest. Numerous studies have shown a strong correlation between the murrelet population size and the area of adjacent nesting habitat (Burger 2001, Raphael et al. 2002, Burger et al. 2004, Cortese 2011, Raphael et al. 2016). Hence, DNR-managed lands have the capability to support a much larger murrelet population than has been modeled thus far.

The status of Washington's marbled murrelet population illustrates the urgency with which future population gains need to be maximized. The most recent estimate of -4.4% average annual rate of population change in Washington is strong evidence of a decline ($P = 0.0021$) between 2001-2015 (Lance and Pearson 2016). This represents a reduction of the population size of 44% in the past 15 years alone, to roughly 7,500 birds as of 2015. This dire trend, in part, recently lead to the uplisting of the marbled murrelet to a state endangered species: "any wildlife species native to the state of Washington that is seriously threatened with extinction throughout all or a significant portion of its range within the state" (WAC 232-12-297). The ongoing population decline under all alternatives in the DEIS Population Viability Analysis (PVA; Fig. 4, Risk analysis-DNR lands) shows more must be done on DNR-managed lands to contribute to population stability and recovery. The PVA also shows it is more likely than not that the state population will only be a between a *quarter to half of its current size* after 50 years, between 2,077 and 2,182 birds (Alt. B and F, respectively; Table 2, Fig. 5, Risk analysis-Washington). Even under the more optimistic "Enhancement" PVA assumptions, only Alt. F predicts a population size larger than the current size at the scale of DNR-managed lands (Fig. 8). The range of DEIS alternatives do not properly reflect this imperiled state, nor do they account for DNR's lengthy delay in adopting a LTCS, a time during which a large proportion of the murrelet's habitat and population have been lost (Raphael et al. In

Review, Lance and Pearson 2016). The DEIS also fails to express a sense of urgency in response to the population decline and, instead, conveys a "business-as-usual" approach that lacks a joint strategy with the Washington Department of Fish and Wildlife to ensure DNR is making a significant contribution to murrelet recovery. More needs to be done now to compensate for these past losses and prevent functional extirpation from the state within the next several decades (Desimone 2016).

Marbled murrelet population persistence depends to a great extent on population size because small populations are susceptible to a suite of unique threats. For example, Shaffer (1981, 1985) described four factors which contribute to extinction and increase in importance with decreasing population size:

- demographic stochasticity (chance events in survival and reproduction),
- environmental stochasticity (variation in habitat and competitors),
- genetic stochasticity (changes in gene frequencies), and
- natural catastrophes (fire, insect or disease outbreaks, drought).

Shaffer (1981) further defined a minimum viable population as "the smallest isolated population having a 99% chance of remaining extant for 1,000 years despite the foreseeable effects of demographic, environmental, and genetic stochasticity, and natural catastrophes." Although this definition is not to be taken literally and the USFWS has not yet made this determination, a minimum viable population is of sufficient size to withstand chance variation and events outside of the average range of variation. Small populations are uniquely vulnerable to "extinction vortices" which are a series of interacting positive feedback loops triggered by an environmental change that can rapidly lead to extinction (Gilpin and Soulé 1986). The magnitude of the recent population decline in Washington indicates the marbled murrelet may already be caught in an extinction vortex and "habitat destruction or overharvesting will reduce a population to the point where a stochastic extinction is inevitable" (Gilpin and Soulé 1986).

Under circumstances such as these, population stabilization is most likely if the precautionary principle is applied as a guideline for sound environmental decision making. Two central components of the precautionary principle include taking preventive action in the face of uncertainty and exploring a wide range of alternatives to possibly harmful actions (Raffensperger and Tickner 1999). Delaying action until there is compelling evidence of harm will often mean that it is then too costly or impossible to later avert the threat. In the case of the marbled murrelet, delaying habitat restoration (mitigation) until there is compelling evidence of harm (an increasingly smaller population) will often mean that it is then too costly or impossible to later avert functional extirpation. Applying the precautionary principle in this case would entail the evaluation of a wider range of LTCS alternatives, at least one of which retains all existing habitat on DNR-managed lands.

The Conservation Alternative

We have designed a Conservation Alternative for the LTCS based on the best available science that overcomes the inadequacies described above. The purpose of the Conservation Alternative is to achieve the following *biological goals* for the marbled murrelet population in Washington State (adapted from the 2008 Science Team Report and 1997 Recovery Plan):

1. a stable or increasing population for at least a 10-year period
2. an increasing geographic distribution
3. a population that is resilient to disturbances (stochastic events)

The HCP states that DNR will: "…[H]elp meet the recovery objectives of the U.S. Fish and Wildlife Service, contribute to the conservation efforts of the President's Northwest Forest Plan, and make a significant contribution to maintaining and protecting marbled murrelet populations in western Washington over the life of the HCP" (DNR 1997, p. IV.44). DNR's current focus on minimizing and mitigating incidental take is insufficient to meet these objectives, which will require that the LTCS makes a significant contribution to these three biological goals (USFWS 1997, Raphael et al. 2008).
The Conservation Alternative adds the following *LTFC components* to Alt. F (Tables 1-2, Fig. 1-2):

1. All current and future habitat within the next 50 years (P-stage ≥ 0.25)
2. All Emphasis Areas and Special Habitat Areas from Alt. E (collectively "Conservation Areas" when combined with MMMAs)
3. No-touch 150 m buffers around all occupied sites and old forest (OESF) as mapped by the 2008 Science Team

The Conservation Alternative includes the following *forest management* within LTFC:

1. Daily timing restrictions on forest practices activities apply throughout the day during the nesting season (between April 1st and September 23rd).
2. A 100% habitat target as soon as possible applies within all Conservation Areas (Marbled Murrelet Management Areas, Emphasis Areas, and Special Habitat Areas).
3. Limit harvest in Conservation Areas to enhancement of non-habitat (within the next 50 years) designed to accelerate habitat restoration (i.e. Variable Density Thinning from below) outside of occupied site buffers.
    a. In the OESF, limit harvest to appropriate stands under 80 years, not naturally regenerated
    b. Maintain windfirm "security forest" conditions: closed-canopy stands over 80 feet tall (DEIS p. 2-15)
    c. Retain all platform trees and other large, structurally unique trees

Table 1. Approximate acres of marbled murrelet-specific conservation, by Alternative (rounded to nearest 1,000).

Murrelet-specific conservation acres (2016)	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Conservation Alternative
Occupied sites	8,000	10,000	10,000	10,000	10,000	10,000	9,775
Occupied site buffers	12,000	n/a	13,000	13,000	13,000	16,000	27,919
Habitat identified under interim strategy	17,000	n/a	n/a	n/a	n/a	n/a	n/a
Marbled murrelet management areas	n/a	n/a	n/a	n/a	n/a	78,000	93,907
Emphasis areas	n/a	n/a	14,000	n/a	14,000	n/a	
Special habitat areas	n/a	n/a	9,000	28,000	13,000	n/a	
High-quality P-stage habitat (≥0.47) patches	n/a	n/a	7,000	n/a	7,000	n/a	6,092
Existing northern spotted owl habitat— low-quality	n/a	n/a	n/a	n/a	n/a	47,000	44,393
Low-quality P-stage habitat (<0.47) patches	n/a	n/a	n/a	n/a	n/a	n/a	14,033
Future habitat patches (by decade 5)	n/a	n/a	n/a	n/a	n/a	n/a	97,273
Total	**37,000**	**10,000**	**53,000**	**51,000**	**57,000**	**151,000**	**293,392**

Acres reported are only those which do not overlap the existing conservation commitments reported in DEIS Table 2.2.2.

Table 2. Summary of conservation acres and harvest acres proposed under each DEIS Alternative and the Conservation Alternative.

	Alt. A (no action)	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Conservation Alternative
Acres of existing conservation that may provide benefits to marbled murrelets depending on forest condition	583,000	583,000	583,000	583,000	583,000	583,000	583,000
Acres of additional, marbled murrelet-specific conservation	37,000	10,000	53,000	51,000	57,000	151,000	293,392
Total approximate acres of long-term conservation (long-term forest cover)	620,000	593,000	636,000	634,000	640,000	734,000	876,392
Estimated marbled murrelet habitat released for harvest	36,000	49,000	35,000	42,000	34,000	25,000	0

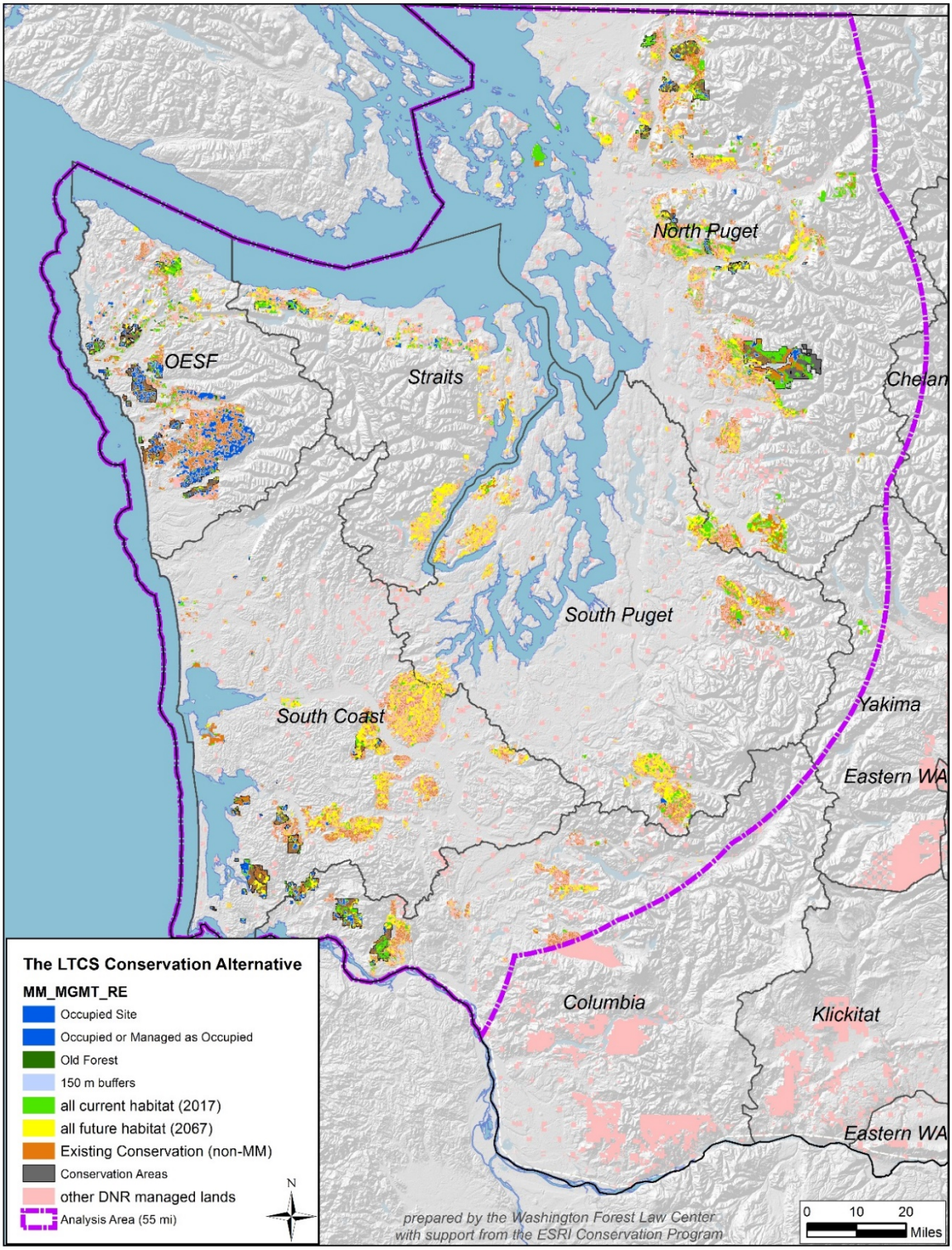

Fig. 1. Marbled murrelet-specific components of the Conservation Alternative (plus other existing conservation acres and other DNR-managed lands).

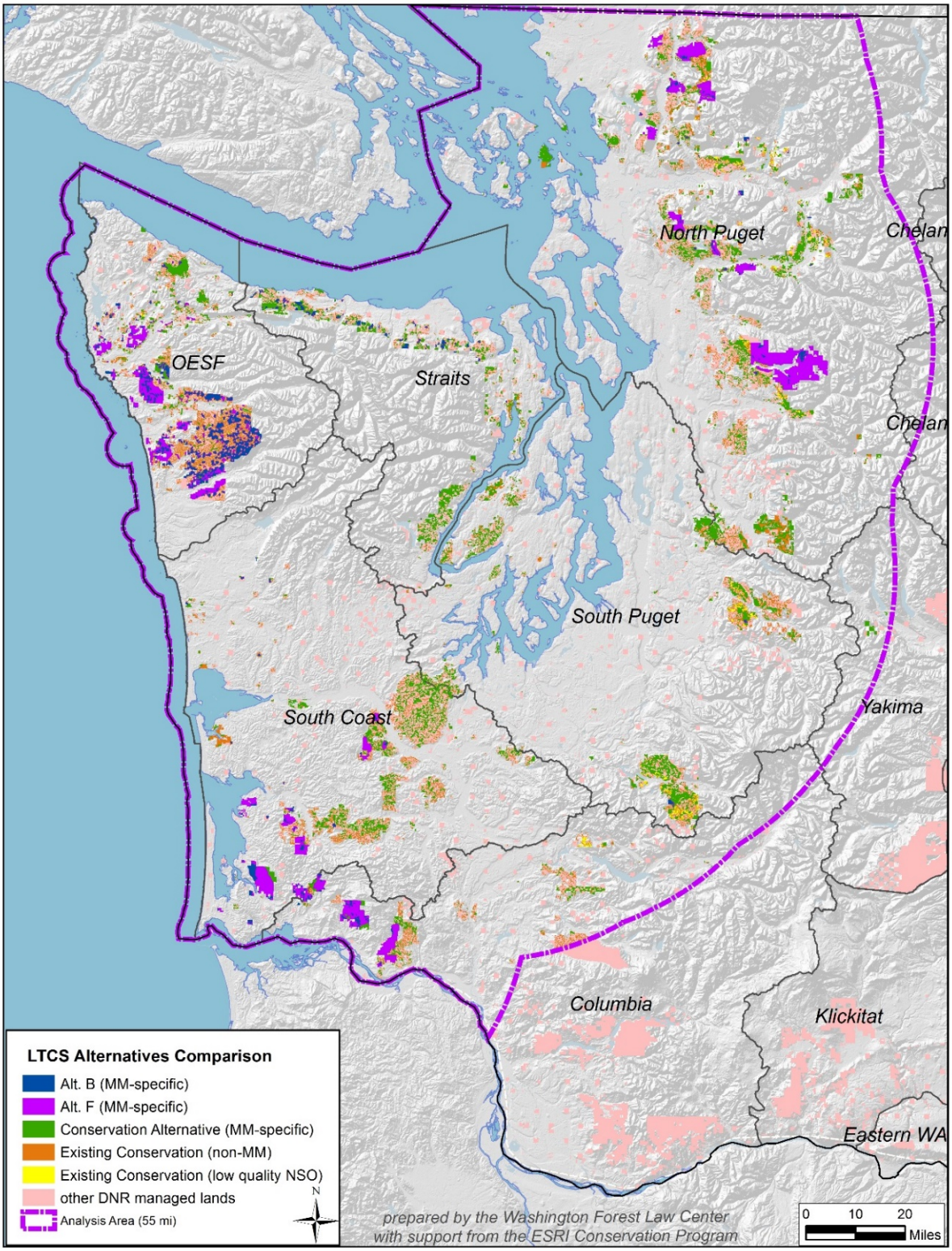

Fig. 2. Marbled murrelet-specific components of Alt. B, Alt. F, and the Conservation

Alternative (plus other existing conservation acres and other DNR-managed lands).

The Conservation Alternative includes the following *conservation measures*:

1. Forest health treatments (i.e. root rot, pests, and fire damage) are prohibited within special habitat areas, occupied sites and their buffers, including the 0.5-mile buffer around occupied sites within emphasis areas.
2. No new road construction or reconstruction through special habitat areas, occupied sites and their buffers, including the 0.5-mile buffer around occupied sites within emphasis areas unless otherwise required by state or federal laws or emergency (for example, a culvert or bridge replacement).
3. The building and installation of infrastructure needed for harvest activities (i.e., tailholds, rigging, guy lines, landings, and yarding corridors) are prohibited in special habitat areas, occupied sites and their buffers, including the 0.5-mile buffer around occupied sites within emphasis areas.
4. Salvage and recovery of windblown stands must contribute to the recovery of nesting habitat or security forest and will require a site-specific restoration plan approved by DNR region with wildlife biologist input. Salvage must take place outside of the nesting season and must not include any standing platform trees.
5. Aerial activities by low-flying airplanes and helicopters (including herbicide application) within 0.25 miles of occupied sites must take place outside of the nesting season.
6. During the nesting season, blasting is prohibited within: special habitat areas, the 0.5-mile buffer of occupied sites within emphasis areas, and 0.25 mile of occupied sites.
7. Crushing or pile-driving within 110 meters (120 yards) of occupied sites shall take place outside of the nesting season.
8. No development of any new or expanded recreation facilities, trails, and recreational leases in special habitat areas, occupied sites, and their buffers, including the 0.5-mile occupied site buffer within emphasis areas. Prohibit conversion of any existing non-motorized trails to motorized use within those areas. DNR, in consultation with USFWS, may decommission or abandon illegal trails in these areas.
9. Maintenance or improvements within the footprint of existing facilities, trails, and recreational leases within special habitat areas, emphasis areas, and occupied sites and buffers (including upgrades to deal with health and safety or environmental damage) would be allowed. These activities should take place outside the nesting season.
10. For all proposed new or renewed leases or contracts on lands located within special habitat areas, 0.5 mile of occupied sites in emphasis areas, and occupied sites, avoiding impacts resulting from these activities is the first priority. If potential impacts are identified in these areas, and DNR decides to pursue the

proposal, USFWS and DNR will consult to design conditions of the lease or contract to consider strategies for avoidance, minimization, or mitigation as necessary, subject to state and federal laws governing the activity. Noise-generating activities will comply with disturbance distance thresholds and timing restrictions detailed above.

11. No voluntary disposition of land involving murrelet conservation areas will be allowed without retaining HCP conservation commitments. Dispositions without retaining HCP conservation commitments will be avoided elsewhere in LTFC.
12. Non-invasive research will be allowed in LTFC, following daily timing restrictions during nesting season. Invasive activities (those causing prolonged audiovisual disturbance or involving heavy equipment) must occur outside the nesting season within LTFC.
13. All fire suppression activities, including aerial fire operations and aircraft, are allowed in LTFC, following "minimum impact suppression tactics" guidance (NWCG 2003).
14. To prevent attracting predators to murrelet habitat within special habitat areas, 0.5 mile of occupied sites in emphasis areas, and occupied sites and their buffers, install animal-proof food lockers and trash cans, improve waste patrol and cleanup, provide interpretive outreach and education to minimize anthropogenic food availability to predators, and introduce penalties for littering within all campgrounds, day-use areas, logging and planting sites. Incorporate these conditions into timber sale contracts in the applicable areas.
15. Wind energy development is prohibited within Conservation Areas and within 0.5 miles of occupied sites.

The Conservation Alternative incorporates *adaptive management* consistent with the USFWS HCP Handbook and the ESA. Adaptive management allows for periodic changes in the mitigation strategies that may be necessary to reach the biological objectives of the HCP and ensure the survival and recovery of the species in the wild. The base mitigation strategy must be sufficiently vigorous so that the USFWS may reasonably believe that it will be successful.

In 10 years after implementation of the LTCS based on the Conservation Alternative, *assess whether or not all three biological goals for the murrelet population (above) have been met* (for example, see Raphael et al. 2008, table 5-3). If they have, then reconsider permitting incidental take (harvest of habitat) if all three biological goals can be maintained with the amount of habitat at that time (set baseline) throughout the term of the HCP. If not, continue the moratorium on take and make additional decadal assessments until the three biological goals are met and sustainable.

We request that DNR analyze the Conservation Alternative in a Supplemental EIS or Revised DEIS before a preferred alternative is selected and that the Board of Natural Resources adopt the Conservation Alternative as the marbled murrelet LTCS.

With a greater area of LTFC and lesser harvest proposed by the Conservation Alternative, we expect a projected net habitat increase after the first decade, the most gain over time in interior habitat, the highest modeled population gains, and the lowest risk of quasi-extinction relative to the DEIS alternatives. As such, the Conservation Alternative is most likely to make a significant contribution to the three murrelet population biological goals (USFWS 1997, Raphael et al. 2008) as required by the DNR HCP. It is important to note that the Conservation Alternative is not equivalent to the approach of "ceasing timber harvest activities on [all] DNR-managed state trust lands" (DEIS p. 2-2) which was considered but not developed into an alternative. In contrast, the Conservation Alternative is a feasible conservation approach that merits detailed analysis and consideration.

Other Technical Problems With and Omissions from the LTCS DEIS

Existing Conservation Areas

DNR is claiming conservation "credit" of 583,000 acres within Existing Conservation Areas for each of the DEIS alternatives, which grossly inflates their true conservation value to murrelets and as such misleads the public by inferring these areas all benefit murrelets. For example, the acres in existing, non-murrelet specific conservation make up 79-94% of the total LTFC (for Alt. F and B respectively). In fact, only 33% (194,000) of these 583,000 acres are currently murrelet habitat, they are in a largely fragmented condition, and "some of these lands may not be forested" (DEIS p. 2-9). Alt. F also adds roughly 47,000 acres of low-quality Northern Spotted Owl habitat to the other four categories of existing conservation. Unfortunately, only 10,000 acres (21%) of this added LTFC is also habitat for marbled murrelets. Of the 583,000 existing conservation acres, 12% occurs within the "marginal landscape" encompassing the urban Puget Trough thought to provide practically no benefits to murrelets (DEIS p. H-18).

Most concerning is the extensive amount of existing conservation acres in riparian buffers or "stringers." At least 70% of the 583,000 acres exists in riparian management zones, which are too narrow by themselves to contain any interior habitat away from the forest edge (depending on the context). DNR admits that "due to their narrow width, riparian zones are not expected to develop extensive areas of habitat, nor is that habitat expected to provide secure areas for marbled murrelet nesting…due to the short [harvest] rotation [40-50 years] in the adjacent uplands" (DEIS p. 5-8 – 5-9). Under the recently-adopted OESF Landscape Plan, DNR is reducing the extent of its riparian protections, yet the existing 583,000 acres of LTFC depends on its existence. Even worse, a substantial area of the existing conservation in riparian stringers is not being retained in timber sales on DNR-managed lands where it coincides with Type 5 (non-fish seasonal) streams (Fig. 3). In fact, a total of 38,210 acres of existing conservation areas occurs within the boundaries of planned timber sale units (Table 3, Fig. 3). While some harvest unit boundaries are subject to change as the planning process proceeds, DNR cannot fairly take conservation "credit" for any areas that will not be deferred from harvest for the next 50 years or that are not even forested. A more appropriate metric for comparing the

alternatives is the murrelet-specific acres including existing and future habitat and non-habitat security forest in Conservation Areas and buffers around occupied sites and other old forest.

Table 3. Area (at least 1 acre in size) within planned timber sales (FY 2017 and beyond) being counted as LTFC in Existing Conservation Areas.

Existing Conservation Areas	Area within planned timber sales
Natural Areas (NAP/NRCA)	0
Riparian management zones	33,395
Other conservation	4,811
Spotted Owl high quality habitat	4
Total	38,210

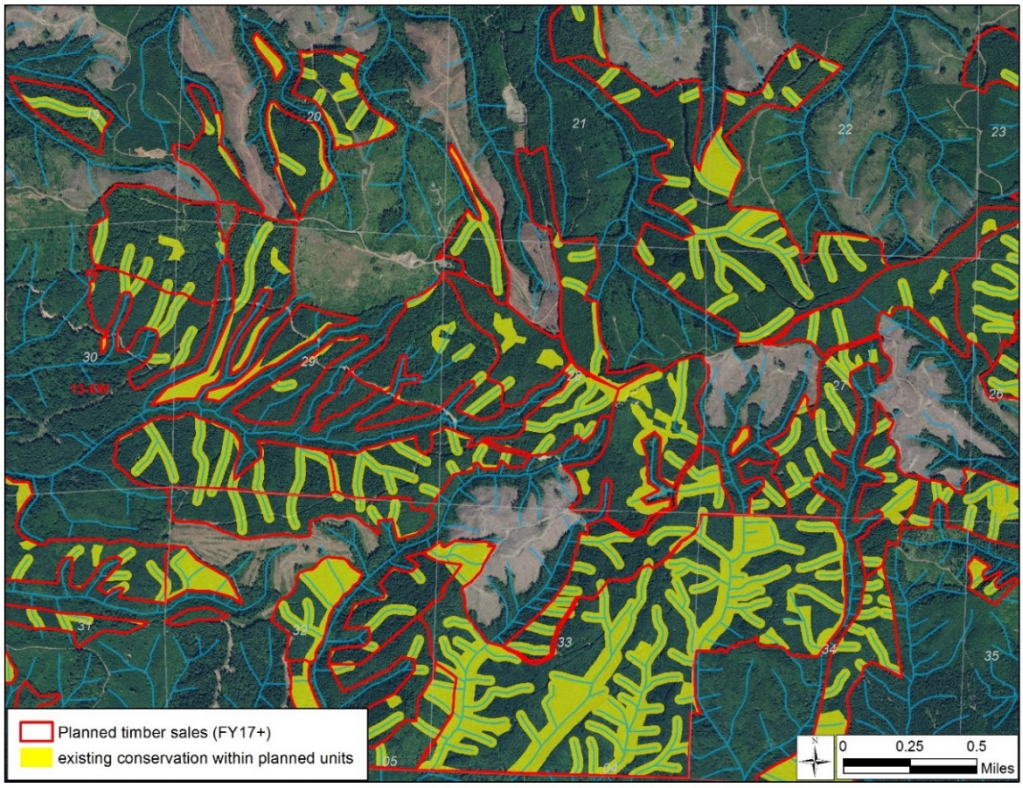

Fig. 3. Existing conservation acres in LTFC within planned timber sale harvest units in a portion of the South Coast Planning Unit. Note the abundance of other headwater streams (blue) within past harvest units that have already been harvested.

Limits of the Population Viability Analysis

The DEIS analyses rely on modeling and analytical methods that have inherent limits and flaws. While the PVA (Peery and Jones 2016) enables a fair comparison of the relative consequences of alternative management proposals for the DNR-managed lands, it cannot, however, confidently assess absolute long term risk within these lands or for the state as a whole. This is intrinsic to the PVA approach, but it becomes a more important consideration given empirical limitations on the accuracy of critical parameter values. For the murrelet model, the authors addressed this limitation by running their simulations under two general conditions that adjust adult female breeding propensity, a parameter that is particularly poorly known (Lorenz et al. 2016) and has high leverage on murrelet demography. The first "Risk" scenario, which they consider more biologically realistic, force fit the general model in preliminary runs to match the 4-5% rate of recent historical murrelet population decline statewide. Not surprisingly, none of the management alternatives considered using this basic demography was able to reverse population declines either within the DNR lands nor the state as a whole (considering changes in input from the DNR lands only; Peery and Jones 2016, Figs. 3-6). To provide more optimistic perspective, the authors ran a parallel set of "Enhancement" scenarios by increasing breeding propensity substantially. Under this demography, all management alternatives result in increasing murrelet populations on DNR-managed lands by the end of the 50-year period (Fig. 8), with relatively small differences statewide (Fig. 10). Between these negative and positive scenarios are breeding propensity parameter values that would have produced increases with some scenarios and decreases with others by 2067, albeit with limited spread among them.

Thus, is it incorrect to conclude that (1) the PVA results show that populations will either increase or decrease on DNR lands regardless of management approach, even among the limited range of management alternatives considered, (2) that acres of habitat in different regions can be equally equated to murrelet productivity, or (3) that the relative effect of DNR management on statewide populations need be 'small,' because a full range of scenarios was not considered.

The PVA analysis was commissioned with three major goals: (1) to assess local extirpation probabilities with time, (2) to provide insight into how the alternative management scenarios considered would affect the quantity and quality of habitat on DNR-managed lands, and (3) to translate these changes in habitat availabilities into numbers of murrelets. Two of the three formal peer reviewers of the model argue that the last step, which relies strongly on demographic parameter values with high uncertainties, is superfluous, and that management decisions should be made on suitable habitat considerations alone (Raphael 2016, Sutherland 2017). With respect to the original goals: (1) the analyses of extirpation provide U-shaped population extinction probability curves. As pointed out by Sutherland (2017, p. 13), further exploration of a wider range of delayed harvesting might have been worthwhile with respect to this, and produced

different results. (2) The range of scenarios considered was constrained *a priori*, which limited statements of potential effects of DNR lands on the murrelet population. (3) We agree that population goals are important (see above), but given substantial uncertainty about demographic rates, and since DNR's leverage is on habitat, in the end, we agree with two reviewers that differences in habitat area are sufficient, for now, to drive decision making. As such, relative to the DEIS alternatives, the Conservation Alternative is most likely to support the largest number of murrelets on DNR-managed lands, which the best available science deems as necessary to avoid functional extirpation.

A second limitation of the PVA is that it is fundamentally aspatial. This limitation of their analysis was agreed on from the start by USFWS and the DNR "given time and budgetary constraints", although limited information for estimating appropriate parameter values for different regions was also a consideration. In reality, regional calculations will eventually be important because a given number of acres of habitat will support different numbers of nesting murrelets and murrelet productivity in different locations (Burger et al. 2004, Zharikov et al. 2006, 2007), whether due to adjacent marine factors, adult or nest predation rates, or any other local differences. Averaged relative outcomes across all DNR lands fail to inform operational and conservation planning, and the conservation and management solutions might well differ among regions in the state.

With one exploratory exception (Alt. D-M), the PVA simulated all harvest of habitat within the first decade of the five decade modeling period, without providing any rationale for doing so. Metering the harvest out over all five decades would likely shift the population trajectories and quasi-extinction probabilities and seems more realistic from a planning perspective. The population model also did not account for habitat growth on non-DNR lands over the 50-year simulation period, making the meaning of its projections of the relative effect of DNR alternatives on statewide populations difficult to assess. The model should have at least utilized available habitat growth estimates over time on federal lands (Raphael et al. 2016) which could also greatly influence the results. The PVA also failed to report lambda (the rate of population change), which would have improved the ability to compare population trajectories among the alternatives.

Habitat Accounting

It appears DNR's P-stage model was not updated to reflect more current forest stand and habitat conditions (DEIS p. E-7). The 2008 Science Team used stand conditions as of 2004, which are now over a decade out of date. If the P-stage model was not updated for the DEIS analyses, then all of the modeling results are off by over a decade (i.e., decade 0 is really decade 1). For example, this may help explain why the P-stage model identified a significant number (17%) of occupied sites as non-habitat. DNR needs to clarify whether or not this is the case, and if so, rectify it in a Supplemental EIS or Revised DEIS.

DNR's analytical framework fails to account for the likely loss of LTFC and habitat over time due to natural disturbances such as wildfire, insect infestations, windthrow, which

"affects interpretation of the future amounts, types and quality of MAMU nesting habitat" (Sutherland 2017). The total area of past disturbances per decade per planning unit can be calculated and extrapolated into the future to estimate the extent of future habitat loss. For example, Raphael et al. (2011) and Davis et al. (2011) used LandTrendr change-detection data to estimate the forest area subject to disease and wildfire between 1996 and 2006 in four physiographic provinces of Washington state, and they found that *the West side disturbance on non-federal lands in one decade was roughly 14,000 acres*. As described above, future disturbance-related habitat losses associated with our changing climate may be substantial (Snover et al. 2013) and must be accounted and mitigated for in the LTCS. In addition, unstable slopes designated as LTFC that are later determined not to be unstable "could be removed from that designation", opening up an unknown area of LTFC to harvest (DEIS p. 4-5).

Military Threats to Murrelets

The DEIS greatly underestimates the threats to murrelets posed by increased U.S. Navy Growler jet noise and fails to mention threats to murrelets associated with the Navy's proposed military exercises under its Northwest Training and Testing program. At Naval Air Station Whidbey Island, the Navy is proposing adding 35 or 36 Growler aircraft to its current fleet of 118 Growlers, and further expansion of the fleet is expected. This represents a 47% increase in flights to 130,000 per year, including 79,000 Growler flights that will train over and around the Olympic Peninsula and Puget Sound (Fig. 4-5). The Navy plans a 244% increase in aerial combat maneuvers (dogfighting) from 160 to 550 "events" per year though the Navy did not define the time, duration, and number of jets in a single "event." Dogfighting requires frequent use of afterburners, which are far louder than normal flights. Flight guidance from the Aircraft Environmental Support Office states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure" which presumably includes large areas of state and federal lands where a substantial proportion of the murrelet population nests such as the OESF. Military flights and training exercises also originate from and occur around several other Navy bases, stations, and training ranges distributed throughout other murrelet foraging areas including central and southern Puget Sound and the Hood Canal (Fig. 5). These cumulative impacts need to be accounted for the in LTCS.

When military aircraft noise exceeds 92 dBA SEL at a nest site, USFWS (2012a) expects significant behavioral responses from adult murrelets to occur, including avoiding or delaying nest establishment, flushing from a nest or perch within the vicinity of a nest site, or delaying or aborting one or more feedings. Growler aircraft are capable of 150 dB at takeoff and thus could easily cause significant behavioral responses by adult murrelets many times over a significant proportion of the nesting population.

The Navy's proposed military exercises under its Northwest Training and Testing program are associated with a wide variety of inland and offshore stressors expected to impact murrelets for the next 20 years (Table 4, Fig. 4-5). These exercises include sonar, detonations, explosions, helicopter rotor wash, and projectiles, which can cause auditory

and/or physical injury to murrelets. The Navy calls this effect "threshold shift" where "there is decreased hearing capability, at specific frequencies, for periods lasting from hours to days, or permanently" (USFWS 2016). The Navy estimates these military exercises will result in the take of a total of roughly 112 murrelets over the next 20 years, though this may be a gross underestimate because this estimate does not account for the cumulative impacts of potential exposure to multiple stressors many times and places within foraging and nesting areas for up to 20 years. Adding such significant threats to murrelets cannot be justified, because "given the current status of the species and background risks facing the species, it is reasonable to assume that murrelet populations in Conservation Zones 1 and 2 and throughout the listed range have low resilience to deleterious population-level effects and are at high risk of continual declines. Activities which degrade the existing conditions of occupied nest habitat or reduce adult survivorship and/or nest success of murrelets will be of greatest consequence to the species" (USFWS 2016). These military activities will certainly worsen murrelet demographic rates and likely magnify the "take" analyzed in the LTCS DEIS. A Supplemental EIS or Revised EIS for the LTCS must analyze the cumulative impacts of military operations on the murrelet population.

Table 4. Summary of the types and frequencies of inland and offshore stressors to murrelets associated with the Navy's Northwest Training and Testing program for the next 20 years.

Take Coextensive Surrogate Metrics	Annual subtotal
Hours (sonar)	40
Detonations (E3)	6
Events (helicopter)	110
Explosions (E3/E4)	39
Explosive projectiles (E1/E3/E5)	437
Non-explosive instances (S/M/L)	2,338
Non-explosive projectiles (S/M/L)	11,690

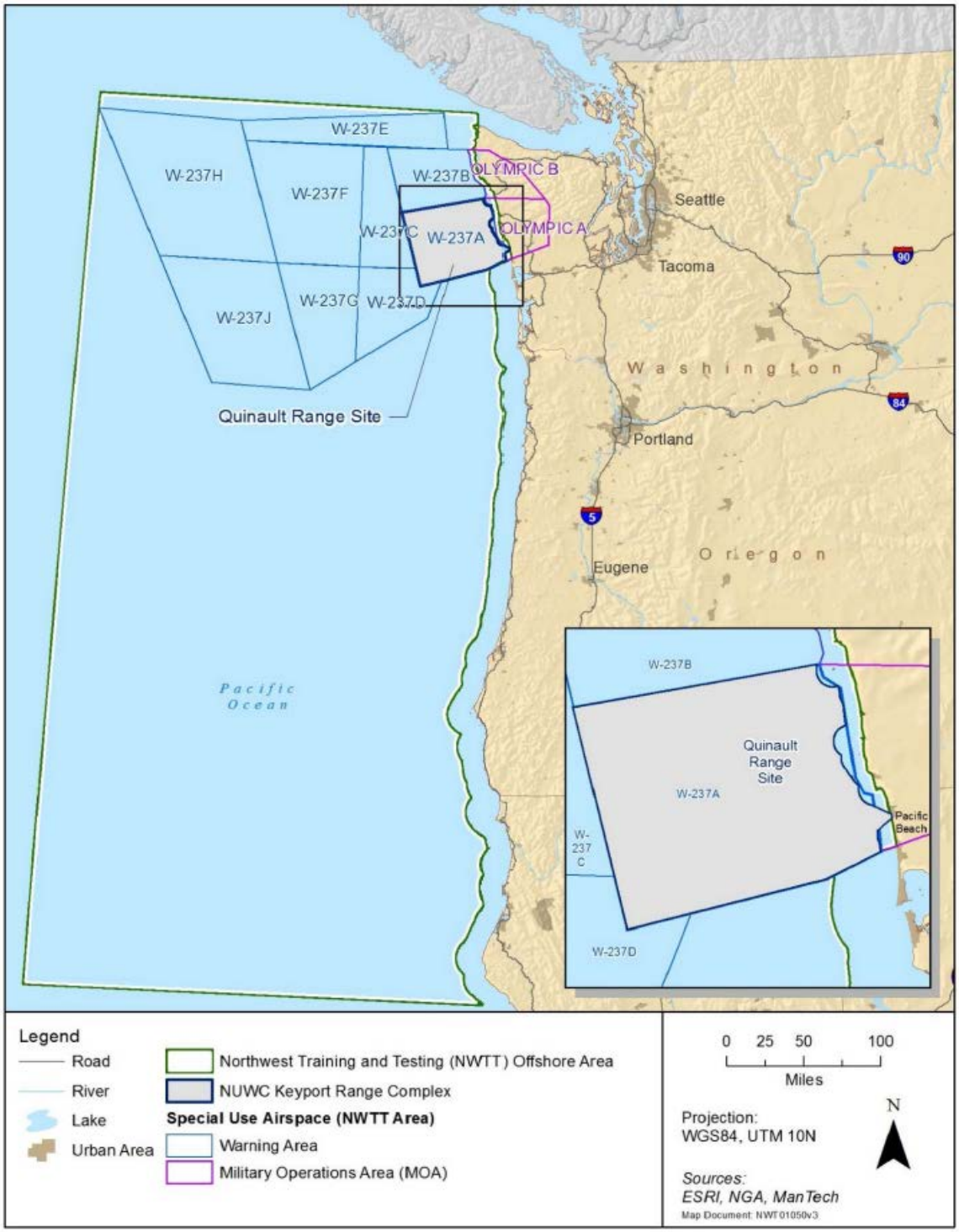

Fig. 4. The Navy's Northwest Training and Testing Offshore Area with a large military operations area over the OESF ("Olympic A" and "Olympic B"; USFWS 2016).

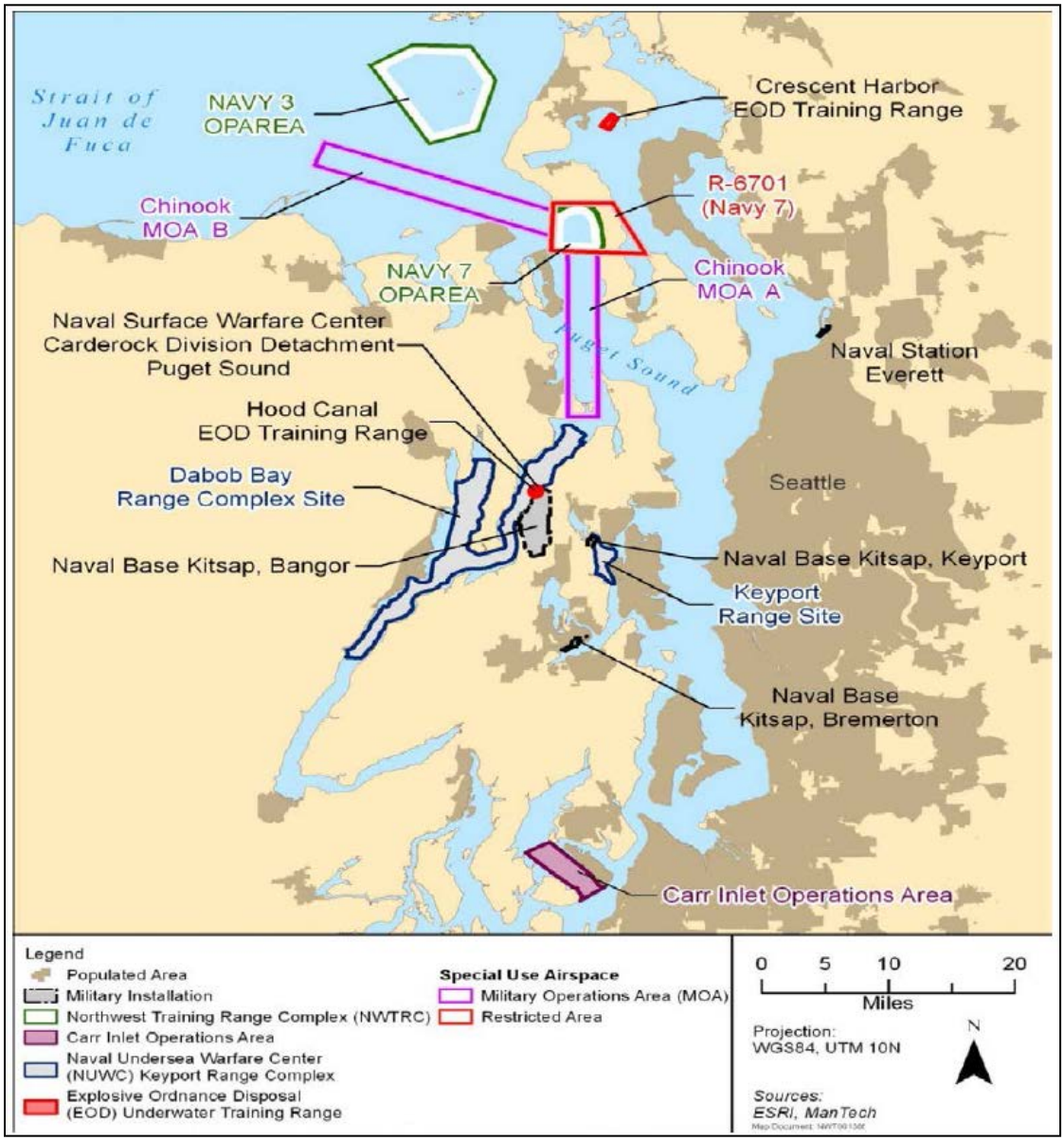

Fig. 5. Northwest Training and Testing Inland Waters Areas including Puget Sound, Hood Canal, and the Strait of Juan de Fuca murrelet foraging areas (USFWS 2016).

Conclusion

We have described in detail many reasons why a stronger alternative based on the best available science is needed as the LTCS and have designed the Conservation Alternative to fill that gap. We request that you please analyze the Conservation Alternative in a Supplemental EIS or Revised EIS *before* a preferred alternative is selected for the Final EIS, and that the Board of Natural Resources ultimately adopt the Conservation Alternative as the marbled murrelet LTCS. Feel free to contact us with any questions.

Literature Cited[2]

Burger, A.E. 2001. Using radar to estimate populations and assess habitat associations of marbled murrelets. Journal of Wildlife Management. 65:696–715.

Burger, A.E., T.A. Chatwin, S.A. Cullen, N.P. Holmes, I.A. Manley, M.H. Mather, B.K. Schroeder, J.D. Steventon, J.E. Duncan, P. Arcese, and E. Selak. 2004. Application of radar surveys in the management of nesting habitat of Marbled Murrelets *Brachyramphus marmoratus*. Marine Ornithology. 32:1-11.

Chen, J., J.F. Franklin, and T.A. Spies. 1992. Vegetation responses to edge environments in old-growth Douglas-fir forests. Ecological Applications, 2(4):387-396.

Coffin, A.W. 2007. From roadkill to road ecology: a review of the ecological effects of roads. Journal of Transport Geography 15:396–406.

Cortese. L. 2011. Picking Patches: What Is the Utility of Habitat Fragmentation in Determining Habitat Use By Local Populations Of The Marbled Murrelet, *Brachyramphus Marmoratus*? Master's Thesis, Simon Fraser University, British, Columbia, Canada.

Davis, R.J., K.M. Dugger, S. Mohoric, L. Evers, and W.C. Aney. 2011. Northwest Forest Plan—the first 15 years (1994–2008): status and trends of northern spotted owl populations and habitats. Gen. Tech. Rep. PNW-GTR-850. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 147 pp.

Dean, W.R.J, and S.J. Milton. 2003. The importance of roads and road verges for raptors and crows in the Succulent and Nama-Karoo, South Africa. Journal of African Ornithology 74 (3-4):181-186.

Desimone, S. M. 2016. Periodic status review for the Marbled Murrelet in Washington. Washington Department of Fish and Wildlife, Olympia, Washington. 28+iii pp.

Evans Mack, D., W.P. Ritchie, S. Nelson, E. Kuo-Harrison, P. Harrison, and T.E. Hamer, eds. 2003. Methods for surveying marbled murrelets in forests: a revised protocol for land management and research. Pacific Seabird 27 Group.

Falxa, G.A., M.G. Raphael, C. Strong, J. Baldwin, M. Lance, D. Lynch, S.F. Pearson, and R.D. Young. 2016. Status and Trend of Marbled Murrelet Populations in the Northwest Forest Plan Area. Chapter 1 in Falxa, G.A., and M.G. Raphael, tech. coord. 2016. Northwest Forest Plan—The first 20 years (1994-2013): status and trend

[2] This memorandum cites and relies on documents that are too large to be attached. These documents will be submitted to the SEPA Center on a CD by March 9, 2017. This memorandum incorporates those documents by reference, and we request DNR to consider them as part of our comments for SEPA File No. 12-042001.

of marbled murrelet populations and nesting habitat. Gen. Tech. Rep. PNW-GTR-933. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

Forman, R.T.T., and L.E. Alexander. 1998. Roads and their major ecological effects. Annu. Rev. Ecol. Syst. 29:207–231.

Franklin, J., and C. Dyrness, C. 1988. Natural vegetation of Oregon and Washington. Oregon State University Press, Corvallis, OR.

Gilpin, M.E., and M. E. Soulé. 1986. Minimum Viable Populations: Processes of Species Extinction. In M.E. Soulé. Conservation Biology: The Science of Scarcity and Diversity. Sinauer, Sunderland, Mass. pp. 19–34.

Golighty, R.T., C.D. Hamilton, and P.N. Hebért. 2009. Characteristics of Marbled Murrelet (*Brachyramphus marmoratus*) habitat in northern California. Report to the National Parks Service, Orick, California and California Department of Fish and Game, Sacramento. California. 49 pp.

Gucinski, H., Furniss, M.J., Ziemer, R.R., Brookes, M.H., 2001. Forest roads: A Synthesis of Scientific Information. USDA Forest Service Pacific Northwest Research Station, General Technical Report. PNW GTR-509. 120 pp.

Halofsky, J.E., D.L. Peterson, K.A. O'Halloran, C. Hawkins Hoffman, eds. 2011. Adapting to climate change at Olympic National Forest and Olympic National Park. Gen. Tech. Rep. PNW-GTR-844. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 130 p.

Hébert, P. N. and R. T. Golightly. 2006. Movements, nesting, and response to anthropogenic disturbance of Marbled Murrelets (*Brachyramphus marmoratus*) in Redwood National and State Parks, California. Unpublished report, Department of Wildlife, Humboldt State University, Arcata, California and California Department of Fish and Game Report 2006-02, Sacramento, California.

Hull, C.L., G.W. Kaiser, C. Lougheed, L. Lougheed, S. Boyd, and F. Cooke. 2001. Intraspecific variation in commuting distance of marbled murrelets (*Brachyramphus marmoratus*): ecological and energetic consequences of nesting further inland. The Auk 118(4):1036-1046.

Kristan III, W.B., W.I. Boarman, and J. J. Crayon. 2004. Diet composition of common ravens across the urban-wildland interface of the West Mojave Desert. Wildlife Society Bulletin 32(1):244–253

Kuletz, K.J. 2005. Foraging behavior and productivity of a non-colonial seabird, the marbled murrelet (*Brachyramphus marmoratus*), relative to prey and habitat. Dissertation, University of Victoria. 195 pp.

Lance, M.M., and S.F. Pearson. 2016. Washington 2015 at-sea Marbled Murrelet population monitoring: Research Progress Report. Washington Department of Fish and Wildlife, Wildlife Science Division, Olympia.

Littell, J.S., E.E. Oneil, D. McKenzie, J.A. Hicke, J.A. Lutz, R.A. Norheim, and M.M. Elsner. 2010. Forest ecosystems, disturbance, and climatic change in Washington State, USA. Climatic Change 102:129-158.

Lorenz, T.J., M.G. Raphael, T.D. Bloxton, and P.G. Cunningham. 2016. Low breeding propensity and wide-ranging movements by marbled murrelets in Washington. Journal of Wildlife Management 81:306–321.

Malt, J.M. and D.B. Lank. 2007. Temporal dynamics of edge effects on nest predation risk for the marbled murrelet. Biological Conservation 140:160-173.

Manley, I.A. and S.K. Nelson. 1999. Habitat characteristics associated with nest success and predation at Marbled Murrelet tree nests (Abstract). Pacific Seabirds 26:40.

Marzluff, J.M.M., and E. Neatherlin. 2006. Corvid response to human settlements and campgrounds: Causes, consequences, and challenges for conservation. Biological Conservation 130:301–314.

McShane, C., T. Hamer, H. Carter, G. Swartzman, V. Friesen, D. Ainley, R. Tressler, K. Nelson, A. Burger, L. Spear, T. Mohagen, R. Martin, L. Henkel, K. Prindle, C. Strong, and J. Keany. 2004. Evaluation report for the 5-year status review of the marbled murrelet in Washington, Oregon, and California. EDAW, Inc. Seattle, Washington. Prepared for the U.S. Fish and Wildlife Service, Region 1. Portland, Oregon. 272 p.

Meyer, C.B., S.L. Miller, and C.J. Ralph. 2002. Multi-scale landscape and seascape patterns associated with marbled murrelet nesting areas on the U.S. west coast. Landscape Ecology 17:95–115.

Meyer, C.B., S.L. Miller, and C.J. Ralph. 2004. Stand-scale habitat associations across a large geographic region of an old-growth specialist, the marbled murrelet. Wilson Bulletin 116:197–210.

Miller, S.L., M.G. Raphael, G.A. Falxa, C. Strong, J. Baldwin, T. Bloxton, B.M. Galleher, M. Lance, D. Lynch, S.F. Pearson, C.J. Ralph, and R.D. Young. 2012. Recent population decline of the marbled murrelet in the Pacific Northwest. Condor. 114:771–781.

Nelson, S.K. 1997. Marbled Murrelet *Brachyramphus marmoratus*. The Birds of North America, No. 276 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, PA, and The American Ornithologists' Union, Washington, D.C.

Nelson, S.K., and T.E. Hamer. 1995. Nest success and the effects of predation on marbled murrelets. Pp. 89-97 in Ecology and conservation of the Marbled Murrelet (C.J. Ralph, G.L. Hunt, Jr., M.G. Raphael and J.F. Piatt, eds.). Gen. Tech. Rep. PSW-GTR-152, Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Dept. Agriculture.

NWCG. 2003. Guidance on Minimum Impact Suppression Tactics. In Response to the 10-Year Implementation Plan for Reducing Wildland Fire Risks to Communities and the Environment. 7 pp.

Peery, M.Z. and G.M. Jones. 2016. Using Population Viability Analyses to Assess the Potential Effects of Washington DNR Forest Management Alternatives on Marbled Murrelets. Unpublished report submitted to DNR. 86 pp.

Raffensperger C. and J. Tickner, eds.1999. Protecting Public Health and the Environment: Implementing the Precautionary Principle. Washington, DC: Island Press.

Raphael, M.G. 2016. Review Comments on M.Z. Peery and G.M. Jones. Using Population Viability Analysis to Assess the Potential Effects of Washington DNR Forest Management Alternatives on Marbled Murrelets. Raphael Ecological Consulting, LLC, Washington.

Raphael, M.G., A.J. Shirk, G.A. Falxa, and S.F. Pearson. 2015. Habitat associations of Marbled Murrelets during the nesting season in nearshore waters along the Washington to California coast. Journal of Marine Systems 146:17–25.

Raphael, M.G., A.J. Shirk, G.A. Falxa, D. Lynch, S.K. Nelson, S.F. Pearson, C. Strong, and R.D. Young. 2016. Factors Influencing Status and Trend of Marbled Murrelet Populations: An Integrated Perspective. Chapter 3 in Falxa and Raphael Northwest Forest Plan—The first 20 years (1994-2013): status and trend of marbled murrelet populations and nesting habitat. Gen. Tech. Rep. PNW-GTR-933. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

Raphael, M.G., D. Evans Mack, J.M. Marzluff, and J.M. Luginbuhl. 2002. Effects of forest fragmentation on populations of the marbled murrelet. Studies in Avian Biology 25:221-235.

Raphael, M.G., G.A. Falxa, and A.E. Burger. In Review. Chapter 5: Marbled Murrelet In Synthesis of Science to Inform Land Management Within the Northwest Forest Plan Area. Tech. coord. T. Spies, P. Stine, R. Gravenmier, J. Long, and M. Reilly. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 83 pp.

Raphael, M.G., G.A. Falxa, K.M. Dugger, B.M. Galleher, D. Lynch, S.L. Miller, S.K. Nelson, and R.D. Young. 2011. Northwest Forest Plan—The first 15 years (1994–

2008): Status and trend of nesting habitat for the marbled murrelet. Gen. Tech. Rep. PNW-GTR-848. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 52 pp.

Raphael, M.G., S.K. Nelson, P. Swedeen, M. Ostwald, K. Flotlin, S. Desimone, S. Horton, P. Harrison, D. Prenzlow Escene, and W. Jaross. 2008. Recommendations and Supporting Analysis of Conservation Opportunities for the Marbled Murrelet Long-Term Conservation Strategy. Washington State Department of Natural Resources, Olympia, WA.

Scarpignato, A.L., and T.L. George. 2013. Space use by Common Ravens in Marbled Murrelet nesting habitat in northern California. Journal of Field Ornithology 84:147–159.

Seiler, A. 2001. Ecological Effects of Roads—A Review. Introductory Research Essay. SLU—Department of Conservation Biology, Uppsala, Sweden.

Shaffer, M.L. 1981. Minimum population sizes for species conservation. Bio-Science 31: 131-134.

Shaffer, M.L. 1985. The metapopulation and species conservation: the special case of the northern spotted owl. In: Gutiérrez Ralph J.; Carey, Andrew B., tech. eds. Ecology and management of the spotted owl in the Pacific Northwest. Gen. Tech. Rep. PNW-185. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Forest and Range Experiment Station: 86-99.

Snover, A.K, G.S. Mauger, L.C. Whitely Binder, M. Krosby, and I. Tohver. 2013. Climate Change Impacts and Adaptation in Washington State: Technical Summaries for Decision Makers. State of Knowledge Report prepared for the Washington State Department of Ecology. Climate Impacts Group, University of Washington, Seattle.

Spellerberg, I.F. 1998. Ecological effects of roads and traffic: a literature review. Global Ecology and Biogeography 7:317–333.

Sutherland, G.D. 2017. Peer Review of population viability analyses to assess the potential effects of Washington DNR Forest Management Alternatives on Marbled Murrelets. Wildlife Infometrics Inc. Report No. 566. Wildlife Infometrics Inc., Mackenzie, British Columbia, Canada.

U.S. Department of Agriculture, Forest Service, U.S. Department of the Interior, Bureau of Land Management (USDA and USDI). 1994. Record of decision for amendments to Forest Service and Bureau of Land Management planning documents within the range of the northern spotted owl. Standards and guidelines for management of habitat for late-successional and old-growth forest related species within the range of the northern spotted owl. 74 pp.

U.S. Fish and Wildlife Service (USFWS). 1997. Recovery plan for the threatened Marbled Murrelet (*Brachyramphus marmoratus*) in Washington, Oregon, and California. Portland, OR: U.S. Fish and Wildlife Service, Region 1. 202 pp.

U.S. Fish and Wildlife Service (USFWS). 2012a. Revised In-Air Disturbance Analysis for Marbled Murrelets. Washington Fish and Wildlife Office, Lacey, Washington. 14 pp.

U.S. Fish and Wildlife Service (USFWS). 2012b. Marbled Murrelet Nesting Season and Analytical Framework for Section 7 Consultation in Washington. Washington Fish and Wildlife Office, Lacey, Washington. 10 pp.

U.S. Fish and Wildlife Service (USFWS). 2016. Endangered Species Act - Section 7 Consultation, Biological Opinion. Navy's Northwest Training and Testing Activities Offshore Waters of Northern California, Oregon, and Washington, the Inland Waters of Puget Sound, and Portions of the Olympic Peninsula. Washington Fish and Wildlife Office, Lacey, Washington, 573 pp.

van Mantgem, P.J., N.L. Stephenson, J.C. Byrne, L.D. Daniels, J.F. Franklin, P.Z. Fule, M.E. Harmon, A.J. Larson, J.M. Smith, A.H. Taylor, and T.T. Veblen. 2009. Widespread increase of tree mortality rates in the western United States. Science 323:21 521-524.

Washington Department of Natural Resources (DNR). 1997. Final Habitat Conservation Plan, September 1997. Washington Department of Natural Resources, Olympia, Washington.

Webb, W., J.M. Marzluff, and J. Hepinstall-Cymerman. 2011. Linking resource use with demography in a synanthropic population of Common Ravens. Biological Conservation 144(9):2264-2273.

Wilk, R.J., M.G. Raphael, and T.D. Bloxton. 2016. Nesting habitat characteristics of marbled murrelets occurring in near-shore waters of the Olympic Peninsula, Washington. Journal of Field Ornithology 87:162–175.

Zharikov Y., D.B. Lank, F. Cooke. 2007. Influence of landscape pattern on breeding distribution and success in a threatened Alcid, the marbled murrelet: model transferability and management implications. Journal of Applied Ecology 44:748–759.

Zharikov, Y., D.B. Lank, F. Huettmann, R.W. Bradley, N. Parker, P. P.-W. Yen, L. McFarlane Tranquilla and F. Cooke. 2006. Habitat selection and breeding success in a forest-nesting Alcid, the marbled murrelet, in two landscapes with different logging histories in south-western Canada. Landscape Ecology 21:107–120.

ATTACHMENT 2

MEMORANDUM

DATE: March 9, 2017

TO: Lily Smith, SEPA Responsible Official; Washington Board of Natural Resources; Washington Department of Natural Resources; U.S. Fish and Wildlife Service

FROM: Bert Loosmore, Ph.D. and Derek Churchill, Ph.D.

Re: Comments on the Draft Environmental Impact Statement for the Washington Department of Natural Resources' Long-Term Conservation Strategy for the Marbled Murrelet (DNR SEPA File 12-042001)

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Thank you for considering the following comments on the Draft Environmental Impact Statement ("DEIS") for the Marbled Murrelet Long-Term Conservation Strategy ("LTCS"). These comments have been prepared by Dr. Bert Loosmore, independent consultant, and Dr. Derek Churchill, Stewardship Forestry & Science. Our objective was to evaluate the economic impact of the Conservation Alternative, as defined in the LTCS DEIS comment letter submitted by Dr. Kara Whittaker and Dr. David Lank, as well as to identify possible avenues to minimize adverse impacts to the trust beneficiaries with the Conservation Alternative implemented as the LTCS. Our analysis was limited to the change in annual trust revenue due to the change in operable acres between the No Action Alternative (A) and the Conservation Alternative plus a sensitivity analysis of two parameters in DNR's economic model.

Conservation Alternative Impacts

In order to protect all current and future marbled murrelet habitat, the Conservation Alternative shifts certain acres out of the GEMS (Uplands with general restrictions), Uplands (with special restrictions), and Riparian land classes and into the Deferred land class (Table 1). Additional deferrals include 150 meter buffers around occupied sites and other old forest stands (the latter in the Olympic Experimental State Forest).

Table 1. Summary results of total acres by land class for Alternative A and the Conservation Alternative. Note, the slight difference of total acres results from the GIS processing algorithm and is assumed to be negligible.

Land Class	Alt. A	Conservation Alt.	Change (acres)
Deferred	452,422	679,326	226,904
GEMS	423,802	313,851	(109,952)
Uplands	284,582	275,517	(9,065)
Riparian	215,937	108,856	(107,081)
Total	1,376,744	1,377,550	

To determine the operable acres of the Conservation Alternative, the above land classes were initially weighted consistent with DNR's methodology (DEIS 4.11). After applying DNR's land class weights, the total operable acres for the Conservation Alternative is 408,989 compared with 525,407 for Alternative A, a reduction of approximately 22% (Table 2; compare with table 4.11.2 of the DEIS). This includes a 16% decrease in operable acres for the Federally Granted Trust Lands and a 24% decrease in operable acres for the State Forest Trust Lands. These are relatively greater impacts to the trust beneficiaries than the five DEIS action alternatives (B-F), and at this scale these impacts do not meet the 25% "adverse" impact threshold (as defined by DNR), though they do decrease revenues in Pacific and Wahkiakum Counties. These impacts are not surprising given the relatively larger area of deferrals under the Conservation Alternative (Table 1).

Table 2. Comparison of total operable acres, percent change in annual revenues, and actual change in annual revenues.

	Alt. A	Alt. F	Conservation Alt.
Operable acres	525,407	484,404	408,989
% change from Alt. A		-8%	-22%
Change in annual revenues		$9 million	$26 million

Sensitivity Analysis

In order to explore possible scenarios that decrease the economic impact of the Conservation Alternative as well as to better understand how sensitive DNR's economic model is to the parameters used to calculate operable acres, we conducted a sensitivity analysis. First, we evaluated the economic impact of a higher volume of thinning in the Uplands land class than the light thinning regime (1/3 weight) DNR applied. Our experience and analysis of forestlands in western WA[1] indicates that more aggressive thinning and uneven-age management regimes can achieve revenue generation that is closer to a Variable Retention harvesting approach than 1/3. This is especially the case when starting out with a balanced age class distribution that has a significant proportion of acres that are of commercial age and size class, such as the DNR lands in the murrelet analysis area.

To evaluate the economic impact of a higher thinning volume, we separated the Uplands land class into those areas that are part of designated Conservation Areas ("CA": Alt. E and F Marbled Murrelet Management Areas, Special Habitat Areas, and Emphasis Areas combined) from those that are not. The Conservation Alternative contains 275,517 acres designated as Uplands within the analysis area,

[1] As an example, Carey et al (1999) found that thinning regimes achieved 82% of the Net Present Value revenue of a production forestry approach. Carey, A. B., B. R. Lippke, and J. Sessions. 1999. Intentional systems management: managing forests for biodiversity. Journal of Sustainable Forestry 9(3/4):83–125.

plus another 64,426 outside the analysis area[2]. Of this, 113,247 acres are within CAs and thus 226,696 acres are not. When we set the thinning rate for Upland acres not in CAs at a weighting of 2/3, leaving Alt. A as it currently is and leaving Uplands in CAs set at a weighting of 1/3, the difference in revenue between Alt. A and the Conservation Alternative is reduced from $26 million to $7.4 million. We chose a 2/3 weighting as an upper limit only outside of CAs to ensure thinning within CAs retains windfirm "security forest" conditions (closed-canopy stands over 80 feet tall; DEIS p. 2-15) that effectively buffer murrelet habitat from harmful edge effects.

Second, we explored how a change in assumed rotation length might influence the overall impact on timber trust revenues. In the DEIS, DNR did not analyze rotation length *per se*, but rather assumed a harvest rate of 1/50 of the operable acres each year (the inverse of rotation). When we applied a shorter, 40-year harvest rotation (i.e., assume 1/40th of lands are harvested in any year) to the GEMS land class for the Conservation Alternative and assumed Alt. A remains the same (as it would under a true no action alternative), the difference in revenue with Alt A. is reduced to $5.9 million. This is independent of the above result on thinning volumes.

These results suggest there are a number of possible solutions to either reduce or eliminate the revenue difference between Alt. A and the Conservation Alternative, particularly through a combination of increased thinning volumes on non-CA Uplands and shorter rotations in the GEMS land class (Fig. 1)[3]. To interpret this graph, each line shows a constant value of total revenue difference between Alt. A and the Conservation Alternative between $0 and $15 million. So, for example, to achieve a $5 million difference, if we chose a high thinning rate (weighting) of 0.5 for the Uplands outside of CAs, we would need a to harvest 1/44th of the GEMS lands in any given year (here depicted as a 44 year rotation). Similarly, no difference in revenue between Alt. A and the Conservation Alternative is theoretically achievable by thinning 2/3 of the volume of Uplands outside of CAs and harvesting 1/45th of the GEMS lands (or a 45 year rotation) in a given year.

[2] DNR reported to us (in an email from Kirk Davis (DNR) to Kara Whittaker (WFLC) on 2/15/2017) that a total of 1,570,756 acres were included in DNR's economic analysis, which is more than the 1,377,479 acres of DNR lands within the MM analysis area described in App. M of the DEIS (table M-1). This was done to avoid inflating or skewing the impacts to the trusts as a percentage change in revenue per beneficiary.

[3] As above, this analysis assumes operability on ~193,000 acres of trust lands outside the marbled murrelet analysis area.

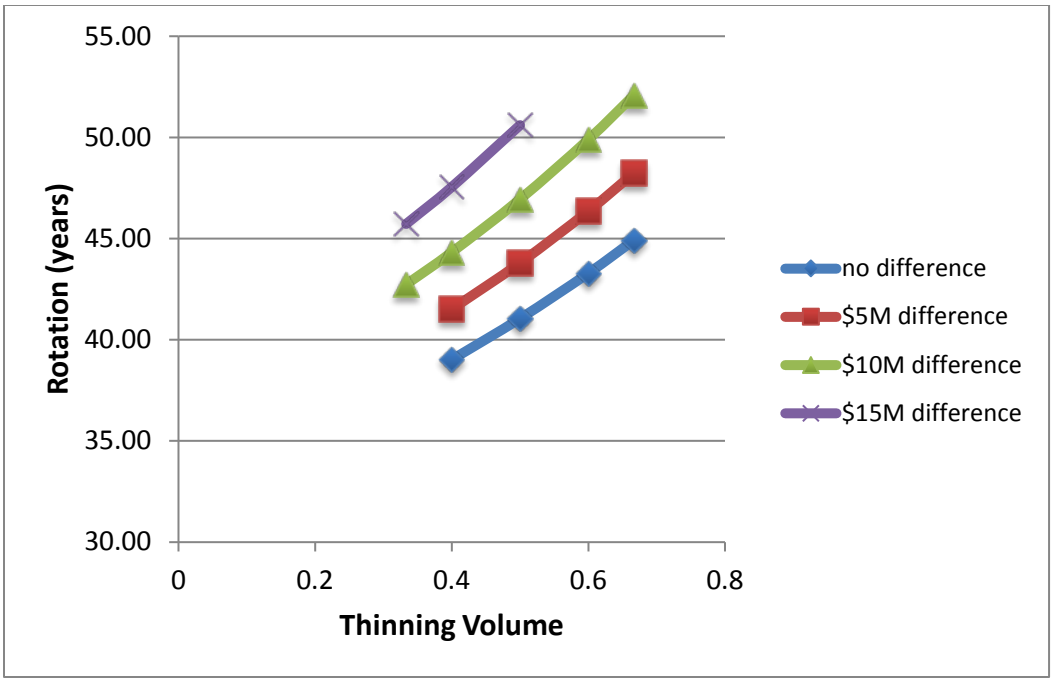

Fig. 1. Difference in revenue between Alt. A and the Conservation Alternative under various assumptions of rotation length (inverse of annual harvest rate) and thinning volume (outside of Conservation Areas). This analysis includes all 1.57 million acres DNR included in their economic analysis, including ~193,000 acres outside of the DEIS analysis area.

To be more consistent with DNR's methodology, we re-ran the sensitivity analysis to evaluate the difference in revenues only considering the 1.38 million acres of lands within the marbled murrelet analysis area. This resulted in fewer possible solutions to achieve similar differences in annual revenues (i.e., either a higher thin rate of non-CA Uplands and/or higher percent of annual harvest or shorter rotation of GEMS lands is needed). Although this reduced the options available (Fig. 2), there are still solutions that allow for no net difference between Alternative A and the Conservation Alternative with a greater than 40 year rotation on GEMS lands and a less than 2/3 thin rate in Uplands outside of CAs.

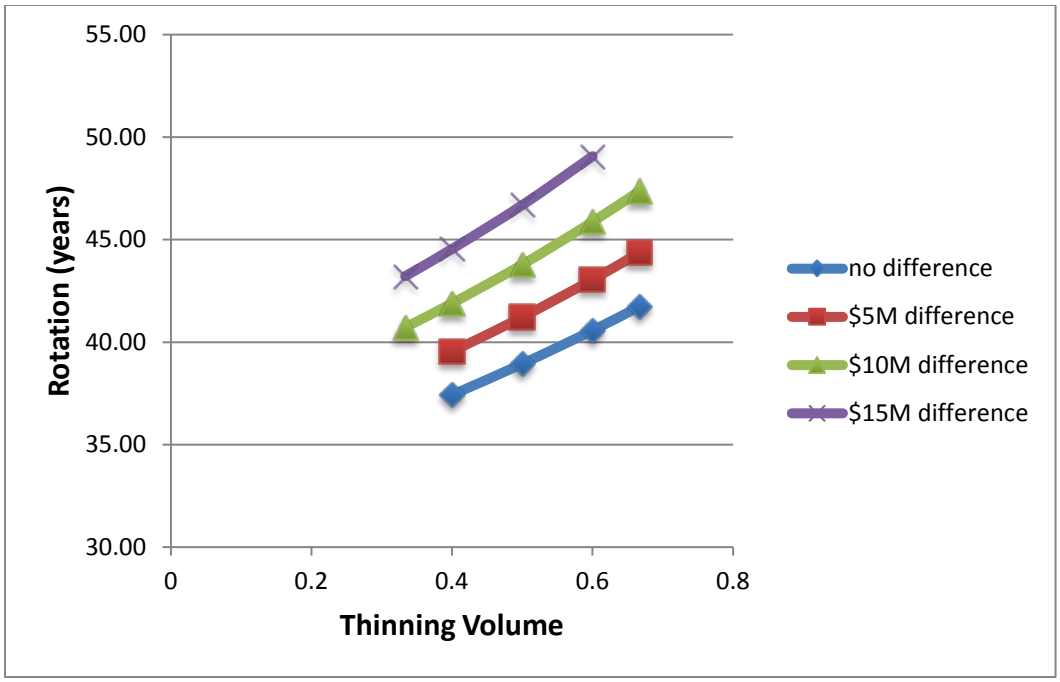

Fig. 2. Difference in revenue between Alt. A and the Conservation Alternative under various assumptions of rotation length (inverse of annual harvest rate) and thinning volume (outside of Conservation Areas). This analysis includes only the 1.38 million acres in the marbled murrelet analysis area.

Additionally, as a clarification, using 'Rotation (years)' for the Y-axis in the above sensitivity analyses may not be the most informative approach. The inverse of rotation length is the percent of total lands harvested in a given year, assumed by DNR to be 1/50th or 2% of the land base. Hence it may be more informative for this analysis to consider the percent of GEMS harvested annually (Fig. 3). According to this analysis, while implementing the Conservation Alternative as the LTCS, DNR could conceivably harvest 2.4% of GEMS per year, thin 2/3 of the volume of Uplands outside of CAs, and achieve no difference in revenue between Alt. A.

We believe a higher harvest rate of GEMS outside of Long-Term Forest Cover ("LTFC") may be appropriate for the first decade of LTCS implementation (consistent with the Adaptive Management provisions of the Conservation Alternative), though the decadal harvest level also depends on the results of the Sustainable Harvest Calculation. Forest age class data generously provided by DNR[4] show that ~99,000 acres of GEMS are currently between 41-80 years old, and (if appropriate and necessary) for the following decade there are ~61,000 acres of GEMS currently in the 31-50 age class. Although some of these acres would likely be deferred under the Conservation Alternative, we

[4] From Kirk Davis (DNR) to Kara Whittaker (WFLC) on 2/28/2017.

recommend that DNR consider the possibility of harvesting GEMS outside of LTFC at a higher annual rate to maximize benefits to murrelets inside LTFC *under the Conservation Alternative*.

As a final note, this analysis is based on a few assumptions. First, we assume that the stocking/inventory level of GEMS lands is high enough to allow for ten years of harvest at the given rate (which seems reasonable given DNR's age class data). Second, we assume that the Uplands outside of the CAs have a stocking/inventory level that will allow for higher thin rates without other damaging impacts. Analysis of additional data on stocking levels in these specific stands would be necessary to confirm the validity of our approach.

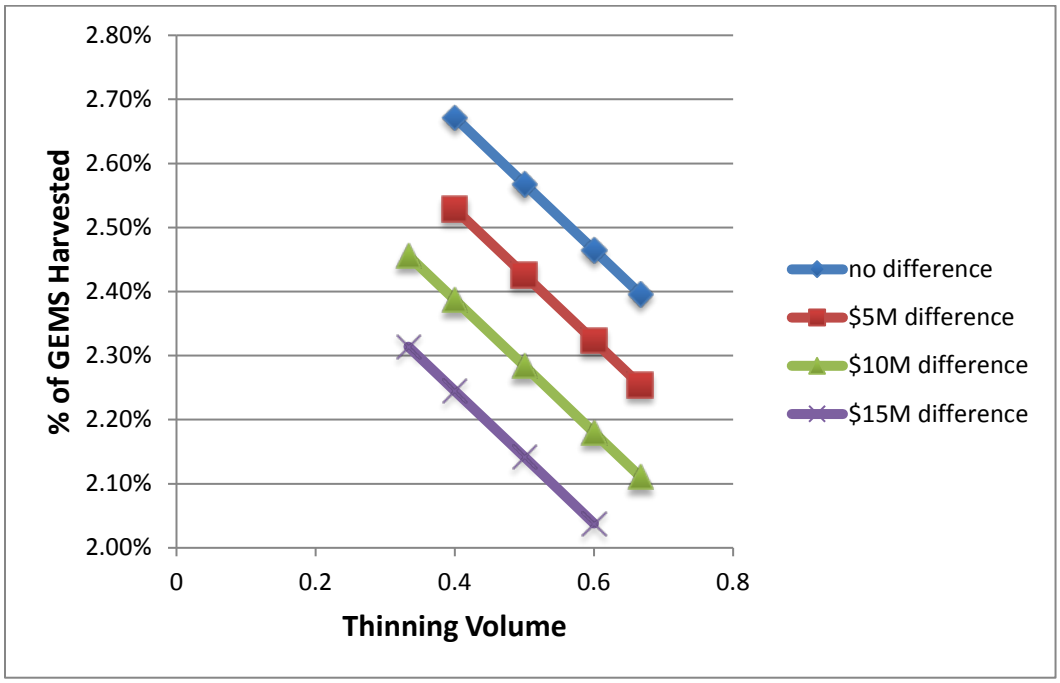

Fig. 3. Difference in revenue between Alt. A and the Conservation Alternative under various assumptions of the percent of GEMS harvested per year and thinning volume (outside of Conservation Areas).

However, DNR's forest age class and past harvest data demonstrate that shifting the timber revenue analysis assumptions is certainly within the range of possibility on the ground. For instance, between 2004 and 2016, Uplands (with specific objectives) were thinned to a volume (or weighting) of 0.5 per acre compared to GEMS, meaning Uplands are under-weighted in the DEIS analysis with a weight of 1/3. DNR's forest age class data show a total of ~311,000 acres within the marbled murrelet analysis area are currently in the Uplands land class, 31% (~97,000 acres) of which are between 50 and 100 years old. While some of these acres would likely be deferred under the Conservation Alternative or may have specific objectives inconsistent with heavy thinning (i.e., for northern spotted owl management), these opportunities should be evaluated. With respect to rotation age, variable retention harvests on DNR lands in the last five fiscal years (FY 2012-16) in western Washington

included 2,047 acres in the 40-49 year old age class, demonstrating rotations shorter than 50 years are already being conducted to a certain extent. An internal DNR analysis showed an economic optimal rotation age around 40 years (Net Present Value $1,512/acre)[5]. While longer rotations generally provide greater ecological and other benefits, in this situation we recommend DNR consider rotations as short as 40 years outside of LTFC *under the Conservation Alternative* to maximize benefits to murrelets inside LTFC.

Conclusion

In summary, we've demonstrated promising forest management opportunities worthy of further evaluation. Our intent here is not to define a specific solution for DNR, but instead to show that a reduction in the difference in revenues between Alt. A and the Conservation Alternative is possible through a combination of changing assumptions and approaches. *We request that DNR analyze the economic impacts of the Conservation Alternative on the Federally Granted Trust Lands and State Forest Trust Lands to determine an optimal approach (i.e. set of assumptions) which finds no or minimal adverse impacts to any trust beneficiaries.* Specifically, an optimization model should be able to determine if a solution exists that satisfies all the constraints of (i) no adverse impacts to any trust beneficiary AND (ii) implementation of the Conservation Alternative while simultaneously minimizing the revenue difference between Alt. A and the Conservation Alternative by adjusting the timing and choice of which lands are harvested and at what rates during the next decade. This analysis should test various approaches within the ~1.57 million acres of DNR lands (some of which extend outside of the murrelet analysis area, like Fig. 1) including areas outside of LTFC and *not change the existing assumptions for Alt. A-F*. The possible approaches we've described represent a tradeoff of sorts for implementing the Conservation Alternative, intended to avoid adverse impacts to the murrelet population and the trust beneficiaries alike.

Beyond the generalized analysis presented here and in the DEIS, a more detailed exploration of possible approaches is warranted using a harvest schedule model that includes current stand inventory, as DNR intends to do as part of the forthcoming Sustainable Harvest Calculation (DEIS p. 4-83). A more sophisticated forest modeling of the DEIS Alternatives and Conservation Alternative would provide a higher level of certainty for trust beneficiaries as to the tradeoffs involved.

Thank you for considering the creative solutions we've generated to close the gap in revenue for the trust beneficiaries created by the Conservation Alternative. We hope that DNR can determine a win-win situation for the beneficiaries *and* the murrelet by shifting some of the economic assumptions and corresponding forest management for the Conservation Alternative. We also suggest that other DNR policies and programs (i.e., Forest Trust Lands Transfer Program) be evaluated to address revenue issues.

[5] Email from Angus Brodie (DNR) to Vince Harke (USFWS) on 8/26/2015.

ATTACHMENT 3

March 9, 2017

Via electronic mail

The Honorable Hilary Franz
Commissioner of Public Lands
Washington Department of Natural Resources
PO Box 47001
Olympia, WA 98504-7001

Lily Smith, SEPA Responsible Official
Department of Natural Resources
SEPA Center
PO Box 47105
Olympia, WA 98504
sepacenter@dnr.wa.gov

Re: SEPA File No. 15-012901
The Marbled Murrelet Coalition's Comments on the Sustainable Harvest Calculation and Draft Environmental Impact Statement

Dear Commissioner Franz, Ms. Smith and the Staff of the Department of Natural Resources:

Thank you for considering the following comments on the Sustainable Harvest Calculation ("SHC") and the associated draft environmental impact statement ("DEIS"). We are non-profit conservation organizations seeking to protect and restore Washington's native ecosystems and biodiversity.

I. Introduction

While we appreciate the hard work that staff have put into the DEIS, substantial additional analysis is required, as well as further consideration of how to effectively integrate Washington Department of Natural Resources (DNR)'s multiple planning processes.

We encourage DNR to use the new SHC as an opportunity to modernize its management of State forest lands and to creatively reconcile the agency's often dueling mandates to protect biodiversity and clean water while providing value for trust beneficiaries. As identified in this comment letter, there are many mechanisms available to DNR to better integrate forestry and environmental protection. SEPA provides a valuable tool to assess the viability and impacts of a variety of mechanisms.

We believe that DNR should focus on returning value, as opposed to volume, for trust beneficiaries. Value may take a variety of forms. As one example that captures many of the concerns below, DNR should consider not including riparian volume as necessary for attaining the sustainable harvest target, but instead use contract logging and sort sales to carry out ecological thinning in riparian buffers in Wahkiakum, Pacific, and Clallam Counties. This could deliver value to trust beneficiaries through some timber volume, local logging jobs, and associated taxes. Focusing on the listed counties would help to mitigate for the economic impacts of marbled murrelet conservation. At the same time, it would attain compliance with requirements in the Trust Lands Habitat Conservation Plan, by designing harvest for restoration rather than to meet the needs of commercial timber sales. This sort of solution is not captured by the DEIS but should be.

As stakeholders in DNR's management, we are ready to help however possible. We recognize that tension between fiduciary obligations and legal requirements to protect environmental resources has long been building, but believe that the mechanisms are available to find solutions. The change in administration and culmination of the marbled murrelet and sustainable harvest calculation planning processes provides a window of opportunity to modernize management. This will require political leadership and creativity. We encourage Commissioner Franz to convene a high-level task force to address the short-term and long-term need to deliver steady and sufficient revenue to Washington schools and counties, while making good on the legal and moral responsibility to protect biodiversity, salmon, and clean water.

II. Planning Policies and Sequencing

The SHC is only as accurate and useful as the policies it is based upon. To the extent it relies upon inadequate or obsolete policies it is itself inadequate and obsolete. The SHC process faces a significant challenge, in that it relies on two policy documents that are out of date: the Policy for Sustainable Forests, which was supposed to be updated in approximately 2011, and the State Trust Lands HCP, which was supposed to include a marbled murrelet long-term strategy in approximately 2002.

We recognize the need to work through the backlog of planning processes, but urge DNR to adopt a stepwise approach which first tackles the policies that shape the SHC, and then calculates the SHC based on those revised policies. RCW 43.30.215 authorizes the Board of Natural Resources to establish policies concerning the management of forest lands within the Department's jurisdiction. The policies themselves also direct revision and completion prior to calculation of this SHC. In order to comply with the directives in those policies in accordance with "Objective 4" it would be necessary to complete revisions to the policies as soon as possible, prior to completion of the SHC.

Absent pausing the SHC process, the only other viable approach is to hold current marbled murrelet and Policy for Sustainable Forests protections and restrictions in place for all SHC alternatives, and to commit to revising the SHC when the needed policy revisions are complete. We address those two policies below.

A. The Policy for Sustainable Forests

The 2006 Policy for Sustainable Forests (PSF) requires that the department utilize a monitoring program and report to the Board of Natural Resources annually on implementation. The PSF states in part on page 50:

> As needed, the department will recommend changes in policy to the Board of Natural Resources due to changes in law, scientific knowledge, new information or other circumstances. At five-year intervals, the department will perform a substantive review of the Policy for Sustainable Forests. In reporting to the Board of Natural Resources and the public, the department will present clear and succinct information on the Policy for Sustainable Forests.

The precedent for the Board of Natural Resources (BNR) has been to carefully consider sustainable forestry policies every 10 years or so, to coincide with the need to recalculate the SHC. The Policy for Sustainable Forests on State Trust Lands (2006a) was written to replace the Forest Resource Plan (1992). The update was necessary to reflect among other reasons the multi-species Habitat Conservation Plan (1997).

It is clearly time for BNR to update the Policy for Sustainable Forests in the near term, as it does not address climate change in any way or the potential for revenue from sources other than logging of State trust lands.

The Policy also precedes the litigation and settlement of the Oso/Hazel landslide case. The Oso/Hazel landslide brought into focus the public safety risk of certain logging practices, as well as the financial risk to the State. The approximately $50 million settlement raises previously unanswered questions regarding trust responsibility, particularly the allocation of risk. If certain timber practices raise money for trust beneficiaries, but endanger State residents and risk State resources, must DNR still carry those sales out? Beyond compliance with Forest Practices Rules, when may DNR use its discretion to take a precautionary approach in areas close to human populations or fragile ecological resources (such as Steelhead Lane and the several runs of threatened salmon in the Stillaguamish River)?

Carbon markets, climate resilience, and public safety are all issues that implicate SHC volume and raise previously unexplored questions regarding DNR's fiduciary obligations. These decisions require clear policy consideration and guidance from DNR, potentially including legal guidance from the State Attorney General's Office. We urge DNR to revise the expired PSF as soon as possible.

B. The Marbled Murrelet Long-Term Conservation Strategy

The State Trust Lands HCP put into place an "interim strategy" for marbled murrelets to commence in 1997, with a clear expectation that a marbled murrelet long-term conservation strategy (LTCS) would be completed by approximately 2002. The 2004 SHC projected that the LTCS would be completed by 2007, and planned harvests accordingly. That inaccurate projection has resulted in significant arrearage. *See* DEIS at C-9 ("For the FY 2005 – 2015 sustainable harvest calculation, the department assumed that the long-term conservation strategy would be completed during the decade. 148,000 acres were held in long- and short-term deferrals. The lack of a long-term conservation strategy impacted deliverables.") DNR has now released a DEIS for the LTCS, but that is only the beginning of a long process. *See* DEIS at 1-13. Given the considerable time required to review comments (it appears there are at least 4,000 comments already on the LTCS DEIS), prepare a final environmental impact statement (FEIS), and go through the approval process with the U.S. Fish and Wildlife Service (USFWS), it appears unlikely that the BNR will approve a final LTCS before 2019 at the earliest.

Throughout consideration of the LTCS, DNR must protect all of the areas proposed for restrictions under each of the LTCS alternatives. SEPA regulation WAC 197-11-070 states in part that:

> (1) Until the responsible official issues a final determination of nonsignificance or final environmental impact statement, no action concerning the proposal shall be taken by a governmental agency that would:
> (a) Have an adverse environmental impact; or
> (b) Limit the choice of reasonable alternatives.

The murrelet LTCS SEPA process is ongoing, which means that DNR may not conduct forestry in any of the areas restricted from harvest in any of the proposed LTCS alternatives (Alternatives A-F) until the completion of an FEIS. *See* WAC 197-11-070(1)(a). DNR may also not take actions in the SHC planning process that would unduly influence or limit the choice of alternatives in the LTCS process. WAC 197-11-070(1)(b).

If DNR selects a marbled murrelet alternative in the SHC process, a violation of SEPA will likely ensue. The selection of an alternative in the SHC process will create pressure on the BNR to later select the same alternative in the marbled murrelet process, both to avoid the public appearance of having guessed wrong, and to avoid the political and administrative challenge of revising the SHC. These substantial pressures strongly suggest that in completing the SHC analysis and decision before completing the murrelet strategy, the former decision will pre-determine the result in the latter process, a clear violation of SEPA.

If DNR selects a murrelet alternative in the SHC process, it will also potentially create arrearage. On the ground, the current areas restricted from harvest as a result of application of WAC 197-11-070 include all of the areas restricted under <u>all</u> of the alternatives set forth in the LTCS DEIS. However, the SHC DEIS would require BNR to pre-select <u>one</u> murrelet alternative, and project harvest volumes accordingly. It is therefore nearly certain that the murrelet alternative selected in the SHC will assume greater logging can occur than is actually possible until completion of the LTCS. This would create years of significant arrearage and unmet expectations.

For example, if BNR pre-selects Alternative D in the SHC planning process, it will be assuming that all areas not restricted by Alternative D are available for logging. However, in reality, the areas restricted by alternatives by A, B, C, D, E, and F will all be unavailable until the LTCS process is complete, which may take several years. During that period, significant arrearage would likely result. This is exactly what happened in the 2005-2015 planning period. DNR guessed that the LTCS would be completed in 2007 and would only cover occupied sites. That guess turned out to be wrong. When the LTCS was not completed, and the interim strategy remained in place, millions of board feet of volume in arrears resulted.

We note that the current approach also conflicts with the stated objectives. On page 2-22, the DEIS states that "[a]ll the action alternatives comply with existing DNR policies and state and federal law." That statement is not true and cannot possibly be known. USFWS has not determined which of the LTCS alternatives comply with the Endangered Species Act (ESA) and other applicable law. Potentially, most of the alternatives presented in the SHC include a marbled murrelet LTCS alternative that does not meet legal standards.

DNR could avoid these sequencing and legal problems by assuming that each of the SHC alternatives (Alternatives 1-5) will restrict harvest under current conditions, i.e., restrictions on all areas protected under Alternatives A-F of the murrelet LTCS. Harvest would be modeled accordingly. DNR could then also build into each SHC alternative a requirement that the BNR revisit the SHC upon completion of the LTCS.

The identified process would dramatically simplify the SHC process by eliminating a variable. It would also eliminate potential SEPA violations by removing the opportunity to pre-determine the parallel murrelet LTCS SEPA process. When the LTCS is chosen, the BNR would have to revise the SHC to reflect the final adopted strategy. Removing the pre-selection of a marbled murrelet alternative would also be good planning and help to avoid future arrearage.

We encourage a similar approach to the Policy for Sustainable Forests. In order to bring its policies up to date, DNR should commit to revisiting the expired document over the next few years, and require that completion of a revised Policy will automatically trigger revision of the SHC. Instituting these required check-ins would help to eliminate the current administrative bottleneck of multiple policies, and help to ensure that planning and harvest strategies adjust as policies are brought up to date. Conceivably, by 2020 DNR could, for the first time in decades, be in compliance with its HCP, have updated policies, and have an SHC that accurately reflects updated policies. That outcome would benefit all stakeholders.

III. Arrearage

As noted by DNR in the DEIS and Appendix C, the statutory authority governing arrearage is poorly-drafted and inconsistent. The ambiguity created, along with direction in the statute to consider both economic and environmental impacts, gives DNR and BNR substantial discretion in how to manage arrearage.

We encourage DNR to determine arrearage volume as the difference between planned sales—laid-out, field verified timber sales that are prepared for sale—and actually logged sales. Once

the arrearage is calculated, DNR should follow past practice and incorporate the areas in arrears into the pending SHC analysis. That is the only method that bases harvest modeling and projections on actual conditions.

The arrearage as presently calculated targets a sustainable harvest calculation modeled over a decade ago, based on assumptions that have long proven false. That means that the arrearage as calculated is based on modeling and planning error rather than actual, available timber. The arrearage of 462 mmbf or 702 mmbf is a theoretical construct based on wildly optimistic projections of riparian harvest and marbled murrelet strategies made during an election year (2004). Forcing the harvest of arrearage as calculated, in addition to the maximum sustained yield only serves to front-load more logging with necessary later reductions.

A. The Arrearage Should Consist Only of Actual Planned Timber Sales in Western Washington That Were Not Logged

The arrearage volume is the "summation of the annual sustainable harvest timber volume since July 1, 1979, less the sum of state timber sales contract default volume and the state timber sales volume deficit since July 1, 1979." RCW 79.10.300.

The Legislature mandated the calculation of arrearage in 1987 to resolve one specific issue—the substantial deficit in timber volume resulting from the collapse in the housing market in the late 1970s and early 80s. In 1980, purchasers of DNR timber sales found themselves holding contracts that were worth far less than the present market would support. Purchasers defaulted on those timbers sales. There were contracts affecting over one billion one hundred million board feet of timber. The state legislature found that:

> ...between 1981 and 1983, the department sold six hundred million board feet of timber less than the sustainable harvest level. As a consequence of the two actions, the department entered their 1984-1993 planning decade with a timber sale arrearage which could be sold without adversely affecting the continued productivity of the state-owned forests.

Legislative findings, RCW 79.10.300. The statutory calculation of arrearage is tailored to that specific context. *See* DEIS C-7. Read carefully, the statute applies to a situation like the one that existed in the 1980s—where there are actual planned timber sales that have not been logged, due to either contract default or failure to bring the sales to auction.

The DEIS should clearly state that the arrearage results both from modeling error and past failure to update the SHC, rather than the existence of surplus timber. There appears to be a widespread misperception that DNR simply elected not to log available areas. In truth, projecting ten years of economic and environmental conditions is a monumentally difficult task, and expecting perfect attainment of a projected number is unreasonable.

The SHC represents a calculation based on the best set of assumptions available to DNR at the time the calculation was made. It does not represent the actual harvest that was planned and advertised for sale. The Sustained Yield Management Program has three planning components,

strategic, tactical, and operational (SHC DEIS figure 1.4.2). The SHC is part of the strategic component, and it is up to DNR's regional offices to make those strategic predictions operational. Sometimes constraints become evident in the field that require reductions in modeled operations. Funding and legal challenges can significantly delay regulatory procedures, further restricting harvest areas. As well, unforeseen land exchanges can change the timber volume inventory age class. Given the inherent uncertainty in SHC projections, it is not sound management to treat the SHC as a fixed number that must be attained no matter what events transpire over the next ten to fifteen years.

As a result of the statutory direction and likely policy outcomes, we encourage DNR to adopt an arrearage calculation based only on the volume of actual planned timber sales across Western Washington that were never logged. That calculation is best captured by Alternative 5, which incorporates the arrearage volume into the inventory.

1. **Arrearage volume should be a net calculation based on DNR trust lands in Western Washington.**

We support the decision reflected in Alternatives 2-5 to calculate arrearage based on all of the trusts combined, rather than cherry-picking the specific trusts in arrears. RCW 79.10.200 mandates calculation of arrearage based on state timber sales as a whole, and makes no mention of specific trusts. The legislative findings, which refer to statewide harvest volumes, support the conclusion that there must be a statewide calculation. Furthermore, RCW 79.10.330, which governs the disposition of arrearage, refers to "trusts" as a collective.

The "gross" arrearage of 702 MMBF provided in Alternative 2 is both unlawful and bad policy. DNR manages State trust lands as a whole across Western Washington. It is well-established that DNR has the legal authority to manage the various trusts as a whole, as a means to advancing the long-term best interests of the trust beneficiaries. 1996 AGO 11. The policies that dictate the SHC apply across State trust lands in Western Washington, rather than on a trust-by-trust basis. For example, both the DNR Trust Lands HCP and the Policy for Sustainable Forests apply to trust lands as a whole, and do not distinguish management by a specific trust. It does not make sense to manage land on a statewide basis and then calculate arrearage by cherry-picking only the trusts that are in arrears.

2. **Arrearage volume should be calculated based on actual planned timber sales that were not logged, not calculated based on flawed models and projections as occurred in last decade's SHC.**

RCW 79.10.300 supports a calculation based on actual planned sales rather than projected volume. The most logical reading of the statute based on those terms is that the arrearage is calculated by determining the volume of timber actual logged ("sustainable harvest timber volume"), minus the sum of the purchased sales not logged ("timber sale contract default volume") and planned sales not actually sold ("timber sales volume deficit"). That calculation derives a volume far smaller than the 702 mmbf or 462 mmbf described in Alternatives 1-4.

The approach of calculating the arrearage based on the target of the 2004 sustainable harvest calculation projection is not supported by RCW 79.10.300. The statute notably does not use the term "sustained yield plan," even though that term was previously defined in statute. *See* RCW 79.68.030. RCW 79.10.300 also does not refer to the "sustainable harvest level," even though that term was separately defined by the same Act in 1987. Rather, RCW 79.10.300 specifically refers to "sustainable harvest timber volume," "state timber sale contract default volume," and "state timber sales volume deficit."

Reading RCW 79.10.300 as including only volume that was offered for sale but not logged best harmonizes the statute with RCW 79.10.330, which mandates the inclusion of arrearage in addition to the next decade's SHC. Adding planned sales to the next SHC makes sense, because those sales might otherwise be excluded. Adding areas to the SHC that turned out to be inaccessible, transferred via purchase, or restricted by other legal processes, does not make sense because those areas are not actually available for harvest. Forcing the addition of unavailable areas will necessarily exceed the maximum sustainable yield. Exceeding maximum sustained yield creates unnecessary environmental and economic damage and violates DNR's fiduciary obligations.

Finally, calculating arrearage based on planned sales rather than a modeled volume best reflects conditions on the ground. Prudent and reasonable planning must be tethered to real-world facts. Appendix C contains an explanation of "causes for arrearage." *See* DEIS at C-8 to C-9. A review of the table provided reveals that nearly all of the supposed arrearage derives from modeling and projection errors in the previous sustainable harvest calculation. For instance, the last SHC underestimated land transfers by 302 million board feet and overestimated harvest from riparian zones by 355 million board feet. Those areas are not in arrears, rather, DNR just mis-projected how much volume would be available for timber sales. In contrast, in 1987, there were planned and auctioned timber sales that were not logged yet due to economic conditions. While it was logical to seek completion of lingering timber sales in the late 1980s, it makes no sense to include over 650 million board feet in the arrearage when there are not actually 650 million extra board feet available on the landscape to log.

The DNR has recognized this issue in the past and allowed for the SHC to be updated within the decade in order to reconcile modeling and planning errors.

> The department will adjust the calculation and recommend adoption by the Board of Natural Resources when the department determines changing circumstances within the planning decade suggest that an adjusted harvest level would be prudent. Such circumstances may include major changes in legal requirements, significant new policy direction from the Board of Natural Resources, new information about the resource base available for harvest, or changes in technology. (PSF p. 30)

Once the DNR recognized that changes had occurred during the last decades, either through land exchanges, failure to plan timber sales as part of predicted riparian restoration management, the decadal harvest should have been updated. Once the model has been determined to no longer reflect the best assumptions, the predicted volume is no longer valid. Those necessary updates did not occur for a variety of reasons, including unforeseen budget cuts and staffing shortages. However, DNR and the public have long known the SHC to be

inaccurate and often wildly optimistic. It is unlawful and illogical to calculate and allocate arrearage based on a clearly flawed, 13-year old projection of harvest level and the subsequent failure to adjust that harvest level.

B. DNR Has Substantial Discretion in Determining How to Allocate Arrearage

The SHC Alternatives differ in how the arrearage is apportioned across the next planning decade. We encourage DNR to follow past practices and incorporate the arrearage into the next SHC rather than preemptively dictating the timing of harvest.

Under RCW 79.10.330, DNR must undertake a prescribed analytical process considering how to manage arrearage, but has substantial discretion as to whether to offer it for sale at all. If an arrearage exists:

> the department shall conduct an analysis of alternatives to determine the course of action regarding the arrearage which provides the greatest return to the trusts based upon economic conditions then existing and forecast, as well as impacts on the environment of harvesting the additional timber. The department shall offer for sale the arrearage in addition to the sustainable harvest level adopted by the board of natural resources for the next planning decade if the analysis determined doing so will provide the greatest return to the trusts.

RCW 79.10.330. We have attached an informal opinion from the Attorney General's Office, dated March 6, 2000, which provides thorough analysis on the question of what duties are imposed on the DNR relating to arrearage. The opinion concludes that the arrearage statute:

> …does not in any sense mandate the department to sell the arrearage; it directs sale only if the analysis indicates that sale is in the best interests of the trusts. However, this section does not require the department to sell the arrearage if the department's analysis determines that some other course of action would be best for the trust.

3/6/2000 Informal AGO Letter at 13. In other words, prior to offering the arrearage for sale, DNR must undertake the statutorily required analysis, which may result in withholding the arrearage from sale altogether or for a later date. In referencing both economic and environmental impacts, RCW 79.10.330 makes clear that the "greatest return to the trusts" is not exclusively a financial calculation. DNR has discretion to make a holistic determination of which alternative will provide the greatest return. The informal opinion contains examples of when not selling the arrearage might be the most prudent course of action, such as:

> [t]he price of timber may be too low; prices may be projected to rise in later years; sale of the arrearage might "glut" the timber market a drive prices down; the trusts may be calculated to need long-term rather than short-term income; the department might determine that the environmental effects of harvesting the arrearage would be too adverse; or some combination of these factors might be present.

3/6/2000 Informal AGO Letter at 13. Accordingly, we request that the FEIS provide a more robust analysis of the economic and environmental impacts of selling the arrearage, with discussion of whether the arrearage should be offered for sale at all.

In regards to the timing of the sale of arrearage, we note that the statute dictates that arrearage must be added to the sustainable harvest calculation for the next planning decade. In referencing the next planning decade, the text strongly suggests that DNR must add the arrearage to the SHC without dictating a particular sales window.

We are concerned that preemptively mandating a specific time for sale risks unnecessary environmental harm and violation of fiduciary responsibilities. As the trust manager, DNR must have flexibility to take advantage of strong markets and unanticipated opportunities to access volume. For example, in the past severe windstorms have generated large volumes of salvage timber in Southwest Washington. Such an event may provide a good opportunity for accessing arrearage in a short period of time with reduced environmental impacts. Similarly, DNR may determine that timber prices project to be much stronger in five years. Mandating harvest now would be unreasonable and imprudent.

The best course of action, in order to both reduce environmental impacts and allow maximum management flexibility, is simply to incorporate the arrearage into the SHC. That way, DNR can plan based on the timber that is actually available over the next decade and appropriately distribute sales in order to minimize impacts and maximize returns.

IV. Riparian Volume

The last SHC overestimated riparian thinning volume by 355 million board feet—an error rate of approximately 900 percent. We urge DNR to take a more conservative approach in this SHC. The best course, consistent with the State's 1997 HCP, would be to fund and carry out riparian thinning for ecological restoration objectives rather than commercial objectives and to not rely upon riparian thinning as part of the SHC. Including riparian thinning in the SHC will likely incentivize overly aggressive, commercially valuable operations in riparian zones. If such thinning remains commercially unviable, including riparian thinning in the SHC will result in future arrearage.

DNR states that it considered and eliminated consideration of zero riparian volume because it was not consistent with the policy objective to "promote active, innovative, and sustainable stewardship on as much of the forested land base as possible." DEIS at 2-5. That conclusion is unsupported and makes the faulty assumption that the only means to "promote" stewardship is commercial timber harvest that is included in SHC projections. DNR could continue to promote such activities without relying upon those areas to meet the SHC. In fact, all available evidence from the past planning decade suggests that including riparian thinning in the SHC serves to suppress those activities due to economic and commercial limitations.

Pursuing riparian volume as part of the SHC risks violation of the Trust Lands HCP. We note that the HCP relies upon riparian thinning as mitigation for past and continuing harm to salmon habitat and water quality, and limits most harvest to "ecosystem restoration and selective removal of single trees." *See* Trust Lands HCP at IV 60. The HCP also requires that all riparian

management is "site-specific; *ie* tailored to the physical and biological conditions at a specific site," and mandates a continuous adaptive management strategy that incorporates the best available science. *Id.*

Mandating a set amount of commercial riparian volume over the next ten years conflicts with the HCP requirements of a site-specific, minimally intrusive approach. The HCP explicitly envisions fluctuation and uncertainty: "[t]o accommodate the greater flexibility afforded by managing riparian areas on a site-specific basis and the uncertainties surrounding the results of these activities conducted over time, an adaptive-management process will be used to specify management activities within riparian-management areas. Mechanisms used to achieve conservation objectives will vary as new information becomes available." *See* Trust Lands HCP at IV 60. Mandating significant volume fails to recognize the "uncertainties surrounding the results of these activities conducted over time," and necessarily decreases the required flexibility. We strongly encourage DNR to incorporate the lessons of the past decade and not rely on riparian thinning to generate commercial volume included in the SHC. Rather, DNR should comply with the Trust Lands HCP requirements by proactively funding and carrying out adaptive management and genuine restoration projects.

V. Climate Change

We thank DNR for adding climate change analysis to the purpose and need statement and DEIS. The DEIS appropriately recognizes that forests are rapidly changing in Western Washington. We agree that fire disturbance is likely to increase, flooding and peak flows will likely increase, water temperature will rise, and forest productivity in the low-elevation areas that make up much of trust lands is likely to decrease. These impacts are discussed in helpful and applied detail in Section 7 of the report from the University of Washington Climate Impacts Group, titled "Climate Change Impacts and Adaptation in Washington State: Technical Summaries for Decision Makers."[1]

Now that detailed, regional climate impact information is available, DNR may not simply rely upon past analyses that do not take into account climate change, such as the FEIS for the DNR Trust Lands HCP and Forest Practices HCP. DNR must thoroughly analyze the impacts of forestry over time in light on the information available today. We have provided extensive discussion and materials regarding impacts of climate change in comments on the parallel LTCS DEIS, SEPA File No. 12-042001, and incorporate those comments and materials here by reference.[2]

Our greatest concern is that, while DNR makes strides in analyzing the impacts of forestry in a changing climate, the DEIS fails to take that information into account in any way in its sustainable harvest calculation. It appears that the modeling and planning assumes steady

[1] This comment letter refers to and relies on documents that are too large to be included with this letter. These documents will be submitted to the SEPA Center on a compact disc on March 9, 2017. This comment letter incorporates these documents by reference, and we request DNR to consider them as part of our comments. The University of Washington report is also available online here: http://cses.washington.edu/db/pdf/snoveretalsok816lowres.pdf (last visited March 8, 2017).

[2] Because we are submitting both sets of comments (the LTCS and SHC comments) to DNR, we seek to avoid redundancy and did not cross-submit the marbled murrelet comments and materials into the SHC SEPA File. Comments and materials are available upon request.

growth over time and does not account for increased disturbance events. It is not sufficient for DNR to simply recognize that climate change exists, the agency must plan for it.

For example, in the recent case *Wild Fish Conservancy v. Irving* (order on summary judgment, attached) the defendant agency had generally discussed climate change and climate change impacts in its biological opinion. The agency, however, relied on historical stream flow data and modeling to assess impacts to the species. The court overturned this analysis, ruling that it was not sufficient to merely note that climate change exists, but rather that the agency must integrate anticipated impacts into its modeling and analysis.

DNR bases the SHC on a forest estate model that projects 100 years into the future, a time period in which climate change will almost certainly dramatically change forest conditions. Proper planning must analyze greater disturbance (and resulting loss of volume), acknowledge the importance of climate resilience generated by contiguous forested areas, and take into account decreasing productivity and increasing environmental impacts. Moreover, projections must also take into account the value of forest stands for carbon sequestration. Incorporating carbon pricing values into DNR's forest estate model would likely result in greater thinning and uneven-aged forestry over time.

VI. Economic Analysis

The SHC DEIS has an overly narrow economic objective. As stated in the DEIS, "[t]he sustainable harvest calculation only recognizes revenue from timber sales. Although DNR generates revenue from a variety of sources, those sources are not included because they have no impact on the harvest level." DEIS at F-13. The current limited objective conflicts with DNR policy, fails to maximize trust returns, does not minimize environmental impacts, violates SEPA, and violates State greenhouse gas laws. We encourage DNR to take a broader view that focuses on overall value to the trust beneficiaries and not assume that harvest level is the only means of deriving value from trust lands.[3] DNR Community Forests and land trust managed forests, such as Chimacum Ridge, demonstrate that an approach that features uneven-aged logging in combination with other revenue streams can produce reliable revenue and jobs over time.[4]

As written, the economic objective forecloses reasonable options and is so narrow as to pre-determine the outcome and obstruct planning. SEPA requires more. An EIS must "inform decision makers and the public of reasonable alternatives, including mitigation measures, that would avoid or minimize adverse impacts or enhance environmental quality." WAC 197-11-400(2). Employing means other than timber harvest, and integrating less intensive timber harvest, are viable alternatives and mitigation measures that would protect environmental quality. There are reasonable and effective means of delivering value to trust beneficiaries with reduced environmental impacts, and the BNR must be aware of those mechanisms in order to make an informed and impartial decision. "An environmental impact statement is more than a disclosure document. It shall be used by agency officials in conjunction with other relevant

[3] As an example of the broad value provided by State trust lands, please see the attached report, prepared for the last SHC calculation, titled "Full Cost Accounting for Washington's State-Owned Forests: An Overview."
[4] Please see attached materials titled "Projected Job Creation at Chimacum Ridge," and "Role of Working Forest Conservation Easements and Community Forests in Supporting Local Rural Economies in Washington State."

materials and considerations to plan actions and make decisions." WAC 197-11-400. An EIS must "include actions that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation." WAC 197-11-440(5)(b); WAC 197-11-786.

Moreover, DNR's fiduciary obligations and own policies advocate for a diversified and forward-looking approach. The PSF rightly recognizes that economic performance includes a consideration of financial diversification and creative strategy:

> Diversification is an important fiduciary consideration for meeting DNR's trust obligations. Diversification allows DNR to take advantage of a variety of opportunities to produce revenue for the trusts, and it protects the trusts from catastrophic losses, should markets or physical conditions significantly constrain a revenue source…
>
> By anticipating future demand for ecological and social benefits, DNR can be in a better position to take advantage of that demand on behalf of the trusts. Examples of such benefits include recreation, tourism, water quantity and quality, and carbon sequestration. There are opportunities for DNR to expand its national and international marketing efforts.

PSF at 26. The PSF was correct in 2001 and is even truer today, as managing for carbon sequestration has become an increasingly profitable and flexible means of attaining revenue from forests, recent studies demonstrate the financial benefits of longer-rotation forestry involving thinning (Lippke and Mason 2007), and rapidly increasing populations in western Washington have heightened the need and value for recreation and ecosystem services.

We request that DNR adopt a broader analysis that focuses on overall value to trust beneficiaries and takes seriously the prospect that there may be more creative and modern means of managing State lands while remaining faithful to its fiduciary obligation. A more diversified approach would help avoid the "boom/bust" cycle of timber harvest revenue that has damaged smaller counties. While some approaches may not be viable, DNR must at least evaluate a more diverse approach. We further request that DNR explain how it is fulfilling the promise in the PSF that "[a]nticipating future demand, the department will prudently pursue economic opportunities related to ecological and social benefits that flow from forested state trust lands, to improve the net revenue from forestlands." PSF at 27.

As part of DNR's analysis, and in order to achieve the stated objective of complying with all state, federal, and local law, we request that DNR consider the substantive obligations of the State Environmental Policy Act, RCW 43.21C, which mandates that each agency "[f]ulfill the responsibilities of each generation as trustee of the environment for succeeding generations," and "to use all practicable means and measures, including financial and technical assistance, in a manner calculated to: (a) Foster and promote the general welfare; (b) create and maintain conditions under which human beings and nature can exist in productive harmony; and (c) fulfill the social, economic, and other requirements of present and future generations of Washington citizens." RCW 43.21c.020. DNR must also demonstrate compliance with RCW 70.235.005 et

seq. by explaining how the agency will contribute to reducing State carbon emissions by 2020 and future milestones.

There is valid debate about the breadth of DNR's trust responsibilities, and whether or not they extend solely to designated trust beneficiaries or all of the State's citizens. Under either view, however, DNR has a legal and moral responsibility to be forward-thinking and strive to derive revenue through the least impactful and most sustainable means possible. We encourage DNR to use the SHC as an opportunity to modernize its approach and develop a 21st century approach to forestry that achieves maximum value for trust beneficiaries, not just a given number of board feet.

There has long been an understanding that change is needed, but efforts have consistently met political roadblocks. Now is the time to finally meet the challenging task of rethinking forestry on State trust lands to meet all legal requirements, meet the obligations the State has to its citizens, and return value to trust beneficiaries. These are challenges with big implications that require high-level thinking and commitment.

We request that the Commissioner of Public Lands, in conjunction with the Governor's Office and relevant executive agencies of Washington State, convene a working task force to identify potential sustainable, predictable, alternative, direct financial support for timber counties, local communities and junior taxing districts that provide essential services to low income populations (e.g., fire, health care, education, housing, utilities, infrastructure), who may be potentially economically impacted by actions to protect endangered species on Washington's forest lands.

The task force may undertake to:

- Compile and analyze existing data on current sources of revenue and expenditures for affected timber counties and communities, including junior taxing districts providing essential public services such as fire, hospitals, and schools.

- Working with affected counties, communities, and junior taxing districts to research, compile and analyze other potential sustainable sources of revenue and identify priority expenditures, such as essential public services.

The task force should have set deadlines and requirements, report policy options, and make recommendations to the Commissioner of Public Lands for inclusion in the FEIS.

To help guide DNR's consideration, we offer several viable options below. These are some of multiple methods by which DNR could adjust its management of State trust lands to increase value to the trust beneficiaries with reduced volume. Too often the discussion around timber financial performance on the behalf of the trusts has relied on timber sale volume sold as the metric of success. While volume is one of the factors to be considered, it is not the only one.

1. **Carbon markets.**

At the time of the last SHC, carbon markets were still largely theoretical. Now, there is a strong and growing market for carbon sequestration in forests. There are both state-run programs, such

as the California Air Resources Board and the Regional Greenhouse Gas Initiative, and voluntary markets where corporations purchase offsets for social or business benefits.

It is important to note that carbon sequestration does not mean no logging. Many programs recognize that uneven-aged forestry can be compatible with and even enhance carbon sequestration. DNR has the opportunity to pursue uneven-aged forestry, maintaining and promoting local timber economies, while generating revenue from carbon markets and helping to reduce the State's carbon emissions. Start-up and transaction costs are rapidly decreasing with the advent of widely-available smartphone and other technology.[5]

Other governments, particularly sovereign Indian tribes, have successfully taken advantage of carbon markets while still pursuing commercial logging. For example, the White Mountain Apache Tribe of Arizona recently adopted uneven-aged forestry across approximately 90,000 acres of pine forest, and in exchange received the most verified carbon credits for the California market of any project.[6] The Tribe received initial payments of millions of dollars, with continued logging revenue and more carbon payments over time.[7] Given other examples of success, DNR has an obligation to thoroughly explore a broader analysis than continuation of the status quo.

2. Contract harvesting.

The legislature has authorized DNR to utilize contract harvesting as a marketing tool, which in some cases improves economic performance as well as conservation. RCW 79.15.510. The legislature recognized that it was in the best interest of the trust beneficiaries to capture additional revenues through contract harvesting, which can also enhance environmental protection and forest health. In some planning units, where major increases in conservation for marbled murrelet has occurred or ecological thinning in riparian buffers is desired, the DNR should prioritize, establish and implement contract harvesting. Contract harvesting typically involves more local jobs, because it employs smaller companies on smaller sales, with more labor-intensive and less mechanized harvest. While there may be reduced volume, there may also be increased value to trust beneficiaries based on improved forest conditions, local employment, and local taxes. An additional benefit of contract harvesting is that it gives DNR greater control over the timing of sale and harvest, which can be crucial for maximizing value from volume.

While the statute has limited contract harvesting to less than 20 percent of the annual volume of timber offered for sale (unless utilized for forest health purposes), such limitations are not in the best interest of the trusts. Legislation should be pursued to greatly increase and therefore enhance revenue to the beneficiaries. It is important to note that RCW 79.15.510 sunsets in January of 2019. The law should be extended and expanded to reflect the best interest of the beneficiaries.

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[5] *See* "How Small Forests Can Save the Planet," The New York Times, Sept. 26, 2016, available here: https://www.nytimes.com/2016/09/27/science/private-forests-global-warming.html.
[6] *See* carbon credit record here: https://acr2.apx.com/mymodule/reg/prjView.asp?id1=211; *see also* http://www.latimes.com/science/la-me-carbon-forest-20141216-story.html (an additional example).
[7] http://www.wmicentral.com/news/latest_news/carbon-credits-create-new-tribal-income/article_7b930658-da93-11e1-ad14-0019bb2963f4.html

3. Unitary trust on State forest board transfer lands.

Forest board transfer lands are held and managed by DNR. The lands were originally called "Forest Board Lands" because they were held and managed by the state forest board. The state forest board no longer exists--it was replaced in 1957 by the Department of Natural Resources.

The AGO 1996 No. 11 found "that the forest board transfer lands constitute a single trust, and the Department of Natural Resources is authorized to manage them as an undifferentiated whole; the Department need not separately account for management of lands located in each county."

DNR manages trust lands across landscapes that can include different trusts, including a mix of state trust and forest board lands. The policies for sustainable management apply to all state trust and state forest board lands. They collectively are managed from an ecologically based forest management approach through the Policy for Sustainable Forests on State Trust Lands. Unstable slopes, rights of way access, age distribution of forests, riparian areas, and ESA-listed species all constitute management issues that run with the land, ownership blind. Landscapes are dynamic and ecological processes are not defined by trust designations. As a result, encumbrances and varying harvest schedules may cause an unsteady flow of income to individual counties.

An obvious inequity results. One county, such as Pacific or Wahkiakum County, essentially provides the protections from which other counties benefit. This is a particularly unfair outcome where, as is often the case, habitat restrictions happen to occur predominantly in lower income, more timber-reliant areas.

One possible solution for this inequity could be pooling all forest board transfer lands into one collective, unitary trust. Distribution of revenue would then be based on a proportional percentage, rather than the chance of whether a given trust's forests happen to contain marbled murrelets, steep slopes, or other conditions limiting timber harvest. Creating a larger pool would distribute risk and would provide more steady revenue.

The Attorney General's Office has established that these statutory trusts could be managed more holistically:

> The federal grant land trusts may be administered collectively where such administration furthers the interests of each federal grant land trust. However, income and expenses of each federal grant land trust must be the subject of a separate accounting. The forest board transfer lands may be administered and accounted for as the Legislature properly provides by statute. Under present statutes, the forest board transfer lands need not be managed on the basis of the economic interests of each county individually.

The legislature has already begun the process of providing that flexibility to the DNR by authorizing the creation of a "State forestland pool." *See* RCW 79.22.140. That allows counties that fit certain specifications to place up to 10,000 acres of forest land in a shared pool. The pool helps to spread risk and increase certainty over time. The participating counties devise a mechanism to distribute revenues. RCW 79.22.150.

We encourage DNR to consider how to provide additional flexibility in managing all forest board lands as a unitary trust. Creating a unitary trust would reduce the impact on any one beneficiary, while other beneficiaries are benefitted.

4. Trust land transfer of forest board lands

The Trust Land Transfer (TLT) Program has been helpful in keeping the federal trusts lands whole while conserving important ecological landscapes. The program retains these special landscapes in public ownership while maintaining and improving economic returns to trust beneficiaries.

It is possible for this program to benefit the management of forest board lands as well, by exchanging federal trust lands for forest board lands. *See* RCW 79.22.150. First, non-harvestable forest board lands must be exchanged for harvestable school trust lands. Second, the newly designated school trust lands, which are non-harvestable, go into the TLT program, where they are put into formal non-harvest status, and the school trust fund is reimbursed for the value of those lands. Through this mechanism, the school trust receives both immediate funding for construction and revenue for replacement lands.

In sum, there are multiple mechanisms by which the DNR can provide value to trust beneficiaries under various scenarios that require reduced volume, such as increased conservation protections. Seeking forward-looking and creative solutions is the best mechanism to ensure that our State can provide biodiversity and clean water while simultaneously bolstering local economies and services. The SHC DEIS simply assumes that increasing volume is the only means of providing value. The FEIS should take a much more thorough and holistic view in analyzing the many methods by which DNR can benefit the State and provide value to trust beneficiaries.

VII. Conclusion

Thank you for considering our comments on the SHC DEIS. We look forward to working with DNR to learn from the challenges of the last planning decade and to help create a modern and forward-looking plan for the next decade. In this comment letter, we respectfully request that DNR do the following:

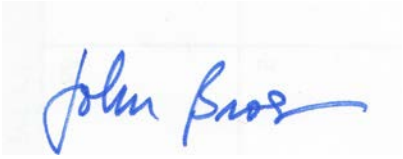
- Either delay the SHC until after the completion of the MMLTCS, or remove the MMLTCS as a variable in the alternatives and commit to revising the SHC when the MMLTCS is selected.
- Calculate the arrearage as the total volume of planned and laid-out sales that were not logged, and incorporate that arrearage volume into the next SHC.
- Shift reliance from riparian volume in the SHC to a focus on ecological thinning.
- Incorporate climate analysis into the SHC and FEM model, rather than merely noting the existence and generalized impacts of climate change.
- Take a more holistic approach to satisfying DNR's fiduciary obligations that focuses on delivering value, rather than volume, to trust beneficiaries.
- Convene a high-level task force to work on a long-term reliable revenue stream for Washington schools and trust beneficiaries while protecting our State's environment.

If you have any questions, comments, or requests for materials please contact Tina Kaps at tkaps@wflc.org or 206-223-4088 ext. 2.

Sincerely,

Marbled Murrelet Coalition

Lisa Remlinger
Evergreen Forests Program Director
Washington Environmental Council



John Brosnan
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Shawn Cantrell
Northwest Program Director
Defenders of Wildlife

Peter Goldman
Director
Washington Forest Law Center

Connie Gallant
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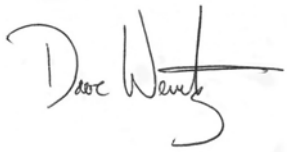
Olympic Forest Coalition

Mike Town
State Forests Committee Chair
Sierra Club Washington State Chapter



Dave Werntz
Science and Conservation Director
Conservation Northwest

ATTACHMENT 1

Marbled Murrelet Coalition Sustainable Harvest Calculation Comments

March 6, 2000

The Honorable Lynn Kessler
House Democratic Leader
P. O. Box 40600
Olympia, WA 985040600

The Honorable Barbara Lisk
House Republican Leader
P. O. Box 40600
Olympia, WA 985040600

The Honorable Jim Buck
State Representative, 24th District
P. O. Box 40600
Olympia, WA 985040600

The Honorable Bob Sump
State Representative, 7th District
P. O. Box 40600
Olympia, WA 985040600

The Honorable Mark Doumit
State Representative, 19th District
P. O. Box 40600
Olympia, WA 985040600

The Honorable Brian Hatfield
State Representative, 19th District
P. O. Box 40600
Olympia, WA 985040600

Dear Representatives Kessler, Lisk, Buck, Sump, Doumit, and Hatfield:

By letter previously acknowledged, the six of you have jointly requested our opinion on several questions relating to the obligations and the authority of the Legislature, the Commissioner of Public Lands, and the Board of Natural Resources. Your specific questions, paraphrased slightly for clarity, are:

> **1. Do the Washington State Constitution and the Enabling Act, as amended, permit the state to sell, exchange, or transfer federally-granted public lands in amounts of more than 160 acres per parcel?**
>
> **2. Does RCW 79.68.045 impose any obligations on the Department of Natural Resources or the Board of Natural Resources if there is an "arrearage" as defined in this statute?**
>
> **3. What are the Legislature's duties as the trustee of state trust lands? What actions are the Legislature, as trustee, obliged to take if it believes that the Board of Natural Resources has abused the discretion delegated to the board? Under what circumstances is the Legislature authorized or required to review or intervene in the acts of the board?**

Because of your request for an expedited response, this is an informal opinion which represents the considered view of the undersigned attorney and will not be published as an official opinion of the Attorney General's Office.

BRIEF ANSWERS

1. The state constitution does not permit the sale of federally-granted public lands in amounts of more than 160 acres per sale. However, neither the constitution nor the Enabling Act limits the amount of land which may be exchanged for other land or transferred to other public uses so long as full value is received for the lands transferred out of trust.

2. If there is an "arrearage" as defined in RCW 79.68.045, the Department of Natural Resources is required to perform an analysis to determine whether it would be in the best interests of the land trusts to sell all or part of the arrearage.

3. The state is the trustee of the state trust lands, and the Legislature makes the state's basic policy decisions. The Legislature's "trustee" role is an extension of its legislative role and does not confer any powers or responsibilities on the Legislature beyond the power and responsibility to enact suitable legislation. If the Legislature has a question about an agency's performance of its duties with respect to a trust, the Legislature has the same options it would have in analogous situations where no specific trust is involved.

The answers are explained in more detail in the analysis below.

ANALYSIS

Your questions concern the duties and responsibilities of various agencies for the management of certain lands granted to the state by the United States and held in trust for various purposes.[1] You have asked certain questions concerning the sale, exchange, and transfer of these lands. These three terms are not specifically defined either in the Enabling Act or in the constitution. I begin with a description of the way the terms have generally been used by the Legislature and by the courts. When land passes out of trust ownership, it may pass into either (1) private ownership or (2) the management and control of a public agency. In either case, the trust may be compensated with (1) money, or (2) land which replaces the land which has passed out.[2] As discussed more fully below, an "exchange" generally describes any transaction in which trust land passes out of trust status and equivalent non-trust land comes into the trust as compensation.[3] A "transfer" will include any transaction in which trust land passes out of trust status but remains in public ownership and management either free of "trust" status or as part of

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[1] The trust lands and the state's trust duties are extensively discussed in AGO 1996 No. 11. Although the questions discussed in the 1996 opinion are different from those addressed here, the 1996 opinion provides valuable background discussion on the history and nature of the trust lands.

[2] Public lands may also be leased, or the timber, gravel, stone, or minerals on or within public land may be sold, or easements and other lesser interests in public land may be conveyed in various circumstances. These are all beyond the scope of the present discussion.

[3] In some cases, where the land exchanged is not of equivalent value, some cash is paid also by the party gaining the more valuable land in an exchange transaction. In *Klassen v. Skamania County*, 66 Wn. App 127, 831 P.2d 763 (1992), the Court held that the inclusion of cash in an exchange of forest lands did not convert an exchange into a sale for certain tax purposes. In a different context, the Court of Appeals had earlier held that an agreement by the Department of Transportation to exchange fill material with a private party was not converted to a "sale" by virtue of an agreement to pay a sum of money to cover any difference between the quantities obtained by the parties. *Fiorito v. M. A. Segale, Inc.*, 18 Wn. App. 158, 677 P.2d 1268 (1977). So long as the value of the land received is approximately equal to that conveyed, I will assume that the payment of cash to "balance out" the differing values would not convert an "exchange" into a "sale".

the corpus of a different public trust.[4] The term "sale", then, refers to a transaction in which fee title to public trust land passes out of public ownership with compensation in the form of cash rather than land.

These terms appear in the Enabling Act, the Washington State Constitution, and in various statutes. Sales of public land are extensively discussed in the Enabling Act, in article XVI of the state constitution, and in a number of statutes, particularly in RCW 79.01. Exchanges of trust land are authorized in a number of statutes, particularly in RCW 79.08. Transfers are authorized in several statutes, such as RCW 79.01.009 (general authorization to transfer real property to public agencies), RCW 79.66.090 (authorizing public agencies to purchase public land without auction at market value), and RCW 79.71.050 (transfer of trust land for natural resources conservation areas). With this background in mind, I turn to your questions.

1. Do the Washington State Constitution and the Enabling Act, as amended, permit the state to sell, exchange, or transfer federally-granted public lands in amounts of more than 160 acres per parcel?

As discussed below, I conclude that the Enabling Act and the constitution both require that a trust receives full value in compensation if any trust land is disposed of, whether by sale, exchange, transfer, or otherwise. Additional limitations are placed on "sales" of trust land. I conclude that these additional limitations do not apply to exchanges of trust land for other land of equivalent value or to transfers of trust land to public agencies with full compensation.

A. The Enabling Act.

As noted above, Washington's Enabling Act contains extensive language concerning the management of granted lands.[5] Section 10 of the Enabling Act granted certain lands to the state upon its admission for the support of the common schools. Section 12 authorized the state to select fifty sections of federal land for the purpose of erecting public buildings at the state capital. Section 14 granted additional land for public schools, colleges, and universities. Section 15 granted lands for the erection of a state penitentiary. Section 16 granted 90,000 acres for an agricultural college, and section 17 granted additional lands for a scientific school, for normal schools, for public buildings, and for state charitable, educational, penal, and reformatory institutions.

The key provisions for this discussion are found in section 11 which, in its original form, provided as follows:

> That all lands herein granted for educational purposes shall be disposed of only at public sale, and at a price not less than ten dollars per acre, the proceeds to constitute a permanent school fund, the interest of which only shall be expended in the support of said schools. But said lands may, under such regulations as the legislatures[6] shall prescribe, be

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[4] If public trust land is exchanged "land for land" with other public land, the transaction may be both an "exchange" and a "transfer". The two terms are not exclusive. The nature of the specific transaction would determine which legal standards and procedural safeguards are applicable.

[5] Washington shares an Enabling Act with the states of North Dakota, South Dakota, and Montana. The original Act is found at 25 U. S. Statutes at Large, chapter 180 p. 676. Several amendments are discussed and cited elsewhere.

[6] The federal act uses "Legislatures" in the plural because the Enabling Act relates to four states.

> leased for periods of not more than five years, in quantities not exceeding one section to any one person or company; and such land shall not be subject to pre-emption, homestead entry, or any other entry under the land laws of the United States, whether surveyed or unsurveyed, but shall be reserved for school purposes only.

Enabling Act, 25 Stat. ch. 180, § 11. This section has been amended by Congress several times. In 1921, the state was authorized to grant certain easements and rights in public lands. Act of August 11, 1921, ch. 61, 42 Stat. 158. In 1932, Congress amended the "sale" language to read "all lands . . . shall be disposed of only at public sale after advertising". The same act, however, authorized the state to exchange "any of the said lands" for "other lands, public or private, of equal value and as near as may be of equal area". Act of May 7, 1932, ch.172, 47 Stat. 150. Certain restrictions on exchanges of federal land were removed by the Act of October 16, 1970, Pub. L. No. 91-463, 84 Stat. 987, which also ratified certain prior transactions. The same act removed certain restrictions on leasing.

As it currently stands, then, the Enabling Act permits (and has permitted since its original enactment) the sale of trust land, although disposal in this manner must be "at public sale after advertising". Since 1921, the Enabling Act has also permitted the exchange of trust land for other land, public or private, if it is "of equal value and as near as may be of equal area". The Enabling Act does not limit the size of any parcel of trust land sold or exchanged.[7]

The United States Supreme Court has held that the transfer of federally-granted lands from trust to another state purpose is not a violation of Enabling Act restrictions so long as the trust receives full value for the land transferred. *Lassen v. Arizona*, 385 U.S. 458, 87 S. Ct. 584, 17 L. Ed. 2d 515 (1966).[8] In effect, the Court held that such a transfer is not a disposal by "sale" requiring public auction. Since Washington's Enabling Act is broader in its language than the Arizona Act construed in *Lassen*, I conclude that, under *Lassen's* reasoning, the Enabling Act would permit transfers of public trust land to public agencies so long as the trust in question receives full compensation in return.

To sum up, the Enabling Act requires sale by public sale if trust land is to pass into private ownership, but the act permits exchanges of trust land for other land and transfers of trust land to other public uses without public advertising and sale so long as full compensation is received. Furthermore, the Enabling Act has never contained any provision restricting the parcel size of land offered for public sale, exchanged, or transferred.

B. State Constitution.

The Washington State Constitution contains several sections dealing with management and disposal of public lands. Article XVI, section 1 declares that "[a]ll the public lands granted to the state are held in trust for all the people and none of such lands . . . shall ever be disposed of

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[7] The "exchange" language of the Enabling Acts would cover any transfer of trust land to another public purpose where equivalent land is placed in trust as compensation. As noted earlier, such a transaction would be an "exchange" under the federal act but might be termed a "transfer" for state law purposes.

[8] *Lassen* involved the Enabling Act for New Mexico and Arizona rather than the act which covers the state of Washington. The Arizona-New Mexico Act, like our own, requires that sales be at public auction, and for not less than appraised value. Indeed, the Arizona-New Mexico Act provided that any disposition contrary to the provisions of the act would be deemed a "breach of trust". *Lassen*, discussion at 385 U. S. 461. There is no reason to think the federal courts would interpret Washington's Enabling Act any more strictly.

unless the full market value of the estate or interest disposed of, to be ascertained in such manner as may be provided by law, be paid or safely secured to the state".[9]

Article XVI, section 2 is quoted here in full:

> None of the lands granted to the state for educational purposes shall be sold otherwise than at public auction to the highest bidder, the value thereof, less the improvements shall, before any sale, be appraised by a board of appraisers to be provided by law, the terms of payment also to be prescribed by law, and no sale shall be valid unless the sum bid be equal to the appraised value of said land. In estimating the value of such lands for disposal, the value of the improvements thereon shall be excluded: *Provided*, That the sale of all school and university land heretofore made by the commissioners of any county or the university commissioners when the purchase price has been paid in good faith, may be confirmed by the legislature.

Id.[10] Finally, Article XVI, section 4 contains the language which is the apparent basis for your first question:

> No more than one hundred and sixty (160) acres of any granted lands of the state shall be offered for sale in one parcel, and all lands within the limits of any incorporated city or within two miles of the boundary of any incorporated city where the valuation of such land shall be found by appraisement to exceed one hundred dollars ($100) per acre shall, before the same be sold, be platted into lots and blocks of not more than five acres in a block, and not more than one block shall be offered for sale in one parcel.

This language prohibits the state from offering for sale more than 160 acres of federally-granted land at a time in any one parcel. The question then is whether exchanges or transfers, as discussed above, are "sales" subject to the 160-acre limitation contained in article XVI, section 4, and (by the same reasoning) the public auction requirement contained in article XVI, section 2, of the constitution In my opinion, the language of the constitution, its history, and the history of the Legislature's enactments concerning disposition of public trust lands, all indicate that the term "sale" was not intended to cover those transactions we now describe as "exchanges" or "transfers".

1. *Lassen* and Other Case Law.

First, in light of the close "fit" between the sections of the Enabling Act discussed above and article XVI of the state constitution, it is important that the United States Supreme Court found in *Lassen* that transfers of trust land to other public use are not subject to restrictions on

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[9] Article XVI, section 1, also states that "nor shall any lands which the state holds by grant from the United States (in any case in which the manner of disposal and minimum price are so prescribed) be disposed of except in the manner and for at least the price prescribed in the grant thereof, without the consent of the United States". In other words, this language incorporates any federal restrictions and limitations on disposal into the state constitution.

[10] Article XVI, section 3, not the subject of your question, is also of some relevance, because it imposed limits on the amount of trust land which could be sold during the first years of statehood. Although this section is no longer of "operational" significance, it helps in understanding the context of the other sections in article XVI.

"sales" of public trust lands. Although these points have never been considered by the appellate courts in this state, our own courts would likely look first to the guidance of *Lassen v. Arizona*. In discussing the New Mexico-Arizona Enabling Act, the U.S. Supreme Court noted the act:

> [D]oes not directly refer to the conditions or consequences of the use by the State itself of the trust lands for purposes not designated in the grant. Of the issues which may arise from the Act's silence, we need now reach only two: first, whether Arizona is permitted to obtain trust lands for such uses without first satisfying the Act's restrictions on disposition of the land; and second, what standard of compensation Arizona must employ to recompense the trust for the land it uses.

Lassen, 385 U.S. at 461. The Supreme Court looked to the terms, purposes, and legislative history of the Enabling Act to determine whether the provisions that applied to sales of trust lands to private parties should also apply to acquisitions by the state for non-trust purposes. The Supreme Court concluded that the purpose of these provisions was to assure that the trust received appropriate compensation; that the legislative history demonstrated that these restrictions on the methods of sales "sprang from [the Senate's] fear that the trust would be exploited for private advantage". Id. at 464. Considering all of these factors, the Supreme Court held:

> We conclude that it is consonant with the Act's essential purposes to exclude from the restrictions in question the transactions at issue here. The trust will be protected, and its purposes entirely satisfied, if the State is required to provide full compensation for the land it uses. We hold, therefore, that Arizona need not offer public notice or conduct a public sale when it seeks trust lands for its highway program. The State may instead employ the procedures established by the Commissioner's rules, or any other procedures reasonably calculated to assure the integrity of the trust and to prevent misapplication of its lands and funds.

Id. at 465.

The Arizona Supreme Court reached a different interpretation and has acknowledged its views are divergent from that of the United States Supreme Court. In *Gladden Farms, Inc. v. State*, 129 Ariz. 516, 633 P.2d 325 (1981), the Arizona department of emergency services sought to purchase about 105 acres of school trust land, to be used to relocate a small community destroyed by a flood. The land was under lease at the time, and the lessees demanded that the state conduct a public sale, indicating their willingness to bid more than the appraised value of the property. Id. at 517. Litigation ensued. The Arizona supreme court ruled that "sale" of school trust property, even to a state agency, was subject to a public auction requirement in the Arizona-New Mexico Enabling Act. Id. at 520-21. Even though the U. S. Supreme Court had specifically found an exception in *Lassen v. Arizona* for conveyances to public agencies, the Arizona court limited the federal holding to easements, rights of way, and other conveyances of less than a full fee simple interest. In a later case involving state condemnation of public trust lands, *Deer Valley Unified School District v. Superior Court*, 157 Ariz. 537, 760 P.2d 537 (1988), the Arizona Supreme Court explained:

> With all due respect for the views the United States Supreme Court expressed in Lassen, we decline to follow that case in interpreting the identical language in the Arizona Constitution.

Id. at 541.[11]

I do not believe Washington's courts would apply the reasoning of *Gladden Farms* in Washington.[12] Aside from its differences from the reasoning of the United State Supreme Court's *Lassen* holding, the terms of the Arizona Enabling Act and constitution are strikingly different from Washington's. The Arizona Enabling Act and the Arizona Constitution are more restrictive, both as to the scope of activities allowed, and as to the manner of carrying out the authorized transactions. Arizona-New Mexico Enabling Act, Act of June 20, 1910, 36 Stat. 557, Sections 19-35. Ariz. Const. art. X, § 1.[13] The Arizona constitution provides that its federally-granted lands shall be "disposed of in whole or in part, only in manner as in the said Enabling Act and in this Constitution", and further provides "[s]aid lands shall not be sold or leased, in whole or in part, except to the highest and best bidder at a public auction" (Ariz. Const. art X, §§ 1, 9), while the Enabling Act provides "none of such lands . . . shall ever be disposed of unless the full market value of the estate or interest disposed of, to be ascertained in such manner as pay be provided by law, be paid or safely secured to the state." Arizona-New Mexico Enabling Act, *supra.*

Neither the Washington Enabling Act (in its present version) nor the Washington State Constitution contains this sweeping language requiring disposal only by sale after public auction, unlike the Arizona-New Mexico Act. Washington's Enabling Act explicitly permits exchanges. Washington's Constitution implicitly permits exchanges and transfers also, so long as the trust receives full compensation. *Lassen* itself took a much more practical view of transfers. The Court found that the purpose of the Arizona-New Mexico Enabling Act was to "assure that the trust received in full fair compensation for trust lands". *Lassen*, 385 U.S. at 463. Congress placed restrictions on disposal of trust lands "from its fear that the trust would be exploited for private advantage". Id. at 464. The Court (Justice Harlan writing) found, however, that "[w]e see no need to read the Act to impose these restrictions on transfers in which the abuses they were intended to prevent are not likely to occur, and in which the trust may in another and more effective fashion be assured full compensation". Id.[14]

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[11] Others, in turn, have declined to follow the reasoning of the *Gladden* court. In 1982 Idaho Op. Atty Gen. No. 82-10, the question presented was "May the Land Board make a direct sale of trust lands to a state agency without public notice and public auction?" The Idaho Admissions Bill provided that "all lands herein granted for educational purposes shall be disposed of only at public sale" and the Idaho Constitution stated that the granted lands were "subject to disposal at public auction". The opinion looked to the United State Supreme Court decision in *Lassen v. Arizona* for guidance rather than the *Gladden Farms* opinion: "With all due respect to the Arizona court, however, we must respectfully conclude that another court could disagree with its decision. Virtually all of the reasons that the United States Supreme Court gave for interpreting the federal statute involved to allow direct sales of easements arguably apply to allowing direct sales of fee simple title. The transfer is still to another state agency so that the trust will not be exploited for private advantage. The trust will receive the appraised value of the land and thus 'full fair compensation'."

12. The Washington supreme court cited *Gladden* in a general discussion of state trust responsibilities. *County of Skamania v. State*, 102 Wn.2d 127, 137, 685 P.2d 576 (1984). Our court had no occasion, however, to decide whether *Gladden's* interpretation of the Arizona Enabling Act should be adopted by Washington.

[13] *See also* Souder and Fairfax, *State Trust Lands: History & Management & Sustainable Use* (1996), at 26. The Arizona court, since *Gladden*, has found that the Arizona constitution bars exchanges of trust land for private land, because the state constitution has not been amended to permit such transactions, even though the Enabling Act has been so amended. *Fain Land & Cattle Company v. Hassell*, 163 Ariz. 587, 790 P.2d 242 (1990).

[14] There would be no purpose served, in any case, in limiting exchanges or transfers of public land to 160 acres per parcel. While public sales in smaller parcels might bring a higher price for the land than the sale of a large

2. Language of State Constitution.

Second, the language of the Washington State Constitution indicates that some restrictions relate to all "disposal" of public trust lands, while other restrictions relate to the narrower category of "sales". Article XVI, section 1 is phrased in terms of disposal of public lands: "none of such lands, nor any estate or interest therein, shall ever be disposed of unless the full market value of the estate or interest disposed of . . . be paid or safely secured to the state". Id. This language explicitly covers the disposal of estates and interest in land, as well as full fee title. In using the word "disposal", a broader term than "sale", the constitution establishes a requirement of full value compensation in any transaction resulting in the conveyance of public trust land. This language requires that a trust be fully compensated for any land taken out of trust status.

By contrast, article XVI, section 2 provides that "[n]one of the lands granted to the state for educational purposes shall be sold otherwise than at public auction". (Emphasis added). This section imposes restrictions on the "sale" of public lands, and not all "disposal" of public trust land. Similarly, article XVI, section 4 provides that "[n]o more than one hundred and sixty (160) acres of any granted lands of the state shall be offered for sale in one parcel". (Emphasis added). A clear pattern emerges from a reading of article XVI: section 1 broadly governs all disposal of trust lands, while sections 2, 3, and 4 impose additional limitations on sales.[15] Although the constitution contains no explicit mention of exchanges or transfers, it implicitly recognizes that there might be forms of disposal other than "sale".

3. History of the State Constitution.

Third, the history of article XVI of the constitution supports the reading that its provisions were intended to restrict the Legislature in authorizing sales of trust land to private parties but not other forms of disposal, such as exchange or transfer to other state uses. The Journal of the Constitutional Convention shows that the public land sections of the constitution were objects of prolonged debate. The concerns the delegates to the Washington constitutional convention expressed were similar to those of the United States Senate discussed in *Lassen, i.e.,* misappropriation of the lands for private gain. Some delegates opposed allowing the sale of state granted lands at all, but they were unsuccessful in their attempts to amend article XVI in accordance with their views. For the discussion concerning what became article XVI, section 2, see *Journal of the Washington State Constitutional Convention (1889)*, at 796-98. Delegate Prosser was the leader of the "no sale" faction. In support of a substitute (eventually voted down) which would have made the school lands state property "forever", permitting only leases and sales of timber, stone, and perishable property, Prosser argued, reviewing the history of

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parcel, the exchange or transfer of a large parcel, properly appraised as the law requires, should bring no more or less to the trust than the same transaction broken into smaller parcels.

[15] This analysis is consistent with the legislative history of the Enabling Act. The original form of the Enabling Act, section 11, was a limitation on the disposal of granted lands: "[t]hat all lands herein granted for educational purposes shall be disposed of only at public sale". Given the strictness of this language, it was necessary for Congress to amend it in 1932 by adding a sentence to the effect that "[a]ny of the said lands may be exchanged for other lands". No corresponding amendment was required for the state constitution, because only the "full value" provisions in article XVI, section 1 applied broadly to "disposals" rather than to the narrower class of "sales". Furthermore, article XVI, section 1, in conforming state practice to federal law requirements, automatically incorporated future changes in the federal requirements, making further amendment of the state constitution unnecessary.

school lands from 1785 to the present, that "wherever lands had been sold the income had been diverted or misappropriated". Id. at 800. As recorded in the *Tacoma Morning Globe,* August 17, 1889, Prosser's focus was on sales to private individuals: "In every instance legislation had been in favor of private individuals for speculation instead of for the benefit of public schools." In support of what is now article XVI, section 3 (requiring that school lands be sold gradually, not more than half before 1905), delegate Browne said "he believed in the gradual sale of the lands so that the state could realize the full benefit as the lands increased in value". Id. at 802. As to article XVI, section 4, the one containing the 160-acre parcel limitation, the Journal records a proposition submitted to the Convention by delegate Hicks that "the lands be subdivided to get the highest price". Id. at 804. From these comments, it is apparent that the purpose of requiring public sale, with limitations on the amount of land sold in any one parcel or within a period of time, was to assure that the new state of Washington would not sell off its public lands too quickly, for too low a price, but would hold on to them long enough to realize their growing value.

This point is confirmed in an article written 24 years after statehood. In *The Origin of the Constitution of the State of Washington*, Mr. Knapp offered the following observations about the "public lands" portions of the constitution:

> The subject of public lands . . . presented many difficult problems to the convention for solution. . . . Some of the members were in favor of leaving the whole question to legislative enactment; others thought the land should never be sold, but that it should be retained by the state, and an income derived from it perpetually. . . . By the Enabling Act of Congress, on the entry of the state into the Union, it became possessed by federal grant of a large amount of valuable land, granted for school and other purposes. This land was recognized to be of great value for its timber as well as agricultural possibilities, and the members of the convention were alive to the fact that they should not be disposed of, or relinquished for a nominal consideration, as had been done with the lands of states that had previously come into the Union.

Lebbeus J. Knapp, *Origin of the Constitution of the State of Washington*, 4 Wash. Hist. Q. 227, 242-43 (1913).[16] In *A History of the Constitution and Government of Washington Territory*, written as a Ph.D. thesis by Wilfred J. Airey (University of Washington, 1945), Mr. Airey also describes the debate and the concerns by many convention delegates about selling state land to land speculators. Airey quotes delegate Prosser as bringing the Convention's attention to Illinois, Wisconsin, and Michigan, each of which had sold school lands "to benefit the purchasers rather than the State". Wilfred J. Airey, *A History of the Constitution and Government of Washington Territory* at 495 (1945).

These items of constitutional history indicate that the purpose behind article XVI, sections 1 through 4 was to restrain the Legislature from disposing of public lands by selling them to land speculators for less than their market value, or at any rate to prevent the loss of the advantage of the expected rise of land values by transferring them out of public ownership prematurely so that private speculators would gain the benefit of future appreciation in value

[16] Mr. Knapp indicates that the sources for his observations are interviews with survivors of the convention and discussions in newspapers of the period. Knapp, 4 Wash. Hist. Q. at 227 (footnote). The courts have held that such material may be considered in determining the meaning of a constitutional provision. *See, e.g., Yelle v. Bishop*, 55 Wn.2d 286, 347 P.2d 1081 (1959).

rather than the public trust. This is precisely the reasoning of *Lassen*. Exchanges and transfers of land do not present the hazard of mismanagement that sales out of the public trust present. If public trust land is exchanged for other land, rather than sold, the trust retains a land corpus for future income.[17] In the case of transfers, there is no conveyance out of public ownership at all and therefore no danger of benefiting unscrupulous private parties at the expense of the trust. Thus, the Convention (through article XVI, section 1) required that full value be received for any "disposal" out of trust status, but added time and acreage restrictions only as to "sales" of trust land.

4. State Statutes.

Finally, the distinction between "disposal" and "sale" is consistent with the history of state statutory enactments in the field of public land management. As to sales of trust land, the constitutional limits are echoed in statute. RCW 79.01.096 prohibits the offer for sale of more than 160 acres of granted land. RCW 79.01.092 requires that public lands be inspected and appraised before sale. The sale procedure is set forth in RCW 79.01.184 through .228. No land may be sold for less than appraised value. RCW 79.01.200.

However, the Legislature has, on numerous occasions, permitted exchanges and transfers of trust land in acts that either expressly or by implication contain no restrictions requiring public auction or limitation on parcel size. For instance, in RCW 79.01.009, the Legislature explicitly authorized the transfer of real property "without public auction" under certain described circumstances, including "transfers to public agencies".[18] RCW 79.01.096 authorizes the department to offer granted land for sale or lease to school districts or institutions of higher education "in such acreage as it may determine." Id. Transfer of fee simple interest or other interests in trust land for the creation of natural resources conservation areas are authorized, provided the trust receives full fair market value compensation. RCW 79.71.050. No mention is made of public auction or limitation in parcel size. The Legislature has also authorized exchanges of public land in several statutes. *See, e.g.,* RCW 79.08.109 (exchange to secure privately-owned land for parks and recreation) and RCW 79.08.180 (exchange of state land for any of several specified purposes).[19]

The Legislature has also passed laws authorizing or directing that specific parcels (often exceeding 160 acres in size) be sold or exchanged. As early as Laws of 1923, ch. 61, the Legislature "authorized and directed" the commissioner of public lands to exchange certain described school land (described in quarters of quarter-sections and amounting to roughly 3/8 of a section, or as much as 240 acres) for another described tract amounting to roughly the same acreage. In Laws of 1955, ch. 231, the Legislature authorized the state land board and the commissioner to exchange a half-section (320 acres) for over a thousand acres of federal land

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[17] Of course, there is the possibility that the land received will not be of equal value to that conveyed. For that reason, both the constitution and statute require that full value be received. Speculators were not likely to be able to take the same advantage of the state through exchanges as through sales, though, as relatively little land was in private ownership (and therefore usable for exchanges) at statehood.

[18] By requiring appraisal and a finding that the transaction is "in the best interest of the state or affected trust", the Legislature made clear that trust lands were covered in this section.

[19] The timing of many of the state statutes suggests that they were responding to the *Lassen* opinion by authorizing transfers of trust land to public agencies without public auction and without any limitation on acreage so long as the trust was compensated for the market value of the transferred property. RCW 43.51. 270 (1971), RCW 79.01.770 (1971), RCW 79.70.040 (1972), RCW 79.66.090 (1984), RCW 79.71.050 (1987), RCW 79.01.009 (1992).

within Olympic National Park.[20] From this history, it appears that the Legislature has not regarded article XVI, sections 2 and 4 of the constitution as a bar or limitation to exchanges and transfers of state trust lands.

CONCLUSION

For the foregoing reasons, I conclude that neither the Enabling Act nor the Washington State Constitution restricts the state from conveying trust lands in parcels of more than 160 acres out of trust status, where the conveyance is part of a land exchange as authorized in statute or is a transfer to a public agency, and always subject to the requirement that the trust be fully compensated for the value of lands transferred out of trust status.

2. Does RCW 79.68.045 impose any obligations on the Department of Natural Resources or the Board of Natural Resources if there is an "arrearage" as defined in this statute?

The statute which is the subject of your second question can best be understood in context with the rest of the enactment of which it is a part. Laws of 1987, ch. 159 was enacted by the Legislature for reasons which are set forth in section 1 of that chapter (uncodified but included as a note after RCW 79.68.035 in the Revised Code of Washington):

> Adequately funding construction of the state's educational facilities represents one of the highest priority uses of state-owned lands. Many existing facilities need replacement and many additional facilities will be needed by the year 2000 to house students entering the educational system. The sale of timber from state-owned lands plays a key role in supporting the construction of school facilities. Currently and in the future, demands for school construction funds are expected to exceed available revenues.
>
> The department of natural resources sells timber on a sustained yield basis. Since 1980, purchasers defaulted on sales contracts affecting over one billion one hundred million board feet of timber. Between 1981 and 1983, the department sold six hundred million board feet of timber less than the sustainable harvest level. As a consequence of the two actions, the department entered their 1984-1993 planning decade with a timber sale arrearage which could be sold without adversely affecting the continued productivity of the state-owned forests.

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[20] More recently, the Legislature has commonly authorized exchanges and transfers within the biennial budgets acts. For instance, in Laws of 1989, 1st Ex. Sess., ch. 19, § 316, the Legislature appropriated 71.5 million dollars to the department "for the acquisition in fee of common school trust lands and timber throughout the state". In Laws of 1991, 1st Sp. Sess., ch. 14, § 26, the Legislature appropriated money to the parks and recreation commission "solely to acquire trust lands that have been identified by the department of natural resources for state park use and development". The same section authorized exchanges of school trust lands with parcels of noncommon school trust lands of equal value. In Laws of 1997, ch. 235, § 392, the Legislature appropriated 34.5 million dollars from the building construction account to the Department of Natural Resources "solely for the purposes of transferring from trust status certain trust lands". A similar appropriation was made by the 1999 session of the Legislature. Laws of 1999, ch. 379, § 384.

Id. The term "sustained yield plans" is defined in RCW 79.68.030 (a statute pre-dating the 1987 law) to mean "management of the forest to provide harvesting on a continuing basis without major prolonged curtailment or cessation of harvest". The 1987 law further defined the related term "sustainable harvest level" to mean "the volume of timber scheduled for sale from state-owned lands during a planning decade as calculated by the department of natural resources and approved by the board of natural resources". RCW 79.68.035(5) (Laws of 1987, ch. 159, § 2(5)). In other words, these laws direct the department to determine a level of timber harvest that can be "sustained" indefinitely in that the timber harvested will be replaced by equivalent new growth. The implication of the 1987 law is that the department should plan to sell timber at this "sustainable harvest level". Section 4 of the act directs the department to periodically adjust the acreages designated for inclusion in the sustained yield management program and to calculate a sustainable harvest level. RCW 79.68.040.

The concept of "arrearage", central to your second question, arises if the department fails to sell timber during a "planning decade"[21] at the "sustainable harvest level". The term "arrearage" is defined as "the summation of the annual sustainable harvest timber volume since July 1, 1979, less the sum of state timber sales contract default volume and the state timber sales volume deficit since July 1, 1979."[22] RCW 79.68.035(1).[23] In other words, the statute directs the department to establish a sort of "target" timber harvest level based on a "sustained yield" analysis. If less timber is sold than the "target" amount, the department is directed to account for the difference as an "arrearage". This is based upon the underlying assumption that, since this timber could have been sold on a "sustained yield" basis, it may still subsequently be sold (in addition to the "sustained yield" calculation for subsequent years) without disturbing the "sustained yield" calculus.

This leads to RCW 79.68.045, the subject of your question:

> If an arrearage exists at the end of any planning decade, the department shall conduct an analysis of alternatives to determine the course of action regarding the arrearage which provides the greatest return to the trusts based upon economic conditions then existing and forecast, as well as impacts on the environment of harvesting the additional timber. The department shall offer for sale the arrearage in addition to the sustainable harvest level adopted by the board of natural resources for the next planning decade if the analysis determined doing so will provide the greatest return to the trusts.

Id. (Laws of 1987, ch. 159, § 4). This statute requires a sort of accounting for the "arrearage" every ten years, at the end of each "planning decade". Id. (emphasis added). At such a time, the department is directed to conduct an "analysis of alternatives", designed to determine what should be done with the arrearage. In effect, the department is directed to analyze whether it

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[21] "Planning decade" is defined as "the ten-year period covered in the forest land management plan adopted by the board of natural resources." RCW 76.68.035(4).

[22] "'Default' means the volume of timber remaining when a contractor fails to meet the terms of the sales contract on the completion date of the contract or any extension thereof and timber returned to the state under *RCW 79.01.1335." RCW 79.68.035(2). "'Deficit' means the summation of the difference between the department's annual planned sales program volume and the actual timber volume sold." RCW 79.68.035(3).

[23] The arrearage definition, at least by one interpretation, produces very anomalous results, by virtue of the fact that RCW 79.68.035(2) appears to instruct that the "summation of the annual sustainable harvest timber volume since July 1, 1979" be reduced by "the sum of the contract default volume and the timber sales volume deficit" since the same date.

would most benefit the trust to sell the "arrearage" or to defer such sales, or portions of them, to later times. In the analysis, the department is directed to consider both existing and forecast economic conditions, as well as the environmental impacts of harvesting the arrearage. This language leaves open a number of possibilities which would make it unadvisable to sell the arrearage: The price of timber may be too low; prices may be projected to rise in later years; sale of the arrearage might "glut" the market and drive prices down; the trusts may be calculated to need long-term rather than short-term income; the department might determine that the environmental effects of harvesting the arrearage would be too adverse; or some combination of these factors might be present.[24] As we discussed in AGO 1996 No. 11, managing the trust requires a perpetual re-balancing of the short and long-term best interests of the trust.

Once this analysis is completed, RCW 79.68.045 provides that the department "shall offer for sale the arrearage in addition to the sustainable harvest level adopted by the board of natural resources for the next planning decade if the analysis determined doing so will provide the greatest return to the trusts". This language does not in any sense mandate the department to sell the arrearage; it directs sale only if the analysis indicates that sale is in the best interests of the trusts.[25] However, this section does not require the department to sell the arrearage if the department's analysis determines that some other course of action would be best for the trust. In other words, this statute directs the department to take that course of action which would most benefit the trust; precisely the standard which the department would be constitutionally required to follow in any case with respect to the management of trust lands.[26]

The legislative history of RCW 79.68.045 (79.10.330) is consistent with this reading. This section originated as a part of House Bill 55, in the 1987 session of the Legislature. In its original form, section 4 of House Bill 55 provided that "[i]f an arrearage exists at the end of any planning decade, the department shall offer for sale the arrearage in addition to the sustainable harvest level adopted by the Board of Natural Resources for the next planning decade". HB 55, § 4, 50th Leg. (1987) (emphasis added). The House Natural Resources Committee substituted for this language the language that appears in RCW 79.68.045, directing the Department of Natural Resources to analyze the extent to which the arrearage should be sold, rather than mandating the sale. The House Bill Report , comparing the substitute to the original, indicates that "the Department has the flexibility to evaluate whether or not to sell any arrearage that develops rather than being required to sell any arrearage". House Bill Report on House Bill 55, 50th Leg. (1987), at 2. The Senate Bill Report on the substitute bill clearly indicates that "the Department will evaluate whether or not it is in the best interest of the trusts to sell the arrearage". Senate Bill Report on Substitute House Bill 55, 50th Leg. (1987) at 1-2. The identical language appears in the Final Bill Report on Substitute House Bill 55, 50th Leg. (1987) at 1-2.

To summarize, RCW 79.68.045 relates to a program of "sustainable yield management" which was contemplated by legislation in the 1980's. The statute in question directs the department to calculate an "arrearage" of timber if less is sold than called for in decennial planning documents. At the end of each decennial period, the department is to analyze whether this "arrearage" should be sold based on the best interests of the trusts. RCW 79.68.045 makes it

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[24] The statute should also be read in light of RCW 79.68.040, directing the department to periodically adjust acreages under the sustained yield management program.

[25] Were it not for this section, it would not be clear that the department is authorized to sell the "arrearage". With the cited language, the department is not only authorized but directed to do so if the analysis indicates that sale would be in the best interests of the trust.

[26] The trust responsibilities of the department are discussed at some length in AGO 1996 No. 11, especially at pp. 38-49.

clear that the department is directed to sell "arrearage" even if that means harvesting, during a particular ten-year planning period, at levels greater than the "sustainable harvest level" for the subsequent period if doing so is in the best interests of the trusts involved.

3. What are the Legislature's duties as the trustee of state trust lands? What actions are the Legislature, as trustee, obliged to take if it believes that the Board of Natural Resources has abused the discretion delegated to the board? Under what circumstances is the Legislature authorized or required to review or intervene in the acts of the board?

Article XVI, section 1 of the state constitution provides that "[a]ll of the public lands granted to the state are held in trust for all the people". Id. (emphasis added.) The leading Washington case applying trust principles to the state granted lands is *County of Skamania v. State*, 102 Wn.2d 127, 685 P.2d 576 (1984). The opinion concludes that the state holds the granted lands in trust and that principles from the law of trust are relevant in reviewing the management of the trust, but I could discover no reference in the case specifically describing the Legislature as the trustee. Thus, while the Legislature at times acts as a trustee, it would be misleading to suggest that the existence of a trust alters the constitutional relationship between the Legislature and other state officers and agencies. Both with respect to trust management and to state affairs in general, the Legislature has its regular constitutional role: the role of legislating.[27]

Although the word "trust" appears in the constitution concerning the granted lands, the idea of applying the principles of trust law to states in the management of their lands is relatively new. It appears to have gained modern impetus from Justice Harlan's discussion in *Lassen*. Although *Lassen* held that the state of Arizona was not obligated to conduct a public auction when granting a highway right of way across granted lands, the case also held that, based on trust principles, the state was obligated to compensate its trust beneficiaries (schools) for the value of the right of way granted. *Lassen*, 385 U.S. at 466-70. Before *Lassen*, most of the states had engaged extensively in the practice of granting themselves easements and rights of way across trust land without compensating the trusts. *See* Jon A. Souder & Fairfax, *State Trust Lands: History & Management & Sustainable Use* 33-36 (1996).

Even since *Lassen*, the cases are relatively small in number. Though they consistently hold that there is a trust relationship between the state and the beneficiaries of the land trusts, they concern the actions and activities of all three branches of state government. Thus, *Skamania* itself was a review of an act of the Washington State Legislature, an act excusing a number of timber companies from performance on certain state contracts. The court found that this enactment was a violation of trust principles and thus unconstitutional. *Skamania*, 102 Wn.2d at 138-39. Thirty years earlier, the Nebraska Supreme Court had made a similar ruling invalidating a legislative act fixing the value of public school lands without regard to their true market value. *State ex rel. Ebke v. Board of Educational Lands and Funds*, 154 Neb. 596, 47 N.W.2d 520 (1951). *See also, Oklahoma Education Association v. Nigh*, 642 P.2d 230 (Okla.

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[27] In an informal opinion on a related issue, one of my colleagues concluded that the Legislature's constitutional role with respect to the commissioner of public lands is the same as its role with respect to other statewide officers, notwithstanding minor differences in the constitutional language defining the powers and duties of various officers. Letter dated August 29, 1997, from Maureen A. Hart, Sr. Assistant Attorney General, to the Honorable Jim Buck, State Representative.

1982) (excusing state agency from following a state statute requiring that state trust lands be leased to farmers and ranchers at less than full value).[28]

As these cases suggest, the trust principles as to granted lands apply to all agencies of state government and do not alter the constitutional separation of powers among the branches. The Legislature itself, then, has a duty to act consistently with the trust relationship as it legislates concerning public lands. This issue is laid out in detail in AGO 1996 No. 11, at 12-29. I will summarize briefly the major points of that discussion. First, as our 1996 opinion emphasizes, the Legislature retains plenary authority to legislate concerning trusts, except as restrained by the constitution or by supervening federal law. Second, common law trust principles have been found (*Skamania*) to apply to the Legislature's exercise of its legislative role as to trust lands. These principles include the duty of undivided loyalty to the beneficiaries, the duty to manage trust assets prudently, and the duty to make the trust lands productive for the beneficiaries, balancing the trust's short-term interests with the long-term protection of trust productivity. Third, the 1996 opinion found that federal and state laws of general application apply to the grant lands. Fourth, the opinion found that the state's trustee duties run to each trust individually and must be separately accounted for. Fifth, the opinion found that the Legislature may create state offices and agencies and assign to them the responsibility to manage the grant lands.

To sum up the answer to the first part of this question, the Legislature's responsibilities as to the trusts are legislative in nature. These responsibilities are carried out by passing legislation.[29] Through these laws, the Legislature may assign powers and duties to the officers and agencies who manage state lands, prescribe procedural steps which must or may be taken, and set forth the substantive standards the executive branch is required to meet as well as the degree of flexibility the agencies will have in meeting the standards.

The second part of your question is what action the Legislature is obliged as a trustee to take if the Legislature believes the Board of Natural Resources has abused the discretion delegated to it by the Legislature. This question is difficult to address in the abstract and would largely depend on the facts of a particular situation. As a general matter, though, the Legislature's options would be the same as they would in any case where the Legislature was dissatisfied with the acts of a state agency or believed these acts might pose harm to the interests of the state. The Legislature's primary tool would be, of course, further legislation. The Legislature could alter the powers and duties of agencies and officers, change the processes by which executive agencies administer the law, or set new substantive standards for state agencies to meet.

Finally, you have asked if there are circumstances in which the Legislature is authorized or required to review or intervene in the acts of the board. Again, the "open" nature of the question dictates a very general response. As noted earlier, the Legislature's role with respect to

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[28] By contrast, however, the *Gladden Farms* decision, discussed earlier, involved no legislative act but was a finding that an administrative action by an Arizona state agency was contrary to trust principles. In *Department of State Lands v. Pettibone*, 216 Mont. 361, 702 P.2d 948 (1985), the Montana supreme court reversed a ruling of the state's water court concerning the ownership of water rights appurtenant to school trust land. The water court had ruled that these water rights belonged to the lessees of the land. The state supreme court reversed, finding that water rights are valuable property rights, and they belonged to the state trust unless the trust had been fully compensated for them. Thus, trust principles may come into play no matter which agency is involved with the administration of the trust.

[29] See article II, section 1, of the state constitution.

trust lands is primarily that of legislating. Neither the constitution nor general trust principles assign "day to day" management responsibility over trusts to the Legislature. Exercising such a responsibility would not only be highly cumbersome but might even be beyond the Legislature's constitutional role, as an exercise of executive rather than legislative authority. The Legislature's lawmaking role is critical to ensuring that the state's trust responsibilities are met, as recognized in *Skamania* and in AGO 1996 No. 11. Through this lawmaking power, policies are established and the duties of the executive officers are delineated. If the Legislature determines that existing laws, or their manner of execution, do not protect the best interests of the trust, it is incumbent on the legislature to examine those laws and make any adjustments necessary to ensure consistency with the State's trust responsibilities. If the Legislature believes there is noncompliance with existing law, it could bring the matter to the attention of appropriate state officials. Depending on the nature of the concerns, these might include the Attorney General or the State Auditor.

We trust the foregoing will be of use to you. If you have any questions or concerns, please do not hesitate to contact me at the below number

Very Truly Yours,

JAMES K. PHARRIS
Senior Assistant Attorney General
(360) 664-3027

:pmd

ATTACHMENT 2

Marbled Murrelet Coalition Sustainable Harvest Calculation Comments

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF WASHINGTON

WILD FISH CONSERVANCY,

Plaintiff,

v.

DAVE IRVING, in his official capacity as the Manager of the Leavenworth Fisheries Complex; UNITED STATES FISH AND WILDLIFE SERVICE; DANIEL M. ASHE, in his official capacity as the Director of the United States Fish and Wildlife Service; UNITED STATES BUREAU OF RECLAMATION; LOWELL PIMLEY, in his official capacity as the Acting Commissioner of the United States Bureau of Reclamation,

Defendants.

No. 2:14-CV-0306-SMJ

ORDER GRANTING IN PART AND DENYING IN PART PLAINTIFF'S AND DEFENDANTS' MOTIONS FOR SUMMARY JUDGMENT

I. INTRODUCTION

This case concerns the U.S. Fish and Wildlife Services' (FWS) and Bureau of Reclamation's (BOR) operation and management of the Leavenworth National Fish Hatchery (the Hatchery). As required by the Endangered Species Act (ESA), FWS and BOR engaged in consultation with the National Marine Fisheries Service (NMFS) concerning the effects of the Hatchery's operation on endangered

Chinook salmon and steelhead in Icicle Creek, and NMFS issued a Biological Opinion (BiOp) and Incidental Take Statement (ITS). Wild Fish Conservancy (the Conservancy) alleges NMFS's BiOp and ITS are arbitrary, capricious, an abuse of discretion, and not in accordance with the law; that NMFS violated the National Environmental Policy Act (NEPA) by failing to prepare an Environmental Impact Statement (EIS); and that, in relying on the BiOp, BOR and FWS violated the ESA by failing to insure that Hatchery operations will not jeopardize listed species.

As will be discussed below, the BiOp is arbitrary and capricious on one narrow basis—NMFS failed to adequately consider the effects of climate change in its analysis of the Hatchery's operations and water use. The remainder of the Conservancy's arguments fail: the BiOp and ITS are not arbitrary and capricious on any other alleged basis, NMFS had no obligation to conduct an EIS in connection with its preparation of the ITS, and the BOR and FWS satisfied their obligations under Section 7 of the ESA by relying on the BiOp and ITS. Accordingly, Plaintiff's motion for summary judgment is granted with respect only to whether the BiOp was arbitrary and capricious and denied with respect to all other claims. Defendant's motions for summary judgment are denied in part and granted in part on the same basis.

II. BACKGROUND

A. The Endangered Species Act

Congress passed the ESA in 1973. Its stated purposes were "'to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved,' and 'to provide a program for the conservation of such . . . species . . . .'" *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978) (quoting 16 U.S.C. § 1531(b)). The Secretaries of the Department of the Interior and Department of Commerce are charged with implementing the ESA and have delegated those responsibilities to FWS and NMFS, respectively. Generally, FWS has ESA authority for terrestrial and freshwater species and NMFS has authority for marine and anadromous species. *See* 50 C.F.R. §§ 17.2, 17.11, 223.102, 224.101.

Section 4 of the ESA establishes the mechanisms for listing threatened and endangered species and for designating "critical habitat." 16 U.S.C. §§ 1532(16), 1533(a). Section 9 makes it unlawful to "take" ESA listed species. 16 U.S.C. § 1538(a)(1)(B). "Take" is defined to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532. The term harm includes any act "which actually kills or injures fish or wildlife," including, as relevant here, "significant habitat modification or degradation which actually kills or injures fish . . . by significantly impairing

essential behavioral patterns, including breeding, spawning, rearing, migration, feeding or sheltering." 50 C.F.R. § 222.102.

Section 7 of the ESA imposes a substantive obligation on federal agencies to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [the critical] habitat of such species." 16 U.S.C. § 1536(a)(2). Section 7 requires that any federal agency planning any action (the action agency) that may affect ESA-listed species must consult with NMFS or FWS (the consulting agency). 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a). At the conclusion of consultation, the consulting agency must issue a Biological Opinion (BiOp). *Thomas v. Peterson*, 753 F.2d 754, 763 (9th Cir. 1985), *overruled on other grounds by Cottonwood Envtl. Law Ctr. v. United States Forest Serv.*, 789 F.3d 1075, 1091 (9th Cir. 2015).

The BiOp provides the consulting agency's opinion concerning whether the proposed action is likely to jeopardize the ESA-listed species or adversely modify critical habitat, and it must be based on "the best scientific and commercial data available." 50 C.F.R. § 402.14(g)(8), (h)(2)–(3). If the BiOp concludes that jeopardy or adverse modification is likely, the BiOp must describe reasonable and prudent alternatives, if available, that would avoid such an outcome. 16 U.S.C. §

1536(b)(3)(A); 50 C.F.R. § 402.14(h)(3). If the BiOp concludes that jeopardy or adverse modification are not likely, or that reasonable and prudent alternatives will avoid jeopardy or adverse modification, the consulting agency must issue an incidental take statement (ITS). 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i).

The ITS must state the anticipated level of incidental take that will result from the proposed action, set terms and conditions to minimize impacts to listed species, and set monitoring and reporting requirements. 16 U.S.C. § 1536(b)(4)(C)(i)–(ii), (iv); 50 C.F.R. §§ 402.14(i)(1)(i)–(ii), (iv), 402.14(i)(3). Take in compliance with an ITS is exempt from liability under Section 9 of the ESA. 16 U.S.C. § 1536(o)(2).

B. Summary of Facts

1. Icicle Creek and ESA-listed Chinook and Steelhead

Icicle Creek originates in the Cascade Mountains and flows into the Wenatchee River at the City of Leavenworth. NMFS 11987. Its watershed covers approximately 214 square miles. NMFS 45787. Icicle Creek is home to two ESA listed species that are at issue in this case: the Upper Columbia River spring Chinook evolutionarily significant unit, (*Oncorynchus tshawytscha*) listed in 1999, 64 Fed. Reg. 14,308 (March 24, 1999), and the Upper Columbia River

steelhead[1] distinct population segment (*Oncorhynchus mykiss*), which was listed in 1997, 62 Fed. Reg. 43,937 (Aug. 18, 1997). Upper Columbia steelhead were downgraded to a threatened species in 2006. 71 Fed. Reg. 834 (Jan. 5, 2006). Icicle Creek is not included in the designated critical habitat for Upper Columbia River Spring Chinook. NMFS 11980. Icicle Creek is designated as critical habitat for Upper Columbia River steelhead. 70 Fed. Reg. 52,630 (Sept. 2, 2005); NMFS 11978. A natural passage barrier prevents migration of steelhead and chinook past River Mile (RM) 5.7.[2] NMFS 24915.

NMFS's recovery plan for Upper Columbia Steelhead sets a target for the minimum number of naturally produced Steelhead reds in the Chiwawa River, Nason Creek, Icicle Creek, Peshastin Creek, and Chumstick Creek to be either 5% of the total number of reds within the Wenatchee population, or at least 20 reds, whichever is greater. NMFS 5906. The Icicle Creek steelhead population has exceeded these recovery criteria since 2008. NMFS 25932.

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[1] Steelhead and rainbow trout are members of the same species. NMFS 12058. The difference between the populations is that steelhead are anadromous while rainbow trout are not. NMFS 12058. The fish are indistinguishable at the juvenile stage.

[2] River Miles are measured from the terminus of the stream, in this case, the confluence of Icicle Creek and the Wenatchee River. For example, the passage barrier at RM 5.7 is located 5.7 miles upstream of the point where Icicle Creek enters the Wenatchee River in Leavenworth.

2. The Leavenworth National Fish Hatchery

The Leavenworth National Fish Hatchery (the Hatchery) is located on Icicle Creek about three miles south of Leavenworth, Washington. NMFS 45941. The Leavenworth National Fish Hatchery is one of several hatcheries authorized to replace spawning grounds lost when construction of the Grand Coulee Dam made the upper Columbia River basin inaccessible to anadromous fish. *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 516–17 (9th Cir. 2010). FWS has managed and operated the Hatchery since its construction in 1939. *Id.* The Hatchery rears only spring chinook for harvest and is not intended to supplement or support native Chinook salmon populations. NMFS 11944. The Hatchery's spring Chinook program is listed by the Yakima Nation and FWS's anadromous fish Management Agreement as "high priority." NMFS 47206.

The Hatchery is supported by a complex water management system that includes several existing instream structures. NMFS 17528, 45956. Structure 1, located at RM 4.5 is a water intake that diverts up to 42 cubic feet per second (cfs) from Icicle Creek to supply water to the Hatchery. NMFS 45942–44. The Hatchery controls three high elevation reservoirs, which it uses to supplement surface flows in Icicle Creek with up to 50 cfs in late summer and early fall. NMFS 45945–46. The Hatchery also uses wells to draw water from a shallow aquifer. NMFS 45945–46.

A head gate known as Structure 2 regulates flow between the Hatchery Canal (a man-made channel constructed to facilitate hatchery operations) and the historical channel of Icicle Creek at RM 3.8. NMFS 11960, 45947–48. Water from the Hatchery canal returns to Icicle Creek near Structure 5, located at RM 2.8. NMFS 11960, 12063. Structure 5 consists of a bridge over Icicle Creek where racks, flashboards, or traps can be inserted to control or prevent returning hatchery fish from passing upstream. Prior to 2011, Structures 2 and 5 blocked fish passage and severely constrained stream flows into Icicle Creek between the structures. NMFS 45959. In 2011, FWS began modifying operations to allow more consistent water flow in the historic channel and to limit in-river operations of hatchery structures during steelhead migration, spawning, and rearing periods. ECF No. 68-1 at 65, 134, 173–75.

FWS and BOR engaged in consultation with NMFS from 2009 to 2015 pursuant to Section 7 of the ESA to address the Hatchery's effects on Upper Columbia River steelhead, and spring Chinook salmon. NMFS issued the final BiOp and accompanying ITS that are the subject of this case on May 29, 2015. The BiOp concluded that operation and funding of the Hatchery is not likely to jeopardize the continued existence of or result in destruction or adverse modification of critical habitat for Upper Columbia River spring Chinook salmon or steelhead. ECF No. 68 at 175–76. The BiOp identified a minimum instream

flow goal of 100 cfs in Icicle Creek and proposed eliminating operation of Structure 2 in March if adult steelhead are present; eliminating operation of Structure 2 for recharge in August; not reducing historic channel flow in September when natural flows are less than 60 cfs; and, when the 100 cfs instream goal is not met in dry years, maintaining instream flow goals of 40 cfs in October, 60 cfs from November to February, and 80 cfs in March in the Icicle Creek historical channel. ECF No. 68-1 at 24–25.

C. Procedural History

Plaintiff Wildfish Conservancy (the Conservancy) filed this action on September 16, 2014, alleging that the Hatchery's operation causes take of listed Upper Columbia River steelhead and spring-run Chinook salmon and threatened bull trout, in violation of Section 9 of the ESA; failure to consult regarding ongoing Hatchery maintenance and operations as required by Section 7 of the ESA; failure to reinitiate consultation in light of new information; unlawful commitment of resources prior to consultation; and failure to insure that Hatchery operations are not likely to jeopardize ESA listed species. ECF No. 1. The Defendants answered and moved to dismiss on November 17, 2014. ECF Nos. 8 & 9. The conservancy filed a First Amended Complaint on December 8, 2014, clarifying and adding detail to the same substantive allegations. ECF No. 10. The Court denied Defendants' motion to dismiss as moot on January 8, 2015. ECF No.

23. The Court granted the Confederated Tribes of the Colville Reservation's and the Confederated Tribes and Bands of the Yakama Nation's motions to intervene as defendants on February 26, 2015. ECF No. 24.

Following NMFS's issuance of the BiOp on May 29, 2015, ECF No. 68-1, the Conservancy filed a Second Amended Complaint, continuing to allege failure to insure that Hatchery operations will not jeopardize listed species, and also alleging that the BiOp was arbitrary, capricious, an abuse of discretion, and not in accordance with the law and that NMFS violated NEPA by failing to prepare an Environmental Impact Statement. ECF No. 77.

The Conservancy moved for Summary Judgment. ECF No. 92. Defendant Confederated Tribes and Bands of the Yakama Nation (the Yakama Nation), Defendant Confederated Tribes of the Colville Reservation (the Colville Tribes), and the Federal Defendants each separately filed cross-motions for summary judgment. ECF Nos. 97, 98, &100.

III. STANDARD OF REVIEW

The adequacy of BiOps under the ESA and an agency's compliance with NEPA are reviewed under the Administrative Procedures Act (APA). *Bennett v. Spear*, 520 U.S. 154, 174–79 (1997) (holding that ESA claims not reviewable under the ESA's citizen-suit provision, including challenges to the adequacy of a BiOp, may be reviewed under the APA); *W. Watersheds Project v. Kraayenbrink*,

632 F.3d 472, 481 (9th Cir. 2010) ("Alleged procedural violations of NEPA . . . are reviewed under the [APA].").

Under the APA, the court may set aside agency action that is "arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). Agency action is arbitrary and capricious if:

> the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). The court "must uphold agency decisions so long as the agencies have 'considered the relevant factors and articulated a rational connection between the factors found and the choices made." *City of Sausalito v. O'Neill*, 386 F.3d 1186, 1206 (9th Cir. 2004) (quoting *Selkirk Conservation All. v. Forsgren*, 336 F.3d 944, 953–54 (9th Cir.2003)). "A reviewing court 'generally must be at its most deferential when reviewing scientific judgments and technical analyses within the agency's expertise.'" *Great Old Broads for Wilderness v. Kimbell*, 709 F.3d 836, 846 (9th Cir. 2013).

IV. DISCUSSION

A. The BiOp issued by NMFS on May 29, 2015 is arbitrary and capricious.

The Conservancy argues that the 2015 BiOp is arbitrary and not in accordance with the law because (1) NMFS's evaluation the Hatchery's water diversions impermissibly relies on uncertain future improvements and fails to adequately account for climate change, and (2) the ITS does not establish clear standards and procedures for monitoring and evaluating harm caused by the Hachery's operations. ECF No. 92 at 18. The Conservancy's arguments fail except with respect to one narrow, but dispositive issue. NMFS failed to adequately consider the effects of climate change in the BiOp's analysis of the Hatchery's operations and water use. Because NMFS failed to consider this important factor, the BiOp is arbitrary and capricious.

1. NMFS did not rely on uncertain future mitigation measures.

NMFS may not rely on proposed future improvements in its analysis unless there are "solid guarantees" the improvements will actually occur. *See Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 935 (9th Cir. 2007). This must include "specific and binding plans" and "a clear, definite commitment of resources for future improvements." *Id.* at 935–36. Additionally, an "agency must consider near-term habitat loss to populations with short life cycles." *Pac. Coast Fed'n of Fishermen's Ass'n v. U.S. Bureau of Reclamation*, 426 F.3d 1082,

1095 (9th Cir. 2005). And the agency must therefore discount the benefit of future improvements in its jeopardy analysis if multiple generational cycles may occur before the improvements will be made. *See id.* ("It is not enough to provide water for the [species] to survive in five years, if in the meantime, the population has been weakened or destroyed by inadequate water flows.").

NMFS expressly did not rely on FWS's long-term commitments made as part of the consultation process. Specifically, the BiOp states that NMFS did "not rely on implementation of these long term actions for [its] jeopardy and critical habitat analyses. . . . [C]onsidering the uncertainty of implementation of the long-term actions, NMFS considered that ongoing operations would continue into the future under the proposed flow regime." ECF No. 68-1 at 143-44.The Conservancy argues that, contrary to NMFS's statement, the record demonstrates that NMFS did consider the proposed long-term actions. ECF No. 92 at 24–27.

As the Conservancy points out, a draft BiOp issued in April 2015 found that Hatchery operations adversely modified steelhead critical habitat and proposed alternatives requiring the Hatchery to operate diversions at Structures 1, 2, and 5 to avoid causing instream flows to fall below levels identified as necessary for steelhead rearing and adult passage: 150 cfs year-round at Structures 1, 2, and 5 for juvenile rearing, and 200 cfs between March and June for adult passage at Structure 5. NMFS 9735. FWS objected to this requirement, on the basis that it

would not be able to meet the goals in all years given existing Hatchery facilities. NMFS 9819–29. In May 2015, FWS agreed to implement water saving technologies within eight years to insure a minimum in-stream flow of 100 cfs at all times. ECF No. 92 at 22.

On May 20, 2015, NMFS issued a revised draft BiOp that concluded the Hatchery operations were not likely to adversely modify critical habitat, relying in part on FWS's commitment to stop diverting water at Structure 2 within 8 years. NMFS 10705–06. A week later, however, the final BiOp explained that NMFS analysis did not rely on FWS's uncertain long-term commitments. NMFS 12070–71.

These circumstances, taken alone, could suggest that NMFS improperly relied on future, uncertain changes. However, the analysis in the BiOp considers only the immediate Hatchery operations. ECF No. 68-1 at 98-169. Importantly, NMFS did not analyze the potential water savings from changes proposed in the longer-term plan. 2015 BiOp at 143. Additionally, the BiOp recommends immediate implementation of several actions necessary to avoid jeopardy, including: (1) Structure 2 will not be closed in March if steelhead are present; (2) if Structure 2 is closed during spring Chinook broodstock collection, traps at Structure 5 will be monitored twice daily and steelhead transported and released above structure 5; (3) Structure 2 operation in August, an offset from two

reservoirs in dry years where operation of Structure 2 is necessary for aquifer recharge; and adoption of approved fish salvage methods for identifying and removing fish entrained in the water intake system. ECF No. 68 at 25.

The analysis in the BiOp does not improperly consider uncertain, long-term proposals, and there is no basis for the court to reject the BiOp on this basis.

2. NMFS failed to adequately considered climate change in analyzing the effects of the Hatchery's operations and water use.

The BiOp includes a detailed discussion of the effects of climate change on salmonid recovery in the Pacific Northwest, including that models predict a significant reduction in total snowpack and low-elevation snowpack, affecting streamflow and water temperatures. ECF No 68-1 at 38, 58–59. Despite these predicted changes, NMFS used historical stream-flow data from 1994 to 2014 in the analysis of the Hatchery's operations and water use. ECF No. 68-1 at 142, 144–58, NMFS 12069–70. The Conservancy argues that by doing so, NMFS failed to consider an important factor. ECF No. 92 at 29. Defendants argue that NMFS properly considered the best available science concerning the region-wide effects of climate change and relied on only historical averages to conduct its analysis of Icicle Creek stream flows because no finer-scale climate change analysis of Icicle Creek was available for NMFS to consider. ECF No. 98 at 8–12; ECF No. 100 at 27. Defendants further argue that the Court should defer to NMFS's highly technical determination of this matter. ECF No. 97 at 22.

First, it is important to note that while the Court must give deference to the expert agency on highly scientific or technical questions, *see Nat'l Wildlife Fed'n v. ACOE*, 384 F.3d 1163, 1174 (9th Cir. 2004), a voluminous and technical record does not insulate a decision from judicial review under that deferential standard. The Court is obligated to carefully review the agency's decision even if it is complex and technical.

Defendants are correct that the agency is not required "to conduct new tests or make decisions on data that does not yet exist." *San Luis & Delta-Mendota Water Auth. v. Locke*, 776 F.3d 971, 995 (2014). Defendants' arguments that NMFS did not need to consider climate change in its analysis nevertheless miss the mark here. The best available science indicates that climate change will affect stream flow and water conditions throughout the Northwest. ECF No. 68-1 at 58–59. The fact that there is no model or study specifically addressing the effects of climate change on Icicle Creek does not permit the agency to ignore this factor.

The problem with NMFS's analysis is not that it used recent historical streamflow data to model the effects of hatchery operations and water use at different flow levels. *See* ECF No. 68-1 at 142, 144–58. The problem here is that NMFS included no discussion whatsoever of the potential effects of climate change in the BiOp's analysis of the Hatchery's future operations and water use. NMFS discusses the effects of climate change generally and then proceeds with

analysis on the apparent assumption that there will be no change to the hydrology of Icicle Creek. NMFS does not necessarily need to conduct a study or build a model addressing the impacts of climate change on the Icicle Creek watershed. But its analysis must consider that the best available science, which it discusses elsewhere in the BiOp, suggests that baseline historical flow averages may not be effective predictors of future flows.

Defendants point out that NMFS did conclude that climate change is less likely to affect Icicle Creek than other parts of the Pacific Northwest. ECF Nos. 98 at 8, 100 at 28. In context, the BiOp states that "climate change is likely to warm and change the hydrology of the entire critical habitat for [Upper Columbia Steelhead]," and notes that the effects of climate change "increase[] the importance of restoring habitat in Icicle Creek, an area that will be less prone to climate change affects. [sic]" ECF No. 68-1 at 175. However, this statement is conclusory and unconnected to the analysis of the Hatchery's operations and water use. And in any case, the fact that Icicle Creek may be less prone to the effects of climate change does not mean that there will be no changes.

Because NMFS failed to consider the potential effects of climate change on stream flows in Icicle Creek in connection with its analysis of the effects of the Hatchery's operations and water use on listed salmonids and critical habitat, NMFS failed to consider an important aspect of the problem, and the BiOp is

arbitrary and capricious. It is, of course, not the Court's place to tell the agency *how* to do consider climate change in its analysis, it simply must consider it.

3. NMFS's decision to use monthly average flows was not arbitrary and capricious.

The Conservancy argues that NMFS's use of monthly flow averages improperly misrepresents potential low flows. ECF No. 92 at 31. The Conservancy is correct that low flow on any given day is the critical issue because "fish require sufficient flows for their survival every day." ECF No. 92 at 31. But the BiOp specifically addressed this concern, and took steps to account for the limitations of having only monthly data by considering other data and the experience with actual operations of hatchery structures. ECF No. 68-1 at 142–47. This is an area where the Court must defer to the judgment of the agency scientists that monthly flow averages adequately capture the variability necessary to evaluate the effects of Hatchery operations. It is not apparent that FWS's decision to use monthly data relies on a faulty assumption, is counter to the evidence, or is implausible. *See Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43.

4. The ITS includes an adequate limit on take and monitoring standards.

The Conservancy argues that the ITS does not meet ESA standards for take because (1) it does not set an adequate trigger for take; (2) it lacks adequate

monitoring requirements for take associated with the water intake system; and (3) because it includes contradictory provisions. ECF NO. 92 at 33–42.

The ITS "functions as a safe harbor provision immunizing persons from Section 9 liability and penalties for takings committed during activities that are otherwise lawful and in compliance with its terms and conditions." *Ariz. Cattle Growers Ass'n v. U.S. Fish & Wildlife*, 273 F.3d 1229, 1239 (9th Cir. 2001) (citing 16 U.S.C. § 1536(o)). "In general, [ITS's] set forth a 'trigger' that, when reached, results in an unacceptable level of incidental take, invalidating the safe harbor provision, and requiring the parties to re-initiate consultation." *Id.* at 1249. The "trigger" should ideally be a number, but it may be a surrogate—"for example, changes in ecological conditions affecting the species"—but "[i]f a surrogate is used, the agency must articulate a rational connection between the surrogate and the taking of the species." *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 531 (9th Cir. 2010).

i. The ITS's trigger level is adequate.

The ITS does not set a specific numerical level for take of Steelhead and Chinook salmon anticipated to result from the Hatchery's water diversion. Instead, the ITS uses instream flow as a surrogate as follows: (1) 100 cfs from April to July; (2) natural flows minus Structure 1 and other non-federal diversions in August (no Structure 2 operations); (3) no Hatchery caused reductions in stream

flows in September where flows are less than 60 cfs, and (4) minimum instream flows of 40 cfs in October, 60 cfs from November to February, and 80 cfs in March in dry years where Structure 1 and 2 operations cause historical channel flows to drop below 100 cfs. ECF No. 68-1 at 178, 180. These surrogate levels are based on flow recommendations for passage and rearing of salmonids during different life cycles and at each relevant stream location. ECF No. 68-1 at 147–58, 178, 180. NMFS rationally connected these surrogate trigger levels to take of the species.

ii. The ITS's monitoring requirements are adequate.

The Conservancy argues that the ITS lacks sufficient monitoring procedures for take resulting from the Hatchery's water intake system. Specifically, the Conservancy notes that the Hatchery's primary diversion structure—Structure 1—does not comply with NMFS's screening criteria and entrains fish. ECF No. 92 at 37. Fish entrained in this diversion, travel through buried pipes and are deposited in the Hatchery's sand-settling basin, where they have no way to return to the creek unless manually collected and transported. ECF No. 92 at 38; NMFS 13725–26.

The BiOp acknowledges that the unscreened diversion structure kills fish, and the ITS sets a take limit of 550 juvenile and 20 adult steelhead and 1,000 juvenile Chinook. NMFS 12104–07; ECF No. 92 at 38. The ITS sets requirements

for visual monitoring of the sand-settling basin for trapped fish. ECF No. 68-1 at 181. Additionally, FWS has specific fish salvage procedures that comply with NMFS recommended procedures. ECF No. 68-1 at 177, 179–80.

The Conservancy argues that the monitoring requirements are inadequate because it is not clear the entire sand-settling basin can be observed. ECF No. 92 at 39. Defendants, however, point out that visual monitoring is more intensive than simply standing on the edge of the pool, and includes snorkeling in the pool, which has been used effectively in the past in Icicle Creek. ECF No. 98 at 20; ECF No. 100 at 43; NMFS 12049–50. Defendants also argue that the record and BiOp adequately demonstrate that juvenile fish entrained in the pool are readily observable. ECF No. 100 at 43; ECF No. 68-1 at 132, 183.

The Court finds no basis to second-guess the scientific determination of the expert agency on this issue. The ITS includes specific terms and conditions for monitoring and removal of entrained juvenile fish. ETS No. 68-1 at 182–93. These standards were developed in consultation with FWS. NMFS 1131–32. And as the Federal Defendants point out, "NMFS was entitled to rely upon the official representations of [FWS] that it would be able to conduct the conservation and monitoring measures proposed in the action." *Or. Nat. Desert Ass'n v. Tidwell*, 716 F. Supp. 2d 982, 1003–04 (D. Or. 2010).

iii. The ITS does not contain contradictory provisions.

The Conservancy argues that the ITS is internally contradictory with respect to the operation of Structure 2 in March. ECF No. 92 at 43. Specifically, Term 2a of the ITS requires that Structure 2 remain open in March for Steelhead spawning and migration, when more than 50 Hatchery fish migrate upstream of Structure 5. ECF No. 68-1 at 182. The ITS also provides that the Hatchery may deviate from its instream flow goal of 100 cfs for the purposes of "aquifer recharge." ECF No. 68-1 at 182. The Conservancy argues that this can only be accomplished by closing the gates at Structure 2. ECF No. 92 at 43. However, in addition to the provision of the ITS discussed by the Conservancy (Term 2a), the ITS prohibits any operation of Structure 2 in March if adult Steelhead are present in the creek (Term 2e). ECF No. 68-1 at 182. Term 2e therefore resolves any conflict within Term 2a: if adult steelhead are present in March, FWS may not operate Structure 2, even for aquifer recharge. *Id*

D. NMFS was not required to conduct an EA or EIS pursuant to NEPA when it issued the Incidental Take Statement.

The Conservancy argues that NMFS violated NEPA by failing to conduct an EA or EIS in conjunction with the ITS. ECF No. 92 at 44–47. NEPA requires federal agencies to prepare an environmental impact statement (EIS) for all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C)(i). If the action at issue is one that does not

categorically either require or not require an EIS, the agency must prepare an environmental assessment (EA) to determine whether to prepare an EIS or a finding of no significant impact (FONSI). *Anderson v. Evans*, 371 F.3d 475, 488 (9th Cir. 2002).

The Ninth Circuit squarely addressed this issue in *San Luis & Delta-Mendota Water Authority v. Jewell*, holding that the implementation of the BiOp and ITS is what triggers NEPA, and that responsibility lies with the action agency. 747 F.3d 581, 642 (9th Cir. 2014). In that case, the court considered whether FWS's issuance of a BiOp was a "major federal action significantly affecting the quality of the human environment.'" *Id.* (quoting 40 C.F.R. §1508.18). The court distinguished the case from *Ramsey v. Kantor*, 96 F.3d 434 (9th Cir. 1996), where NMFS issued an incidental take statement to the states of Oregon and Washington pursuant to a federal-state-tribal compact (the Columbia River Fish Management Plan). *Id.* at 644. In that unique circumstance, the BiOp and ITS apportioned rights to parties and was "functionally equivalent to a permit." *Id.* (quoting *Ramsey*, 96 F.3d at 444). By contrast, in an ordinary case, it is the action agency that has the ultimate responsibility to determine whether and how to implement an ITS. *Id.* The court concluded that there was "no reason to require a consulting agency . . . to complete an EIS when an action agency . . . will either (1) prepare

an EIS when it implements [the consulting agency's] proposal or (2) reject [the consulting agency's] proposal and prepare an EIS on whatever it implements." *Id.*

San Luis & Delta-Mendota is dispositive. NMFS had no NEPA obligation in this case.[3]

E. FWS and BOR properly relied on NMFS's BiOp and ITS to satisfy their obligations under ESA Section 7.

The Conservancy argues that FWS and BOR have violated their duty to insure that Hatchery operations do not jeopardize ESA-listed species or adversely affect their critical habitat. ECF No. 92 at 48. The conservancy argues that the agencies cannot simply rely on the BiOp because the decision to rely on the 2015 BiOp must itself not be arbitrary and capricious. ECF No. 92 at 48. An action agency has an independent duty to insure that its action is not likely to jeopardize listed species or adversely modify critical habitat. *Pyramid Lake Paiute Tribe of Indians v. U.S. Dep't of the Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990). The agency's decision to rely on the BiOp itself must not have been arbitrary and capricious. *Res. Ltd., Inc. v. Robertson*, 35 F.3d 1300, 1304 (9th Cir. 1993).

Where there are factual objections to a BiOp, an action agency's reliance on even an "admittedly weak" BiOp is generally not arbitrary or capricious. *Id.*; *Defs.*

[3] The parties' intend to file separate motions for summary judgment on Plaintiff's recently added claim that FWS and BOR were required to comply with NEPA and produce an EIS. The court is scheduled to hear these motions in March, 2017. ECF No. 117.

of Wildlife v. EPA, 420 F.3d 946, 976 (9th Cir. 2005), *reversed on other grounds by Nat'l Ass'n of Home Builders v. Defs. of Wildlife*, 551 U.S. 644 (2007). However, an action agency may be held to account for relying on a legally insufficient BiOp. *Id.*

In this case, the BiOp, in failing to consider an important factor in its analysis, is factually, not legally, insufficient. FWS and BOR's reliance on the BiOp satisfied their duties under ESA Section 7.

VI. CONCLUSION

For the reasons discussed, **IT IS HEREBY ORDERED**:

1. Plaintiff Wild Fish Conservancy's Motion for Summary Judgment **ECF No. 92**, is **GRANTED IN PART and DENIED IN PART**.

2. Defendants' Cross-Motions for Summary Judgment, **ECF Nos. 97, 98, and 100,** are **GRANTED IN PART and DENIED IN PART**.

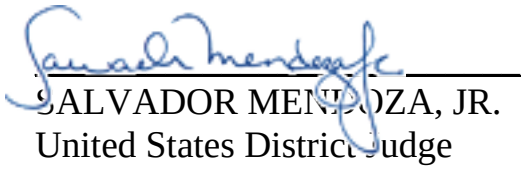
3. The Biological Opinion issued by National Marine Fisheries Service is arbitrary and capricious for the reasons articulated in this opinion.

4. Plaintiff's Fifth Cause of Action and Seventh Cause of Action are **DISMISSED**.

5. This matter is **REMANDED** for further consultation consistent with this opinion.

IT IS SO ORDERED. The Clerk's Office is directed to enter this Order and provide copies to all counsel.

DATED this 22nd day of November 2016.



SALVADOR MENDOZA, JR.
United States District Judge

ATTACHMENT 3

Marbled Murrelet Coalition Sustainable Harvest Calculation Comments

Full-Cost Accounting for Washington's State-Owned Forests: An Overview

Prepared by

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INTRODUCTION

The Washington Board of Natural Resources (BNR) is responsible for overseeing the management of more than 5 million acres of state-owned land to provide benefits for today's citizens and for generations to come. In this capacity, the BNR must weigh the potential costs and benefits of alternative land-management proposals for individual categories of land and select the alternative that offers the greatest, long-run, net benefit.

Over the next year or so, the BNR will make two major decisions that will affect the management of state-owned forest land over at least the next decade. One of these, called the "Sustainable Harvest Calculation," will set the level of timber harvest from western Washington state forest lands. The other will determine whether or not the state will secure certification from one or more entities that have established environmental, social, and economic standards of forest stewardship.

In theory, the BNR would consider the full range of potential costs and benefits from alternative harvest levels and certification programs before making its decisions on these matters. In the distant past, these tasks would have been straightforward and intuitive. Benefits were derived from the state's forest lands through logging, and the net benefit of logging a parcel was the revenue from selling logging rights minus the administrative and other related costs incurred by the state's Department of Natural Resources.

Today, though, conditions are much different. There is broad scientific evidence and widespread public perception that industrial logging can generate numerous costs for others. Degradation in the quality of water in streams arising from logging, for example, might harm salmon populations and lead to the loss of fishing-related jobs or to reductions in the value of residential properties adjacent to these streams. Some of the costs might not be realized immediately, or in the immediate vicinity, but be spread over the state's entire economy and extend to future generations. Some of the costs are easily quantifiable but others are not and some are not quantifiable at all, given today's incomplete scientific understanding of the ecological consequences of forest-management decisions and how they interact with other forces, such as global climate change.

Changes in the state's population and economy also affect the number and dimensions of the costs accompanying logging on the state's forest lands. Actions that were acceptable in the past, such as degradation of habitat for species facing extinction now are seen as unacceptable. Communities where family incomes once depended solely on the timber industry now may find the mills and logging crews

This report does not address the much-discussed question of whether or not the *Skamania* court decision was correct in interpreting the BNR's trust duties as requiring undivided loyalty to the trustees. It does not need to. The utility of full-cost accounting as a tool for informing the BNR's forest-management decisions does not rely on any particular interpretation of *Skamania*. Rather, full-cost accounting is essential to the BNR's undisputed trust responsibilities to manage state-owned forests with appropriate attention to intergenerational equity and avoiding unreasonable risks to the trusts.

The purpose of this paper is to outline the central concepts of full-cost accounting. It also discusses past decisions that may have been modified, had their costs been fully taken into account, and describes how forest-management approaches that emphasize sustainability and stewardship can have positive economic consequences.

have disappeared and incomes depend on an unlogged forest's contributions to the local quality of life.

The timber industry is, and will remain an important component of the economy, in individual communities and for the state as a whole. Logging is, and for the foreseeable future will remain one of the tools used to manage and derive revenues from state-owned forest lands. As Washington's population grows and the economy evolves, however, the costs that might materialize from logging become more diverse and the potential consequences of setting logging levels too high and environmental standards too low become more severe. Logging methods and programs that made sense in the past may no longer be the best for the beneficiaries who receive revenues from the lands or for the economy as a whole.

Given these changes in Washington's economy, the Washington Environmental Council (WEC) and the Seattle Audubon Society (SAS) are recommending that the BNR adopt an accounting system that fully identifies and weighs all the potential costs and benefits of different forest-management alternatives and assesses how they are likely to shift over time. WEC and SAS have emphasized that their recommendation is not about whether or not logging should occur on state-owned lands. Rather, their goal is to see full-cost accounting used as an efficient tool for shaping the characteristics of logging and other forest-management programs to ensure that they yield maximum, net benefits for this and future generations, in accordance with the BNR's trust responsibilities to beneficiaries and the public.

With the economic stakes surrounding logging of the state's forests rising, and with the BNR considering policies that will guide management of state-owned forests for at least the next decade, now is an opportune time to develop a conceptually sound, procedurally transparent process for comparing all the costs and benefits of different forest-management alternatives.

The purpose of this paper is to extend some assistance to the BNR by outlining the central concepts of a full-cost accounting system for evaluating forest-management policies and practices for the state's lands. We also illustrate the importance of full-cost accounting by including in the discussion examples of past decisions that may have been modified had such a system been in place and examples of how forest-management approaches that emphasize sustainability can have positive economic consequences.

The author of this report, the Washington Environmental Council, and the Seattle Audubon Society hope the BNR will use this as a starting point for developing and adopting its own full-cost accounting system.

We anticipate that full-cost accounting will, increasingly, become a central feature of the BNR's discussions with stakeholders and the public regarding its major forest-management decisions.

The remainder of this report has three sections. We first describe some general principles that should guide the development and application of full-cost accounting for the BNR's management decisions regarding Washington's state-owned, forest lands.

Next, we discuss some lessons from the past that might usefully inform deliberations of current board members. These lessons arise from past decisions that have proven inconsistent with the BNR's trust responsibilities, but could have been avoided if past board members had evaluated those decisions using a full-cost accounting system.

In the appendix, we briefly summarize some of the relevant economic literature regarding full-cost accounting as it might apply to Washington's state-owned forests.

PRINCIPLES OF FULL-COST ACCOUNTING

The major principles for applying full-cost accounting to BNR's forest-management decisions are illustrated by Figure 1, which shows a generalized equation for determining the net economic benefits of a forest-management alternative. In concept, the equation is straightforward: the net benefits are the gross economic benefits minus the costs, taking into account uncertainty and risk, as well as the distribution of effects, and comparing a given alternative against the next-best alternative. In practice, each element of the equation embraces many issues, issues that are before the BNR as it weighs options for managing state-owned forests. Below, we discuss each element of the equation in Figure 1 in greater detail.

Gross Economic Benefits

The gross economic benefits of decisions setting the timber harvest levels and forest-management standards for the next decade include more than just the revenues from ten years of timber sales. For example, if implementation of forest-management practices consistent with the standards of one or more certification organizations would increase the quality and, hence, the value of timber that would be logged in later decades, then these increases should be taken into account. In addition, managing the state's forests to meet certification standards might yield ancillary revenues. With certified forests, for example, BNR might be better positioned to earn revenues by selling carbon-sequestration credits, if carbon markets should evolve in the future, as many observers predict.

Some benefits might accrue to entities other than the trust beneficiaries. For example, if the BNR gives additional protection to water quality in streams on state lands, and if the improved water quality would stimulate additional recreational activities, these may generate additional revenues for local businesses and governments, some of whom may not be beneficiaries of state trust lands.

Some benefits might not materialize as monetary revenues, and, hence, not address the BNR's objectives of providing revenues to beneficiaries. Nonetheless, these benefits can be sufficiently substantial that overlooking them would undermine the BNR's larger responsibilities and, perhaps, jeopardize future revenues from state-owned lands. For example, adopting forest-management standards that forgo logging on steep, unstable slopes might reduce the risk of future landslides originating on state lands. Fewer landslides may mean lower risk of human injury and death, from the landslides themselves or from downstream flooding that can accompany landslides. All these benefits, even though some are not monetized, might be large enough to warrant consideration as the BNR makes its forest-management decisions.

Figure 1: Major Principles of Full-Cost Accounting

The major principles for applying full-cost accounting to the BNR's forest-management decisions are illustrated by this equation:

The Net Economic Benefits of a Selected Forest-Management Alternative

equal **The alternative's gross economic benefits**

Economic benefits include monetary revenues derived from the sale of goods and services from the forest, plus any increase in the value of future sales, plus monetary revenues from the sale of any ancillary good or service, plus any increase in the value of non-monetized goods and services derived from the forest.

Direct benefits are realized by the trust beneficiaries and state forest managers, e.g., as revenues from the sale of logs. Indirect benefits, if any, are realized by others, e.g., other state agencies, other landowners, and the general public.

minus **The alternative's direct and indirect costs**

Economic costs include monetary expenditures associated with implementation of the selected alternative, plus any increase in future expenditures, plus any decrease in the (monetized or non-monetized) value of a good or service derived from the forest.

Direct costs are incurred by the trust beneficiaries and state forest managers. Indirect costs, if any, accrue to others, e.g., other state agencies, other landowners, and the general public.

taking into account **Differences in uncertainty and risk between this and other alternatives**

The net economic benefits of a given alternative are reduced to the extent that there exists uncertainty about its ability to generate the expected benefits and/or risk that it may generate costs substantially higher than expected.

and **The distribution of costs and benefits**

A forest-management alternative may not be desirable if it is seen as grossly unfair because one group bears the costs and another enjoys the benefits. The greater the sense of unfairness, the greater the likelihood that forest-management decisions will be challenged.

and comparing with **The net benefits forgone by not selecting the next-best alternative**

When more than one forest-management alternative is being considered, the net benefits of a given alternative must be compared against those of the others.

Moreover, there may be a link between the non-monetized benefits and monetized benefits to trust beneficiaries. To continue this example, even though forgoing logging on steep, unstable lands might reduce timber-sale revenues, the overall, net income to the trust beneficiaries might rise. Such an outcome could come about if logging on these lands would markedly increase the risk of landslides resulting in expensive lawsuits filed against the BNR over injuries, death, and damages. Under these circumstances, logging reductions could yield higher net income for beneficiaries.

Costs

The first step in determining if a given forest-management alternative would yield net economic benefits is to subtract from its expected revenues the expenditures forest managers would incur to implement it. To determine the full, potential costs of a given forest-management alternative, though, the BNR should look beyond this limited calculus.

Additional expenditures may materialize in future periods. For example, using conventional harvest practices and maximizing the harvest during the coming decade might trigger future landslides, higher sedimentation of streams, more extensive forest fires in regenerated plantations, or other damage that must be corrected in subsequent decades. Or, other entities may incur expenditures as a result of the BNR's actions. This might occur, for instance, if logging on state-owned lands were to increase sedimentation in streams so that water utilities downstream incur higher costs to produce potable municipal water supplies, or downstream communities experience more severe flooding because sedimentation clogs river channels.

Additional costs could materialize if the forest-management policies adopted by the BNR were to reduce its ability to generate future revenues. This outcome could occur, for example, if certified forests proved able to yield higher-quality timber that would command a higher price than timber from uncertified forests, but, by opting now not to pursue certification, the BNR foreclosed the realization of the higher revenues. A similar outcome could arise if national carbon-sequestration markets were to develop in the future, but the BNR foreclosed the option of earning revenues from them through forest-management policies that failed to account for this possibility.

Long-lasting reductions in revenue-generating ability would materialize if a forest-management decision damaged the fundamental, ecological productivity of state-owned lands. Concern about such an outcome has long accompanied management of forests for industrial timber production, especially on short rotations. Consider, for example, this summary statement about the impacts on the long-term, forest productivity:

> "[I]ntensive, frequent harvests accelerate nutrient export [from a site] and can accelerate leaching and soil loss; site preparation can cause nutrient losses via removal, displacement, or topsoil erosion; and prescribed burning causes additional losses through volatilization or ash being blown away." (Miller et al. 1992)

The authors note that, in some settings, as when soils are lost, the decreases in productivity are permanent. In others, the loss can be offset, but at a cost. For example, nutrients leached from soils can be replaced through the application of fertilizers, or by giving the forest enough time to restore the nutrients naturally. Full-cost accounting should fully recognize such costs.

Considerable costs also could materialize if logging on state lands were to reduce significantly the value of resources owned by others. For example, a significant increase in timber production from state-owned lands over a short period could depress the demand for and, hence, the price of timber owned by others on adjacent lands. The affected landowners would not be the only ones affected if, to continue the example, they were to reduce their harvest, lay off workers, and thereby reduce the tax receipts of local governmental entities. Similar outcomes could occur if logging on state lands were to cause job and income losses associated with other sectors, e.g., if logging of a scenic hillside depressed local housing markets because homeowners do not like to live near the unattractive stumps of a clearcut.

Uncertainty and risk

It is the nature of planning processes to focus on expectations. Thus, each forest-management alternative is typically designed and compared against others by assuming that its costs and benefits will fit a narrow set of expectations. Costs are expected to fit within expected budgetary, staffing and other constraints, benefits are expected to materialize when timber is sold at projected prices.

But things don't always go as planned.

Consequently, as the BNR compares forest-management alternatives it is appropriate for it to look beyond how they stack up against one another at face value, to see how the alternatives compare if things don't turn out as planned. It should consider the probability that each alternative will, in fact, yield unexpected outcomes and weigh the importance of such outcomes, should they materialize. All else equal, it should prefer alternatives that embody a low probability of extreme surprises, especially negative ones.

Two terms, uncertainty and risk, are commonly used to represent the likelihood that the future will not turn out as expected. Uncertainty is the more general of the two, and refers to any situation where there is a finite (but unknown) probability that an unexpected outcome, positive or

negative, will materialize. Risk refers to situations where the potential outcome is negative.[1]

Uncertainty and risk can stem from nature, the economy, or human decisions. The likelihood of future drought, for example, is a natural uncertainty, but if severe drought were to occur, it could increase the risks of intense forest fires, reduced forest growth, and diminished habitat for at-risk species. Risks associated with uncertainty about the future economy include potential changes in global lumber markets that would reduce the price of timber the BNR plans to sell in the future. Or, an unexpected boom in Washington's economy could generate unforeseen urban settlement adjacent to state-owned lands, significantly increasing the hassle costs land managers and trust beneficiaries would incur to log them.

Potent potential risks from individual, human decisions are those associated with lawsuits or boycotts. No one can predict the probability that consumer groups and major retailers would boycott lumber and wood products from Washington's state lands if the BNR were to reject proposals that these lands be managed to meet certification standards. But if such a boycott materialized, the risk of financial losses could be considerable.

Neither uncertainty nor risk will be the same across all alternatives facing the BNR, and the differences may significantly influence the alternatives' overall, relative, net benefits. If the BNR were to adopt an alternative that called for not logging a specific parcel during the next decade, for example, but subsequent changes in economic and ecological conditions warranted logging, then the option would remain available. Conversely, if the parcel were logged and future conditions dictated that the parcel would, instead, be far more valuable unlogged, it will be too late. Similar differences among the alternatives relate to numerous natural, economic, and human-decision risks.

This asymmetry is unavoidable. Thus, how the BNR weighs uncertainty and risk will heavily influence its perceptions of the net benefits of the different alternatives. Past experience shows that many of today's risks, such as the threat of restrictions from the Endangered Species Act, were triggered by forest-management practices that took an industrial approach, focused on generating short-run revenues, and overlooked the accompanying risks. A growing body of research indicates that these

[1] In some contexts, economists use the term, risk, only in situations where the probability of an undesirable event is known. We use the term more broadly to refer to any situation where the BNR's decisions could yield outcomes significantly worse than those that are expected. This broader perspective is useful, insofar as society generally is risk averse, i.e., it places a greater value on avoiding potential, negative outcomes than on experiencing potential, positive ones, all else equal.

risks may be mitigated in the future through approaches that focus on producing both revenues and ecological conservation.[2]

Distribution of costs and benefits

The distribution of costs and benefits among different groups can have an important influence on the overall, net economic benefits of different forest-management alternatives. This is especially true if a decision by the BNR would cause one group to bear large costs and another to enjoy large benefits, and if this disparity were broadly seen as grossly unfair. In such situations, those who bear the costs would have not just economic incentives to oppose the decision, but political support for doing so. The greater the opposition from individuals, groups, and political leaders, the higher the costs the BNR will face to implement the decision.

Distributional issues are, perhaps, most easily seen when they involve the current, competing interests that generate controversy surrounding the BNR's actions. This controversy can delay the BNR's proceedings, tie-up decisions in courts, and undermine legislative support for the BNR's programs.

Perhaps less visible, but no less important from an economic perspective, are the distributional issues that emerge when a forest-management alternative would generate benefits for this generation but costs for those of the future. Consider an example discussed above: the prospect that short-rotation, industrial timber production might significantly lower soil productivity. In such circumstances, today's Washingtonians would pass to their descendants a depleted asset, the corpus of the trust managed by the BNR would decline in value, and future beneficiaries of the trust would enjoy less revenue from these assets.

Such threats to the interests of future generations can have more than just a theoretical significance for today's trust beneficiaries and members of the BNR. Real impacts on the BNR's proceedings and on the near-term revenues to beneficiaries can materialize if (current) advocates for future generations generate publicity and controversy regarding perceived inequities, file lawsuits or take other direct actions to prevent future harm to trust assets.

These issues accompany proposals for the BNR to pursue certification by the Forest Stewardship Council and/or other institutions. Relative to other alternatives facing the BNR, certification standards that embody the greatest emphasis on protecting the long-run productivity of forest assets also carry the lowest risk that forest-management policies will

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[2] *See*, for example, Carey, et al. (1999). Also, *see* the summaries in the Appendix of literature that describes the spillover costs of past forest-management practices and the potential opportunities for modifying future practices so the overall value of goods and services produced from forests rises, with less accompanying risk.

generate intergenerational inequities sufficient to trigger challenges to the BNR's decisions and costs for the beneficiaries.

Comparison of alternatives

It may be useful for the BNR to weigh different forest-management alternatives using more than one set of economic scales. One might measure just the alternatives' expected revenues, for example, while another would consider the full set of costs, uncertainties, and risks described above. If they both show that one alternative dominates the others, then the BNR could have confidence that choosing it would be the best, from an economic perspective.[3]

The BNR also could learn important information if the two scales did not agree with one another. The first scale, for example, might show one alternative promises substantially higher timber-sale revenues than the others over the next decade, but the second scale might show the revenues are highly uncertain, and the alternative, if implemented, would significantly reduce future revenues, impose large costs on groups outside the revenue stream, and stimulate perceptions of gross unfairness. Such findings might help the BNR determine that another alternative, though it promises lower timber-sale revenues, would be preferable because the risks would be less, the revenues more certain, and the overall consequences more in line with the BNR's stewardship obligations.

Even if the BNR opts not to apply full-cost accounting and make such comparisons, it should anticipate that others will do so. Evolving scientific knowledge about forest management and growing awareness about the economic stakes associated with management alternatives will encourage individuals, interest groups, and even communities to look at the full suite of benefits and costs of forest-management alternatives. If the BNR ignores a particular benefit or cost, someone will ask "Why?" and have in hand information buttressing his or her belief that the benefit or cost is economically important. In this context, the BNR can reassure everyone by taking the lead.

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[3] The Appendix provides evidence, derived from several research efforts, reinforcing the importance of evaluating forest-management alternatives using broad economic criteria rather than just the present discounted value of revenues from timber sales. Note especially the findings of the Wood Compatibility Initiative and other research regarding the ability of different alternatives to jointly produce wood fiber and other valuable goods and services. (*See* Appendix section "D. Joint Production of Timber and Other Goods and Services.")

APPLYING THE PRINCIPLES: SOME LESSONS FROM THE PAST

Concern about full-cost accounting and maximizing the net benefits from state-owned forests — taking into account all the factors shown in Figure 1 — is not new. Past members of the BNR, school and local-government beneficiaries of state land trusts, and members of the public have long seen the merits of weighing all the costs when choosing among alternative approaches to managing the state's forests.

A review of this experience shows, however, that the BNR has systematically taken too narrow a view of full-cost accounting. Subsequent outcomes have proven its decisions over-emphasized the benefits of timber production, under-emphasized or failed to see important costs, and inadequately accounted for the economic risks of approaches that preferred short-run revenues at the expense of ecological health and long-run revenues. Figure 2 identifies some of the costs not fully taken into account by past boards. We separate these and other, related examples, into two categories: those that failed to see the ecological risks of logging, and those that did not fully anticipate changes in economic preferences.

Ecological Risk

There can be no doubt that past forest-management decisions by the BNR did not fully account for the ecological risks and related economic costs that resulted from its decisions regarding logging levels and environmentally harmful forest practices. Consequently, subsequent generations have borne extraordinary costs to cope with deteriorating roads, risks to threatened and endangered species, fire-related risks, and damage from disease and insects.

Similar mistakes can be avoided in the future if forest scientists and managers fully understand all the ecological consequences of logging on state lands. If they do not, however, then the lack of understanding means that any decision to log state lands embodies further ecological and, hence, economic risks. Generally accepted principles of asset management indicate the BNR should act to curtail the risks by implementing logging practices and levels that mitigate the risks.

The BNR also should ask, What are the chances that the forest's response to the decisions made today will be less robust than currently expected? In answering this question, it should take into account the considerable research, much of it conducted by scientists in Washington, identifying the potential ecological impacts of global warming.

Figure 2: Some Examples of Costs Not Fully Taken into Account by the BNR's Past Decisions

Ecological Risk

Roads

Built to support logging, many roads have caused subsequent generations to incur the costs of ecological damage, repair costs and/or decommissioning costs.

Fire on logged-over state lands

Past forest-management practices have resulted in state lands having dense, single-age stands less resistant to fire than more diverse, older forests. Subsequent generations have incurred additional fire costs.

Diseases and insects

Past forest-management practices have resulted in dense, single-age stands less resistant to some diseases and insect infestations than more diverse, older forests. Forest productivity beneficial to subsequent generations has been diminished.

Soils

Past forest-management practices have caused soil erosion, reduced soil productivity, and diminished forest productivity beneficial to subsequent generations.

Fire-suppression

Past fire-suppression activities often aimed to protect trees so they could be logged. Subsequent generations face increased risk of intense fire and economic damage.

Habitat modification

Past forest-management practices adversely modified habitat. Compensatory conservation costs have reduced the net benefit for subsequent generations.

Economic Preferences

Services vs. timber

Past timber production often had persistent, adverse impacts on recreational and other services that are becoming more valuable. These adverse effects erode public support for the BNR's management of state-owned lands and potentially jeopardize the continued flow of timber-sale revenues to trust beneficiaries.

Green markets

Consumer groups and major retailers have created new demands for forest products produced in accordance with forest-stewardship standards.

Market sanctions

Consumer groups have boycotted products that do not meet stewardship standards.

Rainfall Change Is Expected to Reduce Forest Production

"Some types of trees grow better with more CO_2 in the air, but for most Northwestern trees, the normal summer dry period is the strongest limitation they face to growth. Furthermore, drought increases the likelihood that trees will be weakened or killed by insects or forest fires. ... Looking to the future then, a warmer climate poses problems for Northwest forests."

Climate Impacts Group. 1999. *Impacts of Climate change on the Pacific Northwest. Summary.*

Several recent analyses predict that global warming is likely to change precipitation patterns throughout the Pacific Northwest. One study, for example, predicts that, although total annual precipitation in this region is likely to remain about the same, the distribution of precipitation will be different (Climate Impacts Group 1999). Winters are expected to be wetter, but with more rain and less snow, and summers are expected to have less rainfall as well as lower runoff from the smaller snowpacks. "The future, therefore, probably holds increases in winter flooding and—paradoxically—increases in summer drought."

Researchers examining the potential impacts of climate change readily acknowledge that the models they employ are not perfect, though there are strong reasons to believe they capture precipitation trends in the region with reasonable accuracy. If their forecasts are correct, then the costs of sustaining a given level of timber harvest on state-owned lands could increase, for hotter, drier summer days will slow tree growth and make it more difficult to establish seedlings.

Economic Preferences

Unforeseen changes in economic preferences also have diminished the net economic benefits derived from past forest-management decisions. Particularly important have been the growing value, relative to timber, of recreational and other services derived from forests. An extension of this shift has been the emergence of markets for forest products certified as being produced in accordance with stewardship standards, and sanctions for products that do not meet these standards.

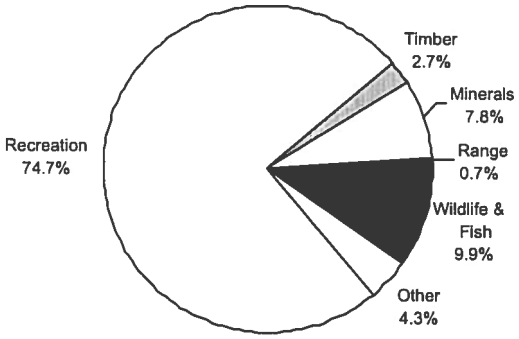
Figure 3 illustrates the growing economic importance of recreational and other services. It presents some of the results from a 1995 study that tallied the contributions to the Gross Domestic Product, or GDP, of different goods and services from the national forests (U.S. Department of Agriculture 1995). GDP is the value of all domestically produced goods and services and, though it is widely accepted as a measure of the nation's economic production, many fault it for generally ignoring the environment and unpriced items, such as recreation. In this study researchers attempted to fill in some of the blanks.

The analysis projected that the most easily measured goods and services from the national forests would contribute $145.1 billion to GDP in 2000. Recreation accounts for three-quarters of this contribution, as shown on the left side of the figure, and fish and wildlife accounts for 10 percent. In contrast, timber accounts for only 2.7 percent of the total. The authors of

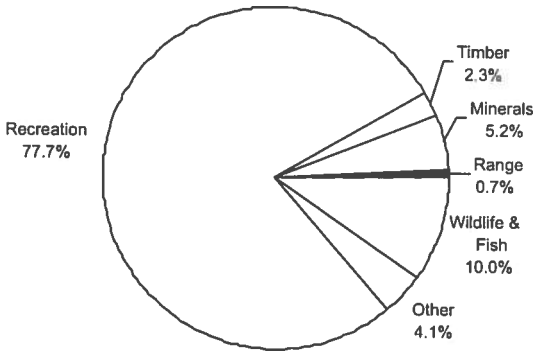
the report also predicted that, for the foreseeable future, the value of the services would increase, relative to the value of timber.

Figure 3: Recreational and Other Services, Not Timber, Account for the Bulk of the Value and Jobs Produced by the National Forests

Contribution to Gross Domestic Product
Total Value: $145 billion (1999 dollars).
Excludes carbon sequestration, clean water and other services provided by national forests.



Contribution to Jobs
3.3 million jobs derived from the national forests.
Excludes carbon sequestration, clean water and other services provided by national forests.



Source: U.S. Department of Agriculture (1995).

Recreation similarly dominates timber in jobs. Recreation accounts for more than three-quarters of all jobs derived from the national forests, as shown on the right side of Figure 3, and timber for less than 3 percent.[4]

There are, of course, important differences between the national forests and Washington's state-owned forests, and we do not imply that the distribution of goods and services for state-owned lands would be the same as those in Figure 3. That said, however, the data in Figure 3 provide some context for evaluating the long-run economic consequences of alternative schemes for managing state-owned forests.

[4] The analysis underlying Figure 3 is currently being revisited in response to questions raised about the accuracy of the data on recreation. Even if the recreation numbers are adjusted downward, however, we expect the conclusion that services outweigh timber to remain robust, insofar as adding in carbon sequestration, the provision of clean water, and protecting existence values associated with unroaded areas—services excluded from the original analysis—would outweigh any reduction in the value of recreational services.

To the extent that Washington's state-owned lands resemble the national forests, then the value of services derived from these lands outweighs the value of timber, and the difference in value will grow in the future. This may not be true of all state-owned lands, but it is more likely for lands where the services are already identifiably important — where there is high recreational use or where state lands are a component of municipal watersheds, for example.

To the extent that services derived from a parcel of state-owned land are more valuable than timber, then the BNR could damage the overall economy if it were to decide the parcel should be logged in a manner that significantly reduced the value of the services. This economic damage also could reduce the net benefits to trust beneficiaries, both current and future.

The threat to current beneficiaries is illustrated by recent growth in the demand for certified wood products and by evidence that the market might sanction products produced from state-owned lands in a manner contrary to widely-recognized standards of stewardship.

Numerous retailers of wood products have responded to consumer demands by curtailing their sales of wood products perceived as coming from environmentally harmful practices. For example, Home Depot and Lowes have reduced their stocks of lumber and other wood products derived from old-growth forests, Staples and Kinkos have begun eliminating the use of paper derived from old-growth forests, and McDonalds switched to paper packaging with a high content of recycled fibers. Similar actions are expanding the effort to restrict stocks of wood products lacking forest-stewardship certification. If these efforts are successful, the BNR could find itself excluded from a valuable marketplace.

The overall significance of consumer demands for green products is illustrated by a recent analysis (IBM Business Consulting Services 2003). After interviewing 30 individuals representing major corporations that purchase forest products from mills in British Columbia, the report concludes there are significant financial risks for landowners, manufacturers, and retailers that do not demonstrate they have avoided unnecessary harm to the environment.

The threat to future beneficiaries arises from the possibility that future generations may find the consequences of today's forest-management decisions so undesirable they impose constraints on the BNR's ability to generate future revenues from state-owned lands. For example, if future Washingtonians strongly prefer that watersheds in a region of the state provide high-quality water, but find that the legacy of past logging jeopardizes their ability to do so, they may seek to ban all additional logging in the watersheds. Revenues to beneficiaries from logging could plummet.

Changes in economic conditions unrelated to the demand for services also could bring about a similar fall-off in revenues. For example,

revenues to beneficiaries from timber sales could drop precipitously if the BNR adopts policies that move state-owned lands toward producing low-quality wood from short-rotation timber harvests, only to find that future prices for such wood are not sufficiently robust to cover logging costs.

This discussion touches on only a few of the substantial economic trends and uncertainties that complicate the BNR's task of managing state-owned forests in a sustainable manner. But it highlights a threshold the BNR must cross if it is to meaningfully integrate issues of sustainability into forest-management planning: it must look beyond the present into the future. A harvest level that would be sustainable if economic conditions were to remain as they are today, may prove unsustainable as the economy evolves. Thus, the BNR must explicitly identify foreseeable economic changes and consider their implications for forest-management decisions made today. These implications cover the sustainability of both forest resources on state-owned lands and the flow of benefits to trust beneficiaries.

APPENDIX: A BRIEF DISCUSSION OF RELEVANT LITERATURE

Washingtonians have long been concerned about the sustainability of their forests. Until recently, this concern focused primarily on sustaining the flow of timber, as timber was seen as the primary, or even the only, forest product with significant economic value, and the prevailing view was that forests had to be logged if the state were to derive meaningful revenues, jobs, and other economic benefits from them. Accordingly, land managers, researchers, and the public encouraged the adoption of forest-management regimes aimed at producing as much wood fiber as possible. West of the Cascades, the principles of industrial forestry supported clearcutting and planting high-value commercial species (especially Douglas fir), plus the use of fertilizers to encourage growth and herbicides to discourage competing vegetation.

Over the past two decades, however, the reasoning underlying these practices has been called into question, as scientists, economists, and the public increasingly have come to recognize that those regimes produced timber at the expense of other goods and services, harmed many species, and imposed costs on subsequent generations. These adverse impacts are commonly called the spillover costs of conventional, industrial approaches to logging.

Spillover costs of logging on state-owned lands are important to the BNR for two reasons. First, they reduce the economic well-being of those who bear them, all else equal, and impair growth throughout the overall economy. Second, if large enough, they spur political and other actions to curtail them and, in the process, threaten the continued flow of revenues from logging.

In the following pages, we summarize some of the literature that describes some of the most significant spillover costs of conventional, industrial approaches to logging. This literature supports these conclusions:

- *State-owned lands play so many roles in the economy that the BNR cannot provide a full accounting of the net economic benefits of alternative forest-management schemes by looking solely at the direct costs and revenues of timber production.*

- *Insofar as industrial forest-management practices generate spillover costs for other sectors of the economy and for future generations, then a management scheme that adopts these practices to maximize timber production over the next decade will not — indeed, cannot — yield sustainable levels of other goods and services.*

- *Researchers are demonstrating that forest-management approaches that explicitly attempt to achieve joint objectives — for timber production, ecological health, and sustainable production of non-timber goods and services — may yield higher revenues than those that focus solely on timber.*

A. Spillover Effects on Salmonid Fishes and Their Habitats

Considerable effort has been made to increase understanding of the potential spillover costs associated with the impacts of conventional timber production on salmonids (salmon, steelhead, and trout). Table 1 illustrates the findings from one of the most extensive, but also earliest, summaries of the scientific literature.

Table 1. Illustrative Potential Impacts of Forest Management on Salmonid Fishes and Their Habitats

Forest-Management Activity	Illustrative Impacts
Timber Harvesting and Silviculture	"[T]he effect of harvest and silviculture [on the water balance] can be grouped into three major categories…: influences on snow accumulation and melt rates; influences on evapotranspiration and soil water; and influences on soil structure that affect infiltration and water transmission rates." "The principal water quality variable that may be influenced by timber harvesting are temperature, suspended sediment, dissolved oxygen, and nutrients." "Forest harvest activities can influence both upland erosional processes and the way that forest streams process sediment in their channels. … Remedial measures are available to correct surface erosion problems, but they are costly and far from perfect. Correcting the effects of accelerated mass movements may require tens or hundreds of years…."
Forest Chemicals	"The use of forest chemicals can result in both direct and indirect effects on salmonids and their habitats. Direct effects are those resulting from the exposure of fish to a chemical in water, food, or sediment. … Indirect effects are manifested through chemically induced changes in the densities and community organization of aquatic and terrestrial plants and insects. These effects may include alteration of nutrient, sediment, and temperature characteristics of the water and changes in cover, food, or some other environmental characteristic important to the well-being of salmonid fishes."
Road Construction and Maintenance	"Forest and rangeland roads can cause serious degradation of salmonid habitats in streams."

Source: (Meehan 1991)

B. Cumulative Effects of Forest Practices (1995)

Scientists at Oregon State University, at the direction of the Oregon Department of Forestry, summarized what was known in 1995 about the cumulative effects of current forest practices on air resources, soils, water resources, aquatic biota, and wildlife (Beschta et al. 1995).Table 2 illustrates the findings.

Table 2. Cumulative Effects of Forest Practices, ca. 1995

Affected Resource	Illustrative Impacts
Air Resources	"Forest practices ... have the potential to substantially affect air resources in and around forested areas. In some cases, the effects can extend many miles from forested areas due to transport of airborne material by prevailing winds. The most significant effects result from emissions of smoke and other air pollutants from forest burning. ... Changes in forest cover following harvest can cause major effects on ground-level temperatures. ... [and] have important effects on patterns of snow accumulation. ... While reintroduction of trees to a previously forested area will increase the carbon storage in biota, the tree harvest itself releases large amounts of carbon to the atmosphere.... Carefully managed forests could represent a significant sink of CO2. "
Soils	"Concerns about effects of forestry practices on soils involves individual 'immediate' effects and several associated 'intermediate' effects which have potential to impact soil conditions and productivity. These effects include: soil compaction, surface erosion, soil mass-movement, nutrient redistribution or loss, and effects on soil biota."
Water	"Scientific results indicate that while forest practices can significantly alter hydrologic systems in some instances, in others they may have little to no detectable effect. ... In most cases, it is not the fact that trees were harvested, but how they were harvested, where on the landscape, the methods of roading and yarding, the degree of riparian protection, and other factors that ultimately determine the impact of a forest practices operation."
Aquatic Biota	"A loss of stability in stream habitat and fish assemblages characterize systems recovering from logging-related disturbances. Though short-lived invertebrates and young fish may colonize disturbed sites, biological stability and habitat complexity are slow to return."
Wildlife	"Forest practices can affect habitat quality for the nearly 300 forest-associated vertebrate wildlife species [and] result directly in alteration of animal survival rates, or can indirectly cause changes in abundance and distribution of species by altering habitat throughout forested regions ...."

Source: (Beschta et al. 1995)

C. Goods and Services from Public Lands

In 1997, economists with the Forest Service developed the region's most thorough comparison of the economic values of different goods and services derived from public lands (Haynes and Horne 1997). They found that, for federal lands in the Washington portion of the eastern Cascades, timber constituted only 7.76 percent of the total value of all goods and services derived from those lands in 1995, and estimated that this percentage would fall to 1.95 percent by 2045. Table 3 shows the breakdown.

Table 3. Percent of Total Value of Goods and Services from Federal Lands in the Northern Cascades (Eastside), 1995 and 2045[a]

	Percent of Total Value	
Activity	**1995**	**2045**
Timber	7.76	1.95
Camping	5.87	3.82
Day Use	4.2	3.78
Fishing	1.22	0.59
Hunting	3.22	1.54
Motor Boating	0.04	0.02
Motor Viewing	1.88	21.24
Non-Motor Boating	0.05	0.03
ORV	0.34	0.22
Snowmobiling	0.16	0.09
Trail Use	9.29	9.32
Viewing Wildlife	0.6	18.95
Winter Sports	5.43	3.85
Range	0.09	0.04
Unroaded Existence	59.83	34.55

Source: (Haynes and Horne 1997)

[a] Excludes values for some goods and services, such as carbon storage, habitat for at-risk and other species, and provision of clean water.

Although the data represent federal lands on the eastern flank of the Cascades, they have important implications for Westside state lands, for they demonstrate that recreational values derived from public lands can far outweigh timber values. Moreover, this disparity is expected to grow. Thus, decisions that favor short-run production of timber but cause long-run reductions in recreational values may significantly lower the overall value of future goods and services produced from state-owned lands. The greater the reduction, the greater the likelihood that

recreationists will press their interests before the BNR and other institutions.

D. Joint Production of Timber and Other Goods and Services

The dramatic reduction in timber production on federal lands in the Pacific Northwest stimulated the initiation of research about the spillover costs from timber production. The most extensive is the Wood Compatibility Initiative of the Forest Service's Pacific Northwest Research Station, underway since 1998. It aims to (1) characterize the spillover costs, and (2) describe options for modifying timber production to reduce them. Other researchers, most notably at the University of Washington and Oregon State University, have conducted research on the same topics.

This research raises a red flag for the BNR and the trust beneficiaries. Initial reports confirm that the spillover costs are widespread and economically and socially significant, but the mechanisms by which the spillover costs manifest themselves are not always fully understood. Thus, the research sends a warning: adopting a forest-management regime emphasizing timber production probably will generate significant spillover costs that cannot now be fully understood and anticipated. To the extent that these spillover costs will redound to the BNR and the beneficiaries — through lawsuits or political opposition, for example — they constitute significant risks that net, forest-management revenues will be less and expected.

The research also finds there are opportunities for modifying timber-production practices to reduce the spillover costs. These opportunities include explicitly managing broad landscapes to jointly accomplish timber-production and ecological objectives. Here are some examples of research findings:

- "Virtually all aquatic species and many terrestrial plant and animal species closely associated with riparian zones are sensitive to management-induced changes in riparian condition …." Peterson and Monserud (2002)
- "The tradeoff between negative public perceptions and silvicultural benefits of clearcuts is a long-standing dilemma in forest management …." Peterson and Monserud (2002)
- "Whether intended or not, almost all forest management activities affect recreational opportunities and uses." Peterson and Monserud (2002)
- "Ultimately, we need to examine scenarios comparing management alternatives at the regional scale. Forest harvesting can fundamentally alter landscape patterns, with potential impacts on biodiversity, regional hydrology, and certain wildlife populations. Compatibility itself is inherently a large-scale concept that cannot be properly evaluated by looking at a series of stands or even watersheds in isolation." Peterson and Monserud (2002)
- "There has been an evolution of goals from the sustainability of individual product outputs to the sustainability of whole ecosystems. As a result, there is the recognition that sustainable timber harvests do not guarantee sustainable levels of other goods and services. … The discussion of joint production and sustainability are inseparable

because the production of one output will have repercussions on other outputs and services." Stevens and Montgomery (2002)

- "Intentional management based on [conserving biodiversity] is a net benefit situation [relative to setting lands aside or maximizing net present value from timber production] for multiple-use and trust lands." Carey, et al. (1999)

Carbon Sequestration

Concerns over the prospect of global warming has led to research regarding the feasibility of proposals to retard growth in atmospheric concentrations of carbon dioxide (CO2) by sequestering carbon in wood fiber. Several prominent proposals, if implemented, would restrict the total amount of emissions of CO2 throughout the U.S. and other countries and establish market mechanisms that would allow firms and countries to offset emissions exceeding the limits by paying landowners to grow trees. Buyers and sellers of carbon sequestration, in effect, would conduct an on-going auction, with a buyer indicating a willingness to pay a landowner to manage his/her/its forest in a prescribed manner to store a given amount of carbon. Different landowners would compete with one another, establishing a market price per ton of carbon.

There is considerable uncertainty over what the prices would be, although some economists have attempted to fill-in the gap. Much of the research has looked broadly at the range of potential prices by looking at the potential sequestration costs for different types of forests and locations. These cost estimates represent the range of prices that would materialize if the market mechanism were implemented in the near future. A recent review of the literature indicates that these market prices would range from about $17 to $665 per ton of carbon for forests in the United States, and from about $0 to $103 for tropical forests (Zelek and Shively 2003).

Some studies have looked at what such schemes would mean for individual landowners. One of these was a 1999 study conducted in British Columbia by the Pacific Forest Trust, which found:

> "In 1999, working with the World Resources Institute, we prepared an analysis for the Canadian timber giant, MacMillan Bloedel (since purchased by Weyerhaeuser) The analysis demonstrated how changing their forest management would increase their net carbon stores. ... The results showed that [MacMillan Bloedel] could increase its forest carbon stores by 32 million tons over 50 years. If sold at the price of $10 per ton of carbon ($2.72/ton CO2), this would yield them $33 million in the first decade—more than the value of the foregone timber harvest during the same period."

Taken together, these and other, related research findings demonstrate that there is movement toward establishing market mechanisms to sequester carbon and, if these were implemented in the near future, world market prices would begin near zero and then rise, perhaps to more than $100 per ton.

If carbon-sequestration markets were established in the future, the BNR would be able to earn revenues by leaving trees standing. Larger trees contain more carbon than smaller ones and, all else equal, would earn higher revenues. Thus, if the BNR believes such markets will operate soon, then it should consider the merits of lengthening timber rotations and forgoing revenues from logging large trees so they are available to earn carbon-sequestration revenues in the future.

REFERENCES

Beschta, R.L., J.R. Boyle, C.C. Chambers, W.P. Gibson, S.V. Gregory, J. Grizzel, J.C. Hagar, J.L. Li, W.C. McComb, T.W. Parzybok, M.L. Reiter, G.H. Taylor, and J.E. Warila. 1995. Cumulative Effects of Forest Practices in Oregon: Literature and Synthesis. Oregon Department of Forestry. March.

Carey, A., B. Lippke, and J. Sessions. 1999. "Intentional Systems Management: Managing forests for Biodiversity." Journal of Sustainable Forestry 9 (3/4): 83-125.

Climate Impacts Group. 1999. Summary: Impacts of Climate Change on the Pacific Northwest. JISAO, University of Washington.

Haynes, R.W. and A.L. Horne. 1997. "Chapter 6: Economic Assessment of the Basin." In An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins, Volume IV. Edited by T.M. Quigley and S.J. Arbelbide. General Technical Report PNW-GTR-405. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. June. Pgs. 1715-1869.

IBM Business Consulting Services. 2003. A Greenward Shift in the Market for Forest Products from British Columbia. Institute of Media, Policy, and Civil Society. March.

Meehan, William. 1991. Influences of Forest and Rangeland Management on Salmonid Fishes and Their Habitat. Vol. 19. Bethesda, Maryland: American Fisheries Society.

Miller, R.E., J.R. Boyle, A.E. Harvey, T.M. Ballard, L.M. Palazzi, and R.F. Powers. 1992. "Fertilizers and Other Means to Maintain Long-Term Productivity of Western Forests." In *Forest Fertilization: Sustaining and Improving Nutrition and Growth of Western Forests.* Edited by H.N. Chappell, G.F. Weetman, and R.E. Miller. Contribution No.73. Seattle, Washington: Institute of Forest Resources. Pgs. 203-222.

Peterson, C.E. and R.A. Monserud. 2002. Compatibility Between Wood Production and Other Values and Uses on Forested Lands: A Problem Analysis. United States Department of Agriculture, Forest Service, Pacific Northwest Research Station. PNW-GTR-564. November.

Stevens, J.A. and C.A. Montgomery. 2002. Understanding the Compatibility of Multiple Uses on Forest Land: a Survey of Multiresource Research with Application to the Pacific Northwest. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. PNW-GTR-539. June.

Zelek, C.A. and G.A. Shively. 2003. "Measuring the Opportunity Cost of Carbon Sequestration in Tropical Agriculture." Land Economics 79 (3): 342-354.

U.S. Department of Agriculture, Forest Service. 1995. The Forest Service Program for Forest and Rangeland Resources: A Long-Term Strategic Plan. U.S. Department of Agriculture, Forest Service. Draft 1995 RPA Program. October.

ATTACHMENT 4

Marbled Murrelet Coalition Sustainable Harvest Calculation Comments

Projected Job creation at Chimacum Ridge

Summary: Chimacum Ridge has the potential to create an average of 12.8 FTEs over the next 50 years, starting at 10.9 FTEs and climbing to 14.8 FTEs over the next few decades. Employment is primarily direct but also captures indirect jobs associated with the projected logging activity. Employment is generated through timber harvesting and associated activities, such as logging, trucking, precommercial thinning, planting, and off-site jobs in wood processing (2.6 FTEs) ; nontimber harvesting and associated activities - primarily conifer needle harvesting and processing, both on-site and through services to other timber and agricultural landowners, but also including other forest foods and products (9.2 FTEs); and property management and environmental education (1 FTE).

Timber harvesting and associated activities: Under the projected forest management plan, harvesting is primarily through thinning with harvests of approximately 238 MBF (thousand board feet) per year, representing about 31% of growth. This level of harvesting was selected as it contributes to the desired future condition of an older, more diverse and structurally complex forest with inventory increasing to 26.7 MMBF (million board feet), or 31 MBF/gross acre. OFRI (Oregon Forest Resources Institute) estimates 11 direct and indirect jobs per 1 MMBF of harvest, yielding to an estimate of 2.6/FTEs/year on average for Chimacum Ridge. This does not factor in the potential establishment on site of a portable sawmill to custom mill larger timbers and other specialty cuts for local builders and boat builders. If this plan is adopted the direct FTEs associated with timber harvesting and processing would increase by 1-2 FTEs.

Non-timber harvesting and processing: Chimacum Ridge LLC plans to launch an essential oil and forest food harvesting and processing initiative. The essential oil operation will harvest and process fine branches and needles associated with precommercial thinning, pruning, and timber harvesting operations. Essential oil from western red cedar, true firs, Douglas-fir, spruce and other species is traded in the global marketplace, with current production primarily from Siberian and Canadian forests, and there is considerable demand for a local source. Essential oil is used in a number of industrial and consumer applications from air fresheners to household cleaning and personal care products. We estimate 4-6 FTEs per distillation operation with 2-3 harvesters, 1-2 FTEs running the distillation unit, and 1-2 FTEs involved in delivery, bottling, refining, and distribution. Essential oil will be initially sold to distributors, wholesalers and processors. In addition to conifer essential oil, we plan to offer custom distillaition services to lavendar and other growers in the region, especially during the summer months when conifer essential oil production is low (and other crops are in high production).

Once the operation is mature, a line of personal care products is projected to be added– salves, balms, soaps – featuring the essential oils and the Chimacum story, developing products both under a Chimacum Ridge label and engaging in private labeling for lavendar and other producers that have products that lend themselves to essential oil production. This will add an additional 3-4 FTEs.

Forest foods: Chimacum Ridge is currently working with local food producers to explore commercialization of a number of forest foods including spruce tips (and tips from other conifers), fiddlehead ferns, bigleaf maple syrup, forest berries, and edible mushrooms. The conifer forests of the Pacific Northwest once served as a pantry, supporting one of the largest populations of hunter-

gatherers in the world. Spruce tips are the first green of the season and exceptionally high in Vitamin C and are used in a variety of foods and drinks; fiddlehead ferns are consumed globally with a growing local market; forest berries, especially salal, have great potential for a number of applications and have high antioxidants and other health benefits. While not currently in the estimated FTEs, we believe forest food harvesting and value added production could add another 2-3 FTEs to the existing estimate and would complement planned activities around value-added food production in the region.

Property management and environmental education: Chimacum Ridge and the surrounding forests and beverage and food production businesses such as Finn River Cidery, under the leadership of the Jefferson Land Trust, are collaborating on recreational access and environmental education. We anticipate 1 FTE engaged in property management and interpretive naturalist/environmental education activities with a number of area schools. This could grow to additional staffing needs as environmental education programming develops further.

ATTACHMENT 5

Marbled Murrelet Coalition Sustainable Harvest Calculation Comments

Role of Working Forest Conservation Easements and Community Forests in Supporting Local Rural Economies in Washington State

Summary Argument:

Forests managed on longer rotations (for example 80-100 years years compared to 30-35 years) with intermediate thinning store more carbon (Harmon et al., 2009; Mitchell et al., 2012) and result in higher employment in logging and milling sectors (employment factors from Lippke and Mason, 2007).

Current industrial ownership is managed on short rotations and dominated by out of state owners/shareholders/investors.

There is going to be turnover of at least half the industrial timberland ownership over the next 10 years.

Smaller Washington State-based companies, land trusts, and community forests have the desire and capability to own more land and manage it for both better carbon stores and higher employment.

Working forest conservation easements help finance acquisition of timberlands by entities willing to manage for goals that improve both climate mitigation and employment in Washington communities.

Working Forest Conservation Easements can secure forests for management in perpetuity to prevent conversion and to increase carbon and timber stocking over time.

Current Timberland Ownership in Washington State:

- 4 of the 8 million acres of private forestlands are industrial (more than 2 million board feet of timber harvested per year).

- Three companies own and manage 60 percent (2.4 million acres) of the industrial forestland base and all of them do so to maximize return on investment on behalf of out of state shareholders and investors.

- At least 2 million acres of private forestland will change hands over the next 10 years due to the large proportion of industrial ownership of Timber Investment Management Organizations and Real Estate Investment Trusts

Risk of Ownership Change in the Absence Intervention

- Price of timberland is high so as lands are sold, existing timber stocks will likely be harvested to help finance regular business transactions – leads to even more unsustainable rates of harvest and boom and bust cycles in local timber-related employment

- Some of these lands will be converted to non-forest uses, which will reduce timber volume going to mills and thus employment

- Forest lands likely to be acquired by other TIMOs with the same intensive management and export oriented model

Employment Implications of Current Industrial Management

- Harvest cycles on industrial ownerships are 30-35 years
- There are no pre-commercial or commercial thinning treatments on short rotations.
- Short rotations and clear-cuts provide less employment than longer rotations with intermediate thinning treatments (from Mason and Lippke, 2007)
    - Thinning produces between 3.73 and 4.57 logging jobs per thousand board feet harvested compared to 1.97 logging jobs on a short rotation clear-cut;
    - Long rotations produce 6.25 mill jobs per thousand board feet harvested compared to 4.46 mill jobs per thousand board feet harvested on short rotations.
    - A 65 year rotation produces twice the per acre volume to harvest than a 35 year rotation, so a landscape managed on a long rotation sustained yield harvest regime will produce more wood to mill and more jobs per thousand board feet both from thinning and final harvest
- Between 30 and 50 percent of private land harvest is exported as raw logs because Asian markets pay higher prices than domestic markets: raw log exports do not produce domestic mill employment

Opportunity in Ownership Change with Easement and Community Forest Funding

- As timberlands come on the market, a stable and robust pool of funding for working forest conservation easements and community forest acquisitions can be used by land trusts, family owned timber companies based in Washington, and community forest entities to shift ownership of some of these timberlands to local interests.
- Terms of easements can be used to guide sustainable management that provides higher levels of jobs in the woods for thinning, forest restoration, and more stable timber supply than short rotation management or conversion
- At least three Washington State-based family owned timber companies have expressed an interest in expanding their ownership through conservation easement-based financing (Port Blakely, Merrill and Ring, and Janicki).
- Easements reduce cost of land acquisition for private owners
- Four community forests are in either the planning or acquisition phase in Washington State. One goal of these forests is to support more local jobs.
- Community Forests can gain land either through direct acquisition or through easement financing.

ATTACHMENT 4

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DATE: March 8, 2017

TO: Lily Smith, SEPA Responsible Official; Washington Board of Natural Resources; Washington Department of Natural Resources; U.S. Fish and Wildlife Service (c/o Sepacenter@dnr.wa.gov)

FROM: Peter Goldman, Attorney at Law and Director of the Washington Forest Law Center, on behalf of the Marbled Murrelet Coalition

RE: Comments on the Draft Environmental Impact Statement for the Washington Department of Natural Resources' Long-Term Conservation Strategy for the Marbled Murrelet (DNR SEPA File 12-042001)

THESIS: The Board has the legal authority to adopt a LTCS alternative that fully complies with the Endangered Species Act and that meaningfully contributes to the conservation and recovery of the marbled murrelet according to best available science.

I. EXECUTIVE SUMMARY

The Washington Forest Law Center respectfully submits this Memorandum on behalf of the conservation organizations partnering in the Marbled Murrelet Coalition, which include Washington Environmental Council, Olympic Forest Coalition, Seattle Audubon, Defenders of Wildlife, Conservation Northwest, and the Washington State Chapter of the Sierra Club.[1] This Memorandum addresses the Board and DNR's legal authority governing the Board's adoption of a long-term conservation strategy (LTCS) for the marbled murrelet, a conservation step explicitly required by DNR's 1997 federal habitat conservation plan. Development and adoption of this LTCS has been under-way for years.

The Draft Environmental Impact Statement (DEIS) confirms that the population of marbled murrelets in Washington is dropping precipitously at approximately 4 percent per year, largely a result of logging of habitat on state, private, and federal forests. The marbled murrelet's population in Washington is approximately 44 percent lower than it was in 2001, when DNR's LTCS was first expected to be adopted. The DEIS also confirms that conserving and limiting

[1] In this Memorandum, WFLC is serving as legal advisor to the Marbled Murrelet Coalition. WFLC assumes responsibility for all legal and policy arguments addressed in this Memorandum.

timber harvest in certain strategic areas of Washington's state forests today under a biologically-credible LTCS alternative *can* make an appreciable contribution to the conservation and recovery of the murrelet, an iconic older forest-dependent Pacific Northwest bird species.

This Memorandum explains why the federally-sourced and DNR-managed "State Lands"[2] and the county-sourced DNR-managed "State Forest Lands"[3] give the Board the legal authority and discretion to adopt a long-term conservation-oriented alternative that fully complies with the federal Endangered Species Act (ESA) and best available science known to conserve and recover this species. Adoption of such an alternative is justified because it will provide the federal school trusts and the county lands with long-term regulatory certainty under the ESA, will conserve and recover endangered wildlife, and will maintain inter-generational sustainable timber harvest and productivity of the forests under DNR's management over the long-term. These goals are clearly in the best interests of "all the People of the State" and "in the best interests of the State," the specific terms contained, respectively, in the State Constitution and the statutes governing the State's management of the these forests.

The Board has the authority to adopt a LTCS that complies with the ESA and which meaningfully contributes to conservation and recovery of an imperiled species for at least the following reasons.

First, it is undisputed that the State has both the authority and legal duty to comply with the ESA. In an important 1996 Attorney General Opinion (AGO), No. 1996-11 (hereinafter 1996 A.GO. 11), the Attorney General wrote that the State has the legal authority to enter into a federal habitat conservation plan that "exceed(s) minimum standards governing use of trust lands," such as the Washington forest practice regulations that apply to all forest landowners in the state. The justification for this authority is that obtaining a federal habitat conservation plan (HCP) "reflects a reasonable balancing of short-term interests and the protection of productivity over the long-term." An HCP also provides the State with valuable legal immunity under the "no take" provision in the ESA, Section 9, which can be enforced by the federal government or citizen-brought "citizen suits." Because DNR's HCP requires the State to adopt a long-term conservation strategy for the murrelet that is approvable by the Federal government under the ESA and which complies with the ESA, the adoption of a LTCS is effectively DNR's compliance with the ESA. The Board does not violate its fiduciary duty to the federally-sourced State Lands or the county-sourced State Forest Lands by managing these forests with an eye towards long-term compliance with the ESA guided by best available science.

Second, the Washington Constitution authorizes the Board to manage the federally-sourced State Lands in a manner that promote the interests of *all* citizens.[4] The state statutes governing the county lands also give the Board the authority to manage in the best interests of the State.[5] It is undisputed that the federal land grants dedicated vast tracts of forest for school purposes. But, in receiving these school lands and guiding their use, the Founding Fathers of Washington notably did *not* specify that these lands be managed for the exclusive benefit of any

[2] RCW 79.02.010 (14) designates the federally-sourced lands as the "State Lands."
[3] RCW 79.02.010 (13) designates the county-sourced lands as the "State Forest Lands."
[4] Const. art. XVI, § 1 provides that these forests are "held in trust for all the people."
[5] RCW 79.22.050 provides that DNR shall manage the county-sourced forest lands "in the best interests of the State."

one designated beneficiary. Instead, Const. art. XVI, § 1 provides that the federal land grant school lands were intended to benefit "all the People" of the State of Washington. The Founding Fathers specifically *rejected* constitutional language that would have required the State to maximize income from these lands. Adoption of a LTCS that is consistent with the ESA, which provides the State with valuable long-term regulatory certainty under the ESA, and which conserves imperiled wildlife "benefits all the People" and is "in the best interests of the State."

No Washington case prevents the Board from complying with the ESA or best available science. The 1992 Washington Supreme Court's decision in *Skamania v. State*,[6] suggests that the federal school grants are and must be managed as private trusts. But *Skamania* does not prevent the Board from adopting a LTCS alternative intended to comply with federal law.

First, the facts of *Skamania* are significantly distinguishable from the Board's consideration of potential LTCS alternatives. The Court in *Skamania* invalidated state legislation that would have diverted earned trust revenues to timber companies, companies that sought to escape timber sale contracts with the State as a result of a dramatic collapse in lumber prices. The court held this diversion violated the State's fiduciary duty to the federally-sourced school trusts. But *Skamania* did not address *how* the State could *manage* its forests to comply with federal law, long-term productivity, and conservation, a goal that benefits both the trusts and the public at large. Taking conservation into account when managing public forests is not a "give-away" of assets.

Second, to the extent that the Court in *Skamania* held that the federal school trusts were *private* trusts, *Skamania* was wrongly decided. The history of the trusts reflect they were *public* trusts targeted for funding school construction but intended to benefit "all the People," not only the enumerated beneficiaries. The constitutional mandate of benefitting "all the People" gives the Board the legal authority to adopt a plan that complies with the ESA and conserves and recovers a federally-listed species. *Skamania* was also wrongly decided to the extent it held that the county-sourced State Forest lands were subject to the same legal fiduciary duty as the federally-sourced school lands.[7] On the contrary, these county-sourced forests are statutory, not constitutional, trusts and the Board and DNR are permitted to make decisions for their management in the "best interest of the State."[8]

We direct this Memorandum to three primary audiences. First, we ask the Board, DNR, and the Attorney General's Office to consider it as the Board deliberates on the Board's discretion to adopt a LTCS alternative. Second, we direct it to the USFWS, which is required under Section 10 of the ESA to separately determine whether the LTCS complies with Section 10 of the ESA, including whether it mitigates and minimizes DNR's proposed "take" of marbled murrelets to "the maximum extent practicable." Finally, we direct it to interested forest stakeholders to document our view why the Board has the authority to adopt a conservation-oriented alternative that is most likely to conserve and recover the marbled murrelet on forests owned and managed by the State of Washington.

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[6] *Skamania v. State*, 102 Wn.2d 127, 685 P. 2d 576 (1992).
[7] *Skamania*, 102 Wn.2d at 133.
[8] RCW 79.22.050.

II. BACKGROUND FACTS

A. Overview of DNR-Managed Forests

The State of Washington owns and DNR manages approximately 2.1 million acres of state forest lands.[9] These forests fall into two categories: the "State Lands" and the "State Forest Lands." The State Lands arose out of 3 million acres of forests that had been granted to the State of Washington by the federal government at statehood in 1889.[10] The Legislature officially designated these forests the "State Lands."[11] Today, there are approximately 1.5 million acres of "State Lands." The Washington Constitution incorporated the Enabling Act restrictions in Const. art. XVI, § 1. This section of the Constitution provides that these lands are "held in trust for all the people."

The next category of DNR-managed forests are the "State Forest Lands"[12] sometimes referred to as the "Forest Board Lands." The State Forest Lands were transferred to the state by 21 Washington counties in the 1920s and 1930s as a result of county tax foreclosures, gifts, and purchases.[13] The State Forest Lands came into existence as a result of irresponsible logging during the early 20th century on private land, logging that left the counties with massive unpaid tax bills. Today, there are approximately 618,573 acres of State Forest Lands.[14]

B. The Long-term Conservation Strategy for the Marbled Murrelet

In Spring 2012, the DNR and the U.S. Fish and Wildlife Service commenced the "scoping" process for the development of an environmental impact statement to enable the Board and the Service's consideration of alternatives for a LTCS. This LTCS was an explicit requirement of DNR's federal HCP and was a key expectation and assumption in the Service's approval of DNR's HCP under Sections 7 and 10 of the Endangered Species Act (ESA).

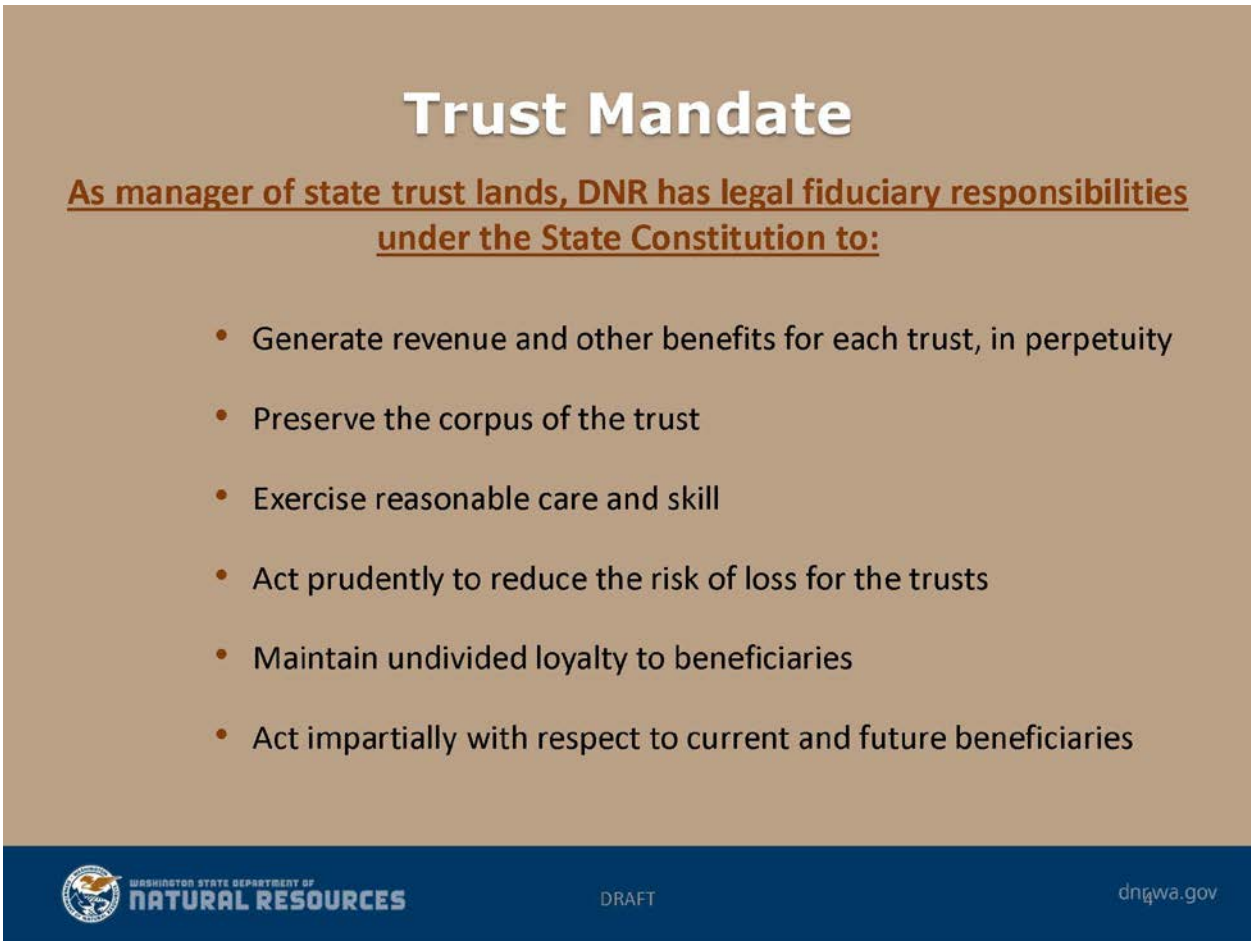
In early December 2016, the DNR and the USFWS released a DEIS proposing and analyzing six potential LTCS alternatives and set a comment deadline for March 9, 2017. The alternatives span a variety of conservation measures. Alternative A is the "no action" alternative, Alternative B only protects "occupied sites," and Alternative F, the most conservation and recovery-oriented alternative, proposes to protect occupied sites, 100 meter buffer areas around those sites, and creates "marbled murrelet management areas" (MMMAs) to block-up large currently un-fragmented areas of habitat and immature habitat to provide future recovery habitat

[9] 2012 DNR Annual Report, at 39.
[10] 25 Stat. 676 (1889). *See* 1996 A.G.O. 11, at 6 for more background.
[11] RCW 79.02.010 (14).
[12] RCW 79.02.010 (13).
[13] According to RCW 79.02.010 (13), the statutory definition of "state forest lands," the State Forest Lands have three sources: gifts of private land (RCW 79.22.010), deeds of county lands which had been subject to county foreclosure due to non-payment of taxes (RCW 79.22.040), and forests acquired by DNR through purchase that are suitable for reforestation. RCW 79.22.020.
[14] 2012 DNR Annual Report, at 59.

for the species.[15] According to the DEIS, Alternative A would require the set-aside of 37,000 acres of "additional marbled murrelet-specific conservation," whereas the other alternatives would set aside, respectively, 10,000 acres (Alt. B), 53,000 (Alt. C), 51,000 acres (Alt. D.), 57,000 acres (Alt. E), and 151,000 acres (Alt. F.).[16]

C. The Purpose of this Memorandum

DNR and some forest stakeholders have stated in numerous venues that the Board's "fiduciary duty" (also referred to as the "trust mandate") legally prevents the Board from adopting a LTCS alternative that unduly burdens the potential economic return to the trusts. While these stakeholders have not precisely defined the limits of this "burden," the general argument is that the Board's trust mandate limits what the Board can do to conserve and recover the marbled murrelet. At virtually every Board meeting discussing the LTCS, DNR staff present the following slide to the Board:



[15] In addition, the Coalition proposes a "Conservation Alternative," and requests that DNR prepare a supplemental environmental impact statement analyzing the Conservation Alternative. See technical memorandum prepared by Kara Whittaker, Ph.D. and David B. Lank, Ph.D., submitted as Attachment 2 to the Coalition's comment letter.
[16] These acres of "additional marbled murrelet-specific conservation" are in addition to the 583,000 acres of non murrelet-specific marbled murrelet habitat that the DEIS assumes will "provide benefits" to the bird.

This Memorandum explains and documents that the Board has the clear legal authority to adopt a LTCS alternative that most strongly complies with the ESA and conserves and recovers the marbled murrelet according to best available science. This Memorandum does not advocate for a specific conservation alternative; the Marbled Murrelet Coalition will advocate for an alternative in a separate document.

III. THE BOARD HAS THE LEGAL AUTHORITY TO ADOPT A LTCS ALTERANTIVE THAT MOST STRONGLY COMPLIES WITH THE ENDANGERED SPECIES ACT AND WHICH BEST CONSERVES AND RECOVERS MARBLED MURRELETS IN WASHINGTON ACCORDING TO BEST AVAILABLE SCIENCE.

A. Attorney General Opinion 1996-11

At the outset, it is important to note that a properly enacted federal law is supreme to state law. For example, a federal price control law trumps a state constitutional provision governing the management of the federal school lands.[17] A federal law banning the export of state timber can reduce the state's income from the federally-sourced school lands.[18] Federal environmental laws, such as the ESA, can be applied to all U.S. forests, including state owned or managed forests.[19] And the State, through its general forest practices regulations applicable to all forest landowners, may regulate forest practices on state forests.[20] Accordingly, the State forests exist in a highly-regulated ecosystem of environmental laws. These are among the reasons why the State, in 1997, presumably sought and received an Incidental Take Permit (ITP) from the federal government for logging on the State's forests on the west-side of the state.

Prior to the DNR applying for a federal ITP, the 1995 Legislature in Senate Concurrent Resolution (SCR) 8435 requested an Attorney General Opinion (AGO) on whether DNR's agreement to enter into a federal HCP for its forests was consistent with DNR's fiduciary duties towards the trusts. The Attorney General responded in detail in 1996 A.G.O. 11. (Attachment 1).

1996 A.G.O. 11 characterized the issue as whether DNR's decision to enter into and adhere to the HCP was in the best long-term interests of the trusts; if it was, DNR had the legal discretion to enter into the HCP in exchange for which DNR would obtain an ITP. The Opinion stated, "In the exercise of its discretion, [DNR] may approve management plans that exceed minimum standards governing the use of trust lands, if doing so reflects a reasonable balancing of short-term interests and the protection of trust productivity over the long term." While it also noted that, "in managing the grant lands, the Department may only take into account factors consistent with ensuring the economic value and productivity of the federal grant lands,[21] the Opinion did not specify what it meant to "ensure the economic value" or "productivity" and whether these terms include conservation and attempts to obtain long-term regulatory certainty.

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[17] *Case v. Bowles*, 327 U.S. 92 (1946) (federal law (the Emergency Price and Control Act) trumps state constitutional provisions applying to the management of the federal school lands).
[18] *Board of Natural Resources v. Brown*, 992 F. 2d 937 (9th Cir. 1993).
[19] *Babbitt v. Sweet Home Chapter*, 515 U.S. 687 (1995).
[20] *West Norman Timber, Inc. v. State*, 37 Wn.2d 467, 224 P. 2d 635 (1950)
[21] 1996 A.G.O. 11, at 6.

1996 A.G.O. 11 supports the Board's authority to select an alternative that promotes long-term ESA regulatory certainty. 1996 A.G.O. 11 opined that the State's compliance with state and federal laws of general application is not a violation of any fiduciary duty towards the trusts.[22] The ESA is a law that applies to all forest lands in the United States, including Washington's federal land grant lands. Section 9 of the ESA prohibits any person, including the State of Washington, from "taking" a federally-listed species and Section 10 of the ESA authorizes the federal government to issue an "incidental take permit" that allows take of listed species in exchange for specific enforceable conservation commitments. Because a Section 10 HCP is the means by which DNR avoids potential ESA Section 9 "take" liability, DNR's compliance with Section 10 HCP's biologically-required commitments constitutes DNR's compliance with the laws of general application.

1996 A.G.O. 11 also opined that DNR's compliance with the obligations and commitments of its HCP was within the discretion of the State as trustee if "[such compliance] constitutes a reasonable management plan that serves the interests of each of the federal grant land trusts and is consistent with common law fiduciary duties owed to each trust."[23] The required analysis is not the "relative benefit of the HCP as between each trust, but the benefit to each trust of adopting a plan as opposed to the legal consequences of complying with the ESA without a plan."[24] In addition, it is "sufficient that the Department, acting consistently with its fiduciary duties and in the exercise of reasonable judgment, determines that on balance, the [HCP] is in the economic interests of each trust."[25] Indeed, "[a]ll of the trusts can be affected differently by a single management plan."[26] Under these principles, the Board has the authority to comply with the ESA and best available science even though some of the trusts might individually bear more of the burden of conservation of threatened or endangered species than others.

There are numerous reasons why the Board has the authority to comply with the ESA and best available science. By maintaining its incidental take coverage, the state forests will benefit enormously from the legal immunity they will enjoy under Section 9 of the ESA.[27] While such compliance might lead to less financial return in the short-term, 1996 A.G.O. 11 specifically opined that such short-term losses do not violate a fiduciary duty so long as they are in the interest of protecting the long-term productivity of DNR's lands.[28] Moreover, there are ways to manage DNR's forests in a manner that achieves long, not necessarily, short-term returns. Conversely, if DNR does not comply with its HCP to the satisfaction of the Services, the Services reserved the

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[22] 1996 A.G.O. 11, at 19-27.
[23] *Id.*, at 33.
[24] *Id.*
[25] 1996 A.G.O. 11, at 38-40.
[26] *Id.*, at 39.
[27] Citizens regularly (and successfully) use Section 9 of the ESA to prevent logging that will allegedly harm a listed species. The Seattle Audubon Society used Section 9 to preliminarily enjoin logging on private lands in SW Washington, logging that Audubon alleged would harm specific northern spotted owls. *Seattle Audubon Soc. v. Sutherland*, 2007 W.L. 1300964 (2007). And in 1996, a federal court of appeals upheld a Section 9 "take" case involving alleged "take" of murrelets in Oregon. *Marbled Murrelet v. Babbitt*, 83 F. 3rd 1060 (9th Cir. 1996). Courts will also enjoin "take" of a listed species "where an agency action would cause harm to a small number of individual species' members, but always under circumstances in which the loss of those individuals would be significant for the species as a whole." *Pac. Coast Fed'n of Fisherman's Ass'n v. Gutierrez*, 606 F. Supp. 2d 1195, 1210 n. 12 (E.D.Cal.2008).
[28] *Id.*, at 41-42.

right to suspend or revoke the HCP[29] or alternatively DNR has the right to terminate the HCP and provide "mitigation" for take that has occurred before termination.[30]

DNR's HCP can be analogized to an extremely valuable regulatory insurance policy. The DEIS specifically admits the potential adverse regulatory uncertainty that would result from DNR "removing HCP coverage." On Pg. 2-2, the DEIS states:

> ***Removing HCP coverage*** for the marbled murrelet and managing instead under the forest practices rules (WAC 222) and existing DNR policies. *This approach could not achieve the need, purpose, and objectives and was rejected for several reasons (*emphasis added*)*:
>
> - Removing HCP coverage would not provide DNR with certainty that it could meet its trust obligations through continued, sustainable timber management.
> - Managing under only the forest practices rules would mean potential costly delays to the timber sale process due to required surveys of each stand for murrelet presence (a one- to two-year process with up to 18 site visits (Evans Mack and others 2003)) and consultation with USFWS each time potential habitat impacts are identified.
> - Performing the sustainable harvest calculation that DNR relies on to plan its harvest schedules would be very difficult with this level of uncertainty.
> - Removing HCP coverage would also be unlikely to provide a significant contribution to protecting the murrelet population, as DNR would not be setting aside lands to protect and grow murrelet habitat over the long term, but would instead be managing habitat on a piecemeal basis. This could foreclose future options for nesting habitat development in areas strategically important to the population.[31]

In conclusion, the Attorney General advised the Board in 1996 A.G.O. 11 that the Board has the authority to enter into and implement its HCP relative to marbled murrelets so long as this decision is justified by achieving long-term regulatory certainty and the long-term productivity of these lands. Accordingly, the Board has the authority to adopt a conservation-oriented LTCS if that alternative is the best among several to comply with the ESA and best available science.

B. *Skamania v. State* allows the Board and DNR to manage its forest lands consistent with the conservation commitments in its HCP and the ESA.

Trust beneficiaries, the Attorney General, and others frequently cite the 1992 Washington Supreme Court case *Skamania v. State*[32] for the principle that the Board would violate its "trust mandate" by adopting an alternative that requires costly conservation measures, even if such alternative were arguably required by the ESA and best available science. *Skamania*, however,

[29] Implementation Agreement § 26.
[30] *Id.*, at 27.3.
[31] In addition, without its HCP, DNR would have to conduct SEPA review each time it proposes to harvest occupied habitat. WAC 222-16-050 (1)(b); 222-16-080 (1)(j).
[32] 102 Wn.2d 127, 685 P.2d 576 (1992).

does not stand in the way of the Board's authority to comply with the ESA and best available science known to conserve and recover marbled murrelets. *Skamania* prevents the giving away of trust assets or revenues; it does not limit the State's authority to comply with the ESA.

The *Skamania* case arose out of the timber industry lobbying for a financial bailout. Between 1978 and 1980, as they do every year, private timber buyers entered into contracts with DNR to purchase state timber. In early 1982, however, the market price for logs crashed, falling from $300 to $800 per 1000 board feet to $175. If these contracts had been enforced, timber companies would have lost approximately $100 million. The Washington Legislature came to the rescue of the affected timber companies with the Forest Products Industry Recovery Act of 1982 ("Act"). The Act effectively allowed purchasers of state timber to default on their contractual obligations or to extend or modify the term of their contracts. The trial court hearing the eventual legal challenge subsequently found that the value of this forgiveness was approximately $70,000,000 to $90,000,000.

Skamania County sued the State of Washington alleging that the Act was a breach of the State's fiduciary duties to the trust beneficiaries. The Superior Court, and later the Supreme Court, agreed. The Supreme Court reasoned that the federal school trusts were analogous to private trusts; the trusts "impose upon the state the same fiduciary duties applicable to private trustees." *Skamania*, 102 Wn.2d at 132. The Court also rejected the State's argument that the Act was "a prudent response to an unprecedented emergency;" the Court held that no perceived or real economic emergency for the timber industry justified the Legislature rescinding these contracts, resulting in a loss to the trusts of about $69.5 million, and that the Legislature elevated the interests of the timber industry over the interests of trust beneficiaries. The Court also held that the Act could not be justified by the fact that it purportedly would advance other "state goals."[33] *Skamania*, 102 Wn.2d at 135. Finally, the Court held that the Act violated the State's duty to "act prudently" by relieving the timber companies from their contracts at less than market rate. *Skamania*, 102 Wn.2d at 138.

Skamania is significantly distinguishable from the Board's current decision to choose a specific LTCS alternative and does not limit the Board's decision to adopt a LTCS that complies with the ESA and best available science. In the case of the LTCS, the Board is being asked to adopt a LTCS that complies with the ESA to enable the State to obtain valuable long-term regulatory certainty. This is a direct and very valuable benefit that contributes to the long-term productivity and sustainable yield of the state forests. In contrast, the Court in *Skamania* held that the State could not give away or divert trust income to private corporate interests that do not directly benefit the beneficiaries even if the entire state's economy would, to some extent, benefit from the bail out. The *Skamania* court's opinion confirms this narrow view by similarly describing the violation of the duty to act prudently as the "dispos[ition] of a trust asset without obtaining 'the best possible price' for the asset." *Skamania*, 102 Wn.2d at 138 (citation omitted). Again, this "duty" is nothing more that the constitutional duty to receive "full market value" when selling trust assets. The Court identified the duty of undivided loyalty with the requirement "that

[33] The court cited several cases rejecting State attempts to divert trust revenues to causes that the State contended would indirectly benefit the trusts. *Ervien v. United States*, 251 U.S. 41, 47 (1919) (New Mexico could not divert trust assets to advertise and promote the state); *Gladden Farms, Inc. v. State*, 633 P. 2d 325 (1981) (Arizona could not sell trust lands to a State agency even if motivated by humanitarian concerns).

when the state transfers trust assets such as contract rights it must seek full value for the assets." *Id.* at 134 (citing Const. art. XVI, § 1).

The Board's decision to adopt a LTCS, is, therefore, neither governed nor constrained by *Skamania*. In asking the Board to comply with the ESA and best available science, the Board is not being asked to forego or divert trust resources to benefit third parties, such as the timber companies in *Skamania* whom sought to be excused from their binding contracts. Instead, the Board would be pursuing its policy goal of seeking long-term regulatory certainty under the ESA and doing its part to conserve and recover an imperiled species. Conservation of old growth-dependent species is in the best interests of "all the people," the specific terms in the Washington Constitution.[34]

C. *Skamania v. State* incorrectly relied on the principle that the federal school grants were private trusts. Review of state constitutional history reflects that these grants can be managed to benefit both the school beneficiaries' and citizens' mutual long-term interest in complying with the ESA as guided by best available science.

We acknowledge that the Washington Supreme Court in *Skamania* characterized the federal school trusts as private trusts.[35] But, for the reasons detailed below, we believe the Court's reference to "private trusts" was error and does not govern the Board's adoption of a LTCS. Const. art. XVI, § 1 does *not* establish a private trust that must be managed exclusively for the benefit of the common schools. While the purpose of these lands are constitutionally dedicated to school construction, Const. art. XVI, § 1 explicitly provides the grants are for "*all of the people of the state*."[36] This constitutional language gives the Board the authority to adopt a LTCS alternative that complies with the ESA, provides the trusts with long-term regulatory certainty, conserves a species that is threatened because of past forestry practices on both state and private lands, and which promotes long-term forest productivity by allowing for additional tree growth and reducing limitations on harvest resulting from the ESA.

1. History of the School Land Grants

Washington was admitted to the union pursuant to the 1889 Enabling Act, which also admitted North Dakota, South Dakota, and Montana. 25 Stat., 676, ch. 180 (1889) [hereinafter "Enabling Act"].[37] This statute granted sections 16 and 36 of every township within the state "for the support of the common schools." *Id.* § 10.

The tradition of granting such "school lands" to newly admitted states began with the admission of Ohio to the Union in 1803. *See Papasan v. Allain*, 478 U.S. 265, 268-69, 106 S. Ct. 2932, 92 L. Ed. 2d 209 (1986). Even before that time, the General Land Ordinance of 1785, governing the Northwest Territory, "reserved the lot No. 16, of every township, for the

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[34] Const. art. XVI, § 1.
[35] *Skamania*, 102 Wn.2d at 132-33.
[36] As also explained above, such a trust, of course, would not be a traditional private trust but instead a public trust—a duty to legislate for the public good rather than to favor special interests.
[37] The Enabling Act is reprinted in Volume 0 of the Revised Code of Washington; we attach §§ 10-11 as Attachment 2.

maintenance of public schools within the said township." 1 Laws of the United States 565 (1815), *cited in Papasan*, 478 U.S. at 268.[38] Every state admitted since Ohio, except Maine and West Virginia (which were carved out of existing states) and Texas and Hawaii (which were previously independent nations), has received a grant of school lands from the United States. *See* Jon A. Souder & Sally K. Fairfax, *State Trust Lands* 17-24 (1996).

The grants of school lands reflect a policy of promoting public education and were a reaction to the predominantly federal ownership of lands in the western states. In the early republic, the development of a well-educated citizenry was considered essential to the maintenance of a flourishing democracy. *See* Sean E. O'Day, Note, *School Trust Lands: The Land Manager's Dilemma Between Educational Funding and Environmental Conservation, a Hobson's Choice?*, 8 N.Y.U. Envtl. L.J. 163, 174-76 (1999). The original states could fund a public education system through general taxation because in these states, lands were owned either by private individuals or by the states themselves. *See Andrus v. Utah*, 446 U.S. 500, 522, 100 S. Ct. 1803, 64 L. Ed. 2d 458 (1980) (Powell, J., dissenting). The western states, by contrast, were created from federal lands, and the federal government remained the owner of most of the land in these states. *See Papasan*, 478 U.S. at 269 n.4 (noting that "federal land, a large portion of the new States, was not taxable by them"). Therefore, the newly admitted states required a different source of funds to support public schools.

Significantly, the terms of the federal grants of land to the states varied over time. Most of the acts described the grants as being simply "for the maintenance of schools," "for the support of common schools," or "for the use and benefit of common schools." Sally K. Fairfax, Jon A. Souder & Gretta Goldenman, *The School Trust Lands: A Fresh Look at Conventional Wisdom*, 22 Envtl. L. 797, 818 (1992) (quoting General Land Ordinance, Colorado Enabling Act, and Oklahoma Enabling Act). These acts accorded different treatment, however, to the disposition of school lands and the establishment of a permanent fund. The early acts included neither restrictions on sales of land nor requirements that proceeds from sales or leases be invested in a permanent fund. *Id.* at 821-24. It was in the Colorado Enabling Act of 1875 that Congress first imposed sales limitations and required the establishment of a permanent fund. *Id.* Subsequent acts included similar limitations. *Id.* However, all of these provisions were less detailed than requirements that states had previously begun imposing on themselves through their constitutions. *Id.* Only in the New Mexico-Arizona Enabling Act of 1910 did Congress not only grant the lands "for the support of common schools," but also state that these lands "shall be by the said state held in trust." Act of June 20, 1910, ch. 310, §§ 6, 10, 36 Stat. 557 [hereinafter "New Mexico-Arizona Enabling Act"]. That act also includes detailed requirements for the sale and lease of school lands, investment of the proceeds, and enforcement of the terms of the act by the Attorney General of the United States. *See id.*, § 10, 36 Stat. at 563-65.

The Washington Enabling Act came near the end of this sequence of enabling statutes; it therefore contains more detailed provisions regarding the disposition of granted lands than the earliest enabling acts. The Act, however, is still quite general as to the overall grant of the school

[38] A "township" is the standard six mile by six mile square surveying unit established for all western lands by the Land Ordinance. *Papasan*, 478 U.S. at 268 n.3. The early Enabling Acts reserved one of the 36 one-square-mile "sections" of each township as school lands. *Id.*, at 269. Later Enabling Acts, including Washington's, expanded this reservation to two sections per township. *Id.*; Enabling Act § 10.

lands to the state. It provides that the "sections numbered sixteen and thirty-six in every township … are hereby granted … for the support of common schools." Enabling Act § 10. It is more detailed as to the disposition of the lands and the use of the proceeds of sales of the lands. The Enabling Act, in its original form, required that "all lands herein granted for educational purposes shall be disposed of only at public sale, and at a price not less than ten dollars per acre, the proceeds to constitute a permanent school fund, the interest of which only shall be expended in the support of said schools." *Id.* § 11. In contrast to the later New Mexico-Arizona Enabling Act, the Washington Enabling Act never mentions a trust of any kind.

2. The U.S Supreme Court Has Recognized the Creation of a Trust Only by the New Mexico-Arizona Enabling Act

The U.S. Supreme Court, when reviewing the grants of land contained in state enabling acts, has recognized that the duties imposed upon states by those acts vary depending on the specific language of the act. The Court has made it clear that the enabling acts do not impose identical duties. Indeed, the Supreme Court has held only that one enabling act, the New Mexico-Arizona Enabling Act, creates an enforceable trust. It did so after reviewing the specific language of the Enabling Act and finding therein an explicit imposition of trust duties. First, in *Ervien v. United States*, 251 U.S. 41, 40 S. Ct. 75, 64 L. Ed. 128 (1919), the Court struck down a statute that authorized the state commissioner of public lands to spend some of the proceeds from leases and sales of school lands to advertise the state to prospective settlers. In doing so, the Court specifically relied on the provision in the New Mexico-Arizona Enabling Act that made the use of the proceeds of the sale of granted lands for anything other than the enumerated purposes "a breach of trust." *Id*., at 47. Then, in *Lassen v. Arizona*, 385 U.S. 458, 87 S. Ct. 584, 17 L. Ed. 2d 515 (1967), the Court held that Arizona had to pay compensation to the permanent fund when it acquired school lands for highway rights-of-way. The Court found this compensation requirement in the specific language of the Enabling Act: "The Enabling Act unequivocally demands … that the trust receive the full value of any lands transferred from it." *Id.*, at 466. Thus the Court has found that this act, with its specific reference to a trust, imposed duties on the states that were enforceable in court.

The Supreme Court has, in contrast, held that other enabling acts do not create trusts. In *Cooper v. Roberts*, 59 U.S. 173, 182, 18 How. 173, 15 L. Ed. 338 (1855), the Court, discussing the Michigan Enabling Act, held that "the grant is to the State directly, without limitation of its power, though there is a sacred obligation imposed on its public faith." Next, in *Alabama v. Schmidt*, 232 U.S. 168, 173-74, 34 S. Ct. 301, 58 L. Ed. 555 (1914), the Court held that Alabama statutes that allowed school lands to be lost through adverse possession were valid, because "[t]he gift to the state is absolute" and the "obligation is honorary." In both of these cases, the Court recognized that enabling acts that predated the New Mexico-Arizona Enabling Act did not create enforceable trusts, but were instead merely hortatory.

The Court continues to recognize that not all enabling acts impose identical duties. In *Papasan*, 478 U.S. at 270, the Court briefly surveyed the history of the school land grants, noting that "the specific provisions of the grants varied by State and over time." It added, citing the New Mexico-Arizona Enabling Act, that "the most recent grants are phrased not as outright gifts to the States for a specific use but instead as express trusts" in which "there are explicit restrictions on the

management and disposition of the lands in trust." *Id.* The petitioners in the case before the Court claimed that the federal grant of lands to Mississippi created a trust. The Court noted that "it is not at all clear that the school lands grants to Mississippi created a binding trust," *id.*, at 279, but did not decide the question because it held that the petitioners' claim was barred by the state's Eleventh Amendment immunity.

3. The Washington Enabling Act Did Not Create a Specific, Restrictive Trust in the School Lands

The Washington Enabling Act did not create a narrow trust in the common schools lands. Congress simply did not express an intent to create such a trust—or any trust—in the Enabling Act. When Congress wanted to create a binding trust, it did so explicitly, as it did in the New Mexico-Arizona Enabling Act.

A trust is a fiduciary relationship in which one person holds title to some identifiable property, subject to an equitable obligation to keep or use that property for the benefit of another. 1 George Gleason Bogert & George Taylor Bogert, *The Law of Trusts and Trustees* § 1, at 1-2 (rev. 2d ed. 1984) (hereinafter Bogert & Bogert). Three elements are required to create a trust. First, the creator (or "settlor") must express a clear intent to create a trust. *See Colman v. Colman*, 25 Wn.2d 606, 609, 171 P.2d 691 (1946) ("An express trust … is created only if the settlor properly manifests an intention to create a trust."); Restatement (Second) of Trusts § 25 cmt. a (hereinafter "Restatement"). Second, there must be a beneficiary. Restatement §§ 112, 25 cmt. b. Finally, there must be a property interest which is in existence or ascertainable and is to be held for the benefit of the beneficiary. 1 Bogert & Bogert § 1, at 4-6. If any of the three elements is absent, no trust has been created. *Id.* § 1, at 6.

In the Washington Enabling Act, Congress did not express intent to create a trust and thus the first element for creating a trust is missing. While a trust document need not use the word "trust" or any other particular form of words, Restatement § 24(2), the settlor nevertheless must express a clear intent "to impose duties which are enforceable in the courts," *id.* § 25 cmt. a; *see also* 1 Bogert & Bogert § 45, at 466-67 (noting that a settlor must "express an intent that the trustee is to have the functions and duties which are incident to trusteeship"). A court will not presume that a trust is implied. Restatement § 24(2). Nor will a court find an intention to establish a trust in "precatory words" that "impose merely a moral obligation." *Id.* § 25 cmt. b. In particular, "[t]he mere statement of purpose for which a gift is made does not in itself show an intent to make the donee a trustee to accomplish that purpose." 1 Bogert & Bogert § 46, at 494 (emphasis added).

To determine whether a given enabling act created a trust, a court must look at the specific language of the relevant act. *See Branson Sch. Dist. RE-82 v. Romer*, 161 F.3d 619, 633 (10th Cir. 1998) ("[T]he question of whether a statehood statute creates a federal trust requires a case-specific analysis of the particular state's enabling statute because the history of each state's admission to the Union is unique."). "This is because Congress' treatment of land grants evolved

over time." *Dist. 22 United Mine Workers of America v. Utah*, 229 F.3d 982, 988 (10th Cir. 2000).[39]

When Congress wanted to create a trust, it did so explicitly. The New Mexico-Arizona Enabling Act provided that the school lands were "held in trust." New Mexico-Arizona Enabling Act, § 10. Violations of the terms of the Act would be "a breach of trust." *Id.* Given that Congress could have explicitly imposed—and, with other states, did impose—a trust, there is no reason to infer this intent when Congress did not make its intent clear or express. If anything, the absence of language explicitly referring to a "trust" in the Washington Enabling Act indicates that Congress did not intend to create a trust.

Moreover, the Washington Enabling Act is closer in its language to the enabling acts that the Supreme Court has held do *not* create binding trusts. As noted above, the Court has recognized a binding trust only in the New Mexico-Arizona Enabling Act, which explicitly mentions a trust. *See Lassen*, 385 U.S. at 466; *Ervien*, 251 U.S. at 47. When interpreting land grants to other states for school purposes, the Court has always found that the grants imposed no binding obligations on the states. *See Schmidt*, 232 U.S. at 173-74; *Cooper*, 59 U.S. at 182. The Washington Enabling Act, like the land grants to Alabama and Michigan, does not use the word "trust" or refer to any trust duties.

Scholarly commentators confirm this interpretation of the Washington Enabling Act. Most scholars who have examined the question agree that the Washington Enabling Act, like all other enabling acts except for the New Mexico-Arizona Enabling Act, does not create a trust. For example, Fairfax, Souder & Goldenman observe that "[i]f we are confined to interpreting enabling act language, it is difficult to describe anything other than Arizona and New Mexico school grants as trusts." Fairfax, Souder & Goldenman, *supra*, at 854; *accord* Daniel Jack Chasan, *A Trust for All the People: Rethinking the Management of Washington's State Forests*, 24 Seattle U. L. Rev. 1, 15 (2000) ("The fact that Congress used [trust language] in one place, but not in another, indicates that Congress had no intent to create a trust in the earlier cases."); O'Day, *supra*, at 184 ("Outside of the New Mexico-Arizona Enabling Act, no other state enabling act mentions the word 'trust.'"); Alan V. Hager, *State School Lands: Does the Federal Trust Mandate Prevent Preservation?*, 12 Nat. Resources & Env't 39, 40 (Summer 1997) ("The trust concept did not appear in any enabling act until Congress passed the New Mexico-Arizona Enabling Act in 1910."); John B. Arum, *Old-Growth Forests on State School Lands—Dedicated to Oblivion?—Private Trust Theory and the Public Trust*, 65 Wash. L. Rev. 151, 160 (1990) ("The Enabling Act does not manifest an intent to impose the equitable duties of a trustee on the state."). These commentators agree that courts have imposed trust duties in states other than New Mexico and Arizona either because these duties are found in the relevant state constitution or through the misapplication of *Lassen* and *Ervien*. *See* Fairfax, Souder & Goldenman, *supra*, at 843 (observing that precedents from Arizona and New Mexico have become central in

[39] The Washington Supreme Court has recognized that, by using different language in different enabling acts, Congress has varied the terms of the land grants to the states. For example, in *State v. Whitney*, 66 Wash. 473, 477-78, 120 P. 116 (1912), the Court held that by changing the terms of the grant from "shall be granted" to "are hereby granted," Congress had switched "from a grant in futuro to a grant in praesenti." *See also Thompson v. Savidge*, 110 Wash. 486, 502, 188 P. 397 (1920) ("[T]hat case might be differentiated from the one before us in view of the difference between the language of the Oregon grant and our grant.").

interpreting the grants in other jurisdictions); Chasan, *supra*, at 18; O'Day, *supra*, at 191-194; Hager, *supra*, at 41-42; Arum, *supra*, at 160 & n.67.

In sum, the Washington Enabling Act does not create a specific trust of any kind. While the school lands were given to and are constitutionally dedicated to school purposes, they are not trusts. The Washington Enabling Act never uses the word "trust" or in any other way manifests the required express intent to create a trust. The U.S. Supreme Court has found trust duties only in the one state enabling act that expressly mentions a trust. Academic commentators agree that only the atypical New Mexico-Arizona Enabling Act created a particular trust for school lands.[40]

4. The Washington Constitution Does Not Require that the School Lands Be Held in Trust for the Schools or Any Other Named Beneficiaries

The Washington Constitution also does not create a private trust with the state as trustee and the schools as beneficiaries. The plain language of the Constitution provides instead that the school lands are held in trust "for all the people" of the state. Const. art. XVI, § 1. While the Constitution requires the state to obtain full market value when selling school lands and to use money from the permanent fund exclusively for the common schools, it does not, however, require the state to consider itself a trustee focused *exclusively* on school children when managing the school lands to comply with applicable laws and does not create a narrow trust benefiting only income beneficiaries of common school lands.

Instead, the "trust" created by the Constitution—based on the express language of the Constitution—is properly understood as a kind of public trust with all of the people of the state as beneficiaries, rather than as a private trust benefiting only the common schools. Unlike the Washington Enabling Act, the Washington Constitution does use the word "trust" but the trust was not created to benefit just beneficiaries but it is directed to "all the people." Article sixteen, section one, specifies that the granted lands "are held in trust for all the people." Const. art. XVI, § 1 (emphasis added). This provision must be read to mean exactly what it says. *See Washington Economic Dev. Fin. Auth. v. Grimm*, 119 Wn.2d 738, 748-49, 837 P.2d 606 (1992) ("We will not construe or interpret a constitutional provision that is plain or unambiguous."). Thus, it establishes a trust, but one in which the State, as trustee, must take into account the interests of all people in the state, and not merely the common schools. *See* Fairfax, Souder & Goldenman, *supra*, at 846 (stating that the Washington Constitution "clearly" established a trust and observing that "if the trust is to benefit all the people, it is not clear how undivided loyalty ought to be defined"); Chasan, *supra*, at 16 ("From their choice of language, one can infer that the lands are merely dedicated to public purposes, not held in trust for specific beneficiaries.").

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[40] It is not necessary to decide on the exact nature of the legal relationship created by the Enabling Act: it is enough to conclude that it does not create a strict private trust that requires DNR to ignore the general public interest to grant an easement or accept a condemnation award out of a fiduciary duty to the school beneficiaries. However, a logical interpretation of the Enabling Act is that it constitutes a dedication of lands to a particular purpose. *See* Arum, *supra*, at 163-68; *cf.* 1 Bogert & Bogert § 34, at 411-12 ("Where states hold land for special public purposes it is sometimes stated that there is a trust, but this is usually not true in a strict sense.").

The framers of the Washington Constitution knew of other states that had created trusts with the schools as beneficiaries. *See, e.g.*, Colorado Const. art. IX, § 10 (amended 1996) (providing that the granted lands were "held in trust … for the use and benefit of the respective objects for which said grants of land were made"). Their decision not to do the same must be respected. Indeed, the framers of the Washington Constitution specifically rejected revenue maximization as the goal of management of the granted lands. The constitutional convention received two petitions that demanded that the granted lands be managed to maximize revenues. First, on July 10, 1889, the Tacoma Typographical Union No. 170 proposed an amendment to what became article sixteen, section One, that reads: "That all school lands and lands ceded to the state by the United States be reserved forever, and that they be treated so as to secure the highest perpetual income to the schools." Beverly Paulik Rosenow, ed., *The Journal of the Washington State Constitutional Convention* 793-94 (1962). The Knights of Labor No. 115 submitted a virtually identical proposition on July 25, 1889. *See id.*, at 794. The convention ignored both of these petitions; despite repeated requests, the framers chose not to require that the granted lands be managed for revenue maximization.

Other state constitutions from that time *did* require revenue maximization. For example, the Colorado Constitution required management of granted lands "in such a manner as will secure the maximum possible amount therefor." Colorado Const. art. IX, § 10 (amended 1996). Colorado was the last state admitted to the Union before Washington. Similarly, the Idaho Constitution—drafted only one year after the Washington Constitution—required the state to acquire "the maximum amount possible" for the schools. Idaho Const. art. IX, § 8 (amended 1982). The framers' decision to reject the revenue maximization approach is even more significant given the contemporaneous examples of that approach. Given their awareness of these other state constitutions, the framers' decision to require that the school lands be held in trust "for all the people," instead of merely "for the common schools," was not accidental. Rather, it reflected a conscious decision to avoid imposing a narrow trust on these lands only for the income benefit of school beneficiaries.

The Constitution does, of course, impose strict duties on the state in the sale of school lands and the management of the common school fund derived from these lands. It requires that school lands, as well as "any estate or interest therein," be sold only for "full market value." Const. art. XVI, § 1; *see id.* § 3 ("[N]o sale of timber lands shall be valid unless the full value of such lands is paid or secured to the state."). To carry out this requirement, the Constitution also requires that lands be sold only at public auction and only after being appraised by a board of appraisers. *Id.* § 2. The proceeds from these land sales, as well as the proceeds from, among others things, the sale of timber on school lands, must be added to the common school fund. *Id.* art. IX, § 3. "[T]he entire revenue from the school fund … shall be exclusively applied to the support of the common schools." *Id.*

In short, while the Constitution requires that the state obtain full market value from the disposition of trust assets and that any revenue generated from the disposition of such assets be dedicated to the support of the common schools, it does not require that retained trust lands and assets be managed in a way that maximizes the generation of revenues for any particular beneficiary.

5. The Washington Constitution Imposes Only A Broad Public Trust On The Management Of Common School Lands

The trust created by the Washington Constitution is more akin to a *public* trust than a private trust. The public trust doctrine resembles "a covenant running with the land … for the benefit of the public and the land's dependent wildlife." *Orion Corp. v. State*, 109 Wn.2d 621, 639, 747 P.2d 1062 (1987). Such a trust prohibits the state from giving away state resources and requires the state to consider the public interest when allocating these resources. Arum, *supra*, at 154-55. While a public trust originally applied only to rights to navigation and fishing in navigable waters, its reach has expanded to include submerged lands and recreational activities. *Orion Corp.*, 109 Wn.2d at 639-41. The Washington Supreme Court has not yet had occasion "to decide the total scope of the doctrine." *Id.* at 641. Because the school lands are held in a trust "for all the people," a broader form of "public" trust such as the public trust doctrine would comport with the language of the Washington Constitution.

Interpreting the Constitution to establish such a public trust, rather than a private trust, accords with the concerns about the school lands at the time the Constitution was drafted. The overriding concern of Congress and the state constitutional conventions in the late nineteenth century was to prevent the school lands from being stolen or given away. *See* Chasan, *supra*, at 29-34. This is why the enabling acts and constitutions of the period contain so many detailed requirements regarding the sale of school lands and assets therefrom, but say nothing about the management of these lands. The framers were not thinking about land management. Similarly, cases such as *Lassen*, *Ervien*, and even *Skamania* which we discuss in detail below, dealt not with land management but with the disposition of school lands or the right to use those lands at unfairly low prices. Accordingly, management of Washington's common school lands is not subject to a narrow, income-oriented trust for schools but rather is constrained by a broad public trust-like duty to benefit "all of the people."

6. *Skamania* Dealt With the Diversion of Trust Income to Private Parties or other interests; it did not involve Management Decisions for the Land Itself.

The Court's opinion in *Skamania* does contain reasoning that describes the Washington Enabling Act and state constitution as establishing a trust with respect to the school lands. The *Skamania* court's reasoning, however, cannot be squared with the express language of either the state Constitution or the Washington Enabling Act. Moreover, the Court's statements rely solely on cases that interpret the subsequent and different New Mexico-Arizona Enabling Act and therefore should not guide interpretation of the Washington Enabling Act. *See State v. Potter*, 68 Wn. App. 134, 149 n.7, 842 P.2d 481 (1992) ("Statements in a case that do not relate to an issue before the court and are unnecessary to decide the case constitute obiter dictum, and need not be followed.").

The *Skamania* Court stated that the federal school land grant created a trust to benefit the common schools. "Every court that has considered the issue has concluded that these are real, enforceable trusts that impose upon the state the same fiduciary duties applicable to private trustees." *Skamania*, 102 Wn.2d at 132. For this proposition, the Court primarily relied on

Lassen. Yet, as explained above, *Lassen* interpreted the New Mexico-Arizona Enabling Act, which, unlike the Washington Enabling Act, does explicitly establish a trust. *See* Fairfax, Souder & Goldenman, *supra*, at 844 (noting "the [*Skamania*] court's treatment of Supreme Court decisions regarding Arizona and New Mexico as binding on other states, without apparent awareness that these cases apply only to Arizona and New Mexico and are particularly inappropriate in the *Skamania* case").

The Court also cited *United States v. 111.2 Acres of Land*, 293 F. Supp. 1042 (E.D. Wash. 1968), *aff'd*, 435 F.2d 561 (9th Cir. 1970). This case, like *Skamania* itself, concerned the improper disposition of granted lands or assets from those lands, not the management of those lands. In *111.2 Acres of Land*, the state had allowed the federal Bureau of Reclamation to expropriate granted lands, without compensation, for an irrigation project. The court held that section 11 of the Washington Enabling Act prohibited the state from donating granted lands. *Id.*, at 1046. This holding is a straightforward application of the requirement in section 11 that the state obtain full market value when selling trust land. Enabling Act, § 11. The district court also stated that section 10 of the Enabling Act and article XVI, section 1 of the Washington Constitution establish a "real" trust. *111.2 Acres of Land*, 293 F. Supp. at 1049. The court provided no analysis to support this conclusion beyond a citation to *Lassen*.[41]

The only Washington Supreme Court case cited in *Skamania* in support of its conclusion that the school lands are held in a specific trust is *State ex rel. Hellar v. Young*, 21 Wash. 391, 58 P. 220 (1899). That case had nothing to do with the management of school lands, however. Instead, it dealt with the investment of the permanent fund. *Id.* at 392 ("[T]he permanent school fund of this state must be regarded as a trust fund."). As explained above, entirely different provisions of the Washington Enabling Act and the Constitution govern the permanent fund than govern the school lands and their management. *Young* says nothing about the latter.

In fact, there is no example of common law trust duties being applied to the *management* of school lands in Washington before *Lassen* and *Skamania*. The courts had not done so. Instead, for example, in *State ex rel. Forks Shingle Co. v. Martin*, 196 Wash. 494, 83 P.2d 755 (1938), the state Supreme Court upheld the constitutionality of a law that required the management of state forest lands according to a "sustained yield plan." In reaching this conclusion, the Court observed that a law "having for its purpose the conservation of the state's forest resources" on school lands deserved special deference. *Id.*, at 502. Neither had the agencies responsible for managing the school lands take such a narrow view of their management role. *See* Chasan, *supra*, at 22 (observing that the 1942 report of the Forest Advisory Commission did not mention a duty of undivided loyalty). Likewise the general public had not viewed the management of these lands so narrowly. *See id.*, at 22 n.115 ("When allegations of timber thefts and giveaways arose earlier in the century, legislative investigators and newspaper headline writers expressed outrage over people stealing from the state. Cheating school children was not the issue, and evidently no one even thought about common law trust responsibilities.").

[41] The reference in *Skamania* to *111.2 Acres of Land* therefore simply restates the Court's misunderstanding of *Lassen* at one remove.

The language in *Skamania* aside, current law does not require that the state manage common school lands as a private trustee would manage a trust corpus. First, the school lands are plainly subject to federal laws of general applicability. *See generally* 1996 A.G.O. 11. 18-21. In *Case v. Bowles*, 327 U.S. 92, 98-102, 66 S. Ct. 438, 90 L. Ed. 552 (1946), the U.S. Supreme Court held that the sale of timber from granted school lands was subject to the federal Emergency Price Control Act, even though this federal statute reduced the revenue from such sales. Similarly, in *Bd. of Natural Resources v. Brown*, 992 F.2d 937, 941 (9th Cir. 1993), the Ninth Circuit upheld a federal statute that restricted the export of unprocessed timber harvested on state and federal public lands, thereby "reducing significantly the income generated from the sale of timber harvested from the land." The same is true of generally-applicable laws enacted by the state legislature pursuant to its police powers. *See generally* 1996 A.G.O. 11, at 20-21. For example, the Washington Supreme Court has upheld the applicability of the State Environmental Policy Act and the Forest Practices Act to granted school lands. *See Noel v. Cole*, 98 Wn.2d 375, 380, 655 P.2d 245 (1982); *West Norman Timber, Inc. v. State*, 37 Wn.2d 467, 475, 224 P.2d 635 (1950). The state also allows the public to use the school lands "for camping, hunting, hiking, fishing, boating, and motorized off-road travel, even though those uses may substantially increase the risk of fire on these lands." Chasan, *supra*, at 24.

In other words, there is no dispute that the state may require management of the school lands in a way that does not maximize revenue so long as it applies the same restrictions to all people. But a trustee is required to do more than treat the beneficiaries as well as everyone else; a true trustee must treat the beneficiaries better than anyone else. *See* 1 Bogert & Bogert § 543, at 217 ("Perhaps the most fundamental duty of a trustee is that he must display throughout the administration of the trust complete loyalty to the interests of the beneficiary and must exclude all selfish interest and all consideration of the interests of third persons."); *see also* Chasan, *supra*, at 24. If the school lands were truly held and subject to management pursuant to a private trust to benefit only the common schools, then applying state laws of general applicability to those lands could be deemed a breach of that trust duty. This result highlights the incongruity of applying common law trust duties to school lands.

Absent an express requirement in the Washington Enabling Act or Constitution that it do otherwise, the state may enact laws to promote public health and safety pursuant to its police powers. The "[p]olice power is inherent in the state by virtue of its granted sovereignty." *Manufactured Housing Communities of Washington v. State*, 142 Wn.2d 347, 354, 13 P.3d 183 (2000). It permits the state to pass laws "for the benefit of the public health, peace and welfare." *Conger v. Pierce County*, 116 Wash. 27, 36, 198 P. 377 (1921). "It exists without express declaration, and the only limitation upon it is that it must reasonably tend to correct some evil or promote some interest of the state, and not violate any direct or positive mandate of the constitution." *Shea v. Olson*, 185 Wash. 143, 153, 53 P.2d 615 (1936).

The Board's selection of a LTCS alternative that complies with the ESA and best available science is not limited by cases holding that states cannot use their federal school trusts to "fund" conservation. For example, in *State v. University of Alaska*, 624 P. 2d 807 (Alaska, 1981), the court held that Alaska's donation of state trust lands for a public park violated that State's trust mandate. And in *National Parks & Conservation Ass'n v. Board of State Lands*, 869 P. 2d 909 (Utah, 1993), the court held that the State of Utah could not justify losing money on a

land exchange to protect aesthetic resources of an inholding within a national park. These cases are, however, significantly different than the Boards' adoption of a LTCS. In both, the courts rejected "give aways" of public land, give aways that would have taken trust lands land out of income production. In the case of a conservation-oriented LTCS, however, the Board would not be giving away anything; instead, the Board would be enabling the State Forests and State Land to be harvested into the future without risk of ESA lawsuits. A conservation-oriented LTCS also does not give away public resources; it mitigates the environmental impacts of the state's activity (logging) on public resources. In addition, the Board's attempt to comply with the ESA is not, like in the Alaska and Utah cases, a recreational bonus at the trust's expense; it is the Board's attempt to comply with federal law.

In conclusion, the federal land grants of school lands to Washington and, in turn, the framers of the Washington Constitution created *public*, not *private*, trusts. The purpose of these public trusts was to permanently set these lands for uses that the DNR and the Board deem is in the long-term public interest of the schools *and* the public at large. To the extent that *Skamania* holds that the school lands are *private* as opposed to *public* trusts and that DNR has a fiduciary duty to maximize revenue from these trusts, this conclusion is not sound. The DNR and the Board have the clear legal authority to manage the State trust lands to achieve protection and recovery of threatened and endangered species, because achieving these goals is clearly required by federal law and is in the best long-term interests of the public in general and the trusts viewed in the aggregate.

D. The Board has the authority to manage the county-sourced "State Forest" lands in the best interests of the State and this authority includes adoption of a LTCS that complies with federal law and which protects a federally-listed species.

Some forest stakeholder may argue that a decision by the Board to adopt a conservation and recovery-oriented LTCS would violate DNR's fiduciary duty towards the Counties or their "junior beneficiaries" with respect to the county-sourced "State Forest Lands." These stakeholders may contend that the Board has the same fiduciary duty, or "trust mandate," to the counties as they have towards the federal land grant lands, including maximization of income in the long-term and undivided loyalty in favor of the beneficiaries.[42]

We acknowledge that the Legislature[43] and Supreme Court in *Skamania*[44] have referred to the county-sourced State Forest Lands as being held in a "trust" status, but we respectfully disagree with the characterization that these forests are similar to the federal school trusts or that they must be managed as private trusts. Instead, the State Forests (the county forest board lands)

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[42] DNR Policy for Sustainable Forests, at 13 (2004) (*citing* RCW 79.22.040) ("However, the Legislature has directed that the State Forest Transfer Lands be managed in the same manner as the Federal Grant Lands.") (Available at http://www.dnr.wa.gov/Publications/lm_psf_policy_sustainable_forests.pdf).

[43] RCW 79.22.040.

[44] *Skamania*, 102 Wn.2d at 133 ("[T]he forest board transfer lands are also held by the state in trust. RCW 76.12.030 [recodified at RCW 79.12.040] states that when counties transfer this land to the state, "[s]uch land shall be held in trust and administered and protected by the board as other state forest lands." This statute, like the enabling act, imposes upon the state similar fiduciary duties in the management and administration of the forest board transfer lands."

exist as statutory, not constitutional, trusts and DNR has the statutory authority and duty to manage these lands "in the best interest of the State."[45] The DNR may take all of the State's interests into account, including the State's interest in complying with its HCP, the ESA, and conservation-oriented sustainable timber harvest. No real or perceived trust duty towards a county or junior taxing district prevents DNR from managing the State Forest Lands in a manner that fully implements the science-based conservation requirements contained in DNR's state-wide HCP.

1. History of the "State Forest Lands" (also known as the "county forest board" lands)

Washington's first settlers encountered vast old growth forests, forests so vast that they believed they were inexhaustible. But that belief faded and by the 1920s, Washington's title of "the Evergreen State" was starting to sound ironic. Washington's forests were disappearing, just as the forests of Wisconsin and Michigan had vanished in the 19th century. There were no reforestation programs, and fire control was minimal or nonexistent."[46] Forest landowners had reduced the lush forests that once graced the landscape to mile-after-mile of scoured and stripped land.[47]

Washington's denuded landscape was more than just an eyesore. Wildfires often raced through the slash, risking life and property nearby, and leaving behind a strange, barren landscape of charred stumps.[48] "Denuded hillsides . . . made possible the rapid runoff of surface waters, thus increasing the dangers from floods and contributing to costly soil erosion."[49]

Regrettably, the business strategy of many of Washington's early forest landowners was "cut out and get out."[50] After clearing the land of timber, these landowners abandoned the land (which were then devoid of economic value) and ceased paying property taxes.[51] Eventually, the counties acquired these forests through tax foreclosure.[52]

The Legislature eventually recognized that something needed to be done to reforest these lands and that the counties were ill-equipped to do the job. During the 1920s and 1930s, "reforestation" became the rallying cry. As the Washington Supreme Court noted:

> We are aware that the problem of our vanishing forests and the reforestation of the vast areas from which the timber has already been removed has challenged the attention, not only of the people of this state, but of the nation, and everywhere efforts are under way, through plans for a more orderly harvesting of timber crops and the

[45] 1996 A.G.O. 11, at 53 ("[t]he forest transfer lands are held in trust pursuant to a legislative enactment.")
[46] Daniel Jack Chasan, *A Trust for All the People: Rethinking the Management of Washington's State Forests*, 24 Seattle U. L. Rev. 1, 6 (2000).
[47] *Id.*
[48] *Id.*
[49] *State v. Dexter*, 32 Wash. 2d 551, 555-56 *aff'd*, 338 U.S. 863 (1949).
[50] *Id.*
[51] *Id.*
[52] *Id.*

> planting of denuded areas, to remedy, in part at least, the wasteful practices of the past.[53]

Reforestation was seen as a panacea for a host of ills because forests provided a number of tangible benefits, such as anchoring soil, slowing water runoff, and providing a source of future timber. A 1931 Seattle Times editorial even praised Washington's reforestation efforts for aesthetic reasons:

> Although there are sound economic reasons for perpetuating Washington's magnificent forests, the idea that woodlands have an aesthetic and education values is taking hold of the public though here and elsewhere. The great movement for . . . reforestation of denuded hillsides is based upon the recreational and educational value rather than upon their possible commercial importance . . . . Bare hillsides or blackened stump areas where fires have raged fill the average person with a feeling of horror or regret. If there were no economic reasons for reforesting the land it would be well worth while to bring back the beauty of the American landscape.[54]

The Legislature took a number of steps to promote reforestation. In 1921, the Legislature authorized the State to acquire by purchase or gift any lands suitable for reforestation and to "seed and develop forests" on such land.[55] In 1923, the Legislature created the State Forest Board—the predecessor to today's DNR—to manage the state forest lands and authorized the Board to issue bonds, up to $200,000, to acquire and reforest these lands.[56] Lands purchased by the state were "forever reserved from sale," but timber from these forests "may" be sold.[57] At that time, the Legislature created a trust relationship between the State and the counties, but granted the State significant discretion in managing the trust, requiring that: "timber and other products thereon may be sold or the said lands may be leased in the same manner and for the same purposes as is authorized for the state granted lands, except that no sale of any timber or other products thereon and no lease of said lands shall be made until ordered and approved by the State Forest Board."[58] In 1927, the Legislature authorized DNR to acquire county lands received through tax foreclosure for the purpose of reforestation and incorporated by reference the management standards in the 1923 law.[59]

Twenty-one counties quickly transferred their barren and burdensome former forest lands to the State.[60] This transaction ultimately benefited both the State and the counties. Not only would the county and its junior taxing districts receive revenue if and when timber was sold, but all parties, the state and the county, would benefit from reforestation and the preservation of

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[53] *State ex rel. Mason Cnty. Logging Co. v. Wiley*, 177 Wash. 65, 71 (1934).
[54] Seattle Times, July 12, 1931.
[55] 1921 Wash. Laws ch. 169.
[56] 1923 Wash. Laws ch. 154.
[57] *Id.*
[58] *Id.*
[59] 1927 Wash. Laws, ch. 288, §3-b.
[60] DNR, POLICY FOR SUSTAINABLE FORESTS 12 (Dec. 2006).

Washington's forest resources. In 1955, the Legislature amended the language of the statutory trust to clarify that the State's interests were paramount.

The Legislature specifically directed DNR to manage the State Forest Lands in the same manner as the Federal Land Grant Lands but only "if the board finds such sale or lease to be in the best interests of the state and approves the terms and conditions thereof."[61] Very similar language persists today in RCW 79.22.050.

2. RCW 79.22.040, .050, and .070 collectively allow the Board to make decisions implementing DNR's HCP that are in the best interest of the State.

The nature of DNR's trust mandate, the obligations that govern DNR's management of the State Forest Lands hinges on the Legislature's intent in creating the statutes governing DNR's management of the State Forests.[62] When a statutory standard conflicts with a common law standard, the common law gives way and is pre-empted as a matter of law.[63] Common law trust obligations apply only insofar as they are not inconsistent with statutory provisions. RCW 4.04.010. The trustee's primary duty is to carry out the settlor's (here, the State of Washington) intent as determined from the terms of the trust instrument.[64] Thus, the first place to look to determine DNR's trust mandate and fiduciary land management standard are the statutes governing the State Forest Lands.[65]

Facing the cut, run, and tax defaults described above, in 1927 the Legislature authorized the State to accept the barren and burdensome county forests for the purposes of reforestation. RCW 79.22.040.[66] In directing *how* these lands should be managed, the Legislature had a choice: it could require the lands to be managed in the same manner as other forest lands purchased by or gifted to the state *or* in the same manner as the Federal Land Grant Lands.

The Legislature chose the former, directing that these transfer lands be held in trust but "be forever reserved from sale, but the valuable materials thereon *may be* sold or the land may be leased in the same manner and for the same purposes as is authorized for state lands if the department finds such sale or lease to *be in the best interests of the state*…." RCW 79.22.050 (emphasis added). It is crucial to emphasize the terms "may be;" this means that the Legislature did not *direct* the Board and DNR to manage the State Forest Lands the same as the State Lands; it gave the Board and DNR the *discretion* to do so. What is "in the best interests of the State," however, is DNR's management mandate.

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[61] 1955 Wash. Laws, ch. 116.
[62] 1996 A.G.O. 11, at 53.
[63] *Washington Water Power Co. v. Graybar Electric Co.*, 112 Wn.2d 847, 851-56, 774 P. 2d 1199, *modified* 779 P.2d 697 (1989).
[64] *Austin v. U.S. Bank*, 73 Wn. App. 293, 304 869 P.2d 404, *rev. denied*, 124 Wn.2d 1015 (1994)
[65] *Id*. ("[The] terms of the forest . . . transfer lands trust are found in statutes directing the administration and protection of state forest lands. These statutes define the trust relationship and [DNR's] obligations and authority in administering the trust.").
[66] 1927 Wash. Laws, ch. 288.

The non-mandatory nature of DNR's management of the State Forest Lands is likely why the Attorney General recognized that the Legislature did not *require* DNR to manage the State Forest Lands in the same manner as DNR manages common law trusts. A.G.O. 11, at 53 ("…[u]nlike the federal grant land trusts, the forest board transfer land trust is created by statute."); *Id*., at 54 ("In light of these principles, this opinion concludes that the legislative authority of the state with respect to forest board transfer lands generally is not constrained by common law fiduciary principles governing administration of private trusts."); *Id*., at 58 ("These statutes define the trust relationship and the Department's obligations and authority in administering the trust.").

Similarly, RCW 79.22.070 gives the Board and DNR the authority to manage the State Forest Lands with a long view towards conservation goals and principles. That statute provides:

> (1) State forestlands shall be logged, protected, and cared for in such manner as to ensure natural reforestation of such lands, and to that end the department shall have power, and it shall be its duty to adopt rules, and amendments thereto, governing logging operations on such areas, and to embody in any contract for the sale of timber on such areas, such conditions as it shall deem advisable, with respect to methods of logging, disposition of slashings, and debris, and protection and promotion of new forests. …

Because DNR holds the State Forest Lands in a statutory not a common law trust, a *different* management standard governs DNR's management of these lands. While, under *Skamania*, a trustee must manage a common law trust in the exclusive best interest and in furtherance of the undivided loyalty of the trust beneficiaries, among other fiduciary duties, *Skamania*, 102 Wn.2d at 137, the Legislature in RCW 79.22.040 and .050 circumscribed this common law trust standard and instead directed DNR to manage these lands *in the best interests of the State*. By its own terms, this management, however, may not necessarily be in the exclusive best interest of the specific county or junior beneficiary. RCW 79.22.050 provides:

> Except as provided in RCW 79.22.060, all land, acquired or designated by the department as state forest land, shall be forever reserved from sale, but the valuable materials thereon may be sold or the land may be leased in the same manner and for the same purposes as is authorized for state lands <u>if the department finds such sale or lease to be in the best interests of the state</u> and approves the terms and conditions thereof. (emphasis added).

DNR, accordingly, may manage the State Forests under the same standards state agencies manage its non-trust proprietary properties. 1996 A.G.O. 11, at 58. This lower standard stems from the principle that agencies acting in an administrative capacity have significantly more discretion than when they act as a trust manager. 1996 A.G.O. 11, at 36 (citing Jon A. Souder et al., *Sustainable Resources Management and State School Lands: The Quest for Guiding Principles*, 34 Nat. Resources J. 271, 295 (1994)). DNR is *not* required as a matter of law to

administer the State Forest Lands "based on the economic circumstances and interests of each county in which such lands are located." 1996 A.G.O. 11, at 60.

What, then, is "in the best interests of the State" when it comes to the adoption of a LTCS alternative? We contend that the Board can conclude that maintaining the DNR's federal HCP and incidental take permit is in the best interest of the State. The Board may conclude that its compliance with the ESA is in the best interest of the State. And the Board may conclude that conserving and recovering a unique bird that forages at sea and nests in old forests, a bird that is on the brink of extinction, is in the best interests of the State. In sum, our view is that that the Board has the legal authority under RCW 79.22.050 to adopt a LTCS that complies with the ESA and best available science.

IV. CONCLUSION

The Board has the legal authority to adopt a long-term conservation strategy alternative that complies with the ESA and best available science known to conserve and recover marbled murrelets on DNR State Lands and State Forest Lands. The federal land grant trusts authorize the Board to adopt a strategy that will best comply with Section 10 of the ESA, provide long-term ESA certainty to the trusts, and, using best available science, best protect and recover an iconic old growth-dependent forest bird. *Skamania v. State* does not prevent the Board from achieving these goals; *Skamania* holds only that the State cannot divert, at the expense of the trusts, trust assets or earned income to private entities. *Skamania*, moreover, was wrongly decided to the extent it held that the federal school trusts were private trusts. As documented in this Memorandum, the federal school trusts are public, not private, trusts and the Board has the discretion to adopt management decisions that benefit *both* the trust beneficiaries and society at large. Complying with federal law, obtaining long-term federal ESA assurance, and recovering an old growth species on state forests is not an impermissible diversion of trust assets; instead, these are public values that the Board has the authority, and duty, to advance. The Board has the same authority with respect to the county-sourced State Forest Lands.

We thank the Board, DNR, the U.S. Fish and Wildlife Service, and all interested stakeholders for their consideration of this Memorandum.

ATTACHMENT 1

Opinion
CHRISTINE O. GREGOIRE ATTORNEY GENERAL OF WASHINGTON

STATE - LANDS - FOREST LAND - LEGISLATURE - BOARD OF NATURAL RESOURCES - COMMISSIONER OF PUBLIC LANDS - DEPARTMENT OF NATURAL RESOURCES - ENABLING ACT - TRUSTS - WASHINGTON TERRITORY - COLLEGES AND UNIVERSITIES - COUNTIES - STATE'S TRUST RESPONSIBILITIES WITH RESPECT TO LANDS GRANTED BY THE UNITED STATES OR PLACED IN TRUST THROUGH STATE LEGISLATION.

1. The Enabling Act facilitating the admission of Washington into the union (25 Stat. 676) is a limitation on state legislative authority and requires that federal grant lands be held in trust; exercises of legislative authority over federal grant lands will be tested by fiduciary principles.

2. Common law trust principles are instructive with respect to the administration of federal trust lands by the State, but the Legislature's management decisions are accorded a deference not granted a private trustee because of the presumption of constitutionality that applies to exercises of state legislative authority.

3. Federal and state laws of general application (such as the Endangered Species Act) apply to federal grant lands administered by the State.

4. The State's duties as trustee of federal grant lands run separately to each trust; joint administration is permissible where it serves the interests of each trust, so long as each trust is separately accounted for.

5. The State must separately account for each federal land grant trust, and maintain separate funds or accounts to that end.

6. The Legislature may lawfully delegate to the Department of Natural Resources and the Commissioner of Public Lands a role in administering forest lands within the State, including federal grant lands, while simultaneously authorizing the same agency and officer to play a role in regulating such lands.

7. In its administration of federal trust lands, the Department of Natural Resources is not subject to chapters 11.98, 11.100, 11.106 or 11.110 RCW.

8. The Department of Natural Resources has the authority to satisfy the requirements of the Endangered Species Act by entering into a long-term management plan, so long as the plan does not violate the Department's common law or statutory duties regarding the federal grant land trusts.

9. The exercise of discretion by the Department of Natural Resources with respect to administration of federal grant lands will be tested against an abuse of discretion standard; as against a trust beneficiary, principles regarding a trustee's exercise of

discretion would apply, while as against a non-beneficiary, principles of administrative law would apply.

10. The management plans of the Department of Natural Resources for administration of federal trust lands need not treat each trust alike or benefit all trusts equally, so long as the Department acting consistently with its fiduciary duties and in the exercise of reasonable judgment determines that, on balance, the plan is in the economic interests of each trust.

11. The management plans of the Department of Natural Resources for administration of federal trust lands may exceed minimum standards imposed by other laws (such as the Endangered Species Act) governing use of those lands, if the Department can show that any reduced short-term economic return reflects a reasonable balance of long-term and short-term interests.

12. The Department of Natural Resources may take into account factors other than the economic well-being of a federal land grant trust, so long as those factors are consistent with ensuring the economic value and productivity of the trust.

13. The Morrill Act (7 U.S.C. § 303 et. seq.) precludes charging the expenses of managing and administering federal lands granted in the Enabling Act for purposes of an agricultural college, against the proceeds derived from the sale of such lands.

14. Forest board transfer lands are held in a trust established by state statute; although the Legislature is free to modify or repeal the laws creating the trust, common law principles governing the administration of private trusts will apply if these principles are not inconsistent with statutory directives.

15. The Legislature is free to enact laws subjecting forest board transfer lands to environmental regulation and other laws of general application.

16. The Department of Natural Resources is subject to common law principles with respect to its administration of forest board transfer lands, except where those principles are inconsistent with statutory law.

17. The forest board transfer lands constitute a single trust, and the Department of Natural Resources is authorized to manage them as an undifferentiated whole; the Department need not separately account for management of lands located in each county.

18. With respect to administration of forest board transfer lands, the Department of Natural Resources is subject to an abuse of discretion standard.

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August 1, 1996

The Honorable Kathleen Drew, Chair
Senate Natural Resources Committee

John A. Cherberg Building Room 406
P.O. Box 40482
Olympia, WA 98504-0482

The Honorable Steve Fuhrman, Chair
House Natural Resources Committee
John L. O'Brien Building Room 333
P.O. Box 40600
Olympia, WA 98504-0600

Cite as:
AGO 1996 No. 11

Dear Senator Drew and Representative Fuhrman:

On behalf of the Legislature and pursuant to Senate Concurrent Resolution (SCR) 8435 (copy attached), you have requested our opinion on several questions concerning the authority, rights, and responsibilities of state agencies and institutions with respect to the state's federal grant lands and forest board transfer lands. The questions posed are broad in scope, but primarily have arisen in the context of the Board of Natural Resources' consideration of a habitat conservation plan for such lands, under the federal Endangered Species Act. Before turning to the questions posed and our legal analysis, an understanding of the background of this opinion request is important.

The Legislature's opinion request is unique in certain respects and has prompted this office to vary its historical process and practice in preparing Attorney General opinions. First, this is a request on behalf of the Legislature as an institution, not a request by one or more individual legislators. It not only seeks our legal opinion under current law, but also asks this office to comment on the validity of existing statutes. Except in the most extraordinary circumstances, the Attorney General's Office does not pass on the validity of duly enacted state laws in providing Attorney General opinions. Rather, this office recognizes the presumption of constitutionality afforded legislative enactments and provides legal guidance within the context of those enactments. However, in this instance, in light of the fact that the Legislature, as a body, has requested consideration of the validity of current statutes, this opinion undertakes that consideration where we have determined it appropriate to do so.

Second, within applicable time constraints, SCR 8435 and the Legislature's opinion request seek the most comprehensive and informed consideration of the issues presented. The Senate Concurrent Resolution recognizes that litigation between state agencies and instrumentalities should be a matter of last resort and that the public deserves the best effort of all interested public entities in resolving questions concerning the Department of Natural Resources' proposed habitat conservation plan and other trust land management practices, without incurring the substantial costs and disruptions that litigation would entail. In an effort to accomplish this goal, SCR 8435 provides for this opinion request and for a separate process to facilitate facts relevant to applying the legal principles set forth in this opinion.

The Attorney General's Office fully supports the Legislature's goals. In preparing this opinion,

the Attorney General's Office has taken the following measures to assist in achieving them. First, as has been the practice of the Attorney General's Office in the recent past with opinion requests of potentially broad interest, notice of this opinion request was published in the Washington Register, informing interested persons of their opportunity to provide comment. In addition to this process, a copy of the opinion request was provided to the agencies identified in SCR 8435 as having a recognized interest in these questions and also to parties not so identified but who, nevertheless, provided questions for the Legislature's consideration in formulating its opinion request to the Attorney General. The Attorney General's Office invited these agencies and parties to submit written legal analysis of the questions that have been posed and provided an opportunity for these agencies and parties to respond to analysis submitted by others.

Finally, to further ensure the most comprehensive and informed consideration of the questions posed, the Legislature's opinion was prepared by a three person panel comprised of retired State Supreme Court Justice James A. Andersen, serving as a Special Assistant Attorney General for this project; retired Thurston County Superior Court Judge Robert J. Doran, also serving as a Special Assistant Attorney General for this project; and Senior Assistant Attorney General Maureen Hart.

With this background, we now proceed to consider the Legislature's questions. As previously noted, this opinion request poses questions concerning the authority and responsibility of the state with respect to managing two different categories of trust lands - federal grant lands and forest board transfer lands. The Legislature posed its questions regarding the federal grant lands first, followed by questions concerning the forest board transfer lands. We have retained this order in restating the Legislature's questions and except where cross-references facilitate ease of reading and understanding, such as in the summary section of the opinion, we have addressed the questions in the same order.

The questions posed by the Legislature regarding the federal grant lands are:

FEDERAL GRANT LANDS

1.To what extent is state legislative authority with respect to the federal grant lands constrained by the Enabling Act?

2.To what extent is state legislative authority with respect to the federal grant lands constrained by common law principles governing the administration of private trusts?

a.Is the administration of the trust lands subject to laws of general application?

b.Do the state's duties as trustee run separately to each of the grant land trusts or can the lands be administered as a single trust?

c.Are the grant land trusts subject to separate accounting of trust income and costs?

d.May the Legislature empower the Department of Natural Resources and the Commissioner of Public Lands with regulatory authority regarding all forest lands in the state of Washington, including the federal grant lands, as well as the responsibility to manage the federal grant lands?

3.Is the Department of Natural Resources subject to the trust provisions of RCW Title 11?

4.Does the Department of Natural Resources have the authority to enter into a long-term agreement regarding management of the federal grant lands as a method of satisfying the Endangered Species Act?

5.If state statutes leave discretion in the Department of Natural Resources with respect to administration of federal grant lands, against what legal standards is the Department's exercise of discretion in the management of the lands measured?

a.To what extent may the Department's discretionary grant land management decisions approve of a management plan that encompasses the lands of more than one trust, if the trusts as a whole are benefited by a plan, but individual trusts are benefited unequally or may be disadvantaged by the plan?

b.To what extent may the Department's discretionary grant land management decisions authorize approval of a management plan that exceeds minimum standards governing use of the lands, if exceeding those standards would result in a reduced short-term economic return but promote a greater long-term economic return?

c.To what extent may the Department's discretionary grant land management decisions take into account factors other than the economic well-being of a trust, for example, administrative concerns associated with promoting flexibility and stability of all trust land management or environmental considerations?

6.Does 7 U.S.C. § 303 preclude charging the expenses of managing and administering the federal lands granted for purposes of an agricultural college under Section 16 of the Enabling Act, against proceeds derived from those lands?

The questions posed by the Legislature regarding the forest board transfer lands are:

FOREST BOARD TRANSFER LANDS

1.To what extent is state legislative authority with respect to forest board lands constrained by common law principles governing the administration of private trusts?

2.To what extent do common law principles apply to the administration of these lands by virtue of the statutes governing the lands?

3.If statutes leave discretion in the Department of Natural Resources in administering these lands, against what legal standard is that exercise of discretion to be measured?

In posing questions concerning the forest board transfer lands, the Legislature has indicated that its questions are prompted by concerns comparable to those raised regarding the federal grant lands and has indicated specific interest in the following two matters:

a.May the lands be managed as an undifferentiated whole, or must they be managed based on the economic interests of each county separately?

b.Is the administration of these lands subject to laws of general application?

SUMMARY

We provide this abbreviated response simply to introduce and provide context for the comprehensive analysis that follows. The comprehensive analysis must be consulted for a full appreciation of the questions posed and a full understanding of this opinion.

Washington's federal grant lands are held in trust pursuant to the Enabling Act and the Washington State Constitution. These documents establish separate trusts for identified purposes. By contrast, Washington's forest board transfer lands are held in trust by virtue of state statute. The statute creates a single trust and provides for its administration, including the distribution of trust revenues.

Common law principles governing the administration of private trusts apply to the state in enacting laws specific to the federal grant lands. As to these trusts, these principles are of constitutional stature in that their source is the Enabling Act and the Washington State Constitution. Thus, they may not be altered by state statute. As to the forest board transfer lands, these common law fiduciary principles are not of constitutional stature. Rather, they are the product of the statute creating the trust of the forest board transfer lands. As such, these common law principles, as well as the trust itself, may be altered or repealed by appropriate legislative enactments.

Although the Legislature's authority is constrained by common law fiduciary principles with respect to enactments specific to the federal grant lands, legislative enactments specific to and

governing management of those lands are accorded a deference not granted to management decisions of a private trustee. This deference stems from the presumption of constitutionality that applies to exercises of state legislative authority. So long as the Legislature properly amends governing statutes, its authority is not constrained with respect to the forest board transfer lands.

The federal grant lands and the forest board transfer lands are subject to laws of general application. The Legislature's ordinarily broad authority is not constrained by common law fiduciary principles when it enacts laws of general application.

Common law fiduciary obligations also apply to the Department of Natural Resources (Department) in exercising its discretion in managing the federal grant lands and forest board transfer lands. However, where the Department is directed by statute to manage these lands in a specific way, the Department is bound to comply with statutory directives. The standard against which the Department's discretionary decisions regarding the federal grant land trusts and the forest board lands trust should be measured is an abuse of discretion standard. In the exercise of its discretion, the Department may approve management plans that exceed minimum standards governing use of trust lands, if doing so reflects a reasonable balancing of short-term interests and the protection of trust productivity over the long term. In managing the grant lands, the Department may only take into account factors consistent with ensuring the economic value and productivity of the federal grant lands.

The federal grant land trusts may be administered collectively where such administration furthers the interests of each federal grant land trust. However, income and expenses of each federal grant land trust must be the subject of a separate accounting. The forest board transfer lands may be administered and accounted for as the Legislature properly provides by statute. Under present statutes, the forest board transfer lands need not be managed on the basis of the economic interests of each county individually.

The Department of Natural Resources has the authority to enter into a long-term agreement regarding management of the federal grant lands and forest board transfer lands as a means of complying with the Endangered Species Act, so long as such an agreement does not violate the Department's common law fiduciary duties and is consistent with state statutes directing the manner in which these lands are to be administered. The plan need not benefit the trusts equally. However, to include a trust in the plan, the Department, acting consistently with its fiduciary duties and in the exercise of reasonable judgment, must determine that on balance, the plan is in the economic interests of the trust.
The Legislature properly may grant the Department and the Commissioner of Public Lands regulatory and managerial authority over state trust lands. The Department is not subject to the trust provisions of RCW Title 11. The Morrill Act, 7 U.S.C. § 303, precludes the state from charging the expense of administering lands granted pursuant to Section 16 of the Enabling Act against proceeds derived from the sale of those lands. Proceeds of the sale of such lands include proceeds from the sale of resources that are part of the lands.

QUESTION 1

To What Extent Is State Legislative Authority With Respect To The Federal Grant Lands Constrained By The Enabling Act?

SHORT ANSWER

The terms of Washington's Enabling Act are binding upon the state and cannot be infringed by state legislative acts. Furthermore, the Enabling Act requires that the federal grant lands be held by the state in trust. This places additional constraints upon state authority because it means that the exercise of legislative authority over the federal grant lands will be tested by fiduciary principles.

BACKGROUND

Before discussing the ramifications of the federal land grants made by Washington's Enabling Act, it is important to understand the context in which the Act came about. A brief overview of that historical context is set forth in National Parks & Conservation Association v. Board of State Lands, 869 P.2d 909, 917 (Utah 1993):

> When the thirteen original colonies formed the United States, each held sovereign control over the lands within its borders. Those lands provided a tax base for financing governmental functions, including public education. As the United States expanded westward, additional states were created on lands that belonged to the United States as territories. The federal government retained ownership over much of the land within those states. Because land owned by the federal government was exempt from taxation by the states, those states had a smaller tax base for financing public education. To provide a source of revenue for public education, Congress granted new states federal lands to be used for the support of public schools.

See also Department of State Lands v. Pettibone, 216 Mont. 361, 702 P.2d 948, 952 (1985) ("Each of the thirty states carved out of the public domain received such grants, varying in the quantity granted, and terms of the grant, as national policy and political winds dictated.").

ANALYSIS

On February 22, 1889, Congress passed an enabling act to facilitate the admission of Washington, Montana, and North and South Dakota into the Union. 25 Stat. 676 (1889). The Act required Washington to adopt a constitution containing certain concessions, in exchange for a grant of statehood and a grant of federal lands. One important concession was the establishment and maintenance of a public school system. Enabling Act § 4.

Under the Enabling Act, Washington received approximately three million acres of federal land. *See Compensation For Highway Easements Over School Trust Lands,* 42 Wash. L. Rev. 912 n.5 (1967). Sections 16 and 36 of every township in the state were granted for the support of common schools (K-12), and additional specific amounts of land were granted for a university

(University of Washington), for an agricultural college (Washington State University), for a scientific school (Washington State University), for normal schools (also known as teachers' colleges - Central, Eastern, and Western Washington Universities, and The Evergreen State College), for "charitable, educational, penal, and reformatory institutions", and for public buildings at the state capitol.

The 1889 Enabling Act placed conditions on the grants that remain relatively unchanged. The lands granted may not be disposed of except at public sale and for full market value, with the proceeds from such sales placed in a permanent fund for the support and maintenance of each institution. Enabling Act § 11. The Act further states that the lands may be leased and may be exchanged for lands of equal value and as near as may be of equal area. *Id.* The Act also allows the sale of timber and other crops from the lands, as well as oil, gas, and other mineral leasing, and identifies the funds available for current support of the schools and other institutions listed. *Id.* The Enabling Act ends section 11 by stating that "[t]he lands hereby granted . . . shall be reserved for the purposes for which they have been granted". Section 17, which specifies the acreage granted to the institutions of higher education and the "charitable, educational, penal, and reformatory institutions", closes by stating that "the lands granted by this section shall be held, appropriated, and disposed of exclusively for the purposes herein mentioned, in such manner as the legislatures of the respective States may severally provide".

Following passage of the Enabling Act, the people of Washington drafted and ratified a constitution, and on November 11, 1889, Washington was admitted into the Union. Article 16 of the Washington Constitution sets forth the Enabling Act restrictions on the use and disposition of the federal grant lands and states at the outset that the public lands granted to the state are "held in trust for all the people". Const. art. XVI, § 1.

It is well settled that an acceptance of a grant of federal lands in a state constitution is an acceptance of the terms and conditions set forth in the federal enabling legislation. As an early Washington decision provides:

> [A]n enabling act is, at most, a proposition, and has no binding force upon the people of a territory until they have adopted a constitution and the state has been admitted into the union. Then, if by their constitution they have expressed no dissent from any proposition contained in the enabling act, doubtless they must be held bound by its conditions.

Romine v. State, 7 Wash. 215, 218, 34 P. 924 (1893); *see also* State v. City of Seattle, 57 Wash. 602, 613, 107 P. 827 (1910) (state constitution's acceptance of federal grant lands restricted the manner of the sale and disposition of the land and the use of the funds to be derived therefrom). More specifically, a state's acceptance of the enabling act conditions creates both constitutional and contractual obligations. United States v. 78.61 Acres, 265 F. Supp. 564, 567 (D. Neb. 1967). "'[T]he state was and still is under a contractual as well as a constitutional obligation to refrain from disposition or alienation of the use of this property except as allowed by the enabling act and the Constitution.'" *Id.* at 567 (citing State ex rel. Johnson v. Central Nebraska Pub. Power & Irr. Dist., 143 Neb. 153, 8 N.W.2d 841, 847-48 (1943)); see also 63A Am. Jur. 2d Public Lands §

108, at 605 (1984) (acceptance by a state of a land grant constituted a contract which the state could not violate without violating the Constitution).

The United States Supreme Court has also recognized that the school land grant was a "solemn agreement" analogous to a contract between private parties. Andrus v. Utah, 446 U.S. 500, 507, 100 S. Ct. 1803, 64 L. Ed. 2d 458, *reh'g denied*, 448 U.S. 907 (1980). "The United States agreed to cede some of its land to the State in exchange for a commitment by the State to use the revenues derived from the land to educate the citizenry." *Id.* at 507; *see also* Murtaugh v. Chicago, M. & St. P. Ry. Co., 102 Minn. 52, 112 N.W. 860 (1907) (state solemnly covenanted with United States to apply granted lands to sole use of its schools according to purpose of grant). A legislative grant thus is both compact and law, and once accepted cannot be withdrawn or changed, except with the consent of the state and Congress. *See* United States v. 111.2 Acres, 293 F. Supp. 1042, 1048 (E.D. Wash. 1968), *aff'd*, 435 F.2d 561 (9th Cir. 1970); 73A C.J.S. *Public Lands* § 77, at 529 (1983); *see also* Gladden Farms, Inc. v. State, 129 Ariz. 516, 633 P.2d 325, 327 (1981).

Thus, each condition of the Washington Enabling Act constrains state legislative authority in respect to the federal grant lands. In addition, the Enabling Act has been held to establish trusts of the granted lands. County of Skamania v. State, 102 Wn.2d 127, 132, 685 P.2d 576 (1984). The trust status of these lands imposes additional constraints. While there is a great deal of case law and commentary discussing the trust obligations imposed by the various enabling acts, discussion of the nature of these obligations in Washington must start with the State Supreme Court's analysis in Skamania.

At issue in Skamania was the validity of the Forest Products Industry Recovery Act of 1982. The Legislature passed this legislation after a steep drop in timber prices rendered contracts for the purchase of timber from the federal grant lands and the forest board transfer lands uneconomical. The Recovery Act relieved private companies from performing the contracts and released the state's claims based on the contracts. In its capacity as a beneficiary of the forest board transfer lands, Skamania County sued the state alleging that the Recovery Act was a breach of the state's fiduciary duty to the beneficiaries of those lands and a violation of several constitutional provisions. Skamania, 102 Wn.2d at 131. The State Board of Education and the Board of Regents for the University of Washington intervened as additional parties plaintiff representing certain beneficiaries of the federal grant lands.

The State Supreme Court in Skamania noted initially that the federal grant lands are held in trust for the various purposes identified in the Enabling Act and the Washington Constitution. Id. at 129. The Court then observed that when a statute is passed pursuant to the police power, the only limitation upon the Legislature is that the statute must reasonably tend to correct some evil or promote some interest of the state and not be contrary to any constitutional provision. "Where the statute deals with state trust lands, however, the permissible goals of the legislation are more limited." Id. at 132. The Court then noted that the federal grant land trusts were created to benefit certain beneficiaries and that "[e]very court that has considered the issue has concluded that these are real enforceable trusts". Id. For support, the Court cited the U.S. Supreme Court's interpretation of the Arizona Enabling Act in Lassen v. Arizona ex rel. Arizona Highway Department, 385 U.S. 458, 87 S. Ct. 584, 17 L. Ed. 2d 515 (1967). While noting that Lassen

involved a different enabling act than Washington's, the Court held that the principle of Lassen applies to Washington's Enabling Act and cited as support the following passage from United States v. 111.2 Acres, 293 F. Supp. at 1049:

> There have been intimations that school land trusts are merely honorary, that there is a "sacred obligation imposed on (the state's) public faith," but no legal obligation. These intimations have been dispelled by Lassen v. Arizona . . . This trust is real, not illusory.

See also Board of Natural Resources v. Brown, 992 F.2d 937, 941 (9th Cir. 1993) ("Pursuant to the terms of Washington's Enabling Act, this land is to be held in trust by Washington for the support of various public institutions, including state public schools, colleges, and universities.").

Having concluded that the federal grant lands constitute enforceable trusts, the Court in Skamania concluded further that when the state enacts laws governing trust assets, its actions will be tested by fiduciary principles. Skamania, 102 Wn.2d at 133. The Court then held that the state had violated its duty of undivided loyalty to the trust beneficiaries and its duty to act prudently by enacting a law aimed at benefiting the timber industry and the state economy in general at the expense of the trust beneficiaries. Id. at 136-39.

We are well aware that commentators have criticized Skamania for relying on cases that interpreted the New Mexico-Arizona Enabling Act and for failing to analyze the terms of Washington's Enabling Act. See e.g., Sally K. Fairfax et al., *The School Trust Lands: A Fresh Look at Conventional Wisdom,* 22 Envtl. L. 797, 847 (1992) (by citing the decision in 111.2 Acres that relied on Lassen, Skamania "invisibly incorporated Arizona's statehood bargain into Washington's"); *see also* Tacy Bowlin, Comment, *Rethinking the ABCs of Utah's School Trust Lands,* 1994 Utah L. Rev. 923, 926 (significance of the variation in the legal documents establishing the school land grants has been overlooked in the state and federal jurisprudence interpreting the obligations of the western states, as trustees, in managing and disposing of school land grants). The New Mexico-Arizona Enabling Act expressly declares that the federal grant lands shall be held in trust, while Washington's Enabling Act makes no reference to the word "trust", but states simply that certain amounts of land are granted for the support of certain institutions. Lassen, 385 U.S. at 523; Enabling Act §§ 10, 17.

The unanimous decision of our Supreme Court in Skamania, however, represents the law of this state. Despite the criticism of commentators, we have found ample support for the Skamania conclusion that a trust relationship may be created without the use of the word "trust". In spite of the absence of an express trust declaration in the 1889 Enabling Act, the supreme courts of Montana and South Dakota have concluded that the grant of federal lands made to their states constitutes a trust to which fiduciary principles apply. Pettibone, 702 P.2d at 953; Kanaly v. State, 368 N.W.2d 819, 821-24 (S.D. 1985). Both the North and South Dakota constitutions provide that the lands and proceeds granted for the support of state educational institutions shall be deemed a perpetual trust fund. Kanaly, 368 N.W.2d at 824; State v. Murphy, 54 N.D. 529, 210 N.W. 53, 55 (1926). (As noted earlier, the Dakotas, Montana, and Washington were invited into the Union pursuant to the same enabling legislation.)

A federal district court concluded that Nebraska's enabling legislation created a trust despite the lack of a express reference thereto in United States v. 78.61 Acres, 265 F. Supp. at 567. The court observed initially that Nebraska's enabling act simply states that the lands are granted to Nebraska "for the support of common schools", and that it does not contain the express restrictions that were incorporated in later acts. Id. The court concluded that, nevertheless, the enabling act contained binding implied restrictions, one of which was that the grant was made in trust for a specific purpose. Id.

Other courts have effectively concluded that state constitutional provisions providing that public lands are held in trust are stating expressly what the enabling legislation implies. *See* National Parks, 869 P.2d at 917 (Utah accepted school lands and agreed to hold them in trust for the purposes for which they were given); *see also* Pettibone, 702 P.2d at 951 (the 1889 Montana Constitution accepted school lands and provided that they would be held in trust consonant with the terms of the Enabling Act); Kanaly, 368 N.W.2d at 821 (the South Dakota Constitution, adopted in 1889, mirrored the permanent trust fund requirement of the Enabling Act).

Thus, pursuant to Skamania and the other authority set forth above, we conclude that the Enabling Act requires the federal grant lands to be held in trust in addition to placing binding restrictions on the use and disposition of those lands. We address the impact of the trust requirement and the Skamania conclusion that fiduciary principles apply to state actions regarding the federal grant lands in our discussion of the following question.

QUESTION 2

To What Extent Is State Legislative Authority With Respect To The Federal Grant Lands Constrained By Common Law Principles Governing The Administration Of Private Trusts?

SHORT ANSWER

Common law principles governing the administration of private trusts constrain legislative authority with respect to enactments specific to the federal grant lands. However, the Legislature's management decisions are accorded a deference not granted a private trustee because of the presumption of constitutionality that applies to exercises of state legislative authority. Although the state must comply with common law duties in administering the federal grant lands, a number of these duties ordinarily are flexible and are flexible in the context of federal grant land administration. A trustee's duty with respect to diversification is one such duty and should include periodic evaluation of whether the assets of the grant land trusts are appropriately diversified.

ANALYSIS

In discussing a question dealing with state legislative authority, it is important to note at the outset that the state constitution is not a grant, but a restriction on the legislative power, and the power of the Legislature to enact all reasonable laws is unrestrained except where, either

expressly or by fair inference, it is prohibited by the state and federal constitutions. State ex rel. Distilled Spirits Inst., Inc. v. Kinnear, 80 Wn.2d 175, 180, 492 P.2d 1012 (1972); Overlake Homes, Inc. v. Seattle-First Nat'l Bank, 57 Wn.2d 881, 884, 360 P.2d 570 (1961). Where the validity of a statute is assailed, there is a presumption of its constitutionality. Overlake Homes, 57 Wn.2d at 884; see also World Wide Video, Inc. v. Tukwila, 117 Wn.2d 382, 392, 816 P.2d 18 (1991), cert. denied, 503 U.S. 986 (1992). This presumption is emphasized where the Legislature exercises its police power:

> A broad discretion is . . . vested in the legislature to determine what the public interest demands under particular circumstances, and what measures are necessary to secure and protect the same. Unless the measures adopted by the legislature in given circumstances are palpably unreasonable and arbitrary so as to needlessly invade property or personal rights as protected by the constitution, the legislative judgment will prevail.

Reesman v. State, 74 Wn.2d 646, 650, 445 P.2d 1004 (1968); Shea v. Olson, 185 Wash. 143, 153, 53 P.2d 615, 111 A.L.R. 998 (1936). With this broad scope of authority and the related deference in mind, we now consider the extent to which trust principles constrain the Legislature's authority with regard to the federal grant lands.

We have already seen that the acceptance of the Enabling Act conditions in the Washington Constitution requires the application of common law trust principles to the administration of the federal grant lands. See Skamania, 102 Wn.2d at 129; see also State ex rel. Hellar v. Young, 21 Wash. 391, 392, 58 P. 220 (1899) (permanent school fund of this state must be regarded as a trust fund because it was made such by the state constitution). Given this conclusion, it has been held to follow that the common law duties of a trustee must be assumed by the state in managing the grant lands. National Parks, 869 P.2d at 918; 63A Am. Jur. 2d Public Lands § 112, at 612 (1984). The Washington Supreme Court stated in Skamania that the federal grant land trusts "impose upon the State the same fiduciary duties applicable to private trustees". Skamania, 102 Wn.2d at 132. The Court also observed, however, that the application of trust principles to state legislation regarding the federal grant lands does not alter the principle that all reasonable presumptions and inferences will be made in favor of the legislation's constitutionality:

> We merely hold that when the State enacts laws governing trust assets, its actions will be tested by fiduciary principles. What this means in practice is that the range of permissible goals is narrower than when the Legislature exercises its police powers; it does not alter the challenger's burden to prove the statute's invalidity beyond a reasonable doubt.

Id. at 133.

The way in which the Skamania Court framed the questions for its review reflects the deference accorded to the Legislature even when it is acting in its capacity as trustee. The Court stated that it needed to resolve (1) whether the plaintiffs had proved beyond a reasonable doubt that the

Legislature acted with divided loyalty, and (2) if the Legislature acted solely to benefit the trusts, whether any set of facts existed to justify the Legislature's conclusion that the Forest Products Industry Recovery Act was in the trusts' best interests. Id. at 134. Thus, while holding that the Legislature assumes the duties of a trustee when acting on behalf of the federal grant land trusts, the Court in Skamania also held that its performance of these duties is regarded with more deference than would be the performance of such duties by a private party.

The *Restatement (Second) of Trusts* (1959) *and Restatement (Third) of Trusts* (1990) identify and discuss the following relational duties of a trustee: a duty to administer the trust, a duty of undivided loyalty, a duty to delegate trustee duties only when reasonable, a duty to keep and render accounts, a duty to furnish information to beneficiaries, a duty to exercise reasonable care and skill in managing the trust, a duty to take and keep control of trust property, a duty to preserve trust property, a duty to enforce claims held by the trust, a duty to defend actions that may result in loss to the trust, a duty to keep trust property separate from other property, a duty to use reasonable care regarding bank deposits, a duty to make the trust property productive, a duty to pay income to the beneficiaries, a duty to deal impartially with beneficiaries, a duty to use reasonable care to prevent breach of the trust by co-trustees, and a duty to follow the direction of persons given control over the trustee. Restatement (Second) of Trusts §§ 169-185; Restatement (Third) of Trusts §§ 170-171, 181, 183-185.

Chief among the duties discussed in the grant land cases is that of undivided loyalty to the trust beneficiaries. See Skamania, 102 Wn.2d at 137 (the state as trustee may not use trust assets to pursue other state goals); see also State ex rel. Ebke v. Board of Educ. Lands & Funds, 154 Neb. 244, 47 N.W.2d 520, 525-26 (1951) (state may not enact legislation for the benefit of lessees of public school lands at the expense of the beneficiaries of the trust); State v. University of Alaska, 624 P.2d 807, 813-14 (Alaska 1981) (state breached duty to administer trust solely in interest of beneficiaries by failing to compensate trust for value of university land included in state park). The duty to preserve the principal of the trust is also mentioned. See Kanaly, 368 N.W.2d at 824 (state, as trustee, has duty to preserve the trust fund's principal and thus it cannot give away trust property); see also 78.61 Acres, 265 F. Supp. at 567 (fact that United States is grantee of right-of-way over school lands does not alter principle that the res of the trust may not be depleted; trust must receive compensation for grant). The duty of a trustee to manage trust assets prudently often is mentioned along with the two duties already discussed. In Skamania, for example, the Court stated that the state violated the duty to manage trust assets prudently by releasing, through the Forest Products Industry Recovery Act, valuable contract rights held by the Department of Natural Resources on the trusts' behalf. The Court concluded that "no prudent trustee could conclude that the unilateral termination of these contracts was in the best interests of the trusts". Skamania, 102 Wn.2d at 139. Similarly, the Nebraska Supreme Court invalidated legislation that allowed lessees of public school lands to renew their leases without competitive bidding and at a rental figure based on an appraised valuation rather than fair market value on the ground that such an arrangement violated all standards of prudent management. State ex rel Ebke, 47 N.W.2d at 524-26.

Some of the duties of a private trustee are more flexible in application, and this flexibility may be highlighted in the context of federal grant land administration. One such duty is that of making the trust productive, of maximizing its economic returns. While the duty of maximizing

economic returns always conflicts to some extent with the duty of preserving the trust property, this conflict may be exacerbated in the case of the federal grant lands because of their perpetual nature. The Oklahoma Supreme Court alluded to this conflict in Oklahoma Education Ass'n, Inc. v. Nigh, 642 P.2d 230 (Okla. 1982). In Nigh, the Court invalidated legislation providing for low-interest mortgage loans of trust funds and low-rental leases of trust lands to farmers and ranchers on the grounds that the statutes violated the duty of the state as trustee to maximize the return to the trust estate. Nigh, 642 P.2d at 236. The Court also noted, however, that the duty to maximize return to the trust estate from the trust properties is subject to the taking of necessary precautions for the preservation of the trust estate. Id. at 239.

The Montana Supreme Court went one step further in State ex rel. Thompson v. Babcock, 147 Mont. 46, 409 P.2d 808 (1966), and concluded that maximization of immediate income was, in effect, trumped by the need to preserve the trust properties. The court there upheld the rejection of an unrealistically high bid to farm trust property, the rejection being based on the fear that the lessee would not fulfill the lease term and would cut corners on good husbandry practice. The court observed that as the trustees of state lands, the State Board of Land Commissioners owes a higher duty to the public than does an ordinary businessman.

> Therefore, they may not speculate as to the possibility of receiving a higher return for leased land, but must secure a "sustained income" which will continually benefit the public in general. . . . it is the Board's duty to get the best lessees possible, so the state may receive the maximum return with the least injury occurring to the land.

State ex rel. Thompson, 409 P.2d at 812 (citation omitted). Washington statutes adopting a sustained yield policy for the state-owned forested lands reflect consideration of the common law duty of making the trust productive over time. See RCW 79.68.030 (sustained yield plans mean management of the forest to provide harvesting on a continuing basis without major prolonged curtailment or cessation of harvest); see also State ex rel. Forks Shingle Co. v. Martin, 196 Wash. 494, 83 P.2d 755 (1938) (upholding statutes establishing sustained yield plan with respect to lands granted to the state for common schools). As one commentator states, "income maximization cannot be the trustee's overarching objective without, in some instances, requiring the State to breach its duty to the future beneficiaries of the trust". Bowlin, 1994 Utah L. Rev. at 956.

Another commentator adds that this tension between current and future beneficiaries is not unique to the school trust lands: "[T]he apparently competing obligations imposed on state land managers differ little from the competing obligations traditionally visited on private trustees who must be concerned both with income for current beneficiaries and preservation of assets for future beneficiaries." Wayne McCormack, Land Use Planning and Management of State School Lands, 1982 Utah L. Rev. 525, 541. Indeed, the Restatement expressly recognizes that this conflict may give rise to a more flexible duty of impartiality with regard to multiple beneficiaries.

> [T]he divergent economic interests of trust beneficiaries give rise to conflicts of types that cannot simply be prohibited or avoided in the investment decisions of typical trusts. These problems regularly present the trustee with problems of conflicting obligations. The interests of a life beneficiary, for example, are almost inherently in competition with those of the remainder beneficiaries[.]
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> . . . .
>
> These conflicting fiduciary obligations result in a necessarily flexible and somewhat indefinite duty of impartiality. The duty requires the trustee to balance the competing interests of differently situated beneficiaries in a fair and reasonable manner.

Restatement (Third) of Trusts § 227 cmt. c, at 13 (1990). Thus, the state's administration of the school trust lands highlights some of the already recognized tensions inherent in satisfying the duties of productivity and preservation, as well as that of impartiality.

A common law duty that also presents important considerations with respect to the grant land trusts is that of diversification. The Restatement (Third) of Trusts, section 227, has incorporated a formerly separate provision regarding a trustee's duty to diversify into the prudent investor rule. The rule provides that in making and implementing investment decisions, the trustee has a duty to diversify the trust's investments unless, under the circumstances, it is prudent not to do so. *Restatement (Third) of Trusts* § 227(b). In a similar vein, the Washington Court of Appeals has stated that a trustee has a general obligation to diversify, unless the settlor expressly relieves the trustee of that duty or unless circumstances dictate that it is not prudent to diversify. Baker Boyer Nat'l Bank v. Garver, 43 Wn. App. 673, 679-80, 719 P.2d 583, review denied, 106 Wn. 2d 1017 (1986).

Reasonable diversification is designed to distribute the risk of loss in order to preserve the corpus of the trust. Baker Boyer Bank, 43 Wn. App. at 679 (citing Restatement (Second) of Trusts § 228 cmt. a); 76 Am. Jur. 2d Trusts § 542 (1992). Asset allocation decisions deal with the categories of investments to be included in a trust portfolio and the portions of the trust estate to be allocated to each. These decisions are subject to adjustment from time to time as changes occur in economic conditions or expectations or in the needs or investment objectives of the trust. *Restatement (Third) of Trusts § 227 cmt. g.*

Comments following the *Restatement's* prudent investor rule provide additional guidance with regard to the duty to diversify. The *Restatement* explains that in investing the funds of a trust, the trustee's normal strategy must be to make preservation of the trust estate a significant consideration. Moreover, "the general emphasis in the typical trustee's asset management program is on long-term investment". *Restatement (Third) of Trusts* § 227 cmt. e, at 20. The *Restatement* adds that "diversification concerns do not necessarily preclude an asset allocation plan that emphasizes a single category of investments as long as the requirements of both caution and impartiality are accommodated in a manner suitable to the objectives of the particular trust". *Restatement (Third) of Trusts* § 227 cmt. g, at 26. Nevertheless, trustees ordinarily have a duty to

diversify investments, and departures from a diversified portfolio must be justified. *Restatement (Third) of Trusts* § 77 cmt. e, f.

In considering the diversification required with respect to the grant land trusts, it may be of value to note that the decision to allow the grant lands to even be considered as marketable prompted vigorous debate at the 1889 constitutional convention, with some delegates concerned about sacrificing the interests of future generations for current gain. *The Day at Olympia,* Morning Oregonian, Aug. 18, 1889 at 1; *The School Lands,* Tacoma Daily News, Aug. 17, 1889, at 1. Some of the proposed versions of article 16, section 1 of the Washington Constitution would have held the grant lands "reserved forever". *See Journal of the Washington State Constitutional Convention,* at 794-95 (1962). While article 16, section 3 of the Washington Constitution was written to allow the sale of the grant lands in phases (no more than 1/4 of the lands could be sold before 1895 and no more than 1/2 before 1905), there is no provision in the state constitution requiring the state to dispose of its granted lands. As an early case noted:

> The state is free to retain title to its timber lands granted for support of the schools and market the timber crop growing on them as it matures. The constitution recognizes the possible sale of timber and other material on granted lands as a source of revenue apart from the sale of the land itself.

State ex. rel Forks Shingle Co., 196 Wash. at 501.

Moreover, although the primary purpose of the school land trust is to maximize the economic productivity of school trust lands, that does not mean that school lands must be administered to maximize economic return in the short run.

> The beneficiaries of the school land trust, the common schools, are a continuing class, and the trustee must maximize the income from school lands in the long run. Certainly it would be as much a violation of the state's fiduciary obligations to immediately sell all state school lands as it would be to use the proceeds from the lands for a nontrust purpose.

National Parks, 869 P.2d at 921 (citation omitted); see also Bowlin, at 953 (where the state contemplates disposing of a school land tract, it should balance the prospect of receiving certain immediate income against the prospect of furthering the purpose of the trust as a whole).

Some of the grant land beneficiaries have expressed concern with whether the assets of the grant land trusts are appropriately diversified. In this respect, they note that a significant percentage of the trusts are in timber land holdings that they believe are currently underproductive.

It is beyond the scope of an Attorney General's Opinion to determine whether the federal grant land trusts are appropriately diversified. However, some general information concerning the composition of the trusts and laws designed to further appropriate diversification is worthy of note.

The state has retained a significant percentage of the lands that it was granted at statehood. As of 1992, Washington held 47 percent of the lands that it received by virtue of the Enabling Act. Jon A. Souder & Sally K. Fairfax, *State Trust Lands: History, Management, & Sustainable Use* at 48-49 (1996). Although these lands are put to a variety of uses, a 1990 analysis indicates that Washington used 70 percent of its trust land for timber production. Jon A. Souder et al., *Sustainable Resource Management and State School Lands: The Quest for Guiding Principles,* 34 Nat. Resources J. 271, 281 (1994). Thus, timber provides a significant, albeit far from exclusive, source of trust revenues. Other sources of revenue from the federal grant lands include agricultural leases, mineral leases, rights-of-way leases, special forest products, and commercial real estate. *Department of Natural Resources Annual Report,* at 17-25 (1995). In addition to land assets that comprise a portion of the trusts, the permanent funds also form a substantial part of the corpus of these trusts. As of June 1995, the total market value of the permanent trust funds was in excess of one-half billion dollars. Deloitte & Touche, Economic Analysis Prepared for Washington State Department of Natural Resources, June 1996, pp. 2-55, 2-56.

Additionally, current state statutes view appropriate diversification as an important consideration in administering the federal grant land trusts. Under RCW 79.01.095, the Legislature has directed a periodic economic analysis of state lands held in trust, where the maximization of economic return to the beneficiaries is the prime objective. This economic analysis focuses on the relative merit of trust holdings and is to be considered by the Department in determining whether to sell or lease the lands or resources from the lands. The economic analysis is to include:

> (1) Present and potential sale value; (2) present and probable future returns on the investment of permanent state funds; (3) probable future inflationary or deflationary trends; (4) present and probable future income from leases or the sale of land products; and (5) present and probable future tax income derivable therefrom[.]

RCW 79.01.095. State law also requires diversification in investment of the permanent funds. RCW 43.84.150, 43.33A.140.

Nothing in this opinion is intended to suggest that the federal grant land trusts currently are not properly diversified. In summary, however, a trustee has an obligation to diversify trust assets unless under the circumstances it is prudent not to do so. In the exercise of reasonable prudence, a trustee should periodically evaluate the trust portfolio to ensure that it appropriately reflects the interests of the trust.

This opinion now addresses several more specific questions concerning the application of common law trust principles to the state's administration of the federal grant lands.

a.Is The Administration Of The Trust Lands Subject To Laws Of General Application?

SHORT ANSWER

Federal and state laws of general application apply to the federal grant lands.

ANALYSIS

In materials submitted for our consideration, the Washington State School Directors' Association explains that the federal grant lands are subject to laws of general application just as private lands would be. The Department agrees. The universities, on the other hand, appear to suggest that such laws apply only if they serve the interests of the trusts.

Whether a federal law of general application applied to Washington's grant lands was considered in Case v. Bowles, 327 U.S. 92, 66 S. Ct. 438, 90 L. Ed. 552 (1946). Case dealt with this state's refusal to hold the federal Emergency Price Control Act applicable to the sale of school-land timber. The state contended that such sales were not subject to price control because of the state constitutional requirement that the school lands "shall not be sold except at public auction to the highest bidder", but the Court disagreed. The Court observed initially that the price control act applied generally to sales of commodities by the states. Case, 327 U.S. 98-99. While acknowledging the safeguards set forth in the Enabling Act and the Washington Constitution with regard to the disposition of school lands, the Court found that none of this history indicated a purpose on the part of Congress "to enter into a permanent agreement with the States under which States would be free to use the lands in a manner which would conflict with valid legislation enacted by Congress in the national interest". Id. at 100. Where Congress has enacted legislation authorized by its granted powers, and where the state has a conflicting law which but for the congressional act would be valid, the supremacy clause of the federal constitution governs. Id. at 102.

The Case decision was cited when the state again sought to protect its grant land policies in the face of conflicting federal legislation in Board of Natural Resources v. Brown, 992 F.2d 937 (9th Cir. 1993). At issue in Brown was the constitutionality of the Forest Resources Conservation and Shortage Relief Act, which restricted the export of unprocessed timber harvested from federal and state public lands in the western United States. The Act affected the trust lands in Washington by reducing significantly the income generated from the sale of timber harvested from the land. Brown, 992 F.2d at 941.

The Ninth Circuit rejected the state's argument that the United States has a continuing obligation to act in the best interest of the federal grant land trusts that includes ensuring that the timber harvested from trust lands will be sold at full-market value. Id. at 944. The court found that Case was controlling precedent that made the state's position untenable.

> Case stands for the proposition that "valid legislation enacted by Congress" trumps the Boards' ability to use the trust lands in whatever way they wish. The Act . . . passes the rational basis test of constitutional validity. The incidental and detrimental affect the Act has on the trust lands does not, under Case, render the Act invalid.

Id. at 944-45.

An additional federal law of general applicability that must be mentioned here is the Endangered Species Act of 1973 (16 U.S.C. §§ 1531 et seq). While this Act is discussed in greater detail in Question 4, we note here that the Act prohibits anyone from harming or injuring any endangered or threatened animal on all land in the United States. Babbitt v. Sweet Home Chapter, 515 U.S. ___, 115 S. Ct. 2407, 132 L. Ed. 2d 597, 611 (1995).

Accordingly, the administration of the federal grant lands is subject to federal laws of general application. The same is true of state laws of general application. In National Parks, the Utah Supreme Court observed that trustees clearly have a duty to act according to applicable law. National Parks, 869 P.2d at 921, n.9; see also Archer v. Board of State Lands & Forestry, 907 P.2d 1142, 1147 (Utah 1995) (the Court cited with apparent approval the statement that in exercising trust duties, the state must maximize revenue in a manner that best serves the beneficiaries within the provisions of applicable law). Thus, if the Legislature enacted statewide zoning laws that affected the value of school lands, that would not be a violation of the trust. "[G]eneral laws enacted pursuant to the police power are not likely to violate the terms of the trust." National Parks, 869 P.2d at 921 n.9. The Colorado Supreme Court expressly held that there was no such violation in Colorado State Bd. of Land Comm'rs v. Colorado Mined Land Reclamation Board, 809 P.2d 974 (Colo. 1991). The court there found county zoning laws applicable to school trust lands. Id. at 982.

In Washington as well, administration of the trust lands must adhere to state laws of general application. As stated earlier, the Skamania court noted that the general police powers of the state are not constrained by its trust land obligations. "Where the statute is passed pursuant to the police power, the only limitation upon the Legislature is that the statute must reasonably tend to correct some evil or promote some interest of the State, and not be contrary to any constitutional provision." Skamania, 102 Wn.2d at 132. Thus, the Skamania Court also drew a distinction between statutes passed pursuant to the police power and those that deal with state trust lands, and analyzed the former as laws of general application. See Skamania, 102 Wn.2d at 132.

The applicability of the police power to Washington's federal grant lands was demonstrated when the State Supreme Court found the requirements of SEPA applicable to a Department of Natural Resources decision to sell timber on land held in trust for educational purposes in Noel v. Cole, 98 Wn.2d 375, 380, 655 P.2d 245 (1982). Although no party challenged the applicability of SEPA to the trust lands, the Court noted that the Department was required to prepare an environmental impact statement before any timber sale constituting a major action significantly affecting the environment. Noel, 98 Wn.2d at 380. An earlier decision by the Court applied the Forest Practices Act legislation to all forest lands in the state, including the trust lands. West Norman Timber, Inc. v. State, 37 Wn.2d 467, 224 P.2d 635 (1950). Again, although no party directly raised the issue of the Act's applicability to the trust lands, the court ruled that the Act restricted the amount of acreage on school trust lands from which the plaintiff could cut timber. The Court observed first that the Act was for the general or public welfare and was a proper exercise of the police power. West Norman Timber, 37 Wn.2d at 475. The Court then decided

that any diminution of the state's authority over its timber lands that resulted from the Forest Practices Act was permissible:

> In so far as the authority of the state over its timber lands is concerned, any diminution of that authority by the statutes above referred to is clearly for the public benefit and for the protection of the very valuable timber properties now owned or in the future to be owned by the state.

Id. at 477.

In West Norman Timber, the Forest Practices Act in effect trumped the duty of the trustee to maximize the economic return from the trust lands. This type of legislation stands in contrast to the act invalidated in Skamania, which focused on the state's trust lands. Skamania, 102 Wn.2d at 136. Although the legislation in Skamania was afforded a presumption of constitutionality, it did not have general applicability and did not carry with it the deference accorded an exercise of the police power.

> State law cannot single out the trust lands. The trusts cannot be obligated to donate resources to highway construction or parks programs. Nor can the state regulate (or abrogate) state trust contracts in a unique way. However, state laws of general applicability, such as a water quality regulation or historic preservation statute, can be applied to trust lands even if significant losses are imposed on the trust.

Jon A. Souder & Sally K. Fairfax, State Trust Lands: History, Management, & Sustainable Use 163 (1996).

It is apparent, therefore, that administration of the trust lands is subject to both state and federal laws of general application.

b.Do The State's Duties As Trustee Run Separately To Each Of The Grant Land Trusts Or Can These Lands Be Administered As A Single Trust?

SHORT ANSWER

The state's duties as trustee run separately to each of the federal grant land trusts. However, where joint administration serves the interests of each trust, such administration is permissible.

ANALYSIS

Under the common law pertaining to private trusts, there is no absolute bar to administering multiple trusts as one. A New York court observed that even where separate and distinct trusts are created by will, trustees have been permitted to maintain the assets in solido for convenience in investment and administration. In re Froehlich's Estate, 121 N.Y.S.2d 917, 922 (1950). A

leading treatise acknowledges that "under proper circumstances the court may permit two trusts to be administered as one". IIA William F. Fratcher, Scott on Trusts § 179.2, at 503 (4th ed. 1987). Another authority notes that it has been held proper for a trustee to administer and maintain as a whole the assets of separate and distinct trusts, where it is done for purposes of convenience in investment and administration and more efficient and economical management, and no loss results therefrom. 90 C.J.S. Trusts § 270, at 350 (1955).

Much of state legislation concerning the administration of federal grant lands affects them collectively. RCW 79.01.094 authorizes the Department to exercise general supervision and control over the sale or lease of educational lands in general. Similarly, RCW 43.30.150(2) addresses the Department's responsibility to manage "all lands and resources" to achieve the maximum effective development. Although there are statutory references to the specific trusts (see, for example, the plan for charitable, educational, penal, and reformatory institution property in RCW 79.01.006), it would appear that the overall legislative scheme is one of collective administration of the federal grant lands.

It is clear that the types of lands granted are not unique to each trust. Economies to each trust may be realized by administering similarly situated lands in a similar manner. If this is so, or if collective management otherwise furthers the interests of each trust, the law would allow the state to administer the federal grant lands collectively. Where such joint administration does not conflict with the separate allocation of costs and expenses to each trust, a subject discussed below, such administration is permissible.

c.Are The Grant Land Trusts Subject To A Separate Accounting Of Trust Income And Costs?

SHORT ANSWER

Separate trust funds must be maintained for each federal grant land trust and the trusts must be accounted for separately.

ANALYSIS

A trustee is under a duty to the beneficiaries of the trust to keep clear and accurate accounts. IIA Fratcher, § 172 at 452. Stated more fully, the trustee must hold trust property separate from other property owned or managed by the trustee, and must also deal with the beneficiary with fairness, openness, and honesty. Jon A. Souder et al., Sustainable Resources Management and State School Lands: The Quest for Guiding Principles, 34 Nat. Resources J. 271, 279 (1994). Under most circumstances, this means that a trustee of distinct trust funds must segregate the different funds and has no authority to permit a diversion of the funds or income from one trust to another. 90 C.J.S. Trusts § 270, at 350. To ensure that such standards are being met, the trustee is specifically and comprehensively accountable to the beneficiary. At common law, a trustee must keep proper records and must furnish this information to the beneficiary on demand. Souder, at 279; see also State v. Taylor, 58 Wn.2d 252, 258, 362 P.2d 247, 86 A.L.R.2d 1365 (1961).

As stated earlier, Washington's Enabling Act refers to the establishment of "permanent funds" for

the support and maintenance of the public schools and the other institutions for which the lands were granted. The Act does not refer to a single permanent fund out of which the various institutions will receive financial support, though it does allow for the pooling of monies received from mineral leasing so long as the monies are apportioned in proportion to the number of acres originally granted each institution and the public schools. Enabling Act § 11. An early Washington decision supports the conclusion that the Enabling Act created separate funds to benefit separate trusts. School Dist. v. Bryan, 51 Wash. 498, 505, 99 P. 28 (1909) ("the common school fund is just what it purports to be, a fund to be used for the sole purpose of supporting the graded schools of the commonwealth"). Article 16, section 5 of the Washington Constitution makes specific reference to the "permanent common school fund". Thus, the state constitution and the Enabling Act reflect the separate character of the federal grant land trusts.

It would appear that the state legislature has interpreted these provisions in large part to mean that the funds pertaining to each institution are to be maintained separately. RCW 43.79 establishes a permanent fund for each institution listed in the Enabling Act with the exception of the permanent common school fund, which is established by RCW 28A.515.300. RCW 79.08 makes several references to income from the public lands being allocated to the particular fund for which the lands are held in trust. See, e.g., RCW 79.08.104, .106. In addition, RCW 43.84.051 provides that interest and other income received by the state treasurer shall be paid "into the respective funds to which the principal and interest shall accrue", and RCW 43.84.130 provides that the state treasurer shall keep a separate accounting of the amount of cash balances in the state treasury belonging to the permanent school fund. Under state law, such an accounting is a public record and accessible by the public. RCW 42.17.290; RCW 40.14.010.

In light of these legal principles and the Legislature's request that as appropriate, this opinion comment on the validity of current statutes, we note that an exception to this policy of keeping the separate trust funds separate is found in RCW 79.64, the Resource Management Cost Account (RMCA). RCW 79.64 allows up to 25 percent of certain grant land revenues to be retained for the purpose of paying the costs of trust land management activities and investments. More specifically, RCW 79.64.030 authorizes a pooling of these grant land proceeds to pay the costs and expenses incurred by the Department in managing and administering the various grant lands. As originally enacted, this statute did not allow a pooling of funds but required the funds collected to be used to defray the expenses incurred in managing the public lands of the same trust from which they were derived. Laws of 1961, ch. 178, § 3. As later amended, this statute authorized revenues derived from one trust to be used to pay expenses of another. However, the statute further provided for an annual accounting of the expenditures accrued by each trust. If the accounting determined that expenditures were made from moneys derived from one category of trust lands for the benefit of another, such expenditures were considered a debt against the trust benefited. Laws of 1977, Ex. Sess., ch. 159, § 2.

The statute was amended in 1993 to allow for the pooling of the funds gathered and their subsequent use by the Department to defray costs incurred in managing "all of the trust lands". Laws of 1993, ch. 460, § 2. An annual accounting now is made of the accrued expenditures from the pooled trust funds in the account. If the accounting determines that expenditures have been made from trust land moneys for the benefit of lands not part of the grant land trusts, such

expenditures constitute a debt against the property benefited. RCW 79.64.030. However, no such reconciliation is provided where revenues from one grant land trust are used to pay the expenses of another. A legislative report explains that this amendment gave the Department additional flexibility in managing and expending trust management revenues, in that it is no longer required to account for and expend revenue in the RMCA by each separate trust category. 1993 Final Legislative Report, at 165.

RCW 79.64.040 provides that 25 percent of a sum received by the Department in connection with any one transaction pertaining to public lands may be deposited in the RMCA. WAC 332-100-040 further provides that the deductions may be temporarily discontinued when the RMCA balance exceeds an amount equal to 12 months' operating expenses. Such a discontinuation may remain effective until the RMCA balance is reduced to an amount equal to 3 months' operating expenses. Some of the beneficiaries point out that under this system, the trusts that generate income early in the year will pay the expenses of those that generate funds later in the year or not at all.

In materials submitted for our consideration in preparing this opinion, the Department suggests that the process of creating debts between the trusts and repaying them with interest was not reflective of the fact that most of the costs of managing trust lands come from shared systems and management activities. We acknowledge that it is common practice for the ordinary expenses of administering a trust to be deducted from trust income. George T. Bogert, Trusts § 124, at 446 (6th ed. 1987); Moon v. State Bd. of Land Comm'rs, 111 Idaho 389, 724 P.2d 125, 129 (Idaho 1986). However, as stated above, the expenses of one trust normally may not be deducted from the income of another. Though it may be that each trust ultimately will bear its appropriate share of administrative expenses, no statutory provision so requires. We find no basis for concluding that the 25 percent deduction relates to the costs and expenses incurred by each trust.

Washington's Enabling Act and constitution created separate trusts to benefit separate beneficiaries who are entitled to separate accounting of the costs and expenses being charged to each trust. While acknowledging the presumption of constitutionality granted the RMCA statutes, we would conclude that unlike earlier versions of the RMCA that provided for a separate accounting of trust revenues and expenses and repayment of any loans between trusts with interest, the 1993 version of the RMCA is most likely constitutionally defective.

d.May The Legislature Empower The Department Of Natural Resources And The Commissioner Of Public Lands With Regulatory Authority Regarding All Forest Lands In The State Of Washington, Including The Federal Grant Lands, As Well As The Responsibility To Manage The Federal Grant Lands?

SHORT ANSWER

The Legislature may lawfully delegate its management and regulatory authority over the state's forest lands to the Department of Natural Resources and the Commissioner of Public Lands.

ANALYSIS

In considering this question, it is important to understand the relationship between the Commissioner of Public Lands, the Board of Natural Resources, the Department, and the Forest Practices Board.

The Legislature created the Department of Natural Resources in 1957 and assigned to it many responsibilities with regard to the state lands, which include the federal grant lands. RCW 43.30.010, .150; RCW 79.01.004. The Department consists of the Board of Natural Resources, the Commissioner of Public Lands as administrator of the Department, and a supervisor. RCW 43.30.030, .050. The Board consists of the governor or a designee, the superintendent of public instruction, the commissioner of public lands, the dean of the college of forest services at the University of Washington, the dean of the college of agriculture at Washington State University, and a representative of counties with state forest lands acquired or transferred under RCW 76.12. RCW 43.30.040. The Board selects its own chair, and the Commissioner of Public Lands serves as the Secretary of the Board. RCW 43.30.150(9).

In describing the powers and duties of the Board, the Legislature has directed that the Board shall

> (2) Establish policies to insure that the acquisition, management and disposition of all lands and resources within the department's jurisdiction are based on sound principles designed to achieve the maximum effective development and use of such lands and resources consistent with laws applicable thereto; [and]
>
> (6) Adopt and enforce such rules and regulations as may be deemed necessary and proper for carrying out the powers, duties and functions imposed upon it by this chapter[.]

RCW 43.30.150. Thus, the Board of Natural Resources is largely a policy setting board. WAC 332-10-020(3). In administering the Department, the Commissioner is to conform to policies established by the Board. RCW 43.30.160.

The Commissioner of Public Lands also serves as chair of the Forest Practices Board. RCW 76.09.030(2). Other members of this Board are the director of the Department of Community, Trade, and Economic Development, the director of the Department of Agriculture, the director of the Department of Ecology, an elected member of a county legislative authority appointed by the governor, and six members of the general public appointed by the governor - one of whom owns fewer than 500 acres of forest land and one of whom is an independent logging contractor. RCW 76.09.030. The Forest Practices Board is authorized to promulgate forest practices regulations to accomplish the purpose of the Forest Practices Act, which, stated broadly, is to foster the commercial timber industry while protecting the environment. Department of Natural Resources v. Marr, 54 Wn. App. 589, 593, 774 P.2d 1260 (1989); RCW 76.09.010. More specifically, the Act's purpose is to maintain a viable forest products industry while protecting forest soils, fisheries, wildlife, water quantity and quality, air quality, recreation, and scenic beauty. RCW 76.09.010. As stated earlier, this legislation was enacted pursuant to the Legislature's police power and applies to all of the state's forest lands. The Department of Natural Resources does not

have rulemaking authority with respect to forest practices but administers and enforces the rules of the Forest Practices Board. Snohomish Cy. v. State, 69 Wn. App. 655, 665, 850 P.2d 546 (1993), review denied, 123 Wn.2d 1003 (1994); RCW 76.09.040(1).

The universities contend that a conflict of interest is presented by the fact that the Commissioner of Public Lands serves on the Forest Practices Board. They maintain that decisions made by the Commissioner and this board regarding all forest lands may negatively impact the trusts.

This contention seems to suggest that the Commissioner makes policy decisions independent of the Board and is vested with a degree of authority that we do not find apparent. The Commissioner is not the trustee of the federal grant land trusts; rather, the Commissioner is one part of an agency that manages the trusts for the state pursuant to state statute and is one member of a multi-member board with trust management responsibilities. As will be explained shortly, both the Commissioner and the Department fulfill only those responsibilities granted them by the Legislature. We find no legal authority granting the Commissioner power to dictate policy to either the Board of Natural Resources or the Forest Practices Board. The Commissioner is one of six members of the Board of Natural Resources and one of 11 members of the Forest Practices Board. Moreover, with regard to any negative impact that Forest Practices Board regulations may have on the trusts, we again note that the Forest Practices Act is a law of general application enacted pursuant to the police power and that the Forest Practices Board is charged with promulgating rules and regulations to implement that law with respect to all forest lands.

Having clarified the roles and responsibilities of these various entities, we now turn to the more general issue of whether granting the Commissioner and the Department a role in regulating and managing forest lands in general and the federal grant lands in particular, presents an impermissible conflict of interest. The universities suggest that in requiring the Commissioner of Public Lands and the Department to implement statutes not solely concerned with the interests of the trusts, the Legislature has created an impermissible conflict of interest.

In light of the fact that the Enabling Act granted these lands to a sovereign state as trustee, we see no impermissible conflict. This dual role on the part of the state begins at a higher level; it is inherent in the grant.

Both the Enabling Act and the Washington Constitution allow the state to exercise regulatory and managerial authority over the federal grant lands. Section 11 of the Act states that the lands granted may be leased "under such regulations as the legislatures shall prescribe", and section 17 provides that the lands granted therein shall be held, appropriated and disposed of for the purposes mentioned "in such manner as the legislatures of the respective States may severally provide". Article 16, section 3 of the state constitution provides that the state may sell the timber or stone off state lands "in such manner and on such terms as may be prescribed by law".

As stated earlier, the state's police power "exists without express declaration, and the only limitation upon it is that it must reasonably tend to correct some evil or promote some interest of the state, and not violate any direct or positive mandate of the constitution". Shea v. Olson, 185 Wash. 143, 153, 53 P.2d 615, 111 A.L.R. 998 (1936) (cited in Skamania, 102 Wn.2d at 132). Broad discretion is vested in the Legislature to determine what the public interest demands and

what measures are necessary to secure and protect that interest. Reesman v. State, 74 Wn.2d 646, 650, 445 P.2d 1004 (1968). "Unless the measures adopted by the legislature in given circumstances are palpably unreasonable and arbitrary so as to needlessly invade property or personal rights as protected by the constitution, the legislative judgment will prevail." Reesman, 74 Wn.2d at 650; see also Clark v. Dwyer, 56 Wn.2d 425, 431, 353 P.2d 941 (1960), cert. denied, 364 U.S. 932 (1961) (referring to the Legislature as "the chosen representative of the people").

Thus, the authority of the Legislature to manage and regulate state lands in general and the grant lands in particular is evident. As a result, any perceived conflict of interest is inherent and recognized in the grant of these lands, given the state's role as trustee. The state, as a sovereign, cannot simply manage the grant lands and ignore its duty to regulate in the public interest. The Court in Skamania recognized this conflict and found it acceptable, perhaps because it is inevitable. Skamania, 102 Wn.2d at 132-34. The state must continue to exercise its police power even though its exercise may affect the grant land trusts. Moreover, by testing the state's conduct when acting in its trust capacity by fiduciary principles, the law ensures proper motivation and action while leaving the state appropriately less fettered in exercising the police power. If any conflict of interest between regulatory and managerial roles can be said to exist, it is a product of the grant itself. Nothing precludes the Legislature from lawfully delegating its dual trust and regulatory authority to agencies of the state.

The state constitution authorizes the Legislature to delegate authority to the Commissioner of Public Lands. Article 3, section 23 provides that the Commissioner "shall perform such duties . . . as the legislature may direct". The Legislature may also delegate to administrative officers and boards the authority to promulgate rules and regulations to carry out an express legislative purpose, or to affect the operation and enforcement of a law. Senior Citizens, 38 Wn.2d at 153; see also 81A C.J.S. States § 120, at 541 (1977) ("The state determines the authority of its agencies to carry out its governmental powers, and sovereign power is exercised by that portion of the personal [sic] force of the state by which it thinks, acts, determines, and administers, to the end that its constitution may be effective and its laws operative.").

A delegation of authority is lawful if the Legislature has provided general standards which define in general terms what is to be done and who is to do it, and procedural safeguards exist to control arbitrary administrative action. Northwest Gillnetters Ass'n v. Sandison, 95 Wn.2d 638, 646-47, 628 P.2d 800 (1981) (cited in Asarco, Inc. v. Puget Sound Air Pollution Control Agency, 112 Wn.2d 314, 322, 771 P.2d 335, 74 A.L.R.4th 557 (1989)). Having received a lawful grant of authority, an agency must exercise it properly. The power of an administrative agency to promulgate rules is not unlimited. The agency may not legislate and the rules must be within the framework of the policy laid down in the statute. State ex rel. West v. City of Seattle, 50 Wn.2d 94, 97, 309 P.2d 751 (1957).

In addition, an administrative agency does not have authority to decline to perform a statutory function. 73 C.J.S. Public Administrative Law & Procedure § 63, at 534 (1983). Accordingly, courts can interfere both when there has been a clear abuse of agency discretion or a clear failure to exercise such discretion. Safir v. Gibson, 417 F.2d 972, 978 (2d Cir. 1969), cert. denied, 400 U.S. 850 (1970).

In summary, the Legislature has broad discretion to delegate managerial and rule-making authority to state agencies so long as general standards are in place and the resulting agency action can be reviewed. The Forest Practices Act expressly provides for an Appeals Board to hear appeals arising from the Department's actions under the Forest Practices Act. RCW 76.09.220(7). Though the Department's decisions regarding any sale, lease, contract, or other proprietary decision in managing the trust lands do not constitute "agency action" subject to administrative and judicial review under the Administrative Procedure Act, RCW 34.05, the Act allows for judicial review of Department rules. RCW 34.05.010(3)(c); RCW 34.05.570(2)(b). Moreover, having been granted dual authority, the Department and the Commissioner cannot decline to exercise it, as demonstrated by the court's memorandum decision in Okanagan Cy. v. Belcher, Chelan Cy. Cause #45-2-00867-9 (5-30-96). The superior court held that while it could not order a discretionary act, the court could order the Department to exercise its discretion where it had a clear duty to act. Consequently, the court ordered the Department to determine whether it is in the best interests of the trusts to harvest damaged timber in the Loomis State Forest pursuant to RCW 79.01.795. Court's Memorandum Decision, at 9.

The roles that the Commissioner plays in regulating forest lands as part of the Forest Practices Board and in managing the trust lands as part of the Board of Natural Resources are different roles. Given the state's status as trustee, this duality is inevitable. Even if the state created an agency devoted exclusively to managing the federal grant lands, that agency nevertheless would be subject to regulations generally applicable to the state lands. The state has the authority to regulate all forest lands in Washington, including the federal grant lands and to manage the grant lands.

QUESTION 3

Is The Department Of Natural Resources Subject To The Trust Provisions Of RCW Title 11?

SHORT ANSWER

The Department of Natural Resources is not subject to RCW 11.98, RCW 11.100, RCW 11.106, or RCW 11.110.

ANALYSIS

RCW 11.98 - Trusts

RCW 11.98 governs trustees in numerous aspects of administering trusts that are subject to its provisions. By its terms, RCW 11.98 applies only to trusts executed after June 10, 1959, and then, only to limited types of such trusts. In this regard, RCW 11.98.009 states: "Except as provided in this section, this chapter applies to express trusts executed by the trustor after June 10, 1959[.]" The section goes on to exclude from application of the chapter certain additional trusts, not relevant here, regardless of when they were executed.

The grant land trusts were created by the Enabling Act and the state constitution in 1889. See County of Skamania v. State, 102 Wn.2d 127, 132, 685 P.2d 576 (1984). Thus, this chapter does not apply to the Department in administering them. However, as the state agency charged with responsibility for managing these trusts, the Department is subject to common law fiduciary responsibilities. (See response to Question 5 for a full discussion of this point.) As the universities note in materials submitted for our consideration, these common law duties do not depend on the applicability of RCW Title 11.

RCW 11.100 - Investment Of Trust Funds

RCW 11.100 primarily regulates the handling and investment of trust funds. The first section of this chapter, RCW 11.100.010, sets forth its scope. It states:

> Any corporation, association, or person handling or investing trust funds as a fiduciary shall be governed in the handling and investment of such funds as in this chapter specified. A fiduciary who invests and manages trust assets owes a duty to the beneficiaries of the trust to comply with requirements of this chapter. The specific requirements of this chapter may be expanded, restricted, eliminated, or otherwise altered by provisions of the controlling instrument.

RCW 11.100.010 (emphasis added).

By virtue of this statute, RCW 11.100 applies to a "corporation, association, or person" engaged as a fiduciary in certain activities involving funds. The Department is an agency of the state, not a corporation or association. Nor is there reason to believe that the Legislature intended the state or its agencies to be included in the meaning of the term "person" under RCW 11.100.010. First, no statute in RCW Title 11 defines the term "person" for purposes of this chapter to include the state or its agencies. By contrast, in the limited circumstances where the Legislature has intended the state to be subject to RCW Title 11 as a trustee, it has made its intent express.

Additionally, the history of RCW 11.100.010 supports the conclusion that the term "person" is not intended to include the state. RCW 11.100.010 derives from Laws of 1955, chapter 33, section 30.24.010, part of "[a]n Act relating to banks and trust companies and other financial institutions; enacting a banks and trust companies code to be known as Title 30 of the Revised Code of Washington". The language of section 30.24.010 as enacted in 1955, was identical to the language now in RCW 11.100.010. However, Title 30, Laws of 1955, also included a definition section that defined the term "person" for purposes of the title as follows:

> Certain terms used in this title shall have the meanings ascribed in this section.
>
> . . . .
>
> "Person", unless a different meaning appears from the context, shall include a

> firm, association, partnership, or corporation, or the plural thereof, whether resident, nonresident, citizen or not.

Laws of 1955, ch. 33, § 30.04.010. By virtue of this definition of the term "person", the statutory predecessor of RCW 11.100.010 did not include the state or state agencies.

In 1984, the Legislature substantially revised statutes relating to trusts. Laws of 1984, ch. 149. As part of this revision, RCW 30.24.010, the statutory predecessor of RCW 11.100.010, was decodified and recodified as RCW 11.100.010. The above-quoted section, RCW 30.04.010, defining the term "person" was not recodified. It simply remained in RCW Title 30. Nothing in the House or Senate Journal or the Final Bill Report for these 1984 amendments (ESHB 1213) discloses an intent by virtue of this recodification to expand the meaning of the term "person" in RCW 11.100.010 to include the state in administering public trusts.

Moreover, by Laws of 1985, chapter 30, the Legislature revised the 1984 law. The Final Bill Report for this measure, SB 3072, described the thrust of the 1984 revisions, stating:

> In 1984, the Legislature enacted the Washington Trust Act, a major revision of the procedures involved in the operation of private and public charitable trusts[.]

(Emphasis added.) This statement confirms that the 1984 recodification of RCW 11.100.010 was not intended to expand the original reach of the term "person" to include the state or its agencies in the administration of public trusts.

Chapter 11.106 RCW - Trustee's Accounting Act

RCW 11.106 governs actions of "trustees" in accounting for trust property. The term "trustee" is defined for purposes of RCW Title 11 by RCW 11.02.005(14). It provides:

> "Trustee" means an original, added, or successor trustee and includes the state, or any agency thereof, when it is acting as the trustee of a trust to which chapter 11.98 RCW applies.

(Emphasis added.)

As previously discussed, RCW 11.98 applies only to certain trusts created after June 10, 1959. RCW 11.98.009. Consequently, the Department is not the trustee of a trust to which RCW 11.98 applies. The grant land trusts were created long before June 10, 1959. In that the Department is not the trustee of a trust subject to RCW 11.98, it is not a trustee for purposes of RCW Title 11 and consequently, is not a trustee for purposes of RCW 11.106.

Chapter 11.110 RCW - Charitable Trusts

RCW 11.110 provides for public supervision over the administration of public charitable trusts. RCW 11.110.010. To accomplish this purpose, the chapter imposes certain reporting obligations on trustees of such trusts. See, e.g., RCW 11.110.060. The chapter expressly excludes from the definition of "trustee" for its purposes, the state and its agencies. RCW 11.110.020. Thus, the Department is not subject to the provisions of RCW 11.110.

Moreover, we note that the very purpose of the charitable trusts statute is to provide governmental supervision over such trusts. This purpose would not be served by applying its provisions to the grant land trusts, as they presently are subject to legislative control and governmental management.

A final observation supporting the conclusion that the Department is not subject to the above-discussed chapters seems appropriate. The Legislature has described in considerable detail the authority and responsibilities of the Department in administering the grant lands. See, for example, RCW 79.01 (the public lands act); RCW 79.14 (governing oil and gas leases); RCW 79.64 (establishing accounts for the management of these lands and prescribing accounting requirements for them); RCW 79.68 (relating to sustained yield management and multiple use of state lands). It would be anomalous to conclude that the Legislature enacted these separate and detailed laws governing the Department's management of these lands, if it intended the Department to administer them according to requirements found in RCW Title 11.

QUESTION 4

Does The Department Of Natural Resources Have The Authority To Enter Into A Long-Term Agreement Regarding Management Of The Federal Grant Lands As A Method Of Satisfying The Endangered Species Act?

SHORT ANSWER

The Department has the authority to satisfy the Endangered Species Act by entering into a long-term management plan so long as that plan does not violate the Department's common law or statutory duties regarding the federal grant land trusts. Our recognition of this authority should not be taken as an endorsement of the Department's plan as presently proposed. The propriety of the plan will depend upon its terms and its effect on each of the trusts, and is a determination beyond the scope of this legal opinion.

ANALYSIS

As a creature of statute, the Department of Natural Resources has only that authority expressly granted by the Legislature or necessarily implied therein. Municipality of Metro. Seattle v. Public Empl. Relations Comm'n, 118 Wn.2d 621, 633, 826 P.2d 158 (1992). Among the Department's powers and duties is the requirement that its Board

> [e]stablish policies to insure that the acquisition, management and disposition of all lands and resources within the department's jurisdiction are based on sound

> principles designed to achieve the maximum effective development and use of such lands and resources consistent with laws applicable thereto[.]

RCW 43.30.150(2). Moreover, RCW 43.30.135(3)(d) provides that the Department may cooperate with any federal agency in preparing plans "for the protection, management, and replacement of trees, wood lots, and timber tracts". With regard to the school trust lands in particular, RCW 79.01.094 provides that the Department

> shall exercise general supervision and control over the sale or lease for any purpose of land granted to the state for educational purposes and also over the sale of timber, fallen timber, stone, gravel and all other valuable materials situated thereon.

This statute enables the Department to generate income for the trusts by selling to private companies the right to cut timber from the trust lands. Noel v. Cole, 98 Wn.2d 375, 380, 655 P.2d 245 (1982); see also County of Skamania v. State, 102 Wn.2d 127, 129, 685 P.2d 576 (1984).

The Endangered Species Act of 1973 (ESA) has had a direct impact on timber sales both within and outside the trust lands. Through the ESA, Congress has prohibited any person from "taking" any endangered species and has provided substantial penalties for violating the ESA. 16 U.S.C. §§ 1538(a)(1)(B), 1540. By regulation, the Secretary of the Interior has extended this protection to threatened species. 50 C.F.R. §§ 17.21, 17.31. The ESA defines "taking" as including to "harass, harm, pursue, hunt, wound, . . . or attempt to engage in any such conduct". 16 U.S.C. § 1532(19). "Harass" is further defined as an intentional or negligent act or omission that significantly disrupts normal behavior patterns of the endangered animal, while "harm" includes habitat modification that results in actual injury or death to members of an endangered or threatened species. 50 C.F.R. § 17.3(c); Babbitt v. Sweet Home Chapter, 515 U.S. ___, 115 S. Ct. 2407, 132 L. Ed. 2d 597, 610 (1995). The "person" prohibited from engaging in such conduct includes any state agency or instrumentality of any state. "State agency" is defined as any state agency, department, board, commission, or other governmental entity which is responsible for the management of fish, plant, or wildlife resources within a state. 16 U.S.C. § 1532 (13), (18).

Forested lands in Washington contain wildlife species that have been labelled as threatened pursuant to the ESA. These species include the spotted owl and the marbled murrelet, and may soon include some salmonid species as well. Washington Department of Natural Resources, Draft Habitat Conservation Plan, at i (March 1996); Pacific Northwest Generating Coop. v. Brown, 38 F.3d 1058, 1061 (9th Cir. 1994). Since the range of the spotted owl includes all of the western part of Washington, as well as portions of the east slope of the Cascades, the range includes some of the federal grant lands. Draft Habitat Conservation Plan, at iii.
The ESA provides for a suspension of activities at such time when operations threaten the continued existence of any endangered species or its habitat. North Slope Borough v. Andrus, 642 F.2d 589, 595 (D.C. Cir. 1980). If a lessee's operations become prejudicial to wildlife, the Secretary of the Interior must seek to halt those activities by suing to enjoin or by prosecuting for

a "taking". North Slope Borough, 642 F.2d at 595. Furthermore, the ESA requires not only the cessation of harm but the affirmative preservation of an endangered species. Palila v. Hawaii Dep't of Land & Natural Resources, 639 F.2d 495, 497 (9th Cir. 1981). As one court stated: "The ESA list is not a list of animals to be written off. It is a mandate for all agencies involved to take aggressive steps to avoid a species' extinction and preserve its viability." Seattle Audubon Soc'y v. Evans, 952 F.2d 297, 302 (9th Cir. 1991).

Despite its emphasis on species preservation, the ESA recognizes the validity of competing interests, and an amendment adopted in 1982 allows states and private parties to apply for permits to "take" listed species. Andrew Smith et al., The Endangered Species Act at Twenty: An Analytical Survey of Federal Endangered Species Protection, 33 Nat. Resources J. 1027, 1064 (1993). Pursuant to this amendment, the United States Fish & Wildlife Service, acting as the representative of the Secretary of the Interior, may issue a permit to an applicant to engage in an otherwise prohibited "incidental taking" of an endangered species in accordance with the terms of a habitat conservation plan. Robert Thornton, Searching for Consensus and Predictability: Habitat Conservation Planning Under the Endangered Species Act of 1973, 21 Envtl. L. 605, 624 (1991). A habitat conservation plan details probable impacts and mitigation measures for the proposed taking and justifies selection of the proposed action over less deleterious alternatives. Smith, at 1039; 16 U.S.C. § 1539(a)(2)(A). After a public review period, the Secretary may approve the habitat conservation plan and issue an incidental take permit for the project. Smith, at 1039; 16 U.S.C. § 1539(a)(2)(B).

> One case describes the permit requirements as follows:
>
> > First the applicant must submit a comprehensive conservation plan. The Service then must scrutinize the plan and find in order to issue a permit, after affording opportunity for public comment, that (1) the proposed taking of an endangered species will be incidental to an otherwise lawful activity; (2) the permit applicant will minimize and mitigate the impacts of the taking "to the maximum extent practicable"; (3) the applicant has assured adequate funding for its conservation plan; and (4) the taking will not appreciably reduce the likelihood of the survival of the species.

W.W. Dean & Assoc. v. City of So. San Francisco, 190 Cal. App. 3d 1368, 236 Cal. Rptr. 11, 25 (1987) (White, J., dissenting); 16 U.S.C. § 1539(a)(2)(B).

The intent of combining an incidental take permit with a habitat conservation plan is to provide "'long-term commitments regarding the conservation of listed as well as unlisted species and long-term assurances to the proponent of the conservation plan that the terms of the plan will be adhered to and that further mitigation requirements will only be imposed in accordance with the terms of the plan.'" Thornton, at 624 (citing 1982 U.S. Code Cong. & Admin. News at 2830). If conservation plans address an unlisted species that subsequently is listed as endangered or threatened, under most circumstances no further mitigation requirements will be imposed. Thornton, at 640 (citing 1982 U.S. Code Cong. & Admin. News at 2860, 2871). From the land owner's point of view, habitat conservation plans offer an opportunity to finally resolve

endangered species issues and avoid multiple successive and conflicting demands to mitigate the impact of development activities on endangered species. Thornton, at 639. Such plans and the permits they produce thus provide the means to develop a trade-off between protecting endangered species and permitting normal development. Sweet Home Chapter v. Babbitt, 17 F.3d 1463, 1468 (D.C. Cir. 1994), rev'd. on other grounds, 115 S. Ct. 2407 (1995). According to materials submitted by the Department, other forest landowners engaged in habitat conservation planning include the Weyerhauser Company, Plum Creek Timber, Murray Pacific, the Yakama Indian Nation, the Seattle City Water Department, Stinson Tree Farm, the State of Oregon and the Mid-Columbia Public Utility Districts. Department of Natural Resources Annual Report, at 7 (1995).

The Fish and Wildlife Service has the discretion to issue permits of 30 years or more duration, and in determining whether to issue a long-term permit should consider the extent to which the conservation plan is likely to enhance the habitat of the listed species or increase the survivability of the species. Thornton, at 624. The legislative history of the ESA indicates further that permits of 30 or more years "may be appropriate in order to provide adequate assurances to the private sector to commit to long-term funding for conservation activities or long-term commitments to restrictions on the use of land". Richard E. Webster, Comment, Habitat Conservation Plans Under the Endangered Species Act, 24 San Diego L. Rev. 243, 260 (1987). A permit recipient can request a permit modification if circumstances change over the life of the permit. 50 C.F.R. § 13.23. Furthermore, the Secretary of the Interior may revoke a permit at any time if its conditions are not being satisfied, and the permit recipient can cancel a permit on 30 days' notice. 16 U.S.C. § 1539(a)(2)(c); 50 C.F.R. § 13.26. As is reflected in the Department's draft implementation agreement, termination of the incidental take permit signals termination of the accompanying habitat conservation plan. Draft Implementation Agreement, at 12. The agreement further provides, however, that the Secretary may require some continuation of a habitat conservation plan's proposed mitigation measures following the cancellation of an incidental taking permit. Draft Implementation Agreement, at 12.

A federal district court in this state recently held that logging may be allowed under the ESA if consistent with the goal of not jeopardizing the continued existence of any endangered species or threatened species or resulting in the destruction or adverse modification of the species' critical habitat. Seattle Audubon Soc'y v. Moseley, 798 F. Supp. 1473, 1483 (W.D. Wash. 1992), aff'd in part, Seattle Audubon Soc'y v. Espy, 998 F.2d 699 (9th Cir. 1993). If the Department attempts to sell timber from trust lands inhabited by threatened species without an incidental taking permit, such sales may be permanently enjoined, thus eliminating the major source of revenue currently available to the grant land trusts. See Marbled Murrelet v. Pacific Lumber Co., 880 F. Supp. 1343, 1367 (N.D. Cal.), aff'd, 83 F.3d 1060 (1996) (permanently enjoining timber harvest by logging company that submitted unreliable habitat conservation plan). In affirming that injunction, the Ninth Circuit held that a reasonably certain threat of imminent harm to a protected species is sufficient for issuance of an injunction under the ESA. Marbled Murrelet v. Babbitt, 83 F.3d 1060, 1066 (9th Cir. 1996); see also Sweet Home Chapter v. Babbitt, 30 F.3d 190, 192 (D.C. Cir. 1994), reversed on other grounds, 115 S. Ct. 2407 (1995) (in order for many planned development projects to proceed in compliance with the Act, a permit for incidental take must be obtained).

None of the interested parties who commented on this question disputes the applicability of the ESA to the federal grant lands or the authority of the Department to formulate a habitat conservation plan in response thereto. Rather, some of those parties assert that the habitat conservation plan contemplated by the Department is unreasonable and has been developed without examining the impact that the plan will have on each trust.

This opinion is not intended as an endorsement of the Department's habitat conservation plan as currently before the Board. The question addressed here is simply the Department's authority to enter into a long-term habitat conservation plan, not the merits of the plan now under consideration. The Department does have the authority to enter into a long-term agreement pursuant to the statutes cited earlier, provided such an agreement constitutes a reasonable management plan that serves the interests of each of the federal grant land trusts and is consistent with common law fiduciary duties owed to each trust. In an observation made by the Washington State School Directors' Association relevant to the Department's duty of impartiality, the comparison to be made here is not the relative benefit of the habitat conservation plan as between each trust, but the benefit to each trust of adopting a plan as opposed to the legal consequences of complying with the ESA without a plan. Additionally, any long-term agreement must be sufficiently flexible to allow appropriate alteration and cancellation based on significant potential changes in law or other circumstances in order to protect trust interests. In sum, the Department presently is authorized to satisfy the ESA by entering into a long-term habitat conservation plan if the plan constitutes a reasonable exercise of its discretion and does not breach any of the Department's statutory or common law duties with regard to the federal grant land trusts.

QUESTION 5

If State Statutes Leave Discretion In The Department Of Natural Resources With Respect To Administration Of Federal Grant Lands, Against What Legal Standards Is The Department's Exercise Of Discretion In The Management Of The Lands Measured?

SHORT ANSWER

The Department's exercise of discretion will be tested against an abuse of discretion standard. If a trust beneficiary challenges the Department's exercise of discretion regarding the federal grant lands, principles regarding a trustee's exercise of discretion would apply in reviewing the Department's action. If a nonbeneficiary challenges the Department's action, principles of administrative law regarding abuse of discretion would apply.

ANALYSIS

Washington statutes vest the Department and the Board of Natural Resources with certain discretionary authority in managing the federal grant lands. As stated above, RCW 43.30.150 provides that the Board shall establish policies to ensure that the acquisition, management, and disposition of all lands and resources within the Department's jurisdiction are based on sound principles designed to achieve the maximum effective development and use of such lands, and that it shall adopt and enforce the rules and regulations necessary to carry out these powers and

duties. RCW 43.30.150(2), (6). With regard to the federal grant lands in particular, RCW 79.01.094 provides that the Department shall exercise general supervision and control over the sale or lease for any purpose of land granted to the State for educational purposes and also over the sale of timber and other valuable materials found on such land. While other statutes and regulations limit the ways in which timber may be harvested from state trust lands and the proper means of compensating the individual trusts for the use of their lands, the Department nevertheless exercises some discretion in approving and monitoring such activities. Caffall Bros. Forest Prod., Inc. v. State, 79 Wn.2d 223, 228, 484 P.2d 912 (1971) (technical considerations involved in the management and sale of public lands require the development of administrative expertise and judgment that cannot be specifically detailed by statutory prescription); see also State ex rel. Garber v. Savidge, 132 Wn. 631, 634, 233 P. 946 (1925) (commissioner of public lands has authority to determine terms of lease of trust land as well as amount to be paid for timber removed from it). The State Supreme Court has stated more generally that "[a]n agency may fill in the gaps of a statutory framework if necessary to effectuate a general statutory scheme". Asarco, Inc. v. Puget Sound Air Pollution Control Agency, 112 Wn.2d 314, 322, 771 P.2d 335, 74 A.L.R.4th 557 (1989).

At the same time, the Department is the instrumentality created to administer and manage the federal grant land trusts for the trustee state. See Department of State Lands v. Pettibone, 216 Mont. 366, 702 P.2d 948, 951 (1985); see also Oklahoma Educ. Ass'n v. Nigh, 642 P.2d 230, 235 (1982). As trust manager, the Department is bound by the same fiduciary duties and obligations that bind the state as trustee. See Consolidation Coal Co. v. Utah Div. of State Land & Forestry, 886 P.2d 514, 525-26 (Utah 1994); see also State ex rel. Gravely v. Stewart, 48 Mont. 347, 137 P. 854, 855 (1913). As stated earlier, however, the Department also must adhere to legislation enacted by the state that affects the federal grant land trusts.

Although all of the submissions we have received recognize that an abuse of discretion standard applies, the parties describe this standard somewhat differently. There are two legal standards against which the Department's discretionary authority may be measured: the discretion granted a trustee, or the discretion granted an administrative agency. The exercise of a power by a trustee is discretionary except to the extent to which its exercise is required by the terms of the trust or by the principles of law applicable to the duties of trustees. Restatement (Second) of Trusts § 187 cmt. a. A trustee abuses its discretion only when it acts arbitrarily, in bad faith, maliciously, or fraudulently. Austin v. U.S. Bank, 73 Wn. App. 293, 304, 869 P.2d 404, review denied, 124 Wn.2d 1015 (1994) (citing Occidental Life Ins. Co. v. Blume, 65 Wn.2d 643, 648, 399 P.2d 76 (1965)). In determining whether a trustee is guilty of an abuse of discretion in exercising or failing to exercise a power, the Restatement suggests that the following factors be considered:

> (1) the extent of the discretion conferred upon the trustee by the terms of the trust; (2) the purposes of the trust; (3) the nature of the power; (4) the existence or non-existence, the definiteness or indefiniteness, of an external standard by which the reasonableness of the trustee's conduct can be judged; (5) the motives of the trustee in exercising or refraining from exercising the power; (6) the existence or nonexistence of an interest in the trustee conflicting with that of the beneficiaries.

Restatement (Second) of Trusts § 187 cmt. d; Austin, 73 Wn. App. at 305. In other words, so long as a trustee acts not only in good faith and from proper motives but also within the bounds of reasonable judgment, an abuse of discretion will not be found. III William F. Fratcher, Scott on Trusts § 187, at 14 (4th ed. 1987). It is also important to note, however, that a trustee has no discretion to determine whether he or she will meet the duties of a trustee or satisfy the terms of the trust.

An administrative agency's discretion, on the other hand, is limited by applicable state laws and constitutional provisions. 81A C.J.S. States § 121, at 545. A discretionary decision of an administrative agency is not set aside absent a clear showing of abuse, which in turn is shown by demonstrating that the discretion was exercised in a manner that was manifestly unreasonable or exercised on untenable grounds or for untenable reasons. Schuh v. Department of Ecology, 100 Wn.2d 180, 186, 667 P.2d 64 (1983) (citing Wilson v. Board of Governors, 90 Wn.2d 649, 656, 585 P.2d 136 (1978), cert. denied, 440 U.S. 960 (1979)). In assessing a complaint made regarding an administrative agency action, a court may not substitute its judgment for that of the agency; due deference must be given to the '"specialized knowledge and expertise of the administrative agency.'" Schuh, 100 Wn.2d at 187 (citing English Bay Enters., Ltd. v. Island Cy., 89 Wn.2d 16, 21, 568 P.2d 783 (1977)).

It thus appears that a somewhat different and broader scope of discretionary authority is vested in an administrative agency acting solely in an administrative capacity as opposed to an administrative agency acting as a trust manager. While the agency must adhere to state law and the trustee to the terms of the trust, the need to fulfill common law duties places an additional constraint on a trustee. As one commentary observes, the courts approach trustees with considerably less deference than they view administrators. "Traditional principles of administrative review favor the administrator; trust law, on the other hand, bends towards protecting the beneficiary and the trustor's intentions from the trustee." Jon A. Souder et al., Sustainable Resources Management and State School Lands: The Quest for Guiding Principles, 34 Nat. Resources J. 271, 295 (1994). This article elaborates on the two different approaches taken toward administrative agencies and trustees:

> The administrator's advantage arises from the fact that the Court must respect agency discretion: it cannot substitute its judgment for the administrator's, and it must defer to the administrator's expertise. . . . The Court's willingness to take a "hard look" at administrative decisions ebbs and flows across time, place, and issue; even when it peaks, however, the Court must respect the agency, its expertise and its discretion.
>
> The shoe is on the other foot in the case of a trustee. The court seeks specifically to assess whether the trustee has met the "prudent person" standard: did the trustee act with prudence in handling the trust assets? The effect of any apparent or alleged expertise on the part of the trustee is not to insulate his or her decision from scrutiny, but rather to require him or her to meet higher and higher standards of prudence.

Souder, at 295.

Another commentator contends that both standards should and do apply with respect to those agencies placed in charge of administering the school trust lands. Sally Fairfax et al., The School Trust Lands: A Fresh Look at Conventional Wisdom, 22 Envtl. L. 797, 848 (1992). Both articles observe a pattern in the courts' application of the two doctrines. When a commissioner's decision is challenged by a beneficiary, trust principles are the basis for judicial analysis. Conversely, if the decision is challenged by a lessee, the decision relies on agency discretion. Souder, at 295; Fairfax, at 848-49. A sale of trust lands is more likely to be scrutinized under trust principles than is a leasing of such lands. Fairfax, at 849.

In a Utah suit brought by lessees against the state division of state lands and forestry, administrative law clearly governed. Consolidation Coal Co. v. Utah Div. of State Lands & Forestry, 886 P.2d 514 (Utah 1994). A coal company leasing school land property challenged the board's authority to promulgate its own interest rates and late-payment penalties. After observing that the state's enabling act and constitution required the board to manage the trust lands in the most prudent and profitable manner possible, the court referred to the board's broad statutory grant of authority.

> At all times relevant to this case, the Board had broad discretionary authority over the governance of all state lands, including school trust lands. In particular, the legislature vested the Board with the power to "make and enforce rules and regulations not inconsistent with the provisions of this act for carrying the same into effect." . . . [T]he legislature intended to give the Board particularly wide discretion in the area of state lands. . . . Moreover, as the government entity charged with executing the State's responsibilities as trustee of school trust lands, the Board had "such implied powers as [were] reasonably necessary" to effectuate its constitutional mandate to obtain full value and to prudently and profitably manage school trust lands.

Id. at 526 (citations omitted). The court concluded that the board was empowered to set interest rates and penalties regarding school trust lands. While reference was made to the State's responsibility to the beneficiaries to obtain full value for the school trust lands, the emphasis in the court's analysis clearly was upon administrative law and the discretion afforded an administrative agency. This decision thus fits within the pattern of analysis observed above; that is, that lessee suits are resolved primarily pursuant to administrative law principles. See also Campana v. Arizona State Land Dep't, 176 Ariz. 288, 860 P.2d 1341, 1344 (1993) (commissioner has great discretion concerning the disposition of trust lands, and plans for selling, leasing, and using state land will not be overturned absent illegal action, an abuse of discretion, or an unfair bidding); Havasu Heights Ranch & Devel. Corp. v. Desert Valley Wood Prod., Inc., 167 Ariz. 383, 807 P.2d 1119, 1127 (1990) (state land commissioner has duty to maximize financial benefits flowing from trust but also has discretion to deny lease renewal "in the best interest of the state").

While most of the cases brought by and on behalf of the trust beneficiaries concern state legislation rather than the actions of a state agency, it is clear that courts apply trust principles to beneficiary complaints. See United States v. 111.2 Acres, 293 F. Supp. 1042 (E.D. Wash. 1968), aff'd, 435 F.2d 561 (9th Cir. 1970) (holding that granting state school lands to United States for irrigation project would constitute breach of trust); United States v. 78.61 Acres, 265 F. Supp. 564 (D. Neb. 1967) (holding the fact that United States is grantee does not alter principle that res of trust may not be depleted); State v. University of Alaska, 624 P.2d 807 (Alaska 1981) (holding that putting university lands into state park without compensation to the university was a breach of the trust); Kanaly v. State, 368 N.W.2d 819 (S.D. 1985) (holding that state must preserve trust fund's principal and thus cannot give away trust property); County of Skamania v. State, 102 Wn.2d 127, 685 P.2d 576 (1984) (concluding legislation modifying contracts for the sale of timber from trust lands violated State's fiduciary duties to trust beneficiaries). Where a claim presents a mix of interests, a combination of the standards reflecting these interests may be appropriate. See State ex rel. Thompson v. Babcock, 147 Mont. 46, 409 P.2d 808, 811-13 (1966); see also State ex rel. Gravely v. Stewart, 48 Mont. 347, 137 P. 854, 855 (1913).

It would be a mistake to reject one source of discretionary standards for another in evaluating the actions of the Department of Natural Resources. As stated above, the Department is a government agency with responsibility to manage the federal grant land trusts. Although its role as trust manager should be given primacy whenever a trust beneficiary complains of departmental actions regarding the federal grant lands, its role as administrative agency should govern when an entity other than a beneficiary challenges the Department's actions regarding the grant lands. The actions of the Department may be assessed according to either administrative law or trust law, depending on the context in which they are challenged and the identity of the challenger.

a.To What Extent, If Any, May The Department's Discretionary Grant Land Management Decisions Authorize Approval Of A Management Plan That Encompasses The Lands Of More Than One Trust, If The Trusts As A Whole Are Benefited By A Plan, But Individual Trusts Are Benefited Unequally Or May Be Disadvantaged By The Plan?

SHORT ANSWER

Department management plans need not benefit the trusts equally. It is sufficient that the Department, acting consistently with its fiduciary duties and in the exercise of reasonable judgment determines that on balance, the plan is in the economic interests of each trust. It follows that if the Department, acting consistently with its fiduciary duties and in the exercise of reasonable judgment determines that on balance, a trust would be disadvantaged by the plan, such a trust may not be included in the plan.

ANALYSIS

The management plan referred to is the Department's proposed habitat conservation plan, which is discussed under Question 4. This plan includes 1.6 million acres of DNR-managed lands which in turn include federal grant lands. Draft Environmental Impact Statement, at 3-1. Each of the trusts enumerated in the Enabling Act has acreage affected by the habitat conservation plan.

These lands have been included in the plan because they are within the northern spotted owl's range. As stated, the owl is listed as a threatened species under the Endangered Species Act of 1973.
In essence, the question to be resolved is whether the duty of undivided loyalty a trustee owes to trust beneficiaries prohibits the Department, as trust manager, from making discretionary decisions that may benefit some trusts at the expense of others. A trustee acting for more than a single trust owes to each the same extreme loyalty that a trustee acting for a single trust owes to it. 76 Am. Jur. 2d Trusts § 389, at 384 (1992). The trustee must exclude from consideration not only personal advantage or profit, but also any advantage to third parties in dealing with trust properties and in all other matters connected with the administration of the trust estate. Tucker v. Brown, 20 Wn.2d 740, 768, 150 P.2d 604 (1944). Third parties would include other trusts administered by the trustee. Restatement (Second) of Trusts § 170 cmt. r. Thus, the duty of loyalty would preclude the Department from administering the federal grant land trusts to benefit some trusts at the expense of others.

The duty of loyalty that a trustee owes to multiple trusts has been compared to the duty to deal impartially with each beneficiary where there are several beneficiaries of a single trust and provides some guidance here. 76 Am. Jur. 2d Trusts § 389, at 384; see also IIIA Fratcher, § 232. This duty of impartiality was applied to school land trusts in Bartels v. Lutjeharms, 236 Neb. 862, 464 N.W.2d 321 (1991). In that case, the claim was made that various school districts were being treated differently in violation of the enabling act. The court observed that this argument was based on the correct principle that the school lands are held in trust by the state for educational purposes, and as trustee of the lands and the income therefrom, the state is subject to the standards of law applicable to trustees acting in a fiduciary capacity. Bartels, 464 N.W.2d at 324. The court added that "[f]undamental trust law imposes on the state, as trustee, the duty to deal with all beneficiaries impartially". Bartels, 464 N.W.2d at 324.

A recent addition to the Restatement reflects that this duty of impartial treatment includes a degree of flexibility. The prudent investor rule adopted by the Restatement (Third) of Trusts states that the trustee is under a duty to the beneficiaries to invest and manage the funds of the trust as a prudent investor would in light of the purposes, terms, distribution requirements, and other circumstances of the trust. Restatement (Third) of Trusts § 227, at 8 (1990). The rule adds that trustees also must conform to the fundamental fiduciary duties of loyalty and impartiality, among others. However, the Restatement further observes that this fundamental duty of impartiality may need to be somewhat flexible because the divergent economic interests of trust beneficiaries give rise to conflicts that cannot be avoided in investment decisions. "These conflicting fiduciary obligations result in a necessarily flexible and somewhat indefinite duty of impartiality. The duty requires the trustee to balance the competing interests of differently situated beneficiaries in a fair and reasonable manner." Restatement (Third) of Trusts § 227 cmt. c, at 13. The Department's discretion to reasonably balance the short term and long term interests of the trusts, discussed in Question 5b, would apply with equal force in this context.

Neither the duty of loyalty to each trust nor the duty of impartiality to balance competing interests in a fair and reasonable manner implies that multiple trusts must be administered in an identical fashion. Consistent with the duty of loyalty, the duty of impartiality means that while the Department may not administer the trusts so that one benefits at the expense of another, the

differences among the trusts cannot be ignored, and identical treatment of each is not required.

The commentary provided to us by interested parties reflects these principles. The Universities assert that the Department may not make decisions relative to the federal grant land trusts based on the effects such decisions may have on the trusts as a whole, but must make an independent analysis on behalf of each trust. The Washington State School Directors' Association (WSSDA) agrees that the Department should manage the multiple trusts with an eye to protecting the individual interests of the trusts, but adds that this does not mean that the trusts cannot be affected differently by a single general management plan.

> [T]he fact that one trust may have a greater proportion of its land affected by habitat management practices than another trust is not the measure of the trustee's duty. Rather, the question should be: is the trust better off, when all things are considered, under the habitat management plan than it would have been had there been no plan? For example, if a given trust has a lower volume of harvested timber per acre over the life of the habitat management agreement than another trust, that is not in itself evidence of failure of the trustee to give undivided loyalty to that trust. . . . To some extent the individual trusts must bear the burden of chance which is caused by the interplay of their location and where endangered species choose to live.

WSSDA Commentary, at 4.

In sum, the interests of each trust must be protected, but this does not mean that these interests will be satisfied at the same time and in an identical fashion. So long as each trust is regarded separately and the interests of one are not given precedence over another, the duty of loyalty owed each trust need not include a duty to manage or benefit each trust in exactly the same manner. If, in the exercise of reasonable judgment and consistent with its fiduciary duties, the Department determines that on balance, the economic interests of each trust will be better served under the plan than without it, the Department may authorize approval of a management plan that benefits the individual trusts differently.

b.To What Extent, If Any, May The Department's Discretionary Grant Land Management Decisions Authorize Approval Of A Management Plan That Exceeds Minimum Standards Governing Use Of The Lands, If Exceeding Those Standards Would Result In A Reduced Short-Term Economic Return But Promote A Greater Long-Term Economic Return?

SHORT ANSWER

Department management plans may exceed minimum standards, if doing so reflects a reasonable balancing of short-term interests and the protection of trust productivity over the long term.

ANALYSIS

At least in part, this question is prompted by concerns that the Board of Natural Resources adopted policies in the 1992 Forest Resources Plan that exceed the minimum regulations required by the Forest Practices Board. WSSDA Commentary, at 5; DNR Commentary, at 31. The Forest Resources Plan guides the Department's forest management activities. The policies at issue protect ecosystem diversity and provide habitat for endangered, threatened, and sensitive species and their habitats. Background and Analytical Framework for the Proposed Draft Habitat Conservation Plan, at 9-10 (1995). The Department contends that the Plan's policies serve the best interests of the trusts by meeting the requirements of the Endangered Species Act and thus providing more certainty and less chance of interruption to the timber sales program. The Department adds that if it operates only at the state forest practices minimum, it risks violating the "take" provisions of the Endangered Species Act. Putting aside the probability of protracted litigation that could adversely affect trust revenue, such a violation could expose the trusts to substantial fines and could prevent the Department from being able to sell timber and produce income for the trusts pursuant to a subsequent habitat conservation plan. DNR Commentary, at 31. The Board thus has adopted forest practices policies that exceed regulatory minimums and which are now part of the proposed habitat conservation plan.

The question presented is whether the Department may adopt a management plan that exceeds minimum standards if doing so results in short-term losses but promotes long-term productivity of the grant land trusts. The tension between current and future beneficiaries has been discussed several times in this opinion. This tension is commonly recognized in treatises discussing the law of trusts, as well as in more specific discussions of the federal grant lands. It is a basic principle of trust law that the trustee's duty to produce current income does not obviate the requirement to protect the trust corpus. Souder, at 297; see also George T. Bogert, Trusts § 106, at 387 (6th ed. 1987) (in performing investment duties, a trustee should consider the purposes of the trust, which are normally the production of a constant flow of income consistent with maintenance of the safety of the principal of the fund, and the preservation of the principal of the trust). Another commentator notes that "apparently competing obligations imposed on state land managers differ little from the competing obligations traditionally visited on private trustees who must be concerned both with income for current beneficiaries and preservation of assets for future beneficiaries". Wayne McCormack, Land Use Planning and Management of State School Lands, 1982 Utah L. Rev. 525, 541. While one authority states that the trustee must not make an investment that will favor one type of beneficiary at the expense of the other, the Restatement provides that the duty of impartiality requires that the competing interests of differently situated beneficiaries be balanced in a "fair and reasonable manner". Bogert, § 106 at 387; Restatement (Third) of Trusts § 227 cmt. c, at 13.

In light of the perpetual nature of the school trusts, there has been a recognition that short-term gain may be compromised to protect long-term productivity where this reflects a reasonable balancing of interests. See National Parks & Conservation Ass'n v. Board of State Lands, 869 P.2d 909, 921 (Utah 1993) (beneficiaries of school lands trust are a continuing class and the trustee must maximize the income from school lands in the long run). The Utah Legislature has expressly concluded that the long-term interests of the trust lands must be protected. A Utah statute provides in part that the state, as trustee, must be concerned with both income for current beneficiaries and the preservation of trust assets for future beneficiaries, "which requires a balancing of short and long-term interests so that long-term benefits are not lost in an effort to

maximize short-term gains". Utah Code Ann. § 53C-1-102.

In the Okanogan County decision cited earlier, the Court observed that the Department's primary concern must be generating maximum income for all of the trust's beneficiaries, current and future.

> To a certain extent, the Department must conserve and enhance natural resources in State forest lands to attain the highest long-term net income from these lands. In exercising its duties, the Department, as trust manager, must act in a manner that is equitable to all generations, including acting reasonably to avoid foreclosing future options of generating income from the trust assets for future generations.

Okanogan Cy. et al. v. Belcher, Chelan Cy. Cause No. 95-2-00867-9 (5-30-96), court's memorandum decision, at 8. The Court concluded that the Department has the duty to maximize revenues from the trust lands in perpetuity for the exclusive benefit of beneficiaries. "There is nothing in the law that requires the Department to maximize current income." Id.

Similarly, the Arizona Court of Appeals held that long-term interests should not be overlooked in an effort to achieve short-term gain in Havasu Heights Ranch & Development Corp. v. Desert Valley Wood Products, Inc., 167 Ariz. 383, 807 P.2d 1119 (1990). In Havasu Heights, the state land commissioner denied an existing lessee's application to renew a lease of trust lands because the land was under consideration for urban planning and the current lessee did not represent the type of developer that could achieve the highest and best use of the property. The court upheld the commissioner's decision even though it eliminated current lease revenue to the trust. The court noted that although the commissioner has a duty to maximize the financial benefits flowing from the trust, the commissioner also has the discretion, under Arizona statutory law, to deny renewal of a lease "in the best interest of the state". Havasu Heights, 807 P.2d at 1127. The court held that the commissioner could legitimately consider alternate future uses of state land pursuant to that standard. "The department was concerned with long range development, not merely the availability of a relatively small amount of immediate rental income. This is a legitimate consideration under the 'best interest' standard." Havasu Heights, 807 P.2d at 1128; see also State ex rel. Thompson v. Babcock, 147 Mont. 46, 409 P.2d 808 (1966) (upholding land commissioner's decision to deny rental bid higher than current lessee's because high bidder might harm land's productivity in the long run).

Thus, short-term gains may at times be diminished where doing so reasonably balances short-term and long-term interests, particularly with regard to perpetual trusts, such as the federal grant land trusts. If the Department has carefully evaluated the risks and consequences associated with maintaining minimum standards and with exceeding those standards, and is able to demonstrate that management of the federal grant lands to greater than minimum standards is a reasonable balance of short- and long-term interests, such a decision is permissible.

c.To What Extent, If Any, May The Department's Discretionary Grant Land Management Decisions Take Into Account Factors Other Than The Economic Well Being Of A Trust,

For Example, Administrative Concerns Associated With Promoting Flexibility And Stability Of All Trust Land Management Or Environmental Considerations?

SHORT ANSWER

In managing the grant lands, the Department may only take into account factors consistent with ensuring the economic value and productivity of the federal grant land trusts.

ANALYSIS

The parties who supplied us with commentary agree that a trustee may only act on those factors aimed at furthering the purposes of the trusts. Indeed, the parties do not dispute that a trustee must act with undivided loyalty to the trust beneficiaries, to the exclusion of all other interests. Skamania, 102 Wn.2d at 134; Tucker v. Brown, 20 Wn.2d 740, 768, 150 P.2d 604 (1944). "In administering the trust the trustee is under a duty to the beneficiaries not to be influenced by the interest of any third person or by motives other than the accomplishment of the purposes of the trust." Restatement (Third) of Trusts § 170 cmt. q, at 140 (1990).

In the context of federal grant land management, the duty of loyalty translates into the requirement that trust lands be managed for the exclusive benefit of the beneficiary institutions and to obtain full value. Kedric A. Bassett, Comment, Utah's School Trust Lands: Dilemma in Land Use Management and the Possible Effect of Utah's Trust Land Management Act, 9 Jour. of Energy Law and Policy 195, 199 (1989). As the Washington State Supreme Court stated in Skamania, "[W]hen the State transfers trust assets such as contract rights it must seek full value for the assets. Const. art. 16, § 1. It may not sacrifice this goal to pursue other objectives, no matter how laudable those objectives may be." Skamania, 102 Wn.2d at 134; see also Oklahoma Educ. Ass'n v. Nigh, 642 P.2d 230, 236 (Okla. 1892) (state must administer school trust lands in manner that obtains maximum benefit from the use of trust property); State ex rel. Ebke v. Board of Educational Lands and Funds, 154 Neb. 244, 47 N.W.2d 520, 523 (1951)(primary purpose of trust is production of income for support and maintenance of state's common schools). The goal of full value need not require an absolute maximization of economic return, however. See Nigh, 642 P.2d at 239 (duty to maintain maximum return subject to taking necessary precaution to preserve trust estate); see also State ex rel. Ebke, 47 N.W.2d at 523 (reasonable precautions should be taken to protect property within the trust).

The Utah Supreme Court recognized the importance of obtaining economic value for trust land beneficiaries in the National Parks decision. At issue was a decision of the Division of State Lands and Forestry to exchange a section of state school land within a national park for county land outside the park. The County wanted the trust land so it could pave part of a trail and improve public access to the scenery of the area. The state school land thus had special scenic value, but the county land for which it was exchanged had greater economic value. An environmental association challenged the exchange. On administrative review, the Director of the Division upheld the land transfer, concluding that the Division could not give priority to scenic, aesthetic, or recreational values because of its fiduciary duty to manage school trust land for the exclusive economic benefit of the common schools. In a passage cited with approval by the Court in the National Parks decision, the Director added:

> To the extent that preservation of non-economic values does not constitute a diversion of trust assets or resources, such an activity may be prudently undertaken. To the extent that . . . the protection of non-economic values is necessary for maximizing the economic value of the property, such protection may be prudently undertaken. When such preservation or protection results in a diversion of assets or loss of economic opportunity, a breach of duty is indicated.

National Parks, 869 P.2d at 916.

The court in National Parks also cited the administrative rule underlying the Director's decision. The Utah rule provided that the general management objective for state lands is to provide for maximum use of natural resources consistent with multiple-use sustained yield principles and proper resource management practices. Rule 632-2-2. In meeting this general objective, the division and board would seek to (1) obtain the greatest possible monetary return for school and institutional trusts consistent with sound management practices, (2) manage trust lands for their highest and best use, and (3) perpetuate the renewable natural resources on state lands using conservation practices. Rule 632-2-2 (cited in National Parks, 869 P.2d at 916 n.4).

The Utah Supreme Court affirmed the Director's ruling that preference could not be given to scenic, aesthetic and recreational values because of the state's duty to act only for the benefit of the beneficiaries. The court also realized, however, that some trust lands have unique scenic, paleontological and archaeological values that should be preserved. The court suggested that such values perhaps could be preserved without diminishing the economic value of the land by using the land for grazing or mineral extraction. "But when economic exploitation of such lands is not compatible with the noneconomic values, the state may have to consider exchanging public trust lands or other state lands for school lands." National Parks, 869 P.2d at 921. The court observed further that if the state wished to preserve noneconomic values, it might be necessary to buy or lease school lands from the trust so that such values could be preserved and the full economic value of the school trust lands still realized. National Parks, 869 P.2d at 921.

Washington statutes regarding the administration of the federal grant lands also reflect the primary objective of maximizing the economic returns due the benefiting institutions. RCW 43.30.150 makes a general reference to this objective in stating that the Board of Natural Resources shall establish policies to ensure that the management of lands and resources within the Department's jurisdiction are based on sound principles designed to achieve "the maximum effective development and use of such lands". RCW 43.30.150(2). More specifically, RCW 79.01.095 provides that the commissioner of public lands shall cause a periodic economic analysis to be made of those state lands held in trust, "where the nature of the trust makes maximization of the economic return to the beneficiaries of income from state lands the prime objective".

Washington's multiple use statutes also reflect this objective. RCW 79.68.010 directs the Department to employ a multiple use concept in managing and administering state-owned lands within the Department's jurisdiction where multiple use is in the best interests of the state and its citizens, "and is consistent with the applicable trust provisions of the various lands involved". A

subsequent statute then lists possible multiple uses "additional to and compatible with those basic activities necessary to fulfill the financial obligations of trust management". RCW 79.68.050. Such uses include recreational areas and trails and the maintenance of scenic and historical sites. "If such additional uses are not compatible with the financial obligations in the management of trust land they may be permitted only if there is compensation from such uses satisfying the financial obligations." RCW 79.68.050.

The above discussion reveals that the Department may consider factors other than the economic well-being of the trusts, such as environmental considerations, but may act on such factors only so long as they do not interfere with the value of the trusts or the economic productivity of the trusts. Though providing economic support to the beneficiaries remains the primary purpose of the Department's responsibilities with regard to the federal grant lands, this purpose does not exclude all other considerations so long as such considerations are consistent with protecting the economic value and productivity of the federal grant land trusts.

QUESTION 6

Does 7 U.S.C. § 303 et seq. Preclude Charging The Expense Of Managing And Administering The Federal Lands Granted For Purposes Of An Agricultural College Under Section 16 Of The Enabling Act, Against Proceeds Derived From Those Lands?

SHORT ANSWER

By virtue of Section 16 of the Enabling Act and 7 U.S.C. § 303, a provision in the first Morrill Act, the state is precluded from charging the expense of managing and administering Section 16 lands against proceeds of the sale of the lands. Proceeds of the sale of the lands include proceeds from the sale of resources that are part of the lands.

ANALYSIS

This question concerns the relationship between two provisions of federal law: Section 16 of the Enabling Act and 7 U.S.C. § 303, part of the first Morrill Act. Section 16 of the Enabling Act provides:

> That ninety thousand acres of land, to be selected and located as provided in section 10 of this act, are hereby granted to each of said States, except to the State of South Dakota, to which one hundred and twenty thousand acres are granted, for the use and support of agricultural colleges in said States, as provided in the acts of Congress making donations of lands for such purpose.

(Emphasis added.) The lands granted pursuant to section 16 of the Enabling Act have been assigned by the Legislature to the support of Washington State University. RCW 43.79.120.

The above-emphasized reference to acts of Congress making donations of lands for the use and

support of state agricultural colleges is a reference to the first Morrill Act. This act was approved by Congress on July 2, 1862, and was amended by an act of July 23, 1866. See, 12 Stat. 503 (1862) and 14 Stat. 208 (1866), respectively. It presently is codified in 7 U.S.C. §§ 301-308.

The first in a series of Morrill acts granted to each state thirty thousand acres of land for each representative and senator the state had in Congress - the grant being for a college primarily devoted to teaching branches of learning related to agriculture and the mechanical arts. State ex rel. Davis v. Clausen, 160 Wash. 618, 634, 295 P. 751 (1931). Under certain circumstances, land scrip was issued in lieu of lands. 7 U.S.C. § 302.

At its first session, the Washington Legislature established the Washington State Agricultural College & School of Science. Laws of 1889-90, p. 260. That it did so in part to take advantage of the land grant made in section 16 of the Enabling Act and that it recognized the applicability of the first Morrill Act is supported by the fact that the law recites the substance of the Section 16 land grant and refers to the first Morrill Act in its preamble. Laws of 1889-90 at page 260. See also State ex rel. Davis v. Clausen, 160 Wash. at 632 ("It is undoubtedly true that the legislature established the state college for the purpose of obtaining the benefit of these congressional grants[.]").

Similarly, in 1891, the Legislature provided for an experiment station in connection with the college and for the location and maintenance of each. Laws of 1891, ch. 145, § 1, p. 334. In section 10 of this measure, the Legislature again referred to the Morrill Act stating:

> The said college and experiment station shall be entitled to receive all the benefits and donations made and given to similar institutions of learning in other states and territories of the United States, by the legislation of the congress of the United States now in force or that may be enacted; and particularly to the benefits and donations given by the provisions of an act of congress entitled "An act donating public lands to the several states and territories which may provide colleges for the benefit of agriculture and mechanic arts," approved July 2, 1862, and all acts supplementary thereto[.]

Laws of 1891, ch. 145, § 10, p. 337 (emphasis added).

As previously noted, the foregoing reference to the act "approved July 2, 1862," is a reference to the first Morrill Act.

From this language and history, we conclude that, in stating that the granted lands are for the use and support of agricultural colleges "as provided in the acts of Congress making donations of lands for such purposes", Section 16 of the Enabling Act adopted by reference the terms of the first Morrill Act. This conclusion reflects the plain language of Section 16 and the ordinary function of a reference statute. It also is consistent with decisions of the Supreme Court of Montana, a state admitted to the Union under the same Enabling Act as Washington. The Montana Supreme Court has held that the land grant in Section 16 of the Enabling Act was made

subject to the provisions of the Morrill Act. State ex rel. Koch v. Barrett, 26 Mont. 62, 66 P. 504, 506 (1901); State ex rel. Blume v. State Bd. of Educ., 97 Mont. 371, 383, 34 P.2d 515 (1934).

In materials submitted for our consideration in connection with this opinion, the Department suggests that the first Morrill Act assumed that the states would sell the land or land scrip granted to them, that Congress did not contemplate that some states, such as Washington, would retain these lands and manage them as income producing assets and that consequently, the Act should be found not to apply to these lands. As the Montana court explained in State ex rel. Koch v. Barrett:

> By reference to the Act of congress of July 2, 1862, and particularly section 4 thereof, it will be seen that it was contemplated by congress that the lands granted by the Enabling Act should be sold; that the proceeds should be profitably invested, so that the principal should be forever preserved as a permanent endowment fund; and that the interest thereof should be devoted to the support of the college or colleges established pursuant to the declared purpose of the grant.[11]

Koch, 26 Mont. at 64.
Although in 1862, Congress may have contemplated that these lands would be sold, it also is true that in 1889, when Washington's Enabling Act was drafted referencing the Morrill Act, Congress contemplated that lands granted for educational purposes could be leased. *See* Enabling Act § 11 (authorizing the lease of such lands). *See also* State ex rel. Heuston v. Maynard, 31 Wash. 132, 139-40, 71 P. 775 (1903) (holding that the reference in section 11 of the Enabling Act to lands granted for educational purposes applies to all such lands, not merely common school lands). Similarly, in accepting the lands granted by virtue of the Enabling Act, including Section 16 lands, this state contemplated that not all of the lands would be immediately sold. See Const. art. XVI, § 3 (providing that not more than one-fourth of the lands granted for educational purposes would be sold prior to January 1, 1895 and not more than one-half prior to January 1, 1905). The same provision authorized the sale of timber and stone from such lands. Nothing in the state constitution required the state to sell the granted lands.
State ex rel. Forks Shingle Co., 196 Wash. at 501; AGO 1984, No.24, p.9.

In light of the relevant language of the Morrill Act and this history, we cannot conclude that 7 U.S.C. § 303 is rendered inapplicable to Section 16 lands simply because Washington may have retained certain Section 16 lands and managed them for the production of income. Rather, guided by the general purpose of the grant, we conclude that the first Morrill Act applies regardless of whether the state has retained Section 16 lands on a long term basis.

The Montana Supreme Court was similarly guided in State ex rel. Koch v. Barrett. There, the Montana constitution and statutes authorized leasing of Section 16 lands. The State of Montana argued that revenues from the lands granted pursuant to Section 16 of the Enabling Act and subject to the terms of the Morrill Act became available for the support of the land grant college only after the lands were sold and the sale proceeds invested. The Montana Supreme court

rejected this argument and in doing so, was guided by the general purpose of the grant. The Montana court explained:

> We think the manifest intention of congress was to create a permanent endowment, which was to be preserved inviolate; and to require that the revenues derived therefrom should be faithfully applied to the support of the institutions created, and not be diverted to other purposes. . . . The grant was made in view of conditions existing at the time, and others which might arise. It certainly could not have been intended that lands which could not be readily and speedily sold, but which, from their character and situation, could be made to yield a revenue by a system of leasing, should be allowed to lie idle and unprofitable until such time as the state could sell them, and thus comply with the strict letter of the grant.

Koch, 26 Mont. at 70.

We now consider the effect of section 3 of the first Morrill Act, codified at 7 U.S.C. § 303. This provision has remained unchanged since its enactment in 1862. It provides:

> All the expenses of management, superintendence, and taxes from date of selection of said lands, previous to their sales, and all expenses incurred in the management and disbursement of the moneys which may be received therefrom, shall be paid by the States to which they may belong, out of the treasury of said States, so that the entire proceeds of the sale of said lands shall be applied without any diminution whatever to the purposes hereinafter mentioned.

7 U.S.C. § 303 (emphasis added).

The initial language of 7 U.S.C. § 303 provides that all expenses of management from the date of selection of these lands prior to their sales shall be paid by the states to which they belong out of the treasuries of such states. However, 7 U.S.C. § 303 also contains a qualifying phrase - "so that the entire proceeds of the sale of said lands shall be applied without any diminution whatever to the purposes hereinafter mentioned".

Where a qualifying phrase is separated from its antecedents by a comma, as is the qualifying phrase in § 303, it indicates that the qualifying language applies to all antecedents, not simply to the immediately preceding antecedent.

> Evidence that a qualifying phrase is supposed to apply to all antecedents instead of only to the immediately preceding one may be found in the fact that it is separated from the antecedents by a comma.

2A N. Singer, Statutory Construction § 47.33 (4th ed. Supp. 1981); In re Sehome Park Care Center, 127 Wn.2d 774, 781-82, 903 P.2d 443 (1995); Elliot Coal Mining Co. v. Director, Office

of Workers' Compensation Programs, 17 F.3d 616, 629-30 (3rd Cir. 1994).

Under this rule, the qualifying phrase of § 303 relates to the requirement that all management expenses prior to sale be paid by the states from their treasuries. Although this grammatical rule standing alone, would not be clearly determinative in interpreting this statute, this interpretation also is consistent with the intent of Congress.

As previously noted, at the time Congress adopted the first Morrill Act in 1862, it apparently contemplated that the lands granted in the Act would be sold and that the funds derived from them would be used to support the institutions benefiting from the grant. In the context of these anticipated events, Congress quite clearly wished to ensure that proceeds from the sale of the lands granted pursuant to the Morrill Act would be used for the support of the beneficiary agricultural colleges without any deduction for land management of fund management expenses. Protection of the whole of such land sale proceeds was the focus of § 303. A decision of New York's highest court relating to the first Morrill Act, People ex rel. Cornell University v. Davenport, 117 N.Y. 549, 23 N.E. 664 (1890) identifies this purpose. In Davenport, the court considered whether the state could charge costs associated with investing the proceeds of land and scrip received pursuant to the Morrill Act against funds derived from their sale or against interest earned on the funds. Although the New York court based its decision on state statutes, the court determined their meaning by looking to the provisions and purposes of the Morrill Act. In considering the Morrill Act, the court stated:

> The clear purpose of the act of congress cannot be mistaken. It was to provide a fund from the sale of the public lands or of the land scrip, of which the state should be the trustee, and the safety of which should be guarantied by it, and the whole interest of the principal sum was to be used for the purposes mentioned in the act, without the deduction of any costs, charges, or expenses of any name or nature. The whole actual earning of the fund was to be used for this purpose, and all expenses of management or disbursements were to be paid by the state which received the donation, so that, in the language of the federal legislature, "the entire proceeds of the sale of said lands shall be applied, without any diminution whatever, to the purposes" thereinafter mentioned.

Davenport, 23 N.E. at 667.

In this passage, Davenport recognizes that the intent of Congress in enacting the first Morrill Act was to ensure that the full proceeds received on sale of the granted lands were made available for the agricultural colleges, without deduction of management expenses.

We thus conclude that the state may not deduct land management expenses from the proceeds of the sale of lands granted pursuant to the first Morrill Act. We next consider what constitutes "proceeds of the sale of such lands" within the meaning of § 303 - "so that the entire proceeds of the sale of said lands shall be applied without diminution whatever to the purposes hereinafter mentioned".

Our analysis on this point begins with the rule that statutes and words within them, should be construed in light of the context and purpose of the statutory scheme. In re Marriage of Kovacs, 121 Wn.2d 795, 854 P.2d 795 (1993); In re Mitchell, 977 F.2d 1318 (9th Cir. 1992). In this regard, we first note that by the Morrill Act, Congress did not grant only bare ground. Lands granted by the Act included natural resources that comprised a part of the lands and that contributed to their value. Amounts derived from the sale of the lands would include amounts attributable to such resources. The Morrill Act directs that this full amount be used for the beneficiary agricultural colleges, without diminution for management expenses.

Second, the ordinary meaning of the term "lands" would include such resources. In Island County v. Dillingham Development Co., 99 Wn.2d 215, 662 P.2d 32 (1983), the State Supreme Court considered the meaning of the term "land" in a statute that exempted 5-acre divisions of land from platting requirements. The county argued that the exemption should not apply because major portions of the claimed 5-acre parcels were under water, as part of the bed of a lake. The Supreme Court rejected the county's position:

> As the term "land" is not defined in the State's platting act or in the County's subdivision ordinance, we must accord this term its ordinary meaning. [cite omitted]. Black's Law Dictionary 1019 (4th rev. ed. 1968) gives the following legal definition of "land":
>
> > "Land" includes not only the soil or earth, but also things of a permanent nature affixed thereto or found therein, whether by nature, as *water*, trees, grass, herbage, other natural or perennial products, growing crops or trees, mineral under the surface, or by the hand of man, as buildings, fixtures, fences, bridges, as well as works constructed for use of water, such as dikes, canals, etc.

(Italics ours.) We conclude the definition of "land" within the ordinance includes that part of the lots under water.

Island County, 99 Wn.2d at 224.

Additional cases stand for a similar proposition. For example, Layman v. Ledgett, 89 Wn.2d 906, 911, 577 P.2d 970 (1978) recognizes that uncut timber is realty, a part of the land. See also United States v. Shoshone Tribe, 304 U.S. 111, 116, 58 S. Ct. 794, 82 L. Ed. 1213 (1938) ("Minerals and standing timber are constituent elements of the land itself.").

In our opinion, the qualifying phrase of § 303 - "so that the entire proceeds of the sale of said lands shall be applied without any diminution whatever to the purposes hereinafter mentioned", when considered in its historical context, similarly includes proceeds from the sale of natural resources that are part of such lands. Such a definition of "land" not only reflects an ordinary meaning given the term, it also furthers the purpose of the grants insofar as Congress contemplated the circumstances in adopting the Act - i.e., that all revenues generated by the sale

of the lands, including revenues reflecting the value of resources that were part of the lands, would be applied without diminution, to the purposes of the Act.

A decision of the Kansas Supreme Court in a case interpreting the first Morrill Act further supports this conclusion. In State ex rel. Fatzer v. Board of Regents, 176 Kan. 179, 269 P.2d 425 (1954), the state of Kansas sought to prevent the Board of Regents of Kansas State College, the state agricultural college receiving the benefit of the Morrill Act grant, from expending certain proceeds of oil and gas leases from such lands for the purpose of building dormitories. The state's action was based on section 5 of the first Morrill Act, codified at 7 U.S.C. § 305, which provides in part:

> No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings.

(Emphasis added.) The court held that the fund referenced in and restricted by this provision is the fund derived from the sale of Morrill Act lands under 7 U.S.C. § 303, the provision at issue in this question. Fatzer, 269 P.2d at 432 ("Obviously this fund is the fund that is obtained from the sale of lands for agricultural purposes."). Having so concluded, the court found the determinative issue to be whether the oil and gas lease constituted the sale of land under Section 4 of the Morrill Act, 7 U.S.C. § 303, so that the prohibition of § 305 would apply. The court determined that royalties derived from the oil and gas lease constituted proceeds from the sale of such lands, explaining that royalties represent value taken from the land. "The oil and gas in place is real estate and when taken out the value thereof is reduced by so much." Accordingly, the court held that the royalties constituted proceeds from the sale of land and could not be used to pay for construction of dormitories by virtue of the prohibition contained in 7 U.S.C. § 305. Fatzer, 269 P.2d at 434.

The Fatzer court recognized, as does this opinion, that resources such as oil, gas, and timber that are part of the land often represent a substantial portion of the value of the land and that consequently, their sale diminishes that value. The purpose of the Morrill Act - ensuring that the full proceeds of the sale of the lands be made available to the beneficiary agricultural colleges, without deduction of management expenses - could be largely defeated by charging land management expenses against the proceeds of the sale of resources comprising a part of the lands.

For this reason as well as those discussed above, we conclude that 7 U.S.C. § 303 prohibits the state from deducting the expenses of managing Section 16 lands from proceeds derived from the sale of those lands and that land sale proceeds include proceeds from the sale of resources that are part of the lands.

In light of our answer to this question and the Legislature's request that as appropriate, this opinion comment on the validity of existing statutes, we offer the following comments. RCW 79.64.030 and RCW 79.64.040, govern the resource management cost account. These statutes appear to authorize deduction of expenses for managing agricultural college lands from proceeds derived from the sale of those lands. To the extent that the referenced agricultural

college lands are Section 16 lands, deduction of land management expenses from land sale proceeds is impermissible under Section 16 of the Enabling Act and the first Morrill Act which Section 16 incorporates by reference.

FOREST BOARD TRANSFER LANDS

GENERAL BACKGROUND

We now consider the Legislature's questions relating to "forest board transfer lands". In considering these questions, it is important to begin with an understanding of the nature and source of these lands. Forest board transfer lands are public lands held and managed by the Department of Natural Resources in trust by virtue of RCW 76.12 030.

These are lands chiefly valuable for developing and growing timber. They were acquired by counties through tax lien foreclosures and transferred to the Department on demand, for state forest lands, under the terms of RCW 76.12.030.

Much of the land acquired by the state under this statute was acquired in the 1930s and was land that had been logged over or burned over and abandoned by private owners, including timber companies that simply cut existing timber and moved on to another stand. After abandonment, the lands became subject to foreclosure by the county for delinquent state and local property taxes. The transfer of these lands to the state for state forest lands was designed to promote reforestation, important to Washington's economy, and to provide protection from wildfires. Jon A. Souder & Sally K. Fairfax, State Trust Lands: History, Management & Sustainable Use, at 155-156 (1996); Department of Natural Resources, State Forest Board Lands: A Report to The Counties, at 16-23 (1987).

RCW 76.12.030, the statute providing for the transfer of these lands and the manner in which they are to be administered, states:

> If any land acquired by a county through foreclosure of tax liens, or otherwise, comes within the classification of land described in RCW 76.12.020 and can be used as state forest land and if the department deems such land necessary for the purposes of this chapter, the county shall, upon demand by the department, deed such land to the department and the land shall become a part of the state forest lands.
>
> Such land shall be held in trust and administered and protected by the department as other state forest lands. Any moneys derived from the lease of such land or from the sale of forest products, oils, gases, coal, minerals, or fossils therefrom, shall be distributed as follows:
>
> (1) The expense incurred by the state for administration, reforestation, and protection, not to exceed twenty-five percent, which rate of percentage shall be determined by the board of natural resources, shall be returned to the forest development account in the state general fund.

> (2) Any balance remaining shall be paid to the county in which the land is located to be paid, distributed, and prorated, except as hereinafter provided, to the various funds in the same manner as general taxes are paid and distributed during the year of payment: Provided, That any such balance remaining paid to a county with a population of less than nine thousand shall first be applied to the reduction of any indebtedness existing in the current expense fund of such county during the year of payment.

RCW 76.12.030.

This statute refers to and applies to lands "within the classification of land described in RCW 76.12.020". The classification of land described in RCW 76.12.020 is land "chiefly valuable for [the] purpose of developing and growing timber". The above-quoted statute also provides that prior to demanding transfer of such land, the Department must deem the land "necessary for the purposes of this chapter". The purposes of the chapter, as set forth in RCW 76.12.020, are promoting reforestation and developing and growing timber.

Under RCW 76.12.020, upon approval of the board of county commissioners of the county in which the land is located, the Department also may accept donations of lands chiefly valuable for growing and developing timber, subject to delinquent taxes on the lands. If the Department acquires such lands, all delinquent general taxes on the lands, except state taxes, are cancelled. RCW 76.12.020 directs the Department to hold these lands in trust and protect, manage, and administer them and dispose of proceeds from them under RCW 76.12.030. See Laws of 1937, chapter 172, section 1, which added this provision to the law.

By contrast, the Department also holds state forest land that it acquired by outright gift or purchase. These lands often are referred to as forest board purchase lands. By virtue of RCW 76.12.120, counties and other taxing districts receive a certain portion of revenues from these lands. However, unlike RCW 76.12.030, none of the statutes governing the forest board purchase lands or distributions from them provide that they are held in trust. RCW 76.12.020, .080, .120. The following discussion of trust principles relates only to forest board transfer lands - i.e., lands held in trust by virtue of language so providing in RCW 76.12.030. Such principles do not apply to forest board purchase lands, as no constitutional or statutory trust exists with respect to them.

QUESTION 1

To What Extent Is State Legislative Authority With Respect To Forest Board Lands Constrained By Common Law Principles Governing The Administration Of Private Trusts?

SHORT ANSWER

The forest board transfer lands are held in trust pursuant to a legislative enactment. As a statutory trust, it may be altered or repealed by the Legislature. However, as long as the statutory trust

exists, common law principles governing the administration of private trusts apply to the extent that such principles are not inconsistent with statutory directives.

ANALYSIS

This question concerns the legislative authority of the state and consequently, this analysis begins with fundamental legal principles relating to this authority. The legislative power of the state is circumscribed only by the state and federal constitutions. It is not circumscribed by state statutes. It is not circumscribed by the common law. The Legislature may enact any law not expressly or inferentially prohibited by the federal or state constitutions. Overlake Homes, Inc. v. Seattle First Nat'l Bank, 57 Wn.2d 881, 884, 360 P.2d 570 (1961); see also RCW 4.04.010 (recognizing that the common law is the rule of decision in this state only insofar as the common law is not inconsistent with state statutes).

This same broad legislative authority exists as to legislation governing or affecting the interests of local governments, including counties. Legislative authority over counties and other political subdivisions of the state is unlimited, except as a limitation is found in the state constitution. State ex rel. Board of Comm'rs v. Clausen, 95 Wash. 214, 223, 163 P. 744 (1917). "[P]olitical subdivisions of a state are created as convenient agencies for exercising such governmental powers of the state as may be entrusted to them. Thus, the state may, at its pleasure, modify or withdraw such powers, may take without compensation such property, hold it itself, or vest it in other agencies." Moses Lake Sch. Dist. 161 v. Big Bend Comm'ty College, 81 Wn.2d 551, 557, 503 P.2d 86 (1972), appeal dismissed, 412 U.S. 934 (1973); see Douglas Cy.v. Grant Cy., 72 Wn. 324, 332, 130 P. 366 (1913).

Finally, it is well established that the state's legislative authority with respect to collection of taxes is equally broad. The tax collection process is an essential and basic attribute of sovereignty and, subject to constitutional limitations, rests with the Legislature. Commercial Waterway Dist. 1 v. King Cy., 10 Wn.2d 474, 478, 117 P.2d 189 (1941); Gilbreath v. Pacific Coast Coal & Oil Co., 75 Wn.2d 255, 259, 450 P.2d 173 (1967).

These principles are important in analyzing this question for several reasons. First, unlike the federal grant land trusts, the forest board transfer land trust is created by statute. It has no origin in the state constitution. Any common law fiduciary obligations stemming from this trust, like the trust itself, are products of statute, subject to modification by the Legislature. Second, in addition to promoting reforestation, the statutes creating these trusts provide for revenue distribution to counties and other taxing districts under circumstances where property tax revenues that would have been generated by these lands had they remained on the tax rolls, have been lost. RCW 76.12.020, 030.

In light of these principles, this opinion concludes that the legislative authority of the state with respect to forest board transfer lands generally is not constrained by common law fiduciary principles governing administration of private trusts. This conclusion fully comports with the Skamania decision (County of Skamania v. State, 102 Wn.2d 127, 685 P.2d 576 (1984)), as is demonstrated below.

In Skamania, a county for which the state held forest board transfer lands under RCW 76.12.020 and beneficiaries of the federal grant land trusts challenged the Forest Products Industry Recovery Act of 1982 on numerous constitutional grounds. As previously explained, the Recovery Act released private timber companies from performance of state timber purchase contracts that had become uneconomical to them and released the state's claims based on those contracts.

Virtually the entire opinion in Skamania discusses the state's obligations with respect to the federal grant lands and case law principles developed regarding the federal grant lands. As to these lands, the State Supreme Court affirmed the trial court's conclusion "that the Act is a breach of the State's fiduciary duty under Const. art. 16, § 1". Skamania, 102 Wn.2d at 139. At the same time, the Skamania court recognized that unlike the federal grant land trusts, created by the Enabling Act and constitutional provision, the forest board transfer land trust was created by statute, RCW 76.12.030:

> The forest board transfer lands are also held by the State in trust. RCW 76.12.030 states that when counties transfer this land to the state, "[s]uch land shall be held in trust and administered and protected by the board as other state forest lands." This statute, like the enabling act, imposes upon the State similar fiduciary duties in the management and administration of the forest board transfer lands.

Skamania, 102 Wn.2d at 133.

In this passage, the Skamania court acknowledges that common law trust principles relating to the forest board transfer land trust are of statutory, not constitutional, derivation and stature. Because these common law fiduciary principles are not of constitutional significance with respect to the forest board transfer lands, they do not constrain the legislative authority of the state. Under the principles discussed above, this trust and its attendant common law fiduciary principles may be altered or repealed through exercise of legislative authority.

Similarly, nothing in Skamania's discussion of forest board transfer lands suggests that the Legislature could not abolish the trust created by RCW 76.12.030 or alter its terms. Indeed, the Legislature has amended RCW 76.12.030 on numerous occasions since it first was enacted in 1927. See Laws of 1935, ch. 126, § 1; Laws of 1951, ch. 91, § 1; Laws of 1957, ch. 167, § 1; Laws of 1969, ch. 110, § 1; Laws of 1971, Ex. Sess., ch. 224, § 1; Laws of 1981, 2nd Ex. Sess., ch. 4, § 4; Laws of 1988, ch. 128, § 24; Laws of 1991, ch. 363 § 151.

Skamania's holding that the federal grant land trusts are subject to fiduciary principles by virtue of the Enabling Act and the state constitution would not and did not provide the basis for affirming the trial court as to the forest board transfer lands. The basis for the State Supreme Court's decision in this respect is not entirely clear from its opinion. It becomes clear when one considers the argument advanced by Skamania County and the superior court's ruling reviewed and affirmed in Skamania.

The County's challenge in Skamania was not predicated on an assertion that the legislative

authority generally is restricted with regard to these lands. In its trial brief in Skamania, the County of Skamania explained:

> While in the abstract it might be argued that a trust created by statute can be revoked by statute as well, the State has conceded that the Act has not had that effect. In fact, it was necessary for the state to argue that the "state-county relationship under RCW 76.12.030 . . . has not been changed" in order for the state to prevail on its motion for summary judgment. See State's Reply Memorandum re Partial Summary Judgment, p. 7. Otherwise, the Act would have been unconstitutional for failing to set forth in full a statute being amended by the Act. See Plaintiff's Memo Against Summary Judgment, pp. 27-8.

County of Skamania, et al. v. State of Washington, Clark County Superior Court No. 82-2-01875-2, Plaintiff's Trial Brief, pp. 35-36.

The complaint filed in Skamania also reflected this position, alleging among other things, that the Recovery Act amended RCW 76.12.030 without setting it forth in full and therefore violated article 2, section 37 of the Washington State Constitution. See Complaint For Declaratory Judgment, Clark Cy. Sup. Ct. No. 82-2-01875-2, p.9, ¶ 5.6. Article 2, section 37, of the Washington Constitution provides:

> No act shall ever be revised or amended by mere reference to its title, but the act revised or the section amended shall be set forth at full length.

In an order granting partial summary judgment to the State of Washington in Skamania, the superior court concluded that the Recovery Act did not violate this provision. Order Granting State Of Washington's Motion For Partial Summary Judgment, Clark Cy. Sup. Ct. No. 82-2-01875-2, ¶ 2. Based on this ruling of the superior court, the County of Skamania thereafter modified its argument. It argued that since the Recovery Act did not amend RCW 76.12.030, the provisions of the statute remained in force and the County was entitled to the benefit of the trust RCW 76.12.030 created, including common law fiduciary duties of loyalty and prudence ordinarily applicable to trusts. See Brief of Respondents County of Skamania, et al., Supreme Court No. 49799-1, pp. 36-39; Plaintiff's Trial Brief, Clark Cy. Sup. Ct. No. 82-2-01875-2, pp. 35-36. As an alternative matter, the County continued to argue that if the Recovery Act amended RCW 76.12.020, then it violated article 2, section 37 of the state constitution. See Brief of Respondents County of Skamania, et al., Supreme Court No. 49799-1, pp. 39-42.

The superior court's conclusions with respect to these issues are reflected in its decision. Conclusions of Law A.4. and A.5. state:

> 4. RCW 76.12.030 provides that certain land conveyed to the state by the counties shall be "held in trust." The court concludes that this, too, is a real, enforceable trust, and that the counties making such conveyances retain a beneficial interest in the land as long as it is held in trust.

5. The court holds that the Act does not amend RCW 76.12.030.

See County of Skamania, et al. v. State of Washington, Clark Cy. Sup. Ct. No. 82-2-01875-2, Findings of Fact and Conclusions of Law.

In summary, in Skamania, the superior court concluded that RCW 76.12.030 created the forest board transfer lands trust, that counties retained a beneficial interest in the land as long as it was held in trust, and that the Recovery Act did not amend RCW 76.12.030. On appeal, the state challenged these conclusions of law of the superior court. See, Brief of Appellant State of Washington, Supreme Court No. 49799-1, p. 8. The State Supreme Court denied the state's challenge and affirmed the superior court. Skamania, 102 Wn.2d at 128.

Skamania stands for the proposition that where the Legislature has created state trust lands, the Court will give effect to legislation specific to those trust lands that does not amend the trust, only if the legislation is consistent with the terms of the trust. As is discussed more fully in response to the next question, the terms of the trust include fundamental common law fiduciary principles incorporated by the statute creating the trust and not altered or displaced by statutes governing the trust.

The County's argument in Skamania and the superior court's ruling affirmed in Skamania support this conclusion. This conclusion also is consistent with the holding of the State Supreme Court in Skamania and gives effect to its recognition of the significantly different origins of the trusts before it and its reaffirmation of the fundamental principles discussed in this analysis.

This opinion next responds to a related subsidiary question posed by the Legislature.

Is the administration of these lands subject to laws of general application?

SHORT ANSWER

The Legislature is free to enact laws of general application unconstrained by common law fiduciary principles.

ANALYSIS

As previously discussed, Skamania also reaffirmed the broad police power authority of the Legislature in enacting laws of general application. This holding of Skamania applies with greater force to the statutorily created forest board transfer lands trust. Skamania, 102 Wn.2d at 132. To the same effect are the numerous cases discussed in this opinion in response to Question 2(a), relating to the federal grant lands. We know of no principle suggesting that the trust status of property frees that property or those charged with administering it from laws of general application simply because those laws may affect the value of trust assets or entail costs to the trust.

In summary then, the forest board transfer lands trust is a creature of statute. The Legislature may alter or repeal this statutory trust, provided that it does so in a manner consistent with constitutional requirements, including article 2, section 37, of the Washington Constitution. This statutory trust does not constrain the authority of the Legislature in enacting laws of general application.

QUESTION 2

To What Extent Do Common Law Trust Principles Apply To The Administration Of The Forest Board Transfer Lands By Virtue Of The Statutes Governing The Lands?

SHORT ANSWER

Common law fiduciary principles apply to the Department in managing the forest board transfer lands to the extent that such principles are not inconsistent with statutes establishing the terms of the trust. The Department is to look first to statutes governing these lands and follow their direction. Where the statutes are silent, common law fiduciary principles apply in managing and administering the lands.

ANALYSIS

As discussed at some length in response to Question 1, the forest board transfer lands are held in trust by virtue of statute, RCW 76.12.030. To the extent the Legislature has prescribed the Department's authority and responsibility in administering this trust, the Legislature's prescription is controlling.

As a leading legal commentator on the law of trusts explains:

> Some . . . statutes . . . not only create or provide for the creation of trusts, but also give some details as to the method of execution of the trusts, such as the trustee's duties as to the disposition of the funds, accountings, and termination. To this extent these statutory trusts are not normal trusts, and the general trust principles discussed in this treatise do not apply to them.

George G. Bogert, The Law of Trusts and Trustees § 246, at 150 (2nd rev. ed. 1992).

This rule would apply not only as a matter of legislative authority, but also under common law trust principles. A trustee's primary duty is to carry out the settlor's intent as determined from the terms of the trust instrument. Austin v. U.S. Bank, 73 Wn. App. 293, 304, 869 P.2d 404, review denied, 124 Wn.2d 1015 (1994); Restatement (Second) of Trusts § 164(a). As to the forest board transfer lands trust, governing statutes comprise the trust instrument.

Similar principles would emerge from Washington case law concerning the relationship between statutory provisions and the common law generally. Where a statutory standard conflicts with the

common law, the common law gives way. Washington Water Power Co. v. Graybar Electric Co., 112 Wn.2d 847, 851-56, 774 P.2d 1199, modified 779 P.2d 697 (1989). By the same token, however, insofar as it is not inconsistent with state statutes, the common law is the rule of decision in this state. RCW 4.04.010. Moreover, where a statute uses a term with a settled meaning at common law, such as the term trust, its common law meaning is presumed absent a different statutory definition. Hearst Corp. v. Hoppe, 90 Wn.2d 123, 135, 580 P.2d 246 (1978). And, of course, Skamania recognizes that common law trust principles play a role in administering the forest board transfer lands by virtue of the language in RCW 76.12.030 creating a trust. Skamania, 102 Wn.2d at 133.

Under these authorities, the extent to which common law principles apply in the administration of the forest board transfer lands trust is in large measure, a function of the statutory terms of the trust. Based on these principles, RCW 76.12.030, the statute creating the forest board transfer lands trust, is the starting point in identifying the terms of the trust and the responsibilities of the Department in managing and administering these lands.

RCW 76.12.030 provides that "[s]uch land shall be held in trust and administered and protected by the department as other state forest lands". (Emphasis added.) RCW 76.12.030 also plainly directs the distribution of income generated by the lands. After deduction of a percentage established by the board, not to exceed twenty-five percent, the balance is to be paid to the county in which the land generating the revenues is located.

RCW 76.12.120 addresses in part, how the Department is to administer state forest lands. As such, it is a term of the forest board transfer lands trust. This statute reserves such lands from sale. It authorizes the lease and the sale of timber and other products from these lands, if the Department finds such leases or resource sales to be in the best interests of the state. The statute provides:

> All land, acquired or designated by the department as state forest land, shall be forever reserved from sale, but the timber and other products thereon may be sold or the land may be leased in the same manner and for the same purposes as is authorized for state granted land if the department finds such sale or lease to be in the best interests of the state and approves the terms and conditions thereof.

Additional statutes also direct how the Department is to administer and protect state forest lands and thus, are terms of the forest board transfer lands trust under the above-quoted language of RCW 76.12.030. For example, RCW 76.12.140 provides that the lands are to be logged and cared for in a manner that will ensure natural reforestation. RCW 76.12.050 authorizes land exchanges under certain circumstances, and RCW 76.12.072 authorizes certain reconveyances of lands for public parks. Another example is RCW 79.68.040, which requires the Department to manage state owned lands primarily valuable for growing forest crops on a sustained yield basis insofar as it is compatible with other statutory directives.

The purpose of this discussion is not to set forth all of the terms of the forest board transfer lands trust. Rather, it is to point out that by virtue of RCW 76.12.030, the terms of the forest board

transfer lands trust are found in statutes directing the administration and protection of state forest lands. These statutes define the trust relationship and the Department's obligations and authority in administering the trust. For the reasons explained above, to the extent common law trust principles are inconsistent with these statutory terms, the common law trust principles give way.

An example of this consequence in the context of the forest board transfer lands trust arises with respect to diversification of trust assets. The nature of a trustee's obligations with respect to diversification is discussed at length in response to Question 2 relating to the federal grant lands. With respect to the forest board transfer lands trust, however, this duty is displaced by the directive in RCW 76.12.120 that these lands "shall be forever reserved from sale".

Additionally, where common law duties remain, the nature and scope of those duties are in part, shaped by the purpose and terms of the trust. The duties determined to arise simply by virtue of the trust relationship include the duty of undivided loyalty and the duty of prudent management recognized in Skamania, as well as other common law fiduciary duties set forth on page 13 of this opinion. These relational powers and duties may be altered, limited, or extinguished by the terms of the trust. Restatement (Second) of Trusts § 164 cmt. h, i; see also Baldus v. Bank of California, 12 Wn. App. 621, 627, 530 P.2d 1350, review denied, 85 Wn.2d 1011 (1975).

In discussing the duty of undivided loyalty, the Restatement (Third) of Trusts section 170, comment q, explains:

> In administering the trust the trustee is under a duty to the beneficiaries not to be influenced by the interest of any third person or by motives other than the accomplishment of the purposes of the trust.

(Emphasis added.) Similarly, in discussing the duty of impartiality in the context of successive beneficiaries, the Restatement (Third) of Trusts section 232, comment c, states:

The precise meaning of the trustee's duty of impartiality and the balancing of competing interests and objectives inevitably are matters of judgment and interpretation. Thus, the duty and balancing are affected by the purposes, terms, distribution requirements, and other circumstances of the trust, not only at the outset but as they may change from time to time.

(Emphasis added.)

As previously discussed, in addition to generating income for taxing districts, including counties, reforestation and maintenance of state forest lands are purposes of the forest board transfer lands trust. These purposes would be relevant in considering whether the Department has complied with a duty of loyalty. Similarly, as previously noted, the forest board transfer lands are to be forever withheld from sale and are to be harvested on a sustained yield basis. The common law duty of prudent management likewise would be considered with these trust provisions in mind.

This opinion next responds to a subsidiary question the Legislature has asked:

May the lands be managed as an undifferentiated whole, or must they be managed based on the economic interests of each county separately?

SHORT ANSWER

Statutes governing the forest board transfer lands create a single trust. They authorize management of the lands as an undifferentiated whole.

ANALYSIS

In AGO 1987 No. 10, this office considered several questions relating to the forest board transfer lands, including whether these lands are held in a single trust or separate trusts for each of the counties. Based on several factors, AGO 1987 No. 10 concluded that the forest board transfer lands are held in a single trust. These factors included the absence of any language in RCW 76.12.030, the statute creating this trust, indicating that a separate trust was created on behalf of each county in which such lands were located. The 1987 opinion contrasted the absence of such language in RCW 76.12.030 with language in RCW 79.64.030 identifying separate federal grant land trusts. AGO 1987 No. 10, at 3-4. The 1987 opinion also based its conclusion on the circumstances under which and the purposes for which these lands were acquired by the counties. In this respect, the opinion noted that the counties did not acquire these lands in a proprietary capacity. Instead, the counties acquired them through tax foreclosure proceedings, as part of the tax collection process, and held them for the benefit of the numerous taxing jurisdictions entitled to distributions of property taxes from them. AGO 1987 No. 10, at 4-5. The 1987 opinion also noted that the boundaries of the taxing districts benefited by distribution of revenues under RCW 76.12.030 are not necessarily coextensive with the boundaries of the county, further underscoring the insignificance of the county geographical unit in this trust. AGO 1987 No. 10, at 6 n.7.

This conclusion of AGO 1987 No.10 also is consistent with the historical construction given RCW 76.12.030 by the Department of Natural Resources. "Since its inception, the department has managed and accounted for the State Forest Board Transfer lands as a single trust." Department of Natural Resources, State Forest Board Lands: A Report to the Counties, 11 (1987). A longstanding construction of a statute by the agency charged with administering it is entitled to weight in discerning legislative intent, particularly where the Legislature subsequently has amended the statute and has not disturbed the administrative construction. Green River Comm'ty College v. Higher Ed. Personnel Bd., 95 Wn.2d 108, 118, 622 P.2d 826 (1980), modified, 95 Wn.2d 962, 633 P.2d 1324 (1981). As previously noted on page 63 of this opinion, the Legislature has amended RCW 76.12.030 on several occasions in recent years. It has not amended the statute in any way disturbing the historic construction of the Department or the conclusion reached in AGO 1987 No. 10.

Finally, we again note the language in RCW 76.12.030 providing that the forest board transfer lands are to be administered and protected "as other state forest lands" and that RCW 76.12.120 authorizes the lease of these lands and the sale of resources from them if the Department determines that the sale or lease is in the "best interests of the state". This hardly is language

indicating that the forest board transfer lands are to be administered based on the economic circumstances and interests of each county in which such lands are located.

QUESTION 3

If Statutes Leave Discretion In The Department Of Natural Resources In Administering These Lands, Against What Legal Standard Is Its Exercise Of Discretion To Be Measured?

SHORT ANSWER

The Department's exercise of discretion in administering the forest board transfer lands would be measured against an abuse of discretion standard.

ANALYSIS

Our analysis in response to Question 5 concerning the Department's exercise of discretion in managing the federal grant lands applies equally to the forest board transfer lands and constitutes our response to this question as well.

Insofar as the forest board transfer lands are concerned, this analysis simply notes that numerous statutes, including the two briefly noted below provide policy-making and administrative discretion to the Department of Natural Resources with respect to the forest board transfer lands. First, RCW 43.30.150(2) provides that the Board of Natural Resources shall:

> Establish policies to ensure that the acquisition, management and disposition of all lands and resources within the department's jurisdiction are based on sound principles designed to achieve the maximum effective development and use of such lands and resources consistent with laws applicable thereto[.]

Similarly, RCW 76.12.120 authorizes the Department to sell timber and other products from these lands and lease the lands if the Department finds that doing so is in the best interests of the state and approves the terms and conditions of the sale or lease.

Although each of these statutes provide general standards to guide the Department's exercise of discretion, they nevertheless leave considerable discretion in the Department. Its exercise would be tested by an abuse of discretion standard.

We trust this opinion will be of assistance to you.

Sincerely,

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Enc.: Senate Concurrent Resolution 8435

ATTACHMENT 2

February 22, 1889.

CHAP. 180.—An act to provide for the division of Dakota into two States and to enable the people of North Dakota, South Dakota, Montana, and Washington to form constitutions and State governments and to be admitted into the Union on an equal footing with the original States, and to make donations of public lands to such States.

Admission of new States.
North Dakota, South Dakota, Montana, and Washington.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the inhabitants of all that part of the area of the United States now constituting the Territories of Dakota, Montana, and Washington, as at present described, may become the States of North Dakota, South Dakota, Montana, and Washington, respectively, as hereinafter provided.

Division of Dakota.

SEC. 2. The area comprising the Territory of Dakota shall, for the purposes of this act, be divided on the line of the seventh standard parallel produced due west to the western boundary of said Territory; and the delegates elected as hereinafter provided to the constitutional convention in districts north of said parallel shall assemble in convention, at the time prescribed in this act, at the city of Bismarck; and the delegates elected in districts south of said parallel shall, at the same time, assemble in convention at the city of Sioux Falls.

Conventions to meet at Bismarck and Sioux Falls.

Delegates to conventions to be chosen.

SEC. 3. That all persons who are qualified by the laws of said Territories to vote for representatives to the legislative assemblies thereof, are hereby authorized to vote for and choose delegates to form conventions in said proposed States; and the qualifications for delegates to such conventions shall be such as by the laws of said Territories respectively persons are required to possess to be eligible to the legislative assemblies thereof; and the aforesaid delegates to form said conventions shall be apportioned within the limits of the proposed States, in such districts as may be established as herein provided, in proportion to the population in each of said counties and districts, as near as may be, to be ascertained at the time of making said apportionments by the persons hereinafter authorized to make the same, from the best information obtainable, in each of which districts three delegates shall be elected, but no elector shall vote for more than two persons for delegates to such conventions; that said apportionments shall be made by the governor, the chief-justice, and the secretary of said Territories; and the governors of said Territories shall, by proclamation, order an election of the delegates aforesaid in each of said proposed States, to be held on the Tuesday after the second Monday in May, eighteen hundred and eighty-nine, which proclamation shall be issued on the fifteenth day of April, eighteen hundred and eighty-nine; and such election shall be conducted, the returns made, the result ascertained, and the certificates to persons elected to such convention issued in the same manner as is prescribed by the laws of the said Territories regulating elections therein for Delegates to Congress; and the number of votes cast for delegates in each precinct shall also be returned. The number of delegates to said conventions respectively shall be seventy-five; and all persons resident in said proposed States, who are qualified voters of said Territories as herein provided, shall be entitled to vote upon the election of delegates, and under such rules and regulations as said conventions may prescribe, not in conflict with this act, upon the ratification or rejection of the constitutions.

Qualifications.

Apportionment.

Governors to issue proclamation for election.

Number of delegates.

Place of meeting.

SEC. 4. That the delegates to the conventions elected as provided for in this act shall meet at the seat of government of each of said Territories, except the delegates elected in South Dakota, who shall meet at the city of Sioux Falls, on the fourth day of July, eighteen hundred and eighty-nine, and, after organization, shall declare, on behalf of the people of said proposed States, that they adopt the Constitution of the United States; whereupon the said conventions shall be, and are hereby, authorized to form constitutions and States governments for said proposed States, respectively. The constitutions shall be republican in form, and make no distinction in civil or

Time.

Adoption of Constitution.

Civil rights.

proposed State on the said first Tuesday in October. And the constitutional conventions which may assemble in North Dakota, Montana, and Washington shall provide in like manner for submitting the constitutions formed by them to the people of said proposed States, respectively, for ratification or rejection at elections to be held in said proposed States on the said first Tuesday in October. At the elections provided for in this section the qualified voters of said proposed States shall vote directly for or against the proposed constitutions, and for or against any articles or propositions separately submitted. The returns of said elections shall be made to the secretary of each of said Territories, who, with the governor and chief-justice thereof, or any two of them, shall canvass the same; and if a majority of the legal votes cast shall be for the constitution the governor shall certify the result to the President of the United States, together with a statement of the votes cast thereon and upon separate articles or propositions, and a copy of said constitution, articles, propositions, and ordinances. And if the constitutions and governments of said proposed States are republican in form, and if all the provisions of this act have been complied with in the formation thereof, it shall be the duty of the President of the United States to issue his proclamation announcing the result of the election in each, and thereupon the proposed States which have adopted constitutions and formed State governments as herein provided shall be deemed admitted by Congress into the Union under and by virtue of this act on an equal footing with the original States from and after the date of said proclamation.

North Dakota, Montana, and Washington.

Vote on constitution.

Canvass of returns.

Certifying result.

Proclamation of admission by President.

SEC. 9. That until the next general census, or until otherwise provided by law, said States shall be entitled to one Representative in the House of Representatives of the United States, except South Dakota, which shall be entitled to two; and the Representatives to the Fifty-first Congress, together with the governors and other officers provided for in said constitutions, may be elected on the same day of the election for the ratification or rejection of the constitutions; and until said State officers are elected and qualified under the provisions of each constitution and the States, respectively, are admitted into the Union, the Territorial officers shall continue to discharge the duties of their respective offices in each of said Territories.

Representation in Congress.

Election.

SEC. 10. That upon the admission of each of said States into the Union sections numbered sixteen and thirty-six in every township of said proposed States, and where such sections, or any parts thereof, have been sold or otherwise disposed of by or under the authority of any act of Congress, other lands equivalent thereto, in legal subdivisions of not less than one-quarter section, and as contiguous as may be to the section in lieu of which the same is taken, are hereby granted to said States for the support of common schools, such indemnity lands to be selected within said States in such manner as the legislature may provide, with the approval of the Secretary of the Interior: *Provided*, That the sixteenth and thirty-sixth sections embraced in permanent reservations for national purposes shall not, at any time, be subject to the grants nor to the indemnity provisions of this act, nor shall any lands embraced in Indian, military, or other reservations of any character be subject to the grants or to the indemnity provisions of this act until the reservation shall have been extinguished and such lands be restored to, and become a part of, the public domain.

School lands granted to States.

Proviso.

Lands in reservations excepted.

SEC. 11. That all lands herein granted for educational purposes shall be disposed of only at public sale, and at a price not less than ten dollars per acre, the proceeds to constitute a permanent school-fund, the interest of which only shall be expended in the support of said schools. But said lands may, under such regulations as the legislatures shall prescribe, be leased for periods of not more than five years, in quantities not exceeding one section to any one person

Sale of school lands.

Lease.

or company; and such land shall not be subject to pre-emption, homestead entry, or any other entry under the land laws of the United States, whether surveyed or unsurveyed, but shall be reserved for school purposes only.

Lands for public buildings.

SEC. 12. That upon the admission of each of said States into the Union, in accordance with the provisions of this act, fifty sections of the unappropriated public lands within said States, to be selected and located in legal subdivisions as provided in section ten of this act, shall be, and are hereby, granted to said States for the purpose of erecting public buildings at the capital of said States for legislative, executive, and judicial purposes.

Five per cent. of proceeds of public lands to be paid to States.

SEC. 13. That five per centum of the proceeds of the sales of public lands lying within said States which shall be sold by the United States subsequent to the admission of said States into the Union, after deducting all the expenses incident to the same, shall be paid to the said States, to be used as a permanent fund, the interest of which only shall be expended for the support of common schools within said States, respectively.

University lands to vest in States. Vol. 21, p. 326.

SEC. 14. That the lands granted to the Territories of Dakota and Montana by the act of February eighteenth, eighteen hundred and eighty-one, entitled "An act to grant lands to Dakota, Montana, Arizona, Idaho, and Wyoming for university purposes," are hereby vested in the States of South Dakota, North Dakota, and Montana, respectively, if such States are admitted into the Union, as provided in this act, to the extent of the full quantity of seventy-two sections to each of said States, and any portion of said lands that may not have been selected by either of said Territories of Dakota or Montana may be selected by the respective States aforesaid; but said act of February eighteenth, eighteen hundred and eighty-one, shall be so amended as to provide that none of said lands shall be sold for

Minimum price for lands.

less than ten dollars per acre, and the proceeds shall constitute a permanent fund to be safely invested and held by said States severally, and the income thereof be used exclusively for university

University lands to Washington. Vol. 10, p. 305.

purposes. And such quantity of the lands authorized by the fourth section of the act of July seventeenth, eighteen hundred and fifty-four, to be reserved for university purposes in the Territory of Washington, as, together with the lands confirmed to the vendees of the

Vol. 13, p. 28.

Territory by the act of March fourteenth, eighteen hundred and sixty-four, will make the full quantity of seventy-two entire sections, are hereby granted in like manner to the State of Washington for the purposes of a university in said State. None of the lands granted in this section shall be sold at less than ten dollars per acre; but said lands may be leased in the same manner as provided

To be under exclusive State control.

in section eleven of this act. The schools, colleges, and universities provided for in this act shall forever remain under the exclusive control of the said States, respectively, and no part of the proceeds arising from the sale or disposal of any lands herein granted for educational purposes shall be used for the support of any sectarian or denominational school, college, or university. The section of land granted by the act of June sixteenth, eighteen hundred and eighty,

Insane asylum, South Dakota. Vol. 21, p. 293.

to the Territory of Dakota, for an asylum for the insane shall, upon the admission of said State of South Dakota into the Union, become the property of said State.

Penitentiaries. South Dakota.

SEC. 15. That so much of the lands belonging to the United States as have been acquired and set apart for the purpose mentioned in

Vol. 21, p. 378.

"An act appropriating money for the erection of a penitentiary in the Territory of Dakota," approved March second, eighteen hundred and eighty-one, together with the buildings thereon, be, and the same is hereby, granted, together with any unexpended balances of the moneys appropriated therefor by said act, to said State of South

North Dakota and Washington.

Dakota, for the purposes therein designated; and the States of North Dakota and Washington shall, respectively, have like grants for the