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RE: Cloak Thinning Preliminary Assessment

INTRODUCTION

The Cloak project would log 1,332 acres of matrix land and approximately 217 acres of riparian reserves using thinning in addition to regeneration to create forage enhancement areas (70 acres). It would also fertilize approximately 1081 acres. The activities would take place in the Upper Clackamas and Oak Grove Watersheds. The Preliminary Assessment ("PA") for the Cloak project analyzed five alternatives: Alternative A (no action), Alternative B (proposed action), Alternative C (identical to Alternative B except that it would not construct any new temporary roads, not thin in riparian reserves and not fertilize), Alternative D (same as Alternative C except it would thin only in plantations) and Alternative E (similar to B, except with larger forage enhancement areas). The project would build approximately 1.8 miles of new road. 3.4 miles of closed and overgrown roads would be re-opened and re-built, and then closed after completion of the project.

Bark feels the Cloak project in many ways is a step in the right direction. Instead of directly targeting old growth groves, the Cloak Project is directed toward plantations and second growth. We appreciate this new direction that the district is taking. However, we still have significant concerns about the proposed Alternatives, particularly B and E. Our concerns relate to: logging in riparian reserves; impacts to soil quality; effects on snags; high road densities; and impacts to endangered species, particularly fish populations and the northern spotted owl. We see this project as having significant impact across the landscape and urge the Forest Service to create an Environmental Impact Statement (EIS) that will more fully address the range of impacts. In the

absence of a comprehensive EIS, we urge the Forest Service to, in order of preference, to: withdraw the project, consider Alternative A, or Alternative D. Our next preferred choice is Alternative C.

PLANTATIONS, NATIVE STANDS & OLD GROWTH

Due to the fact that the Cloak Project is a thinning project that takes place in plantations and second growth stands, it is critical to clarify definitions. Bark has field checked almost every unit in the Cloak project, and found some discrepancies between units labeled as plantations versus native second growth stands. For example, Units 480 and 481 are stands that according to Bark have the characteristics of second growth, and in the PA are labeled as plantations. These units were highgraded at some point in the past, and also appear to have been burned post logging. However, in no way do they resemble plantations, which consist of a dense monoculture stands. These units are very diverse, with variable density spacing throughout. It appears that they were logged but allowed to regenerate naturally, as they have all of the characteristics of a naturally regenerating post-fire stand. The only indication of past logging are the enormous Douglas fir stumps scattered throughout the units along with evidence of old skid trails. These stands have structural diversity, and a variety of native undergrowth species throughout. Below is a photo of unit 480.



Unit 480 is a second growth stand mislabeled as a plantation



Canopy closure of unit 481 shows that it does not resemble a plantation

Bark has determined that the following additional units, which are being treated as plantations in the PA, should be considered second growth stands and folded into Alternative D: **427**, 465, **466**, 468, **475**, 476 (part native part plantation?), 480, 481, **494**, 500, **501**, **504**, **507**, 518, **566**, 578, and 579. The units in bold face are of particular concern to us, as they are healthy, late successional old growth stands that are providing critical habitat in an area that is devoid of old growth characteristics.

The Oak Grove Watershed has only 42% of its forest in late Successional condition, and the Upper Clackamas has only 37%. Historic conditions in the Clackamas watershed as a whole were much higher than this, and there is lack of Late Successional Forest in the watersheds of the planning area. At present, given the diminished supply of late successional forest in Mt. Hood National Forest and across the region, as blatantly highlighted by the steady decline of the population of the northern spotted owl, the USFS should be doing everything possible to retain all remaining late Successional forest, raising the percentages in the Upper Clackamas and Oak Grove watersheds closer to historic levels.

The proposed action will log 307 acres of forest with late-seral characteristics, PA, 56. Additional late Successional forest will likely be affected that is not accounted for in agency analysis. Logging will most certainly increase exposure of old growth forests adjacent to Cloak Units to wind and weather. Bark is in particular concerned about the effects of old growth that borders units 465, 468, 498, and 571. The effects to these forests should be accounted for in agency analysis. At this time, due to lack of boundary markers for the Cloak project, it is impossible to tell what proximity logging will take place to old growth, and we would like clarity on this.

RIPARIAN RESERVES

Bark is very concerned about the impacts of the 217 acres of proposed logging in riparian reserves, particularly the heavy thinning regime that is being proposed leaving only around 80 trees per acre. The PA states that the purpose is to accelerate the development of mature and late-successional stands, and we agree with that goal; however we disagree with the suggested method of implementing it. Light mechanical thinning could be carried out in some riparian areas in the Cloak project to beneficial effect, but this activity should not be included in the

commercial portion of the project. Restoration should be done in a manner that does not result in adverse impacts that outweigh benefits. This should consist of thinning of very small diameter trees by hand, with the cut trees left on the ground to add to the down woody debris layer—a characteristic that the PA acknowledges is sorely lacking. The PA states that “if no action were taken in riparian reserves, stands would have reduced capability to produce the size and quantity of course woody debris sufficient to sustain physical complexity and stability of the riparian reserves and associated streams,” PA, 4, and yet the proposed action involves removing more potential course woody debris.

The riparian reserves serve a critical wildlife function that will be impaired with the proposed logging. They are designed to act as “connectivity corridors” for animals between Late Successional Reserves and Wilderness areas. Given the precarious state of the northern spotted owl, these areas should be kept intact until studies demonstrate that populations have rebounded to a degree that can handle further reduction of habitat. There are likewise a host of sensitive species that will be adversely impacted by riparian area logging; specifically the aquatic mollusk *Lyogyrus*, PA, 34.

The PA does not accurately describe the beneficial effects from Alternative A in riparian reserves and in fact contradicts itself in relation to long term impacts. It states that “if no action were taken in riparian reserves, there would be negative long-term effects because stands would have a reduced capability to produce the size and quantity of course woody debris,” PA, 28. Yet in other sections of the PA, the agency acknowledges that over time, the forest will create similar desired traits of structural diversity through dying trees and disturbance, with dead trees naturally contributing to down woody debris layer. The main difference then becomes not one of effects but one of time frame, with the idea that desired characteristics will happen faster with a helping hand from the agency.

WILDLIFE

Northern Spotted Owl (Threatened)

It is the stated policy of Congress that all Federal departments and agencies “shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of [this] purpose.” Endangered Species Act of 1973, 16 U.S.C. § 1531(c)(1). The Supreme Court has clearly restated congressional policy stating that, “The plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost.” *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 184 (1978). The USFS’s decision to proceed with the Cloak timber sale and adjacent sales is inconsistent with the congressional mandate of the ESA.

Under the ESA, the Forest Service has the responsibility 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 habitat of such species.” 16 U.S.C. § 1536. As described below, the record does not support the finding that the proposed sale would not likely adversely affect the northern spotted owl. The proposed sale, along with others in the vicinity, would exacerbate the degraded habitat conditions for this species that already exists on the Forest. The near absence of any recent information from surveys or monitoring of this listed species makes a reasonable analysis of how this project and others proposed will cumulatively affect these species impossible.

To avoid the taking or otherwise jeopardizing of listed species and/or the destruction or adverse modification of critical habitat, the ESA creates a process whereby all federal action agencies must consult with the FWS before

the action agency engages in actions that may affect critical habitat or a threatened or endangered species that may be present in the project area. 16 U.S.C. §§ 1536(a)(2). The action agency – here, the USFS – must prepare a biological assessment that describes the anticipated impacts to the target species because of the project. *Id.* § 1536(c)(1). FWS then must issue a biological opinion that “shall . . . [e]nsure 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 [critical] habitat....” *Id.* §§ 1536(a); (b).

As part of a biological opinion, the FWS must quantify the extent of the incidental take and the effect that the proposed action will have on a listed species’ critical habitat. 16 U.S.C. § 1536(b)(4)(A)(i); (B)(i). To this end, the FWS must consider the impacts to the listed species from the proposed action in conjunction with past and present actions: the “effects of the action.” 50 C.F.R. §§ 402.14(g)(2) – (4); 402.02.

The condition of the species and its habitat prior to the proposed action is known as the “environmental baseline” for the species. 50 C.F.R. § 402.02. The environmental baseline “includes all past and present impacts of all Federal, State, or private actions and other human activities in the action area; the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation; and the impact of State or private actions which are contemporaneous with the consultation in progress.” 50 C.F.R. § 402.02. Without an adequate environmental baseline, FWS has no way of evaluating the present status of a listed species, and thus cannot rationally decide whether additional impacts on the species may not jeopardize its continued existence.

The failure to make a population-based analysis, combined with the failure to complete current surveys for listed species, creates a significant level of uncertainty regarding the level of impact that this project will have on listed species in the planning area. NEPA requires that when data is not available, an agency should recognize the lack of data and explain why obtaining it was not feasible. 40 C.F.R. § 1502.22. The ESA prohibits the Forest Service from going forward with the proposed sale without ensuring that the project will not result in jeopardy to the species. In light of this, the proposed action alternatives are unreasonably supported, and an EIS should be prepared that addressed population trends in relation to the Cloak Timber Sale.

Lack of assessment of impacts to and protection of Critical Habitat Unit OR-10 and OR-11 precludes implementation of the Cloak timber sale. The Cloak PA does not rely on adequate information regarding the impact on habitat of the northern spotted owl, and threatens to violate species habitat protection requirements if the proposed action is carried out. One of the FWS’ consultation duties is to ensure that other federal agency actions do not result in the destruction or adverse modification of designated critical habitat. 16 U.S.C. § 1536(a)(2). In addition, Forest Service regulations require measures for preventing the destruction or adverse modification of critical habitat. 36 CFR § 219.27 (a)(8). “Critical habitat” is defined in the ESA as “[t]he specific area within the geographic area occupied by a species . . . on which are found those physical and biological features (I) essential to the conservation of the species, and (II) that may require special management considerations or protections.” *Id.* § 1532(5)(A)(i). “Destruction or adverse modification” of critical habitat is defined as “direct or indirect alteration that appreciably diminishes the value of critical habitat[,] . . . includ[ing], but . . . not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.” 50 C.F.R. § 402.02. “Conservation” is further defined as “to use and the use of all methods and procedures necessary to bring an endangered species to the point at which measures provided pursuant to this Act are no longer necessary.” 16 U.S.C. § 1533(3). These

statutes and regulations provide strict requirements for habitat protection that will be violated under the proposed action.

The proposed alternative of the Cloak project will degrade 1,105 acres of dispersal habitat and degrade 86 acres of Nesting habitat for the northern spotted owl within the Critical Habitat Units OR-10 and OR-11. According to the PA, “the degradation of 86 acres of this habitat could cause detrimental effects to owls that may use the area and would degrade habitat from the landscape that has the potential to be occupied by owls. Therefore, in the context of the local and watershed scale, these alternatives would adversely affect the spotted owl and its habitat,” PA, 44.

When designating critical habitat for the Northern spotted owl, the FWS recognized that critical habitat is meant to promote recovery of the species by stating that “the Act’s definition of critical habitat indicates that the purpose of critical habitat is to contribute to the species’ conservation, which by definition equates with recovery.” 57 Fed.Reg. 1822 (1992). Both the ESA and the FWS’ Northern spotted owl critical habitat rule reveal that the purpose of designating critical habitat, and thus the FWS’ role in protecting the habitat from activities that might adversely affect the habitat, is clearly for the recovery of the species.

The effects determination issued by the US Fish and Wildlife Service (USFWS) in their province wide biological opinion (USDI, 2003) is flawed. They state that “the projects are not likely to jeopardize the continued existence of the spotted owl and are not likely to destroy or adversely modify designated critical habitat for the spotted owl,” PA, 45. By definition, the stands in the Cloak planning area are critical to the survival and recovery of the owl and should not be commercially logged. We question how a loss of habitat from a key connectivity corridor will not “appreciably diminish the value of critical habitat” as it relates to the species’ recovery. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.02.

Several of the units in the proposed action occur within the connectivity design cells of the Roaring River/Upper Clackamas General Area of Concern, which was created because the North Willamette LSR is very narrow in places and is bisected by a busy highway. The Roaring River/Upper Clackamas General Area of Concern is “an important connectivity area between two LSRs to provide some habitat redundancy, and to compensate for the road.” PA, 45. The specific units that overlap the connectivity design cells are not delineated in the PA, which claims that the units are young, managed plantations that currently are not serving as mature forest habitat. Given the discrepancy Bark has with the definition of plantation used by the agency, we request a list of the units, so they can be field verified by Bark. If they are indeed young, dense plantations, they would be good candidates for a pre-commercial thin that would not adversely affect owls, snags and downed woody debris.

The PA also cites the Northwest Forest Plan as being “consistent with maintaining viability for the northern spotted owl across its range,” PA, 45; however, a soon-to-be-released report suggests that the NWFP is inadequate in providing for the northern spotted owl. On April 30, 2004, the Regional Interagency Ecosystem Committee commissioned Northern Spotted Owl Status Review team submitted a draft of their report (Anthony et al., “Status and Trends of Demography of Northern Spotted Owls”) to the Interagency Regional Monitoring Program (available at http://www.reo.gov/monitoring/trends/NSO_Demo_Report_2004.pdf). In addition, on April 21, 2004 the Haig, Mullins and Forsman’s paper, “Subspecies relationships and genetic structure in the Spotted Owl” was made available. These papers demonstrate that Northern Spotted Owls are a distinct subspecies from the California Spotted Owl (Haig et al., 2004) and that the Northern Spotted Owl populations continue to decline at an alarming rate.

In addition, the FWS has recently recognized the importance of interspecies competition with spotted owl, and the role that barred owls play in northern spotted owl survival. A Range Wide Baseline Summary and Evaluation of Data Collected through Section 7 Consultation for the Northern Spotted Owl and its Critical Habitat: 1994-2001, 11. This document was prepared in response to litigation and dated June 26, 2001, and precedes the Cloak PA. In it, the FWS states that “the barred owls’ increasing expansion into the range of the spotted owl may eventually pose a serious threat” to spotted owl survival. *Id.* The recently released draft of the Anthony et al. paper further analyzes the impact of barred owl encroachment on northern spotted owl habitat. The authors of this report conclude that the annual changes in population is generally lower than previously reported and identify that increased monitoring is required to fully understand the influences for this decline. No monitoring for owls has been done in the Cloak project area and no long-term, historical population data exist for the project area.

There is no indication in the PA that the Forest Service has considered any of this new information about northern spotted owls, which is clearly significant. More information and implication for forest management will become available when the status review is complete later this month. This project impacts designated critical habitat and connectivity design cells in addition to dispersal and nesting, roosting and foraging habitat. Based on this significant new information, NEPA requires the Forest Service to publish a Cloak EIS that examines how barred owls affect spotted owl survival range wide and within the planning area, and how implementation of the Cloak project will contribute to this situation. 40 C.F.R. § 1502.9(c)(ii). “If there remains ‘major federal action’ to occur, and if the new information is sufficient to show that the remaining action will ‘affect the quality of the human environment’ in a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared.” *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374 (1989)).

Moreover, Best Management Practices outlined in the Cloak project for the northern spotted owl are inadequate to address risk factors. This section reflects an overall deficiency in agency logic pertaining to management of northern spotted owl habitat: implying that it is okay to degrade habitat, as long as the owl is not present. The noise restriction, which does not permit any activity above the ambient noise level within .25 miles of a known spotted owl activity center during March 1 to July 1 becomes obsolete if it’s determined that an owl is not present. However, this then allows disturbance that would diminish the likelihood of owl presence during that period. Parallel logic would be that it is okay to blast dynamite incessantly next to someone’s home as long as they are not home. However, who would want to return home to a site given such a noise nuisance? Another deficiency relates to cumulative effects. There are numerous other timber sales in the planning area that will reduce spotted owl habitat; however, the PA does not discuss the cumulative impact of the present sale in addition to other uncut sales or past sales’ effects on the state of the owl.

Recently, several conservation organizations – including Bark – filed suit in federal court against the Fish and Wildlife Service for violations of the Endangered Species Act. *Gifford Pinchot Task Force et al. vs. United States Fish and Wildlife Service*. The plaintiffs in that action allege that the FWS has failed to comply with the ESA in failing to track the level of incidental take issued since the adoption of the Northwest Forest Plan: without an adequate environmental baseline – which necessarily counts the number of incidental takes issued on each national forest – the FWS cannot legally approve a timber sale and ensure that each successive sale will not contribute to jeopardy of the species. In addition, plaintiffs also allege that clear cutting thousands of acres of critical habitat is degradation and/or adverse modification of critical habitat, in violation of the ESA.

The same problems identified in *GPTF et al. v. FWS* are present in the Cloak timber sale. The Forest Service has neither assessed nor adjusted the spotted owl environmental baseline for the Cloak planning area. It has not completed population surveys for the species as required by the ESA, and has no idea how many owls and owl pairs are located in the Cloak planning area. Using a habitat model as a surrogate for population surveys may be acceptable in the context of assessing the impacts of timber sales on management indicator species, but threatened and endangered species demand greater protection pursuant to the ESA. While it is true that *GPTF et al. v. FWS* involves the FWS and not the USFS, the USFS has the same legal obligation to comply with the ESA in preparing timber sales as the FWS does in refraining from approving timber sales that do not protect the owl from jeopardy. This issue is currently before the Ninth Circuit Court of Appeals. While this issue is under litigation, timber sales that have been prepared by the USFS and approved by the FWS may be under injunctive relief.

Sensitive Species

The Cloak project would cause non-listed species to trend towards listing, and listed species to trend toward jeopardy. The Oregon slender salamander, Cope's Giant salamander, Cascade Torrent salamander, Oregon spotted frog, harlequin duck, Baird's shrew, Pacific fisher and Pacific fringe-tailed bat are species about which the District lacks adequate information to conclude that the proposed project would not make their populations trend towards listing in violation of the ESA. *Sierra Club v. Martin*, 168 F.3d 1 (11th Cir. 1999). Despite the lack of information on these and other species, the PA erroneously concludes that they will be unaffected by the proposed project. There is no evidence to support the conclusion that removing suitable habitat for wildlife species will not adversely affect them. Indeed, the facts suggest that these species will be adversely affected in the short and long term.

Management Indicator Species

NFMA requires the Forest Service to provide animal and plant diversity in the national forests. 16 U.S.C. § 1604(g)(3)(B). USFS regulations implementing this requirement direct the Service to manage forests for viable populations of native vertebrate and desired non-native species. 36 C.F.R. § 219.19. The regulations define viable populations as a population that has "the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area." *Id.*

To ensure that viable populations are maintained, the Forest Service regulations also require that the Service identify management indicator species (MIS) and that "[p]opulation trends of the management indicator species will be monitored and relationships to habitat change determined." 36 C.F.R. § 219.19(a)(6). This monitoring is "essential to verify and, if necessary, modify the forest plan's assumptions about the effects of timber harvesting and other management activities on wildlife...In order to meet the monitoring requirement, planners will need to obtain adequate inventories of wildlife populations and distribution." Charles F. Wilkinson and H. Michael Anderson, *Land and Resource Planning in the National Forests*, 304 (1987).

The Ninth Circuit has stated that the duty to ensure viable or self-sustaining populations "applies with special force to "sensitive" species." *Inland Empire Public Lands Council v. United States Forest Serv.*, 88 F.3d 754 (9th Cir. 1996) citing *Oregon Natural Resources Council v. Lowe*, 836 F.Supp 727, 733 (D.Or. 1993). NFMA clearly directs the Forest Service to create regulations to "insure research on and (based on continuous monitoring and assessment in the field) evaluation of the effects of each management system to the end that it will not produce substantial and permanent impairment of the productivity of the land." 16 U.S.C. § 1604(g)(3)(C); *Sierra Club v. Martin*, 168 F.3d 1 (11th Cir. 1999).

In light of this direction, NFMA's regulations require inventorying and monitoring on the National Forests under 36 C.F.R. §§ 219.12(d) and (k) as well as 36 C.F.R. §§ 219.19(a)(6), 219.26, and 219.19(a)(2). The regulations state "each Forest Supervisor shall obtain and keep current inventory data appropriate for planning and managing the resources under his or her administrative jurisdiction." *Id.* § 219.12(d). The regulations further require that "at intervals established in the plan, implementation shall be evaluated on a sample basis to determine how well objectives have been met and how closely management standards and guidelines have been applied." *Id.* § 219.12(k). To ensure biological diversity, the regulations specifically require that "[i]nventories shall include quantitative data making possible the evaluation of diversity in terms of its prior and present condition." *Id.* § 219.26.

Although NFMA clearly requires the monitoring of MIS populations, the Forest Service has traditionally relied upon the availability of suitable MIS habitat, rather than population surveys, to meet NFMA's viable populations requirement. *Inland Empire Public Lands Council v. United States Forest Serv.*, 88 F.3d 754 (9th Cir. 1996). Recently, however, the Ninth Circuit has revisited its holding in *Inland Empire*, and held that if the Forest Service utilizes a "proxy-on-proxy" approach to meeting the agency's NFMA obligations, any habitat models must be grounded in fact and field verified. *Idaho Sporting Congress v. Rittenhouse*, 2002 U.S. App. LEXIS 19108 (9th Cir. 2002). The court also acknowledged that other courts have expressly disavowed the holding in *Inland Empire*, casting additional doubt on the validity of that case.

Given this developing reinterpretation of the legal requirements attendant to management indicator species, it is question at best whether the multiple mandates in NFMA and its implementing regulations requiring population monitoring and surveying are being met for the Cloak project.

The Mt. Hood National Forest Plan states that management indicator species shall be protected from adverse modification through the curtailment of conflicting activities, or avoiding the area. Some of the management indicator species for the Mt. Hood National Forest include: deer and elk, pileated woodpecker, and pine marten. The Mt. Hood National Forest is required by NFMA to do surveys for these species so that it can monitor the condition of the forest wildlife habitat as a whole. 36 C.F.R. § 219.19(a)(6).

The Mt. Hood National Forest has failed to conduct population studies of management indicator species in the planning area, and has not studied the relationship between habitat change and the viability of the MIS as required by NFMA and the MHMP. The failure to study the effects of the project on management indicator species is in violation of NFMA and is arbitrary, capricious, and not in accordance with the law. 5 U.S.C. § 706; 16 U.S.C § 1604(i); 36 C.F.R. § 219.10(e).

Deer and Elk

The cumulative effects section on deer and elk is vague and unclear. The PA states that Alternative B would result in approximately 86 acres of optimal cover being downgraded to thermal cover, but that it would be "relatively short term," PA, 54. What does relatively short term mean to the agency? A clear timeframe should be presented in order to give adequate information about cumulative effects. Likewise the PA states that approximately 1,463 acres of thermal cover would be temporarily downgraded, and that this effect would be short term in nature. What does short term mean to the agency? The PA claims that disturbance "would probably only displace animals and would not likely affect their health," PA, 54. However, disturbance does indeed affect animals' health, as their health can deteriorate due to loss of body weight in traveling farther distances, and by being agitated, as supported by The Oak Grove Watershed Analysis (OGWA), which says that road closures will play a critical role in reducing the energetic demands upon the resident elk herds and options

to reduce open road densities especially in the locations identified as important to elk should be fully explored. The OGWA also points out: “Road densities can have a significant effect on big game habitat effectiveness. Calvin (1995) reported that no elk were observed in any areas on the USFS lands west of Warms Springs boundary where open road densities averaged higher than 2.8 miles per square mile, and most observations were recorded in areas of 2.0 miles per square mile or less...Fielder and O’Conner (1992) also reported that elk within or moving through areas of high open road densities moved longer distances (several miles a day was not common), OGWA, 110.

Pine Marten and Pileated Woodpecker

The proposed action will result in a changed micro-climate in approximately 307 acres of older second growth stands, which are used by pine marten and pileated woodpecker. However the agency claims that the activity will “probably” not affect the units to the degree that they are unsuitable for the two species. However, due to the fact that the agency has not monitored these species, it is not in a position to state whether adequate habitat is provided for these species or not. The PA states that the Mt. Hood Forest Plan B5 land allocation was removed because other land allocations would meet the habitat needs for these species; however this misconstrues the intent. The land allocation was removed unless it was determined that it was needed. Since the agency has done no monitoring, it is unknown at this point whether the land allocation is needed.

Migratory Birds

Close to 30 species of migratory birds occur within the Oak Grove, Upper and Lower Clackamas watersheds, some of which are likely present within the Cloak project area during breeding season. The PA states that some species favor forest with late-seral characteristics while others favor early successional habitat with large trees. The PA, however, does not prioritize the needs of the species. The agency should be asking itself: which species are more threatened? Which have populations that are most at risk? It should then manage habitat to meet the needs of the species which are in the most precarious condition. The claim that there are abundant unthinned second growth stands in adjacent areas does not reflect reality, and it is this same logic which has led to the dramatic decline of the northern spotted owl population. The PA even says as much, stating that with regard to species that require mature habitats, the cumulative effects would be “similar to the discussion for northern spotted owl nesting/roosting/foraging habitat” PA, 56. Indeed: see Bark’s section on the northern spotted owl for additional comments.

SNAGS

Snags are a very important part of the Pacific Northwest’s ecosystem. In the project area, snags are used by pileated woodpecker, northern flicker, hairy woodpecker, Williamson’s sapsucker, red-breasted sapsucker, and the red-breasted nuthatch, among others. Currently there is a severe lack of snags, with significant impact to the landscape. It affects not only resident species of the Pacific Northwest but migratory birds as well. “Twenty-seven neotropical migratory bird species occurring within the watershed have significantly declined over the last two decades, based on Breeding Survey data (Sharp, 1992). Of these 27 species, half are snag dependents and insectivorous or birds of prey feeding on forest birds,” OGWA, 61.

The agency acknowledges that the managed plantations are very deficient in snags and downed wood, PA, 49 and that they fall below the 30% tolerance level using the DecAID advisory. The project area currently does not have enough snags (standing dead trees or standing live hollow trees), and yet the proposed action will destroy some of the few remaining snags in the action alternatives. The agency acknowledges that “snags are difficult to retain during logging,” PA, 50, and that “snags that are left standing after the sale would be more prone to wind

damage and snow breakage than before the stands were harvested,” PA, 50. Additional impacts involve “the reduction of any natural selection that would occur through the process of stress and mortality. Snags and downed logs that might have formed in the future would be removed through timber harvest,” PA, 50.

The PA, however, states that using BMPs, leaving “defective” green trees in place and using other design criteria, the snag retention in older second growth stands would have snag and defective tree densities and size guidelines at the 50% tolerance level as determined in the DecAid advisor, in Alternatives B and E, and 30% tolerance level or below in plantations, PA, 51. It is unclear in the PA how the existing level in second growth stands, which is determined to be between 30 and 50% tolerance level, will suddenly surge to 50% given the impacts of logging. Additionally, there is no discussion of how effective those snags will be, how long those snags will actually be in place, or how they will be retained in 10 to 20 years when the stands are reentered for another round of thinning. It is likely that in the future snags will be destroyed just as soon as they are becoming effective habitat. The same applies for plantations. Given plans for future operations, the statement that “These predicted tolerance levels for both snags and down wood are expected to be maintained or slowly increase in the units as they progress over time,” PA, 51, is unrealistic, and Bark has particular concern regarding the effects of logging on snags in Units 437 (effects on old growth adjacent to NE Side of Unit), 468, 494, 495, and 513.

The stand analysis in the cumulative effects section states that the snag levels after past, present and foreseeable future harvest would be close to or greater than the 100% biological potential level, PA, 52. However, this should not imply adequate levels of snags. According to the OGWA, “No agreement exists that this level of snag retention provides an equivalent level of biological potential for other snag users (e.g. bats, orboreal rodents, bluebirds, swallows, and denning carnivores).” Indeed, available evidence suggests that it isn’t even meeting the needs of the cavity nesting species.

Furthermore, the solution, to simply create “new snags” does not adequately replace the loss of habitat, in the short term or possibly even into the foreseeable future. Research has yet to show that these created snags are used by wildlife. (“Created Snag Monitoring on the Willamette National Forest,” by Boleyn, Wold, and Byford). While the report does report that 49% of the created snags had new foraging excavation marks created by “other woodpeckers and other unidentified excavators,” the report also details that in general the use of these created snags was between 1 and 2 percent.

There were four major field observations highlighted by the Boleyn 2002 report:

1) Foraging use by sapsuckers and pileated woodpeckers: Only 1.5 percent of the snags had new foraging excavations by pileated woodpeckers. Sapsucker use was present on 1.5 percent of the snags.

2) Foraging use by other birds: Nearly half of the created snags monitored (49 percent) had new foraging excavations from other woodpeckers and other unidentified excavators.

3) Nest/Roost cavities in created snags: New cavities were present on 1.2 percent of the snags. Of the 17 snags with new cavities, 2 were naturally created; 1 was girdled; 1 was unknown; and the rest were blasted or saw-topped. Also, of the 17, 2 had class 1 decay, 2 were class 3 decay, and the rest were class 2 decay. The majority of these 17 snags had 80 percent of the bark remaining with 7 having 60 percent of their bark remaining.

4) Use by species other than birds: Evidence of use by species other than birds on the created snags was present on 1.8 percent of the snags. Detecting use by other species was difficult since they did not always leave obvious

signs. However, we did observe an unidentified species of bat leaving one created snag and a chipmunk climbing up another."

The Northwest Forest Plan ROD is clear that "a renewable supply of large down logs is critical for maintaining populations of fungi, arthropods, bryophytes and various other organisms... Models for computing expected numbers and sizes of logs should be developed for groups of plant associations and stand types which can be used as a baseline for managers to develop prescriptions for landscape management." (C-40) The ROD clearly states that the 240 linear feet of logs per acre greater than or equal to 20 inches in diameter standard is to be used until better, vegetation-type specific standards are developed. Now that this model is currently available (DecAID), it must be applied.

Whether USFS is of the opinion that DecAID is best applied at larger scales than a timber sale project area is immaterial to the implementation of updated policies that reflect the current science. In fact, USFS should amend the Northwest Forest Plan to get rid of the biological potential based retention standards. Recently on Mt. Hood National Forest, the DecAID standards were adopted during the Special Management Area Forest Track amendments to the Columbia Gorge National Scenic Area because MHN staff recognized that the use of biological potential based retention standards were not based on current science.

However, with the Cloak sale, the Forest Service has elected to refer to a biological potential based measure. Just a few of the passages from DecAID that criticize biological potential models are below. Note also Keith Aubry, another agency scientist also criticizes biological potential. We have summarized his recent report in the pileated woodpecker section below.

Since the publication of Thomas et al. and Brown, new research has indicated that more snags and large down wood are needed to provide for the needs of fish, wildlife, and other ecosystem functions than was previously recommended by forest management guidelines in Washington and Oregon. For example, the density of cavity trees selected and used by cavity-nesters is higher than provided for in current management guidelines...

Research results have expanded the number and variety of decaying wood categories over what was previously presented in Thomas and Brown...

Both snag- and down wood-associated wildlife more or less equally participate in dispersal of seeds and fruits (although the particular species they disperse may differ); however, snag- associated wildlife play a greater role in dispersal of invertebrates and plants, and down wood-associated wildlife play a greater role in dispersal of fungi and lichens. Down wood-associated species might contribute more to improving soil structure and aeration through digging, and to fragmenting wood. This is one example of the far greater differentiating power afforded by a well-constructed set of matrixes than was previously available in Thomas and Brown...

USFS fails to look at the research generated by its own scientists in regard to the pileated woodpecker. In the October 2003 Science Findings, published by Pacific Northwest Research station. PNW researcher Keith Aubry calls the biological potential threshold for woodpeckers "untested hypotheses" and says that the new information contained in the report be "immediately applied to existing standards and guidelines." This report outlines that snags and decadent trees are essential for nesting, with 48% of nests found in live, dead top trees, despite the rarity of decadent trees on the landscape, meaning that decadent trees appear to be more important

for nesting than snags. Pacific silver fir, found in Cloak units, is preferred for nesting. Trees used for roosting are never used for nesting. Lastly, down logs do not support populations of carpenter ants and therefore do not provide foraging habitat. This finding is particularly important for Cloak, as many of the left snags and large trees retained after logging will likely fall over. A future EIS needs to be generated that addresses the effects from the diminishment of snags on species likely to inhabit the area.

SOIL & STEEP SLOPES

Logging should not occur in units where soil damage currently exceeds Forest Plan maximum levels of damage: “Several of the Cloak units exceed the Forest Plan Standards and Guidelines FW-022 and B8-40,” PA, 58. Logging should not be approved in units where past logging has already extensively damaged the soil, as the damage may be irrevocable. The analysis also does not adequately take into consideration that logging is likely planned again in the near future: “In most units another thinning would be desirable in 10 to 20 years; sooner in stands that had closer spacing in the first thinning and later in stands thinned to a wider spacing,” PA, 38.

Additionally, given the fact that some of the plantation stands are in fact second growth stands that have been high graded in the past, the following blanket statement about soil conditions in natural second-growth stands does not apply. The sentence “All of the natural second-growth stands have soils with little or no detrimental impact,” PA, 58, should be revised to say “X% of the second growth stands have soils with little or no detrimental impact.”

Bark is very concerned about logging on steep slopes in the following units: 426, 467, 471, 476, 495, 496, 500 (NW side of unit), 505, 516 (very steep slopes), 567 (85-90% slope!), 568, 571 (East side), and 577. These areas should be left alone.

FORAGE

The Cloak project proposes approximately 70 acres of clearcuts (up to 3 acres in size retaining 10-30 trees per acre) for deer and elk “forage enhancement,” which is a stated purpose of the project. This is a serious misplacement of priorities. The Forest Service expresses concern about potential future reduction in habitat for deer and elk-- neither of which are threatened or endangered--saying that forage is a limiting factor. However within the same project the Forest Service is proposing a significant reduction in the quality of dispersal habitat, and the destruction of nesting roosting foraging habitat for a species that is currently federally listed as threatened. The Forest Plan does not contain any forage standards that the Forest Service has to live up to in this regard, PA, 53; and yet the project prioritizes meeting non-existent standards while simultaneously violating specific set standards in other areas, such as soil health. What studies does the Forest Service have that shows that deer and elk are in trouble on the forest? Or that lack of forage is harming these populations? The watershed analyses spanning the Cloak project show that historic conditions had a much smaller percentage of land in early seral state than our current percentage, and according to the Upper Clackamas Watershed Analysis (UCWA), “there is more early seral vegetation throughout the watershed than in the estimated range of natural variability.” UCWA, 9. To borrow the Forest Service’s oft-used phrase, there is plenty of habitat in adjacent areas that will meet the needs of these species. A more appropriate way to address this problem, should one exist, is to reintroduce fire back into the landscape, which would have the intended effect while also benefiting a host of other species.

The PA cites the Forest Plan stating that it recommended 8-10% new forage be created for the Oak Grove and 9-11% in the Upper and Lower Clackamas, PA, 41. This objective was established over 14 years ago, without the context of competing needs for this habitat from endangered species that are showing signs of serious decline. Rather than isolating this particular objective, the Forest Service should review such recommendations based on the whole. If the agency is truly concerned about elk and deer populations, it would halt all road building, logging, and other disturbances, and reduce the road density.

ROADS

The proposed action calls for 3.4 miles of closed, and overgrown roads opened and re-built, and road placement within Riparian Reserves as close as 100-150 feet from streams. The impacts of roads include increased sediment input, fragmentation of habitat, stream crossings, introduction of exotics, increased peak flow, extension of drainage density, increased interaction between humans and wildlife, and soil productivity loss, to name a few effects. This is acknowledged in the UCWA, but not addressed in the PA: “The effects of roads and hydrology is well documented. Road ditches collect and concentrate the water as well as shorten the transport time from hill slope to stream channel compared to natural processes. The principle effects are to increase the volume and shorten the duration of the amount of overland flow to stream channels.” UCWA, 172. The PA downplays any possible effects from existing or new roads, mainly remaining silent on the subject of potential impacts. Given that the road density in half of the elk management areas exceed the target road density levels, PA, 53, it is unthinkable that the proposed action calls for building more roads, even if “temporary.”

While the action alternatives would also close roads after use, the Mt. Hood National Forest has a poor record of successfully closing roads and restoring them to a hydrologically stable condition. Despite the current high road density and the certain degradation that existing open, “closed,” and new roads will cause, the USFS failed to adequately discuss this issue in the PA, which is required by law in complete environmental analyses. *Sierra Club v. Morton*, 510 F.2d 813, 824 (5th Cir. 1975) (requiring the agency to “disclose the history of success and failure of similar projects”). Road closure in the past has often been ineffective, and several roads in the Cloak planning area that were supposed to be closed with berms are currently open. As stated above, despite the use of the term, “Temporary” to describe the roads proposed for the Proposed Action, the roads themselves and the effects of these roads are not temporary. These roads contribute to cumulative impacts, and impact the area from the time they are built until they are decommissioned.

Decommissioning roads cannot offset the soil disturbance from the new roads and the logging operation, even if the USFS is completely successful in re-vegetating the area at some point in the distant future. Road density doesn’t automatically return to the prior level after a road has been decommissioned. It often can take 20 years to successfully revegetate a road, and in the meantime, environmental impacts of the road are felt. There is also a high chance that these roads will be revived before they even have a chance to fully recover, and therefore, they cannot in all honesty be called temporary. A more accurate term would be “stealth” roads, as these roads exist to facilitate timber sales that otherwise would not be feasible or permitted due to excessive road densities. However, due to semantics, these roads are allowed to go undetected in formal road inventories. All units that require the building of these stealth roads should be removed from the proposed action.

The PA does not analyze the cumulative effects of a temporary increase in the current road density on the surrounding area. The PA also does not offer specific open road density information for the entire planning area. This is obviously necessary in order to assess accurate cumulative impacts. It is also critical, in determining road densities, that figures include roads that are actually being used by motorized vehicles. Bark

has released a report on the state of roads in the Clackamas River Ranger District of Mt. Hood. It found that 25% of the roads that were supposed to be closed were not. This needs to be admitted and incorporated into a cumulative effects analysis. Bark's study found that gates are often removed and thus ineffective. In summary, given the consequences of increasing the road density, it does not seem like a sound investment of agency resources, let alone a wise ecological decision, to include new road building in this proposal.

On Page 28, the PA fails to fully address Section-10 of the Forest and Rangeland Renewable Resources Planning Act of 1974 for Alternatives B & E's temporary road construction (Source 8):

(b) Unless the necessity for a permanent road is set forth in the forest development road system plan, any road constructed on land of the National Forest System in connection with a timber contract or other permit or lease shall be designed with the goal of reestablishing vegetative cover on the roadway and areas where the vegetative cover has been disturbed by the construction of the road, within ten years after the termination of the contract, permit, or lease either through artificial or natural means. Such action shall be taken unless it is later determined that the road is needed for use as a part of the National Forest Transportation System.

The PA does not mention the location of the funds to vegetate and monitor the temporary roads for the required 10 years after timber harvesting. If the funds come from the auctioning of this project, the PA needs to mention a second source of funds if the purchasing price does not allocate enough money to monitor these roads for 10 years.

Finally, the USFS does not indicate how it intends to compensate for the short- and long-term damage to the watershed caused by reconstructing, upgrading, and building roads in watersheds that already have excessive road densities. The project should not go forward until the USFS can ensure compliance with the CWA and LRMP standards designed to protect water quality. The USFS should demonstrate that it has considered the following resources in making its determination to build new feet of road in the Cloak Project, and if it dismisses the recommendations within these reports, explain why it has excluded these recommendations from its analysis.

1. Robert Coats, et al., *Assessing Cumulative Effects of silvicultural Activities*, (1979) (significant increases in peak flow post-harvest)
2. Robert Harr, et al., *Changes in Storm Hydrographs after Road Building and Clear-Cutting in the Oregon Coast Range*, 11 Water Resour. Res. 436-44 (1975) (same; timber harvest leads to soil compactions and increased floods)
3. ROBERT HARR, ET AL., PACIFIC NORTHWEST RESEARCH STATION, U.S. DEP'T OF AGRICULTURE, CHANGES IN STREAM-FLOW FOLLOWING TIMBER HARVEST IN SOUTHWESTERN OREGON, PNW-249 (1979)
4. ROBERT HARR, ET AL., PACIFIC NORTHWEST RESEARCH STATION, U.S. DEP'T OF AGRICULTURE, EFFECTS OF TIMBER HARVEST ON RAIN-ON-SNOW RUNOFF IN THE TRANSIENT SNOW ZONE OF THE WASHINGTON CASCADES, PNW 88-593 (1989)
5. J. Jones & G. Grant, *Peak Flow Responses to Clear-Cutting and Roads in Small and Large Basins, Western Cascades, Oregon*, 32 Water Resour. Res. 959-74 (1996)
6. K. Lyons & L. Beschta, *Land Use, Floods, and Channel Changes: Upper Middle Fork Willamette River, Oregon (1936-1980)*, 19 Water Resour. Res. 463-71 (1983)
7. M. Reid & T. Dunne, *Sediment Production from Forest Road Surfaces*, 20 Water Resour. Res. 1753-61 (1984)

CUMULATIVE IMPACTS

The PA does not fully analyze the cumulative impacts of this project and other past, current, and foreseeable future projects, including timber sales, roads, herbicide use, mining projects, off-road vehicle use, and other management activities. There are short sections dealing with cumulative effects scattered throughout the PA, but they mainly describe impacts, as opposed to assess cumulative impacts. There is no indication that the agency has *assessed* the nature of the cumulative impacts to species, soil, and aquatic resources within the planning area.

This lack of analysis is also apparent in the discussion of direct and indirect effects. In the section titled Riparian Reserve Stand Structure, the PA neglects to give information about the potential adverse environmental impact from Alternatives B and E, saying, “Alternatives B and E would result in the long-term benefits because thinning would develop increased capability of stands to produce the size and quantity of course woody debris sufficient to sustain physical complexity and stability of riparian reserves and associated streams,” PA, 30. The only hint given of potential adverse impacts under these alternatives appears in the discussion of Alternatives C and D, where they are described as less harmful than B and E: “the probability of any sediment reaching a stream course or any decrease in stream shading would be less,” and “There would be slightly less risk of erosion,” PA, 30. The PA doesn’t hesitate to inform us, however, of the adverse impacts of Alternatives C and D, which do not include any road construction, and which use the less destructive helicopter logging instead of ground based logging in some units.

The lack of an adequate cumulative impact analysis to assess loss of late Successional forest, degradation of water quality, impacts to plant and animal species, and soil health is especially problematic given the admission in the relevant watershed analyses that the area has been highly impacted by past logging and other management activities.

The PA completely disassociates incremental impacts with the collective or long term effects, and states that “Impact to water quality or fisheries resources caused by sedimentation due to road construction would be short-term and undetectable at a watershed scale,” PA, 28. Repeated destruction of habitat over time has caused listings in the first place. Continued repeated destruction over time is what will cause species to go extinct. The PA uses criteria that could never acknowledge any significant impacts on a project level. It’s hard to imagine using this technique that any single project that could be described as having impacts felt across the entire watershed or impacting an entire population. Through such as screen, incremental habitat degradation will continue to take place over time until species become extinct.

The analysis of existing conditions of the creeks and rivers in the planning area is not based on high quality science, fails to adequately describe the current conditions of these aquatic systems, and does not accurately represent the impacts on these systems from the proposed action. The PA acknowledges that the Proposed Alternatives would adversely impact water quality, PA, 28. However, there is little site-specific analysis of how the project will impact the aquatic systems in the planning area.

In terms of effects, the PA offers a generalized statement of potential impacts:

“Potential effects to listed, proposed, candidate, or sensitive fish species and their habitat from the proposed project include direct, indirect and cumulative effects. An example of direct effects *may*

include increased levels of fine sediment in local streams generated during road building, logging, and hauling. Increased levels of sediment in streams could reduce feeding efficiency during times of increased turbidity... An example of indirect effects *may* include increased amounts of fine sediment downstream in rivers or at the intake of municipal water providers, due to erosion from harvest units and roads.”

PA, 27 (emphasis added). The courts have held that this type of generalized impact assessment regarding potential impacts and possible effects violates NEPA. *Idaho Sporting Congress v. Thomas*, 137 F.3d 146 (9th Cir. 1998). When it comes to specific adverse effects, the PA relies upon the implementation of mitigation methods to automatically assume an optimistic outcome.

Given the at-risk condition of the waterway and the nature of the ground disturbing activities of the Cloak project, it is likely that there will be adverse watershed effects from the Cloak timber sale, even though the Forest Service fails to admit that this will occur. The Clean Water Act does not permit “short term” degradations of water quality, and any project that proposes such degradations is unlawful.

We note that the USFS also has an obligation to physically survey the reaches of the creeks, streams, and tributaries in the planning area in order to determine the number of pools, riffles, down woody debris, and other features that are present in the water bodies in the planning area. Without key and current information, the Mt. Hood National Forest is precluded from making any determination regarding the significance of the proposed project. When such information is lacking or when there are significant questions regarding the impacts of a project, the USFS has an obligation under NEPA to obtain the missing information. 40 C.F.R. § 1502.22 (duty to obtain missing information or state why it could not be obtained). The Mt. Hood National Forest must obtain the missing information on stream conditions in an EIS, or the Cloak sale must be withdrawn. Beneficial uses in the watershed (such as public domestic water supply, private domestic water supply, irrigation, salmonid fish rearing (inland trout), salmonid fish spawning (inland trout), resident fish and aquatic life, wildlife and hunting, fishing, boating, water contact recreation, and aesthetic quality) have been adversely affected by past management activities on federal and private lands in the vicinity. In all proposed projects, the USFS should fully disclose and discuss the impacts to the environment from the proposed project in an EIS. The failure to follow one of these courses of action will violate NEPA.

Because there is no indication that the agency has assessed the nature of the cumulative impacts to species, soil, and aquatic resources within the planning area, the analysis is woefully incomplete. Given the scope of the project and range of activities, an environmental impact statement should be completed. Under NEPA, “significance exists if it is reasonable to anticipate cumulatively significant impacts on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.” 40 C.F.R. § 1508.27(b)(7). Furthermore, NEPA requires the agency to evaluate “cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.” *Id.* § 1508.24(a)(2).

WATER QUALITY AND FISHERIES

Effects to Watersheds

The National Marine Fisheries document titled “Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale” states that a watershed which has riparian reserves that are less than 70% intact is considered to be “not properly functioning,” Page 11. The description of a watershed

that is not properly functioning includes: “riparian reserve system is fragmented, poorly connected, or provides inadequate protection of habitats and refugia for sensitive aquatic species (<70% intact)” Page, 11. The Riparian Reserves in the Upper Clackamas watershed, which “are comprised of 48% late seral vegetation,” UCWA, 13, are clearly less than 70% intact and are indicative of the level of degradation across the project area. Given that this project is adjacent to a Tier I watershed and that the condition of the riparian reserves in the sub-watersheds where the project take place are not properly functioning, it is incomprehensible that further degradation would be permissible. The PA also fails to discuss how the proposed project will not contribute to further habitat degradation.

Fish Stocks and Concerns

The Cloak project proposes to log within the Oak Grove Fork and Clackamas River watersheds, the river corridors of which are designated Tier 1 Key Watershed under the Northwest Forest Plan because they contain crucial refugia for at-risk fish species. The stands proposed for thinning are located within the Oak Grove Fork Clackamas, Upper Clackamas and Middle Clackamas 5th field watersheds.

The Clackamas River watershed is one of the few refuges left for wild endangered stocks of fish in the region, and according to the UCWA is one of the few places that “can serve as a cornerstone in recovery efforts for this stock.” UCWA, 63. This fact would seem to determine that future management be geared toward restoration—not further degradation. While the area “contains some of the most productive coho salmon habitat in the subbasin,” UCWA, 63, Coho and Winter Steelhead are declining rapidly, UCWA, 26, Table 3-25. More recent data would likely indicate that the conditions are even worse than shown here. Given this reality, the primary activities in the area should be restoration as opposed to commercial logging in riparian areas.

Additionally, Bark has found the PA’s treatment of threatened and endangered fish species to be inadequate and in need of revision. The statement that “there are no fish species listed under the Endangered Species Act (ESA) in the vicinity of thinning units,” PA, 27, is incorrect based on our own investigation.

Page 31 of the Preliminary Assessment states the “Lower Columbia River (LCR) Steelhead does not occur in any of the streams within the planning area of the Cloak Project.” According to the Oregon Department of Fish and Wildlife’s (ODFW) web site, LCR winter steelhead spawns and rears in Last Creek adjacent to Units #477 & #478 (Figure-1). The web site also shows LCR winter and summer steelhead spawning and rearing in Pinhead Creek adjacent to Unit #481 (Source 1 & 2). All three of these units slope toward these streams and have a distance ranging 250 feet or less from the stream based on the timber sale maps. Two other units, #426 and #428, rest adjacent to streams that flow within a quarter mile to a steelhead-bearing stream (Source 1 & 2). The agency needs to revise the PA to state, “LCR Steelhead does fall within the project area,” redo its analysis to address the adverse effects to this threatened fish population, and seek consultation with the Fish and Wildlife Service.

Figure-1: Winter Steelhead Rearing and Spawning Areas (red) within the Cloak Project area (Units in White).



ftp://rainbow.dfw.state.or.us/pub/gis/pdf/distrib/st_win/st_winter17090011_11x8.pdf

After mentioning a few areas where LCR steelhead occurs within a mile of the Cloak Project area, the Preliminary Assessment states, “all other units within the Cloak Project area are located greater than one mile above any occurrence of LCR steelhead.” Based on Bark’s measurements, 22 out of the 55 units (40%) rest within a mile vicinity of a LCR steelhead-bearing stream (Source 1, 2, & 4). Table-1 lists these 22 units. Please revise the PA to state, “22 of the units within the Cloak Project area are located less than one mile above any occurrence of LCR steelhead.”

Page 33 of the PA states the distances of the streams where Lower Columbia River / Southwest Washington (LCR/SW) Coho Salmon rear and spawn within the vicinity of the Cloak Planning Project area. As shown in Table-1, 18 of the units rest within a mile of streams that provide habitat for LCR/SW Coho Salmon. As seen on the ODFW’s web site, Unit #481 sits adjacent to Pinhead Creek that provides spawning and rearing habitat for this fish (3). Please revise the PA to state, “LCR/SW Coho Salmon does fall within the project area” and list the adverse effects to this candidate fish.

In regards to the ODFW fish distribution maps, the red line shows definite spawning and rearing stream locations of threatened and candidate fish (Sources 1, 2, and 3). Other streams not listed by the red line in the distribution maps could provide habitat for these fish, but the ODFW does not have the resources to monitor them. The USFS should not log units that rest adjacent to potential spawning and rearing habitat streams.

In addition to the units referenced above, we have particular concern about the impacts to perennial streams in the following units: 428, 467 (below unit), 468, 476, 494, 495, 496, 500, 502, 504, 507, 509, 566, 567, and 568.

Sediment

There is no quantification of the amount of sediment that may be introduced from road reconstruction, closure, decommissioning, landings, road crossings, commercial logging, and culvert replacement in the Cloak project. NEPA requires the agency to quantify and qualify the extent of direct and indirect impacts as a result of its activities. 40 C.F.R. 1508.8. The Ninth Circuit has held that “general statements about ‘possible’ effects and ‘some risk’ do not constitute a ‘hard look’ absent a justification regarding why more definitive information could not be provided.” *Neighbors of Cuddy Mountain v. United States Forest Serv.*, 137 F.3d 1372, 1380 (9th Cir. 1998). Sedimentation is likely to occur from the proposed alternatives; therefore the Forest Service must reveal those aspects of the Cloak sale that will degrade water quality.

There is also inadequate information about sediment turbidity levels in the watersheds where the project is planned. Due to the fact that there are no solid environmental baselines, it is impossible to determine whether sedimentation has increased as a result of past logging projects, and therefore difficult to make assumptions about the nature of the impact of future projects on sediment. The possibility of short term effects are acknowledged, PA, 22, but logging activity is validated due to the implementation of BMPs and anticipated benefits over the long run. There are serious and significant effects associated with this sale, and the Forest Service has no evidence to support the implication that impacts can be adequately “lessened” by implementation of BMPs. This approach—short term impacts with long term benefits pervades Forest Service management strategy. In an ecosystem that was healthy and resilient, such a strategy might make sense. However, given the ecological indicators of crisis on Mt. Hood National Forest (threatened, endangered and extinct species), this is not an appropriate approach, and the agency should put caution above experiment.

The no cut buffer widths of 50 feet for perennial streams and 30 feet for intermittent streams are simply inadequate to trap sediment given the nature of the heavy thinning being proposed in the Cloak units and the fact that heavy logging equipment would be permitted in such close proximity to streams. These buffers would suffice if pre-commercial thinning were to occur that would not result in any skid trails or ruts from skyline logging, or the introduction of heavy equipment to the area; however, that is not what is being proposed here. Bark is equally troubled by the fact that even the inadequate buffer widths proposed here are not set in stone, as falling trees within the buffer zone would be allowed if it was determined to not increase sediment or decrease stream shading. When is that going to be determined? By whom? These buffers widths should have been outlined clearly in this PA, not determined on an as-need basis after a decision notice is published for this project. Clarity and transparency with the riparian buffers should be part of a Cloak EIS.

Water Temperature

The statement that the proposed project will not affect stream temperatures is unproven. It is in fact very likely that there will be an increase in the volume of heated water as water flowing off of roads and ditches into the riparian reserves will increase. The riparian reserves, which will be heavily logged, will not absorb and cool water due to the lack of canopy cover. It is unclear how this serious regime of logging would maintain water temperatures. The statements that water quality degradation will be “undetectable at watershed scale” and that “Any water temperature increases should abate in 15-20 years,” PA, 28, ignore the immediate and localized needs of local threatened fish populations.

Table-1: Steelhead & Coho within One Mile of the Cloak Project Area

Unit	Threaten or Candidate Fish	Stream	Approximate Distance (mi)	Source
426	LCR Steelhead LCR/SW Coho Salmon	Clackamas River	0.25	A. OR Fish & Wildlife B. StreamNet
427	LCR Steelhead LCR/SW Coho Salmon	Lowe Creek	0.25	A. OR Fish & Wildlife B. StreamNet
428	LCR Steelhead	Last Creek	0.25	A. OR Fish & Wildlife B. StreamNet
437	LCR Steelhead LCR/SW Coho Salmon	Clackamas River	0.28	A. OR Fish & Wildlife B. StreamNet
465	LCR Steelhead LCR/SW Coho Salmon	Clackamas River	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
466	LCR Steelhead LCR/SW Coho Salmon	Clackamas River	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
467	LCR Steelhead LCR/SW Coho Salmon	Clackamas River	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
468	LCR Steelhead LCR/SW Coho Salmon	Clackamas River	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
469	LCR Steelhead LCR/SW Coho Salmon	Clackamas River	0.28	A. OR Fish & Wildlife B. StreamNet
477	LCR Steelhead	Last Creek	0.03	A. OR Fish & Wildlife B. StreamNet
478	LCR Steelhead	Last Creek	0.03	A. OR Fish & Wildlife B. StreamNet
479	LCR Steelhead	Last Creek	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
481	LCR Steelhead LCR/SW Coho Salmon	Pinhead Creek	0.05	A. OR Fish & Wildlife B. StreamNet
494	LCR Steelhead LCR/SW Coho Salmon	Clackamas River	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
495	LCR Steelhead LCR/SW Coho Salmon	Clackamas River	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
501	LCR Steelhead LCR/SW Coho Salmon	Oak Grove Fork	0.17	A. OR Fish & Wildlife B. StreamNet
503	LCR Steelhead LCR/SW Coho Salmon	Oak Grove Fork	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
507	LCR Steelhead LCR/SW Coho Salmon	Oak Grove Fork	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
508	LCR Steelhead LCR/SW Coho Salmon	Oak Grove Fork	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
509	LCR Steelhead LCR/SW Coho Salmon	Oak Grove Fork	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
566	LCR Steelhead LCR/SW Coho Salmon	Oak Grove Fork	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet
567	LCR Steelhead LCR/SW Coho Salmon	Oak Grove Fork	0.50 - 1.00	A. OR Fish & Wildlife B. StreamNet

Fertilization

The proposed action involves aerial application of 200 pounds of nitrogen per acre to approximately 1081 acres of forest in the project area. Over 100 tons of nitrogen fertilizer is inappropriate in a sub-basin already damaged by an excess of nitrogen in the waterways, and the justification, namely faster growth, does not merit the risks to wildlife. Water quality in this section are described in relation to aquatic life, without addressing the impact to a host of wildlife that could be affected, ranging from salamanders to birds to mollusks. The criteria regarding nitrogen are designed in such a way that impacts to other species are masked. The standards are therefore rarely violated in the Clackamas River due to the fact that the criteria are targeted only toward fish toxicity and human health. Apart from wildlife, existing criteria are not relevant to concentrations that could cause ecological disturbances such as algae. Additionally past research from the USFS regarding urea nitrogen is likely outdated and/or inaccurate due to the collection of stream biota in immediate, toxicity-based responses or used methods insensitive to ongoing ecological processes. Such invalid data could fail to show concentrations of urea contributing to the high algae blooms in the summer that has been creating a public nuisance to drinking water providers off the Clackamas River. Additionally, urea nitrogen should not be applied in Cloak Project units with high concentrations of Red Alders, as this could create an over abundance of nitrogen that could either runoff into streams or leach into the groundwater.

Sources for water quality section:

1. Oregon Department of Fish & Wildlife. Clackamas River Winter Steelhead Fish Distribution Map, ftp://rainbow.dfw.state.or.us/pub/gis/pdf/distrib/st_win/st_winter17090011_11x8.pdf
2. Oregon Department of Fish & Wildlife. Clackamas River Summer Steelhead Fish Distribution Map, ftp://rainbow.dfw.state.or.us/pub/gis/pdf/distrib/st_sum/st_summer17090011_11x8.pdf
3. Oregon Department of Fish & Wildlife. Clackamas River Summer Steelhead Fish Distribution Map ftp://rainbow.dfw.state.or.us/pub/gis/pdf/distrib/coho/coho17090011_11x8.pdf
4. StreamNet. Clackamas River Fish Distribution Data Query <http://query.streamnet.org/Request.cfm?cmd=BuildCriteria&NewQuery=BuildCriteria&Required=Run.HUC4&HUC4=17090011&DataCategory=23>
5. National Oceanic and Atmospheric Administration: Lower Columbia River Evolutionarily Significant Unit Information for Steelhead <http://www.nwr.noaa.gov/1salmon/salmesa/stlhlc.htm>
6. National Oceanic and Atmospheric Administration: Lower Columbia River / Southwest Washington Evolutionarily Significant Unit Information for Coho Salmon <http://www.nwr.noaa.gov/1salmon/salmesa/cohoswwa.htm>
7. Bureau of Land Management. Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl: Attachment A to the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl. <http://www.or.blm.gov/ForestPlan/newsandga.pdf>

8. US Forest Service. Forest and Rangeland Renewable Resources Planning Act of 1974.
<http://www.fs.fed.us/emc/nfma/includes/range74.pdf>

FIRE RISK

The native stands that are fire regenerated are fantastic examples of fire recovery that has taken place without salvage logging. Since these stands have had no "management" (post-fire or otherwise), they are very important living laboratories for studying long-term post-fire recovery in the West Cascades, and should be kept intact without logging.

The Forest Service continuously expresses concern about increasing fire risk in the forest; yet the proposed thins will increase the risk of fire. Reducing the canopy will result in drier conditions, and slash will only increase the fine fuel load. Blowdown is also likely given in units with steep slopes. Climate change, which is already increasing the summer drought conditions across the region, is only expected to continue and get more severe, increasing the fire risk further. There is a high concentration of roads in the vicinity, and given that most forest fires are human started on or near roads, it seems unwise to create drier conditions with increased levels of highly flammable fuel loads in the area. Logging in the cooler, wetter, native forests is unwise and irresponsible given the above combination of factors.

BEST MANAGEMENT PRACTICES

The PA downplays any potential adverse impacts from harvesting activities: "vegetated buffer strips would act as an effective barrier to any sediment being transported into stream channels by surface erosion or runoff," PA, 28, and "Even if some soil movement occurred, the vegetated buffer strips along every perennial or intermittent channel would act as an effective barrier" PA, 28. The current condition of the riparian reserves in the project area does not support that conclusion. The PA conveniently omits any discussion of the age and health of the riparian reserves. An analysis of the condition of the reserves is necessary before making assumptions about the level of sediment these reserves will be capable of trapping. The foundation of such generalized and optimistic assessment of impacts is Best Management Practices (BMPs), which are automatically assumed to negate negative impacts. While we support the use of BMPs, they should not facilitate approval of projects that degrade habitat. The aim of BMPs is that they can "control or prevent," adverse impacts. However, the only sure method of preventing adverse impacts is by not conducting activities that cause harm and destruction. BEST measures of control do not provide assurance that valuable habitat will not be degraded. There is no proof of "demonstrated ability" of BMPs to be successful in diminishing harm.

NOXIOUS WEEDS

The Cloak PA acknowledged that noxious weeds are a problem, and yet proposes no mitigation measures such as washing heavy equipment before it comes into the planning area. The PA does not indicate that any actions will be taken to reduce the risk of noxious weed introduction and establishment, nor does it include a discussion of how the USFS would monitor success of these measures during implementation and in the aftermath of the project. Invasive weeds have reached such epidemic proportions that the Forest Service recently sent out a letter stating: "In recent years invasive plant populations have significantly increased on these forests...Invasive plants continue to expand every year, and have the potential to increase at rates of up to 8 – 12 percent per year"

(letter from Gary Larsen, 2.24/04, Attached). Given this situation, the lack of protocols around dealing with noxious weeds in the Cloak PA is startling.

CONCLUSION

The Cloak Thinning Project, while flawed, is a serious step in the right direction for the Clackamas District, and we applaud the agency for steps it is taking to redirect resources away from liquidating legacy stands of old growth on the district. We also applaud the wide range of alternatives, including Alternative D. At the same time, we are greatly concerned about the impact of this project on the northern spotted owl, in addition to impacts on riparian areas, snag loss, and detrimental impacts to fish populations and soil. If the project was turned into a mechanical thinning project directed at monoculture plantations, with trees lopped and scattered on site, we would enthusiastically support it, as we share the view that there are numerous units in the Cloak project that could benefit from some mechanical thinning, namely: 472, 473, 474, 478, 503, 511, 512, 513, 514, 515, 517, 519, 520, 578, 579. However, until the above issues are adequately resolved, Bark cannot support this project. We also feel that this PA is seriously lacking in information on the direct, indirect and cumulative effects of the proposed activities. Thank you for considering our comments. Bark incorporates by reference the comments of Oregon Natural Resources Council and Charlie Ferranti.

Sincerely,

Sandi Scheinberg
Executive Director