po box 12065
portland, or 97212

503-331-0374
www.bark-out.org

APPEAL TO THE REGIONAL FORESTER OF THE UNITED STATES
FOREST SERVICE REGION 6

APPELLANT'S NOTICE OF APPEAL, REQUESTED RELIEF, AND
STATEMENT OF REASONS

Dated this July 4, 2013

NOTICE OF APPEAL
To: Regional Forester
Appeal Deciding Officer
USDA Forest Service
PO Box 3623
Portland, OR 97208
Email: *appeals-pacificnorthwest-regional-office@fs.fed.us*

RE: Red Hill Timber Sale Appeal

In accordance with 36 CFR 215, Bark hereby appeals the Environmental Assessment ("EA") and Decision Notice ("DN" or "Decision") for the Red Hill Timber Sale.

Decision Document: Red Hill Restoration Decision Notice and Finding of No Significant Impact

Date Decision published: May 30, 2013

Responsible Official: Lisa Northrup, Acting Forest Supervisor, Mt. Hood National Forest ("MHNF")

Appeal Period End Date: July 11, 2013

Description of the Project:

This project would log approximately 1,536 acres of recovering forests, including construction of 4 miles of temporary road, including 1.1. miles of new temporary roads, 2.1 miles are previous temporary roads that will be reconstructed for this

project, and 0.6 miles are on previously decommissioned roads. The project will also decommission 12 miles of road if funding becomes available.

Location: West Fork Hood River Watershed, Hood River Ranger District, Mt. Hood National Forest

Appellant's Interests:

Bark has a specific interest in this decision, which we have expressed through providing comments during scoping, and on the Preliminary Assessment, and in active participation in the Hood River Stew Crew, as well as leading a public hike in the area and walking almost every unit of the proposed timber sale.

Bark is a non-profit organization based in Portland, Oregon and has worked to protect the MHNF since 1999. Staff, members, volunteers, supporters, and board members of Bark live in the communities surrounding the MHNF and use and enjoy the Forest extensively for recreation, drinking water, hunting, fishing, general aesthetic enjoyment, family gatherings, viewing flora and fauna, gathering forest products, and other purposes.

Specifically, Bark staff and volunteers have grown to deeply appreciate the area targeted for logging by the Red Hill Timber Sale, and regularly visit the area for hiking, camping, relaxing, plant identification, and photography. The value of the activities engaged in by Bark members and staff will be damaged by the implementation of this project.

Request for Stay

Although an automatic stay is in effect for this decision as per 36 CFR §215.10(b), we formally request a stay of all action on this project, and that the Forest Service not enter into any contractual agreements with private companies to implement any portion of this sale.

Requested Relief

In recognition that this project has not followed the prescribed agency process, fails to meet the Northwest Forest Plan and Mt. Hood Forest Plan, Bark requests that the Forest Service withdraw the decision and prepare adequate NEPA documentation for a project that will actually lead to the short and long term restoration of the West Fork Hood River Watershed.

Statement of Reasons

1. Inadequate Snag Density

In 1994, the United States Forest Service (USFS) and Bureau of Land Management (BLM) issued the Record of Decision for the Northwest Forest Plan (NFP). The NFP established management requirements for all USFS and BLM land within the range of the northern spotted owl. The Mt. Hood National Forest lies within the range of the northern spotted owl and all management practices must conform to the requirements of the NFP.

The NFP amended all pre-existing National Forest LRMPs, so that both the LRMP and the NFP guide Mt. Hood's management. In the event that there are differences in management guidelines between the two documents, the NFP controls. *NFP at 11*.

Both the Mt. Hood LRMP and the NFP contain standards for snag habitat retention. The Mt. Hood LRMP has two standards: 1) Where timber harvest occurs, wildlife trees (eg snags and green reserve trees) *should* be maintained in sufficient quantity and quality to support over time at least 60 percent of the maximum biological potential of primary cavity nesting species, eg woodpeckers. FW-215; and 2) Measured at the Forest and/or area analysis level (i.e. approximately 5000 acres), at least 40 percent of the maximum biological potential of cavity nesting species *shall* be maintained through time. FW-216.[1]

The NFP standard is similar to FW-216, but requires that snag habitat be maintained on a more consistent basis throughout the watershed: At a minimum, snags are to be retained within the harvest unit at levels sufficient to support species of cavity nesting birds at 40% of potential populations levels, with per-acre requirements met on average areas no larger than 40 acres. *NFP at C-42.*

The Red Hill Timber Sale does not comply with either the Mt. Hood LRMP's snag retention standards or the NFP's snag habitat retention standards.

The starting place in this project area is one of snag scarcity. On average the proposed treatment units are below LRMP standards for snags. Currently, there are roughly 0.5 snags per acre 20 inches DBH and greater across all dominant plant associations. Forest Plan standards for Western hemlock are 2.2 snags per acre and Pacific silver fir are 2.4 snags per acre. *PA at 3-7.*

[1] 'Shall' standards are mandatory, and 'should' standards are required but case by case exceptions are acceptable if identified during environmental analyses. LRMP 4-45.

Past harvest activities on approximately 75 percent of the analysis area has reduced the abundance of snags. A much larger percentage of the watershed (32.5 percent) currently contains no snags compared to the historic condition of 4.7 percent. While there are currently more snags per acre in the 0-6 category, the remainder of the watershed in this habitat type is well below historic levels for the number of snags per acre. *EA at 3-167.*

In the analysis of the proposed action, the EA acknowledges that snags will be cut during harvest operations, temporary road construction, road decommissioning, road closure, and storm proofing due to safety considerations and that some downed logs would be degraded during project implementation. *EA at 3-165.*

The EA contains confusing and perhaps contradictory information about the number of snags removed for landings: "It is estimated that approximately 2 snags per acre (for a total of 60 snags) would be removed during the creation of landings in order to meet the current Occupational Safety & Health Association (OSHA) standards. The removal of these snags would be distributed across the planning area. With 83 landings, an average of 1.4 snags would be cut per landing" *EA at 3-165.* While the first set of number states that 60 snags will be removed for landings, the second number set suggests that 116.2 snags removed. Are the 116 snags in addition to the 60? This is unclear. Also, the EA does not provide any number or estimate of how many <u>additional</u> snags will be lost because of the other listed activities, or acknowledge that most of the trees that would have become new snags will be logged – leaving fewer trees that may not die for decades.

In addition to all the snags felled for infrastructure and safety reasons, the EA acknowledges that snags left standing after thinning would be more prone to wind damage and snow breakage than they would have been without thinning. There would likely be some loss of the remaining snags within 10 years after harvest which would become down wood. *EA at 3-165.*

The issue of snag habitat deficiency is not limited to the Red Hill Project Area – it is a widespread issue throughout the West Fork Hood River Watershed. Snags within early to mid-seral forests are relatively rare in the watershed. Most stands in the Stem Exclusion phase have few or no snags. Several stands in the Mature Stem Exclusion phase also lack snags. Including private lands (which are managed on a harvest-intensive rotation) over 60% of the watershed has few to no snags. *West Fork Hood River Watershed Analysis (WFHR WA) at 4-20, 21.*

The Watershed Analysis also noted that the existing snags in the watershed may not be adequately distributed across the watershed to assure connectivity and dispersal needs of several of the cavity-dependent species. *WFHR WA at 5-15.* Cavity nesters that depend on snags in late successional habitat have a problem in

that the available Late Seral Multistory stands are limited to only 19% of the watershed and are concentrated above 3000 feet elevation and limited in distribution primarily to the edges of the National Forest System Lands. *WFHR WA at 4-29*.

In general, the watershed lacks sufficient snags for connectivity and dispersal for three main guilds of cavity nesters:

1. Medium home range, mosaic of large tree species;
2. Medium home range, contrast species;
3. Small home range, mosaic of small tree species. *WFHR WA at 5-15.*

While the Dollar Lake fire did increase the level of high density snags in the West Fork of the Hood River Watershed by 2 percent, the current percentage of snags in the 30 plus category, 4.7%, is still below the reference condition of 7.2% of the watershed in high density patches of snags. *EA at 3-167.*

With an overall lack as the baseline for snag habitat condition in the West Fork Hood River Watershed, it is disingenuous for the Forest Service to conclude that the Red Hill Timber Sale is consistent with the Mt. Hood LRMP snag habitat requirements. In the EA, the Forest Service states simply that FW-216 "would be met because of the quantity of large snags present in mature stands scattered across the watershed." *EA at 3-168.*

There are several problems with this conclusion. First, the Forest Service supplies no supporting numbers or data to support this conclusion, contrary to the requirements of NEPA. While the conclusions of agency experts are entitled to deference, NEPA documents are inadequate if they contain only narratives of expert opinions. *Klamath-Siskiyou Wildlands Ctr. v. BLM,* 387 F.3d 989, 996 (9th Cir. 2004), citing *Idaho Sporting Cong. v. Thomas, 137 F.3d* 1146, 1150 (9th Cir. 1998) ("Allowing the Forest Service to rely on expert opinion without hard data either vitiates a plaintiff's ability to challenge an agency action or results in the courts second guessing an agency's scientific conclusions. As both of these results are unacceptable, we conclude that NEPA requires that the public receive the underlying environmental data from which a Forest Service expert derived her opinion.") This lack of data especially troubling when all of the available information, from the Watershed Analysis and the EA, points to a watershed-wide lack of large snag habitat.

Second, while the Forest Service did exempt itself from complying with FW-215, it did not address the fact that the NFP snag retention standard requires adequate snag habitat to be retained on areas averaging no more than 40 acres. Based on all of the available information, it is clear that the Red Hill Timber Sale violates the NFP standard. *NFP at C-42.*

That the Red Hill project area, and the West Fork Hood River Watershed, do not currently have enough snags to support snag-dependent species at minimum Forest Plan standards means that the Red Hill Timber Sale could have a disproportionately high impact on snag-dependent species. In the Douglas-fir and western hemlock forests of the Pacific Northwest, over 100 vertebrate species utilize snags for some part of their life cycle. Approximately 20 percent (34 species) of all bird species in the Pacific Northwest depend on snags for nesting and feeding and the abundance of snag-dependent birds is correlated with the density of suitable snags. (Boleyn, et. al., 2002).

In a landscape already denuded of snags, a hard look at the impacts to wildlife would ask: when snags are already below the Forest Plan standards, what are the impacts from removing even more snags across the landscape? Given that it will have a greater impact than anticipated by the Forest Plan, will this impact be significant to cavity dependent species? This is especially important when evaluating the cumulative impacts of this timber sale. Other projects in the watershed include: construction of the BPA Powerline, hazard tree removal, past timber harvest on federal and private lands, Lakebranch timber sales (Ax, Wedge and Faller) and Lava Restoration vegetation treatments. All these projects have the potential to reduce snags and down wood on the landscape. *EA at 3-166.*

Yet, somehow, the EA concludes that "Because of the very small number of snags expected to be cut, there would not be a reduction in the percentage of biological potential being provided for species dependent on snags and down wood.3-167. This is not based on the facts at hand. First – the watershed is already snag deficient, which gives every remaining snag heightened value. Second – the EA acknowledges that *at least* 2 snags per acre will be logged for landings, and likely many more for other infrastructural and safety needs. EA at 3-165. When Forest Plan standards for Western hemlock are 2.2 snags per acre and Pacific silver fir are 2.4 snags per acre, losing 2 snags per acre for landings is hugely impactful!

The watershed-wide lack of snags has a cumulatively detrimental impact on wildlife connectivity. Though not addressed by the EA, the WFHR WA acknowledges that connectivity, reproduction and dispersal habitat sufficient to allow gene flow at the metapopulation scale has been broken for several species either within the West Fork watershed or between West Fork and other watersheds. *WFHR WA at 5-17.* Of particular concern are snag dependent species, red tree voles and species with large home ranges, such as northern spotted owl, northern goshawk, pine marten pileated woodpecker and fisher. *WFHR WA at 5-17.* Given that the number of snags is far below the Forest Plan standards, the impact to wildlife from removing even more snags is *greater* than those anticipated by the LRMP EIS and may be directly and cumulatively significant.

Despite all the assurances in the EA that the Red Hill Timber Sale will grow bigger trees faster, which means bigger snags faster, and that "no action" would not result in the desired conditions, PA table 3-33 shows that in 100 years, with No Action there will be twice as many large snags, and that the QMD of thinned trees would be only two inches greater. *PA at 3-94*. Two inches is not an impressive surge of growth, nor does it seem to make much different in habitat quality. This seems especially important when the timber sale will result in decades of reduced snags in the planning area.

The Wildlife Report also relies on the "blocks of unharvested habitat" to "provide large snags and down wood while the treated areas of the watershed move toward the mature forest state." The adjacent untreated areas would allow for snag and down wood-dependent species to recolonize habitat as snags and down wood increase in the treated areas. *Wildlife Report at 22.* This illustrates that the "no action" forest will provide much better snag habitat than the logged forest.

Bark is currently engaged in litigation with the Bureau of Land Management over this exact question: When a forest is already below the minimum habitat requirements for snags, can an agency authorize felling additional snags, even if only incidental to timber operations?[2]

In conclusion, Bark requests that the Forest Service substantively engage with the snag retention standards of both the Mt. Hood LRMP and the Northwest Forest Plan. Bark believes that there are ways to achieve the desired stand conditions while still protecting all habitat-providing snags. OSHA regulations explicitly allow the Forest Service to buffer hazard snags instead of cutting them down[3], and the Forest Service can redesign its yarding systems and landings to avoid the need to fell these important habitat trees. Bark requests that the Forest Service withdraw the Red Hill Decision and address the issue of snag habitat retention before we are forced to similarly litigate on this issue.

2. Failure to Comply with ACSOs: Large Wood Recruitment in Streams

Complying with the Aquatic Conservation Strategy Objectives of the Northwest Forest Plan require an agency to manage the riparian-dependent resources to maintain the existing condition or implement actions to restore the conditions. *NFP at B-10.* Commercial logging in Riparian Reserves is allowed *only when necessary* to "acquire the desired vegetation characteristics needed to attain ACS objectives." *NFP at C-33*.

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[2] See Bark v. Bureau of Land Management, 3:12-cv-01656-AC.

[3] "Each danger tree shall be felled, removed or avoided. If the danger tree is not felled or removed, it shall be marked and no work shall be conducted within two tree lengths of the danger tree unless the employer demonstrates that a shorter distance will not create a hazard for an employee." 29 C.F.R. §1910.266(h)(1)(vi).

In the Red Hill Timber Sale, the Forest Service has failed to establish the need for commercial thinning to attain ACSOs – aside from stating that the riparian vegetation is "overstocked" with relatively uniform trees with low levels of diversity. Bark's experience field checking the project area leads us to conclude that this is a drastic oversimplification of the riparian areas, which include many spacious, diverse, well-functioning stands. Even if the Forest Service's generalization were true, this still doesn't support logging in Riparian Reserves, as the Forest Service never shows why logging Riparian Reserves is **needed** to attain ACSOs. Instead, as detailed below, there are ACSOs that the project area does not currently meet that would be negatively impacted by the Red Hill Timber Sale.

The EA acknowledges that the current conditions do not meet the ACS objectives for large woody debris, which is a component of ACSO #8: Species Composition and Structural Diversity. This ACSO requires the Forest Service to "maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability." *NFP a B-11.*

As discussed below, the riparian areas in the Red Hill timber sale area are already deficient in woody debris, both in stream and out, and the timber sale will decrease the amount of available down wood for many decades. While this fact alone shows that the Forest Service cannot meet ACSO #8, the lack of woody debris also increases stream side erosion in these unstable streams and decreases soil productivity.

The Response to Comments (RtC) suggests that the large woody debris objective would be restored through the implementation of the Proposed Action, *RtC at 3-16*, but the facts of the project directly contradict this assertion.

As disclosed by the EA, riparian silvicultural practice has the greatest potential to reduce the amount of down large wood due to the removal of woody material and reduction of recruitment potential. Thinning removes wood volume from the stand and reduces exclusion-phase mortality, which can contribute wood to the stream. *EA at 3-111*. Along small streams, relatively small diameter pieces of woody debris can contribute to pool formation. In recovering riparian areas, small trees in close proximity to the stream can help provide the geomorphic and biotic benefits in the short-term, especially during the stem exclusion phase. *EA at 3-111.*

The EA acknowledges that the Proposed Action would reduce the number of trees in the thinned portions of Riparian Reserves and would also reduce large wood recruitment to adjacent streams. However, the RtC asserts that this reduction in large wood recruitment would be minimal at both the site and action area scales

for a number of reasons, including the assertion that most wood recruitment to streams comes from the zone within 18 meters of the stream (about 60 feet) and that the reduction in available trees would only last for about 40 years. *RtC at 3-20.*

Even if these reasons are accurate, which Bark disputes below, they still point to the obvious conclusion: removing the trees that could otherwise fall into the creeks and rivers in the project area is not necessary to meet ACSOs, and will, to some degree, retard their achievement in the both the short and long term.

In its analysis of the effects of riparian thinning on wood recruitment, the Forest Service failed to incorporate the most recent and thorough study on the issue, produced by the Science Review Team Wood Recruitment Subgroup for the Forest Service, BLM and NOAA Fisheries (Spies, et. al, 2013, attached).

This Review Team was tasked with providing a scientific perspective on: "…the anticipated contributions of large woody debris from young (up to 120 years) unthinned (and generally even-aged) riparian forests, in the short term and long term, and describe how that recruitment changes under various riparian thinning regimes. Describe how the outcomes are affected by the tree species composition. Include information regarding large woody debris for aquatic and terrestrial systems*"*. The findings of this review are directly applicable, and in some instances contradictory, to the Forest Service's conclusions in the Red Hill Timber Sale EA.

Contrary to the Forest Service's assertion that most wood recruitment to streams comes from the zone within 60 feet of the stream (based on a 2002 paper about the STREAMWOOD model), the Spies Review cited empirical studies which indicate that 95% of total instream wood (from near-stream sources) comes from distances of 82 to 148 feet. (Spies, et. al 2013). As the majority of no-cut buffers only extend 60 feet from perennial streams, the Riparian Reserve logging in the Red Hill Timber Sale would absolutely affect the quantity of available down wood.[4]

This is implicitly recognized by the Forest Service in its discussion of the No Action Alternative. No Action would, over time, result in smaller trees that would eventually fall into streams and/or floodplains. Many streams in the action area are small and thus smaller sized large wood provides habitat and channel stability benefits. *EA at 3-100*. This is echoed in the Spies Review: If the stand to be thinned already has trees that are large enough to have the desired function if they fall into a stream, then thinning is not going to increase the abundance of "functional" trees. (Spies, et. al 2013).

[4] The Red Hill Timber Sale will remove approximately 100-300 trees per acre. *NMFS LOC at 4.*

In larger streams within the action area, the EA asserts that smaller large wood would not provide the same benefit and would not remain in the system as long as larger wood. *EA at 3-100*. However, as discussed before, the facts in the EA demonstrate that this timber sale will not radically increase the diameter of leave trees as much as it will radically decrease the number of trees available to become instream down wood. *See EA Table 3-33, at 3-339.*

In addition, even though the EA downplays the contributions of smaller trees as down woody debris in streams, many studies show that smaller pieces tend to accumulate in wood jams and perform similar functions to, or enhance the functionality of, larger single pieces. (Spies, et. al 2013, internal cites omitted).

The Spies Review notes that much knowledge about vegetation manipulation and aquatic and landscape ecology has been developed since the Northwest Forest Plan was enacted in 1994, and alternative approaches for designing management of riparian areas are emerging. (Spies, et. al 2013, internal cites omitted). The management of a particular location depends on the "context" of that location, many restoration efforts fail because of the reliance on "off-the-shelf" and one-size-fits all concepts and designs rather than on an understanding of specific features and capabilities of the location of interest. *Id.* Recent scientific advances suggest that effective aquatic conservation practices should be tailored to the specific features and characteristics of the location of interest. *Id.*

Also, the Spies Review says that site-specific information on forest stands on both banks and stream conditions, in conjunction with forest growth and stream wood recruitment models, is required to estimate the site-specific effect of thinning on instream wood loads. Instead, the Red Hill EA makes sweeping generalizations that do not match the actual on-site conditions of the units, especially in the older stands, like 44 and 50. Not only does the Red Hill EA lack the information necessary to show that the logging of Riparian Reserves is needed to meet Aquatic Conservation Strategy Objectives, all the information in the EA and other relevant studies point to the fact that thinning in Riparian Reserves will substantially decrease the amount of large in-stream wood in both the short and long term. This does nothing to address the already existing lack of instream wood. This is a persistent loss of in-stream wood that may have direct and cumulatively significant impacts to the environment.

In addition, there is substantial confusion between EA, DN/FONSI and NMFS Letter of Concurrence relating to stream buffer widths. The EA states generally that perennial streams will receive "no-touch" buffers of 60 feet. The DN states that buffers were increased on Units 12 (100 ft), and 21, 26, and 29 (all 120 ft). *DN/FONSI at 5*. While Bark appreciates the recognition that larger no-cut buffers are better for protecting fish habitat, the DN/FONSI glaringly omits the buffer

enlargements required by the NMFS LOC. The NMFS LOC states that there are four Red Hill units adjacent to Listed Fish Habitat, and that the no-cut buffers are as follows: Unit 1 (260 ft), Unit 6 (200 ft), Unit 44 (150 ft.) and Unit 50 (250 ft). *LOC at 4*. Bark did not see the requirements of the NMFS LOC reflected anywhere in the DN/FONSI. Also, PDC A-1[5] and A-2, and the associated table, should be updated to reflect the greater buffer widths required by both the DN/FONSI and the NMFS LOC. *See EA at 2-28.* These omissions need be remedied, and – at the least – the decision amended to include accurate stream buffer widths.

For all the above reasons, the DN/FONSI is inaccurate when it concludes that "This project will maintain or restore all nine ACS objectives through the implementation of the riparian prescriptions." *DN/FONSI at 19.* All the information in the EA and other relevant scientific sources lead to the conclusion that, at the least, the project will retard ACSO #8 – which the area is already not attaining. As the District Court of Oregon recently found, "[g]iven the scope of the Project and the potential effects within ecologically critical Riparian Reserves, this Court may weigh the potential violation of the ACS Objectives as a 'significance' factor, among others, in deciding whether an EIS is required." *Cascadia Wildlands v. U.S. Forest Service,* 6:12-cv-00804-AA, opinion filed 3/21/13. Rather than violating the ACS, the Forest Service should remove the Riparian Reserve logging portions of the Red Hill Timber Sale.

3. Red Hill Timber Sale will Significantly Increase Invasive Species

The starting place for this analysis is that noxious weeds are currently a problem in the watershed, crowding out native plants. *WFHR WA at 5-1.* Invasive plants can reduce biological diversity, displace native plant communities, decrease and degrade wildlife habitat, alter fire regimes, change hydrology, disrupt mycorrhizal associations, alter nutrient dynamics, and increase soil erosion. *EA at 3-187.* There are already six noxious weed species of concern in and near units 5, 6, 9, 15, 18, 27, 44 and along the following unit access roads and haul routes: 1340, 1600, 1600-018, 1612, 1620-630, 1800, 1810-011, 1811-620. *EA at 3-186.*

The EA acknowledges that there is a **High Risk** of introducing and/spreading noxious weeds directly and indirectly via machinery and equipment used during all ground disturbing activities proposed under the Proposed Action alternative. *EA at 3-187* (emphasis included). The EA suggests that the PDC would "reduce the risk". *EA at 3-187.* Indeed, the *entire* "Effects Analysis" for the Proposed Action runs as follows: Under the Proposed Action alternative, treatment of high priority

[5] PDC A-1 states that "No ground based mechanized equipment, including but not limited to tractors or skidders may operate within 100-feet of streams, seeps, springs or wetlands while conducting logging operations."
Bark requests that this restriction is expanded in the units that require larger buffers, and also wonders how the trees within the 100-foot buffer will be felled and yarded? If a logging company can fell trees 40 feet closer to the stream than it can use ground based equipment, it seems like this PDC is nearly impossible to comply with or enforce.

noxious weed sites in the analysis would still occur annually (as funding allows) and the High Risk of spreading or introducing noxious weeds as a result of proposed project activities would be reduced by implementation of PDC. *EA 3-189.*

This doesn't analyze the effects of the action at all, and certainly does not address Bark's concerns raised in PA comments – that our post-logging monitoring in the Clackamas River Ranger District has found invasive species in the great majority of timber sales monitored. All the sales monitored had similar PDC as the Red Hill Timber Sale regarding invasive species management. Of the 19 units surveyed – within two years of logging, 85% had presence of invasive species, especially prevalent in landings and skid trails. Clearly, the BMPs did not work in similar projects to curb the spread of invasive species, and the Forest Service has given no assurance that Red Hill would be any different. *Bark PA Comments at 16.*

Even if the PDC are all applied and do "reduce" the risk, the EA does not quantify how great the reduction of risk. Does the initial assessment of risk take into account the PDCs? If so, would the reduction be from High to just a bit less than High? Is the reduction from High to Moderately High? High to Moderate? Without more information, it is impossible to evaluate the extent that invasive species will spread as a result of this timber sale, or the significance of that spread on the environment. We only know that there is a HIGH RISK of spread, that may be somewhat reduced by PDC that have been shown to be ineffective elsewhere.

As noted earlier, invasive plants can reduce biological diversity, displace native plant communities, decrease and degrade wildlife habitat, alter fire regimes, change hydrology, disrupt mycorrhizal associations, alter nutrient dynamics, and increase soil erosion. *EA at 3-187.* An adequate NEPA analysis would have discussed to what extent the invasive species spread by the Red Hill Timber Sale will contribute to these detrimental ecosystem impacts.

There are at least two more impacts to the ecosystem resulting from the spread of invasives that the EA should have analyzed: 1) They are persistent. Even with the ongoing application of pesticides (as funding allows) invasive species are still slowly creeping through the watershed and out-competing native plants. If the invasive species get in to more areas, it is likely they will stay; 2) the increased spread of invasives means the increased use of pesticides to control them, leading to more chemicals throughout the watershed.

In addition, Bark fundamentally disagrees with one of the Forest Service's initial analysis assumptions: that the U.S. Forest Service has only a slight influence on movement of humans, livestock, wildlife, or vehicles in or out of the planning area. *EA at 3-185.* In its decision to approve the Red Hill Timber Sale, the Forest Service has a large amount of influence over the movement of people and machinery through the project area. As increased presence of invasives species is often correlated with use of landings and skid trails – this project will increase forest floor disturbance and presence of large machinery in the forest that would not otherwise happen.

The Forest Service's analysis of invasive species impact simply does not provide the "hard look" required by NEPA, and is not sufficient to support a Finding of No Significant Impact. The impact of spreading persistent invasive species further into the forest, which is already heavily impacted by invasives, is likely to significantly impact the watershed both now and in the future.

4. Red Hill Timber Sale may have Significant Cumulative Impacts

When assessing the significance of a project, NEPA requires that an agency consider "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions . . . Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." 40 C.F.R. § 1508.7. Significance exists if reasonable to anticipate a cumulatively significant impact in the environment, which cannot be avoided by terming an action temporary or breaking it down into small component parts. 40 C.F.R. §1508.27(b)(7).

A proper consideration of the cumulative impacts of a project requires "[s]ome quantified or detailed information . . . 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, 1379-80 (9th Cir. 1998). The analysis "must be more than perfunctory; it must provide a useful analysis of the cumulative impacts of past, present, and future projects." *Id.*

Cumulative impacts of multiple projects can be significant in different ways. The most obvious way is that the greater total magnitude of the environmental effects - such as the total number of acres affected or the total amount of sediment to be added to streams within a watershed - may demonstrate by itself that the environmental impact will be significant. Sometimes the total impact from a set of actions may be greater than the sum of the parts. For example, the addition of a small amount of sediment to a creek may have only a limited impact on salmon survival, or perhaps no impact at all. But the addition of a small amount here, a small amount there, and still more at another point could add up to some-thing with a much greater impact, until there comes a point where even a marginal increase will mean that no salmon survive. *Klamath-Siskiyou Wildlands Ctr. v. BLM,* 387 F.3d 989, 993-994 (9th Cir. 2004).

With this as the legal context with which to view the impacts of Red Hill cumulatively with past, present and reasonably foreseeable projects, the Red Hill EA falls woefully short of taking a "hard look" at the cumulative impacts and making a reasoned decision as to the significance of the Red Hill Timber Sale.

In Bark's comments we raised concerns that the Forest Service failed to prepare a cumulative analysis of the impacts of the Red Hill Timber Sale that also analyzed impacts of the proposed Lava, Horseshoe and Polallie-Cooper Timber Sales. In response, the Red Hill EA does include very brief discussion of Lava in the cumulative effects sections of the EA, but does not mention the other two sales. In the RtC, the Forest Service posited that "[b]oth the Polallie-Cooper Hazardous Fuels Reduction and Horseshoe Thin projects are in the "plan-to-project" phase where they are being considered and developed through collaborative group discussions and preliminary field surveys. As of January 2013, neither project has a proposed action. Without a proposed action, the direct and indirect effects of these projects cannot be considered in the cumulative effects analysis for Red Hill Restoration because there is no way to determine whether or not the effects overlap in time and space." RtC at 3-6.

While this may be true for the Horseshoe Timber Sale, which has been put on indefinite hold, the Polallie-Cooper Timber Sale is absolutely a "reasonably foreseeable" future project that must be considered cumulatively with Red Hill. Perhaps "as of January 2013, neither project has a proposed action," as of May 30, when the Red Hill Decision was made, the Hood River Forest Service staff was actively planning the Polallie-Cooper Timber Sale. From communications made with the Hood River Stew Crew, it appears that the Forest Service has a good sense of what the project will look like on the ground, <u>especially</u> as it is a resurrected timber sale that is already planned, mapped, and thoroughly analyzed.

Looking at Red Hill, Lava and Polallie-Cooper together means that **every** fork of the Hood River – the West, Middle and East Forks – will have active timber sales spanning thousands of acres. Viewed on a map, this is the whole north side of Mt. Hood, wedged between heavily managed private lands and the higher elevation Mt. Hood Wilderness Area. Including the recently logged Lakebranch Timber Sales, the Forest Service has logged, or is planning to log, the entire north slope from the Bull Run Management Unit in the west to the Dalles Watershed Management Unit in the east.

Table 3-1, that each resource analysis refers to in its cumulative effects analysis, is simply a list of projects. No data, no specifics, no nothing to tell the reviewing public anything about the context or intensity of those projects so as to understand their overlapping impacts with the Red Hill Timber Sale. *EA at 3-1*. In the Red Hill Timber Sale project file, under the folder "Cumulative Effects Analysis", the only documents that provided greater detail about specific projects were documents about riparian restoration projects and the Lava Timber Sale. In no location could I find details about all the projects listed in Table 3-1.

The cumulative level of harvesting in the West Fork Hood River watershed has already moved the watershed to a hydrologic recovery category of Concern. *WFHR WA at 4-29.* The other forks of Hood River have a similar history of impacts from past and present logging and road building. Instead of presenting a clear picture of what would happen in the Hood River Basin as a result of these three future projects, in conjunction with the extensive logging on private lands in the watershed, the Red Hill cumulative effects analyses were often brief narratives that did not include Polallie-Cooper and provide very little substantive data about the extent of cumulative impacts.

For example, the cumulative effects section on snags, vaguely states that snags are lacking through the watershed, and that other projects will create larger snags in time. *EA at 3-167.* It says nothing about the time lag between project implementation and when these snags will be available. It says nothing about the impact to snag-dependent wildlife from the impact of ongoing snag deficiency throughout the watershed. It fails to address pertinent information from the Watershed Analysis that snag-dependent species are already struggling in the watershed. *WFHR WA at 5-17.* Finally, it fails to evaluate the impact of the reasonably foreseeable timber sales in the adjacent forks of the Hood River watershed, and evaluate how a loss of snags over thousands of acres will affect the populations of cavity-nesting species. This is but one example of the lack of specific, quantifiable analysis necessary to understand the cumulative impacts of a timber sale.[6]

Another concern is that the EA discusses the cumulative effects to each specific resource, but in no place does it discuss the impacts of the whole of the project. Thus, while it may be easy for each resource specialist to conclude that the cumulative effects to their particular area of expertise are not significant, nowhere in the EA looks at the entire project cumulatively – as a single project *or* in the context of other projects. When the FONSI concludes that: "Each resource effects analysis contained in the EA discusses cumulative effects; none were found to be significant," it failed to assess the collective significance of all the resource impacts. *DN/FONSI at 16.*

In sum, Bark's key concerns are 1) Polallie-Cooper is a reasonably foreseeable project that should have been included in the cumulative effects analysis; 2) the cumulative effects analyses for each resource issue failed to present enough data for either the agency or public to make a reasoned determination as to the extent of environmental impact; and 3) the EA fails to provide a comprehensive evaluation o the project as a whole – thus the direct impacts of the project – as well as the

[6] The Cumulative Effects section on Invasive plants says even less – with essentially NO analysis of the impact of increasing spread of invasives throughout the project area in the context of an already large problem with invasive species. EA at 3-188, 189.

cumulative – are masked by piecemealing the analysis. Given the already degraded condition of the watershed, the impacts of the Red Hill Timber Sale, when assessed cumulatively with other past, present and reasonably foreseeable projects, may well be significant.

5. Remove "Forest Health" Units 44 & 50 from the Timber Sale

Bark continues to dispute the Forest Service's characterizations of Units 44 and 50, and strenuously requests that the Forest Service remove these units from the Red Hill timber sale.

Bark volunteers have walked throughout these units, and did not observe any major signs of disease, or impact from balsam woolly adelgids (who only prey on true firs, of which there are few in these units). Indeed, Bark volunteers observed a beautiful multi-story forest, with a high diversity of conifer species – including Douglas Fir, Western Hemlock, Lodgepole Pine, Noble Fir, Pacific Silver Fir, and Western White Pine.

Forest stands in 44 and 50 are experiencing healthy understory regeneration of 20-30 foot tall western hemlock and western red cedar growing back in naturally created gaps. In the West Fork of Hood River watershed, this type of Understory Reinitiation (UR) stage is virtually absent. UR is defined as "middle aged" medium sized trees with variable canopy closure, second cohort of young trees present in the understory, scattered mortality in all size classes. *WFHR WA 4-19, 20.* This is exactly what Bark groundtruthers found when hiking the units, and indeed what Figure 2-2 of the EA displays: these stands are much better spaced than the young plantations, and are experiencing healthy understory growth of both conifers and deciduous species.

On a recent visit to Unit 50, we found a healthy population of rare phantom orchids (*Cephalanthera austinae*) growing throughout the unit and immediately alerted Forest Service staff. According to the Washington Native Orchid Society, this is a mycoheterotrophic plant, which is attached to hosts indirectly through fungal intermediates and considered to be epiparasitic. This plant can stay dormant for years before sending out as stem. It may bloom once and then go into remission for up to 17 years. is the only North American orchid that is completely devoid of chlorophyll. Its food is drawn from the rotting humus of the forest floor, with the help of symbiotic fungi that "infects" the plant's fibrous roots, sharing nutrients with it. They only grow in forests with little to no undergrowth and limestone deposits. Threats to the species survival are increasing through habitat loss, as high levels of development and logging in key orchid habitats continue to place this species in peril. *See http://www.wanativeorchids.com/Cephalanthera%20austiniae/*

Reducing the canopy to 40%, and soil compaction and increase in ground slash from logging operations will surely disrupt this population of rare orchids, as well

as damage the other healthy understory plants like Western Hemlock. This rare orchid should be protected – not damaged – by a project touting to "restore forest health".

Indeed, growth of trees is not the only way to determine whether a forest is healthy. Looking at the plant communities in these units, it is clear that the soil is healthy and productive. Indeed, even if the forest *was* a densely stocked, even aged forest, this is not abnormal for this forest type. It is natural for trees to slow growth when they reach the "stem exclusion" phase. The Forest Service fails to recognize that dense, heterogeneous Douglas Fir dominated forests are very typical in natural succession, as Doug Fir is a sun-tolerant, early successional tree species. It is well known that in early seral forest stands "a very common occurrence is the development of dense, nearly pure, essentially even-aged stands of Pseudotsuga menziessi." (Franklin & Dryness, 1973). These stands are often dense enough to eliminate most of the understory vegetation, with reestablishment of the characteristic understory species and invasion of western hemlock taking place as mortality begins to open up the stand at 100 to 150 years of age. *Id.* This is basic forest ecology. The Red Hill "Forest Health" stands are not ill, and do not need drastic treatment to make them "better".

Bark requests that the Forest Service remove units 44 & 50 from the Red Hill Sale, as they are healthy forests in the Understory Reinitiation stage, which is too rare in the West Fork Hood River Watershed. They contain healthy populations of a rare plant – which is in itself an indicator of forest health. Please do restore this part of the forest, by leaving it alone.

6. Forest Service cannot rely on BMP/PDC effectiveness to avoid significance

Bark appreciates the Forest Service's attempts to follow Mt. Hood Forest Plan's Appendix H for Best Management Practices, however, there are still many unresolved questions as to how, or if, BMPs will actually be monitored for implementation and effectiveness. The DN/FONSI notes that Red Hill Appendix 2 includes all the required components of the site-specific BMPs as specified in Appendix H of the Forest Plan, including BMP title, objective, explanation, ability to implement, effectiveness, and monitoring. *DN/FONSI at 8.* While there is a list of general BMPs, and sections for each of the specified line items, the information contained therein is not of very high quality, such as the section called: Ability to Implement. Typically, the answer is simply one word: "high" or "moderate" with no supporting reasons.

In addition, the section on monitoring listed a very general monitoring protocol at the beginning of the document, that was the relied on for every single other BMP. The monitoring section reads:

> "Monitored throughout the NEPA planning process. The project will be in a pool of timber/stewardship sale projects where District Rangers

> will conduct a "Plan in Hand" review on a minimum of one timber/stewardship sale within each zone every other year. The goal of the review is to monitor and evaluate forest resource management prescriptions to measure compliance with goals and objectives, determine effects, and adjust subsequent management actions when needed as required by Forest Service Manual direction.
>
> The Forest Service Contracting Officer or his/her designee would monitor the implementation of the PDC, as described in implementation and responsibility. This project would go into a pool of similar projects to be selected for project level BMPs implementation and effectiveness monitoring as per the National BMP Monitoring Protocol. If selected an IDT would evaluate whether the site-specific BMPs were implemented and then effectiveness of the BMPs."

However, to the best of Bark's knowledge, such "project level BMPs implementation and effectiveness monitoring as per the National BMP Monitoring Protocol" has not occurred on Mt. Hood National Forest since 2004, and there is absolutely no assurance that it will happen for the Red Hill Timber Sale. The Mt. Hood National Forest hasn't even done its Forestwide Annual Monitoring Report since fiscal year 2010, when the Forest Service has defunded it.

The lack of post-logging monitoring data, combined with the fact that what little monitoring had been done raised questions about the implementation and effectiveness of the BMPs, led Bark to begin a program of post-logging monitoring. Bark entered into a partnership with Drew University to create protocols for monitoring BMPs, and to train Bark volunteers in these protocols.

Over the past year, 65 volunteers spent over 750 hours monitoring timber sale units logged one and two years prior. Thus far, Bark has surveyed 24 units in the following sales in the Clackamas River Ranger District. Bark staff and volunteers have also surveyed two units of the recently logged Wedge Timber Sale, only a few miles from proposed Red Hill Units. What we saw on the ground was appalling – in Wedge Unit 412, there were bare skid trails with ruts up to 24 inches. The landing was trashed – in some places covered in compact gravel, and in others covered with heaps of small woody debris. Harvester trails went every which way, and the soil was rutted and piled in many places. We saw violations of the BMP to prevent erosion that requires bare soils to be revegetated or covered with slash, as well as mechanical incursions into Riparian Reserve "no-touch" zones.

Bark's field experience leads to the following systemic concerns:

1) There is a pattern and practice of unreliable implementation of BMP/PDCs by timber sale contractors.

a. This leads to impacts on the ground that are greater than anticipated in environmental analyses and consultation; and
b. Future determinations of significance cannot rely on BMP's to effectively mitigate impacts because field data shows that projects are not being implemented as planned.

2) The action agency does not perform regular post-project monitoring on timber sales to ensure that the BMP/PDCs are implemented and/or effective.

In this vast information gap, the Forest Service cannot rely on BMP and PDC as mitigating this project's significance. However, that is exactly what the EA seeks to do.

The National Environmental Policy Act defines "mitigation" as avoiding, minimizing, rectifying, reducing, eliminating or compensating project impacts. The following design criteria and mitigation measures are an integral part of this project and would be carried out if the project is implemented under the Proposed Action. In most cases, the effects analysis in Chapter 3 is based on these project design criteria and mitigation measures being implemented. *EA at 2-23, RtC at 3-3.*

In instances such as this, where the Red Hill DN/FONSI relies on "Best Management Practices and design criteria" to make its Finding of No Significant Impact, the mitigation measures must be assured to occur and must "completely compensate for any possible adverse environmental impacts." *Cabinet Mountains Wilderness/Scotchman's Peak Grizzly Bears v. Peterson,* 685 F.2d 678, 682 (D.C. Cir. 1982). If the effectiveness of such mitigation is not assured, then the Forest Service cannot sign a FONSI and must prepare an EIS. *Foundation for North American Wild Sheep v. U.S. Dep't of Agric.*, 681 F.2d 1172, 1178 (1982). In *Northwest Indian Cemetery Protective Assn. v. Peterson*, the court determined that NEPA requires agencies to "analyze the mitigation measures in detail [and] explain how effective the measures would be . . . A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA." 764 F.2d 581 (9th Cir. 1985).

The courts have held that the USFS is obligated to detail in an EA the mitigation measures that it relied on to obtain a FONSI. *Robertson v. Methow Valley Citizen's Council*, 490 U.S. 332, 353 (1989); *Carmel-By-the-Sea v. United States Dep't of Transp.*, 123 F.3d 1142, 1154 (9th Cir. 1997) (holding that "mitigation must be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated"). The Ninth Circuit has explained that "a mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA." *Northwest Indian Cemetery Protective Ass'n. v. Peterson*, 795 F.2d 688, 697 (9th Cir. 1986), *rev'd on other grounds*, 485 U.S. 439 (1988); *see also*

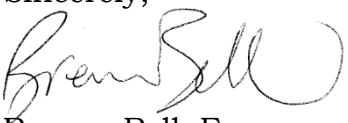
Neighbors of Cuddy Mountain v. United States Forest Serv., 137 F.3d 1372 (9th Cir. 1998).

The "mitigated FONSI" is only upheld when the mitigation measures significantly compensate for a proposed action's adverse environmental impacts. *Friends of Endangered Species, Inc. v. Jantzen,* 760 F.2d 976, 987 (9th Cir. 1985). The court will not accept conclusory statements that mitigation measures are effective: the agency must be able to support its conclusions with information in the administrative record. *Sierra Club v. Peterson*, 717 F.2d 1409 (D.C. Cir. 1985). In particular, the agency must also "disclose the history of success and failure of similar projects." *Sierra Club v. Morton*, 510 F.2d 813, 824 (5th Cir. 1975).

In sum, the Forest Service is scant on actual information as to the implementation ad effectiveness of these BMP/PDC, and the field data collected by Bark tends toward the conclusion that the BMPs are not as effective as predicted, and that the impacts to the environment are thus more severe than anticipated.

In conclusion, Bark believes that the Red Hill Timber Sale is a commercially-driven timber sale, thinly masquerading as forest restoration, which fails to follow several important substantive and procedural environmental laws and mistakenly relies on unreliable BMPs. This is the wrong direction for the Forest Service to be going in the management of the public's lands and water. This decision is in error, both legally and practically, and should be withdrawn until such time as the Forest Service can comply with all necessary regulations, and make a decision that truly will support meaningful restoration on Mt. Hood National Forest.

Sincerely,



Brenna Bell, Esq.
Staff Attorney & NEPA Coordinator

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