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03/16/2015

Casey Gatz  
6780 Highway 35  
Mount Hood/Parkdale, OR 97041  
RE: Polallie Cooper Scoping Comments

Dear Casey Gatz,

Bark's mission is to bring about a transformation of public lands on and around Mt. Hood National Forest into a place where natural processes prevail, where wildlife thrives and where local communities have a social, cultural, and economic investment in its restoration and preservation. Bark has over 25,000 supporters<sup>1</sup> who use the public land lands surrounding Mt. Hood, including the areas proposed for logging in this project, for a wide range of uses including, but not limited to: clean drinking water, hiking, nature study, non-timber forest product collection, spiritual renewal, and recreation. We submit these comments on behalf of our supporters.

### **PUBLIC PARTICIPATION**

The Polallie Cooper project is being planned by the Forest Service under Section 428 of the Consolidated Appropriations Act of 2012, which will use the new pre-decisional objection process (36 CFR 218) for "projects and activities implementing land management plans."

As the Forest Service emphasizes that this new process will increase the likelihood of resolving concerns by stakeholders in a more efficient and timely fashion, we also hope that this change in the appeals process will increase the likelihood of the agency being willing to engage with us on the issues we present.

In the recent past, many of Bark's concerns regarding commercial logging and road building have been dismissed by the Forest Service, even during the post-

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<sup>1</sup> Supporters in this case is defined as significant donors and petition-signees which Bark has identified as being active users of Mount Hood National Forest.

decisional appeal process. Since we will no longer be able to seek higher-level review of unresolved concerns after we read the Polallie Cooper project decision, a greater level of pre-decisional engagement will be especially valuable for both parties and will result in better, more informed decisions. Bark requests more direct responses to public input, including changing the project to address the public's concerns, as this is the only way to maintain meaningful involvement in the decision making process for our public lands.

## **BACKGROUND, LOCATION & LAND USE ALLOCATIONS**

In 2005, Bark and a coalition of conservation, recreation and citizen groups celebrated the Forest Service's cancellation of the Polallie Cooper Timber Sale, which was one of a series of projects that would have gravely impacted the north side of Mt. Hood. After years of pressure from these groups, including legal actions, the timber sale was cancelled and the concurrent plans to build a nearby resort were dropped. Bark was shocked to see that the Forest Service has decided to revive the very controversial Polallie Cooper Timber Sale.

Much has changed since the original Polallie Cooper Timber Sale was dropped in 2005. The Mt. Hood Wilderness has expanded, and protections have been established for the Crystal Springs Watershed Special Resource Management Area. Polallie Cooper is one of three newly proposed sales that are situated adjacent to one another, covering a massive stretch across the north of Mt. Hood National Forest (Polallie Cooper was not included in Cumulative Impacts analysis in either of these two projects: Lava or Red Hill). *Thus it is important that the Forest Service investigate the cumulative impacts of logging that could total upwards of 7,000 acres.*

Of the 3,000 acres proposed for commercial logging, approximately 1,900 of these acres may include mature, old growth or never-logged forest. Some of the areas within the proposed "Recently Unmanaged Stand Thinning" areas of Polallie Cooper are old growth forest (Fig.1), but because there are no units delineated, it is impossible for the public to know whether these very special forests are being proposed for commercial logging activities. We understand that the Forest Service has "desired future conditions" that it feels warrant a variety of *variable-density* treatments depending on the current conditions of a particular area. However if the agency does not include unit maps showing where logging WILL occur and where it WILL NOT, the public must assume old growth logging is included, and we must question this proposal.



**Figure 1: Stand of old growth trees within project area – south of road 3510 - marked trees are from cancelled Polallie Cooper Timber Sale**

This leads to several questions that the Forest Service must answer in its Environmental Impact Statement:

Does “Recently Unmanaged Stand Thinning” only mean that these stands MAY have missed a fire cycle?

Which areas are outside of their fire interval and where are they located?

What percentage of these stands have never been logged?

What are the ages of these stands by delineated timber sale unit?

Of these potentially very contentious areas, what is the assurance that the agency won’t log old growth trees?

Is there an age or diameter limit that will be used here?

Does the Forest Service intend to log in old growth areas but only remove small trees?

We understand that variable density thinning will be applied, and these forests will be “treated according to the existing condition on the ground.” Does this mean that stands which do not exceed a certain basal area or canopy cover will be immediately dropped from the proposal?

**Please include these areas in a subsequent map, in advance of the Environmental Impact Statement (EIS) comment period so commenters can field check these areas. Please also include a map which includes ages of stands including locations of old growth forest stands within the project area.**

In general, 83% of acres proposed for logging are in B-2 Scenic Viewshed, the goal being to “provide attractive, visually appealing forest scenery”. How will the agency be accomplishing this goal through a commercial timber sale? What percentage of these forests have never been logged?

Only 15% of acres proposed for logging in Polallie Cooper are in C-1 timber emphasis. The Polallie Cooper scoping letter reads: “Timber growth, yield, and health west of Highway 35 are currently declining...could cause potential resource loss...” Bark finds this information misleading and practically irrelevant since virtually NONE of the forests within the project area west of the highway are C-1 timber emphasis. Is the Forest Service referring any other resources in this statement other than timber? The vast majority of land west of HWY 35 is either B-2 Scenic Viewshed, Winter Recreation A-11, or A-4 Special Interest. How would the existing proposal enhance wildlife, scenic values in these areas?

The scoping letter describes the Polallie Cooper area as one of the last untreated Wildland Urban Interface (WUI)’s on the eastside of Mt. Hood, and it does appear that a bit less than half of the project area is within this WUI. None of the areas proposed for logging on the east side of HWY 35 are within this WUI. What is the agency’s primary motivation for logging in this area which is outside the WUI?

The scoping letter references the Hood River Community Wildfire Protection Plan, and explains how this plan identifies the Polallie Cooper area as priority for fuels reduction. It is true that in this plan, the perimeter around Cooper Spur is identified for a potential creation of defensible space, fire breaks and tree limbing. **To the best of Bark’s knowledge, there is no section within the plan that identifies a need for a commercial logging project on the entire**

**west side of the Highway 35 in this area.** Similarly the plan identifies a potential “Eastside Plantation Thinning” project: “The objective of plantation thinning is to thin young, overstocked stands to improve forest health and reduce fuels.” The Polallie Cooper project map includes an extremely small area of plantation thinning east of the Highway 35. Again, Bark is currently unaware of any section of the plan that that includes recommending logging *non-plantations* on the east side of the 35.

Please address all these inconsistencies in your EIS for the project - or, **better yet, resolve them by changing the project to meet the management values established by the land designations of the Mt. Hood Forest Plan.**

### **PROPOSED ACTIVITIES WITHIN THE WILD & SCENIC RIVER CORRIDOR**

A portion of this project appears to fall within the Wild and Scenic East Fork Hood River corridor, including 0.35 miles of new temporary roadbuilding. Congress first enacted the Wild and Scenic Rivers Act to preserve “in free-flowing condition” rivers of the United States that “possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values.” *Id.* It is national policy to protect such rivers’ “immediate environments... for the benefit and enjoyment of present and future generations.” The Forest Service must give “[p]articular attention . . . to scheduled timber harvesting, road construction and similar activities which might be contrary to the purposes” of the Wild and Scenic Rivers Act. Bark believes that timber harvesting and road construction in the Wild and Scenic East Fork Hood River corridor is contradictory to protecting the values listed above.

Within Wild, Scenic and Recreational River corridors, management activities must “protect and/or enhance the identified outstandingly remarkable values” for which the segments were designated, as well as the “[r]iver characteristics necessary to support the existing classification” of those segments. In wild river segments, timber harvest and salvage are prohibited except for limited insect, fire and safety exception; within scenic and recreational river segments, regulated timber harvest should occur so long as “recreation opportunity spectrum” classes and “visual quality objectives” are met. **New roads are prohibited in wild river corridors**, but existing roads are allowed to be “phased out and rehabilitated.” How does the agency see logging and roadbuilding within this corridor being consistent with the remarkable values identified for this area by Congress? How does logging and roadbuilding maintain and restore this corridor, and the East Fork Hood River Watershed as a whole? It is clear that

new roads are prohibited in this area. **We therefore do not anticipate that the agency will propose any new roadbuilding or commercial logging in this Wild and Scenic corridor as part of future Polallie Cooper planning documents.**

### **ACTIVITIES WITHIN THE CRYSTAL SPRINGS WATERSHED SPECIAL RESOURCE MANAGEMENT UNIT**

Along with other priority conservation areas included in this project, Polallie Cooper also proposes to log in the Crystal Springs Watershed Special Resource Management Unit. This management unit will be established on completion of Cooper Spur-Government Camp land exchange. That said, the Polallie Cooper scoping letter states that this project will be consistent with this new designation, and that the agency will comply with the management unit goals to ensure protection of quality & quantity of drinking water for Hood River County.

According to the 2009 Omnibus Public Lands Management Act, fuels reduction activities may only occur within 400 feet of structures or roads. *SEC. 1205(a)(4)(B)*. For land that is not within 400 feet of structures, the work is to be prioritized by focusing on activities that restore *previously harvested stands*, including the removal of logging slash, smaller diameter material and ladder fuels. Are all areas identified for thinning on the Polallie Cooper scoping maps within this 400 ft. buffered area?

Other prohibited activities include “New road construction or renovation of existing non-system roads, except as necessary to protect public health and safety.” The same prohibition applies to “Projects undertaken for the purpose of harvesting commercial timber”. The exception to this activity however is for the purpose of harvesting “merchantable products that are byproducts of activities conducted to (A) to ensure the protection of the quality and quantity of the Crystal Springs watershed as a clean drinking water source for the residents of Hood River County, Oregon; and (B) to allow visitors to enjoy the special scenic, natural, cultural, and wildlife values of the Crystal Springs watershed.” *SEC. 1205(a)(4)(B)*

Approximately how much commercial volume is coming from the CSWRU?

How much of the proposed activities in the CSWRU are within and without 400 feet of a structure?

How much of the proposed activities in the CSWRU are within and without 400 feet of the Cloud Cap Road?

How much of the activities are within native stands as opposed to plantation stands in the CSWRU?

Is there a diameter limit on the trees within the CSWRU - both within and without the 400 foot limit?

We request that the Forest Service explain the relationship of this project's purpose of reducing "fire hazard" (presumably ONLY within 400 feet of structures and roads) to protecting the quality of quantity of clean drinking water, as well as allowing visitors to enjoy the values listed above.

### **ACTIVITIES WITHIN POTENTIAL WILDERNESS AREAS**

Looking at the Polallie Cooper maps, it appears as though the Hood River Ranger District may be planning on conducting roadbuilding and commercial logging in areas proposed for federal wilderness designation. This type of action is surprising and is unprecedented in Bark's engagement with the district.

While we accept that the area of overlap may be due to mapping error or misinterpretation, we will also state now that we will challenge any proposal which includes conducting commercial logging or roadbuilding in either the potential Tilly Jane Wilderness (Mount Hood Wilderness addition) or within the Tamanawas Falls Wilderness proposal.

### **FUELS REDUCTION: WIDELY HELD ASSUMPTIONS, AND CERTAINTIES**

Commercial thinning has become, by political default, the prevailing mechanism for fuels reduction that federal land management agencies accept because it *usually* offers the least public controversy, while potentially the most commercial benefits available to the agencies. The current agency approach assumes that by controlling the amount of fuel in the forest through thinning, fire behavior can be similarly be controlled. However, available studies have failed to demonstrate that thinning significantly alters the behavior, spread, or severity of wildfire. It remains the case that the only support for the unsubstantiated speculation that fuel treatments might reduce crown fire hazard is relegated solely to "... informal observations, nonsystematic inquiry, and simulation modeling..."<sup>2</sup>

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<sup>2</sup> Graham, R.T., McCaffrey, S., Jain, T.B. (tech. eds.), 2004. Science basis for changing forest structure to modify wildfire behavior and severity. USFS Rocky Mountain Research Station Gen. Tech. Rep. RMRS-GTR-120.

We know that the Hood River Ranger District would be the first to acknowledge that forest fires result from, and are driven by, a multitude of factors; topography, fuel loads, the fire history of the environment in question and most importantly, weather.<sup>3</sup> Because weather is often the greatest driving factor of a forest fire, and because the strength and direction of the wildfire is often determined by topography, fuels reduction projects cannot guarantee fires of less severity.<sup>4, 5</sup>

In general, large fires are driven by several conditions that completely overwhelm fuels.<sup>6</sup> It is becoming more and more commonly accepted that reducing fuels does not consistently prevent large fires, and seldom significantly reduces the outcome of these large fires.<sup>7</sup> The overwhelming factors driving large blazes are drought, low humidity, high temperatures and most importantly, high winds.

Some research suggests that fuel reduction may exacerbate fire severity in some cases as such projects leave behind combustible slash, open the forest canopy to create more ground-level biomass, and increase solar radiation which dries out the understory. Higher wind speeds through thinned stands may also be a consequence of thinning and fuel management, as could the increased amount of available nutrients in the production of fine forest fuels. Indeed, a US. Forest Service report on the Fourmile Canyon Fire found that “[i]n some cases, treated stands appeared to burn more intensely than adjacent untreated stands, perhaps because of additional surface fuels present as a result of the thinning.”<sup>8</sup> This is also somewhat consistent with the District’s own experience in the N. Fork Mill Creek project area, where the Government Flats fire burned through the canopy of units that were recently thinned. High winds, steep slopes and highly combustible slash contributed to the fire severity.

As implied previously, while the effectiveness of fuels reduction projects can be inconsistent, there are places where they appear to reduce fire spread under

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<sup>3</sup> Wilderness Society, 2003, *Fire & Fuels: Does Thinning Stop Wildfires?*

<sup>4</sup> Carey, H. and M. Schumann. 2003. *Modifying Wildfire Behavior—the Effectiveness of Fuel Treatments: the Status of our Knowledge*. National Community Forestry Center.

<sup>5</sup> Rhodes, J. and W. Baker. 2007. *The Watershed Impacts of Forest Treatments to Reduce Fuels and Modify Fire Behavior*. Pacific Rivers Council, Portland Or.

<sup>6</sup> Meyer, G and Pierce, J. 2007. *Long-Term Fire History from Alluvial Fan Sediments: The Role of Drought and Climate Variability, and Implications for Management of Rocky Mountain Forests*. Jennifer Pierce and Grant Meyer. *International Journal of Wildland Fire* 17(1) 84–95

<sup>7</sup> Lydersen, J., North, M., Collins, B. 2014. *Severity of an uncharacteristically large wildfire, the Rim Fire, in forests with relatively restored frequent fire regimes*. *Forest Ecology and Management* 328 (2014) 326–334

<sup>8</sup> Graham, R.T., et al, 2012. *Fourmile Canyon Fire Findings*, USDA For. Serv. Gen. Tech. Rep. RMRS-GTS-289. Ft. Collins, CO



*moderate* fire weather conditions but tend to fail under *severe* fire weather. “Under very moderate conditions, fire behavior may be so benign regardless of fuelbed characteristics that there will be little detectable difference between treated and untreated areas.” According to this meta-analysis<sup>9</sup> of fuel reduction effectiveness, in about a third of cases reviewed mechanical fuel reductions *increased* fire spread.

### *Timely Slash Removal and Disposal*

Again, Bark would like to point out that in some areas this project may actually increase the risk it is proposed to alleviate by amassing slash and fine fuels, especially increasing the likelihood of fire on the east side of Highway 35 where slopes are steepest.

We hope that the Forest Service can learn from recent projects in which logging-created slash contributed to increased fire intensity, like the N. Fork Mill Creek project, in which the fuel reduction units that contained untreated slash burned severely. The movement of fuel from trees to the ground during logging operations has the potential to increase fire severity, as well as the fact that these treatments open up the forest to greater drying and wind penetration.

On last year’s field trip to the N. Fork Mill Creek project area, we passed incalculable unburned slash piles in fuels reduction units along the Dalles Watershed that had been logged several years prior. This does not inspire confidence that the Forest Service has the capacity to ensure that slash is treated in a timely manner. At a recent Stew Crew meeting, it was suggested that the Forest Service place a deadline on the time in which it should rid these units of slash. While two years is a long time for slash to be present in large quantities within the project area, we would encourage the Forest Service to **consider a two-year slash treatment deadline as part of this project**, instead of giving themselves a dangerously long five year window to do such work.

### *Fire severity and historic conditions*

While reducing wildfire risk through fuels reduction can appear questionable in terms of its effectiveness, it can also be argued that the Forest Service should not attempt to reduce wildfire severity. Historically, dry ponderosa pine and mixed conifer forests were thought to have been “park-like” in structure, maintained by mostly low-severity fires. The second part of this assumption is

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<sup>9</sup> Martinson, Erik J.; Omi, Philip N. 2013. Fuel treatments and fire severity: A meta-analysis. Res. Pap. RMRS-RP-103WWW. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 38 p.

that these forests have become denser and more prone to high-severity fire due to fire suppression.<sup>10</sup> However, there is increasing scientific consensus from landscape-scale assessments that, prior to any significant effects of fire suppression, large, high-intensity fires were common, and physical structure was more variable in these forests.<sup>11</sup>

Baker used “pre-1900 General Land Office Surveys, with new methods that allow accurate reconstruction of detailed forest structure, to test eight hypotheses about historical structure and fire across about 400,000 ha of dry forests in Oregon’s eastern Cascades”. Through this activity, Baker found historic fire regimes and forest structure to be much more variable than previously assumed. He concluded that given historical variability in fire and forest structure, an ecological approach to restoration would restore fuels and manage for variable-severity fires, rather than reduce fuels to lower fire risk”.

Similarly, Odion et al. concluded that “ecological management goals that incorporate successional diversity created by fire may support characteristic biodiversity, whereas current attempts to ‘restore’ forests to open, low-severity fire conditions may not align with historical reference conditions in most ponderosa pine and mixed-conifer forests of western North America.”

Rather than a sign of unhealthy forests as portrayed by agency bias, natural processes like fire are vital for recruitment of down wood into the ecosystem, create a diversity of wildlife habitat, and naturally *thin* forests.<sup>12 13</sup>

With this in mind, do modern fire regimes in the project area differ greatly from historic fire regimes? What was the temporal variability of the fire regime over multi-century reference periods? Is there clear evidence of disruption of frequent fires that occurred before Euro-American settlement?

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<sup>10</sup> Baker, W. L. 2012. Implications of spatially extensive historical data from surveys for restoring dry forests of Oregon’s eastern Cascades. *Ecosphere* 3(3):23. <http://dx.doi.org/10.1890/ES11-00320.1>

<sup>11</sup> Odion DC, Hanson CT, Arsenault A, Baker WL, DellaSala DA, et al. (2014) Examining Historical and Current Mixed-Severity Fire Regimes in Ponderosa Pine and Mixed-Conifer Forests of Western North America. *PLoS ONE* 9(2): e87852. doi:10.1371/journal.pone.0087852

<sup>12</sup> Hanson, C., 2010. Myth of “Catastrophic” Wildfire: A New Ecological Paradigm of Forest Health. John Muir Project Technical Report. Cedar Ridge, CA.

<sup>13</sup> Noss, R.F., J.F. Franklin, W.L. Baker, T. Schoennagel, and P.B. Moyle. 2006b. Managing fire-prone forests in the western United States. *Frontiers in Ecology and the Environment*, 4(9):481-487.

## *Environmental Impacts of logging for “fuels-reduction”*

The scoping letter does not discuss whether there is an upper-diameter or age limit on the trees to be logged in this project. Most fire ecologists agree that removal of large, old trees is not ecologically justified and does not reduce fire risks. Such trees contribute to the resistance and resilience of the forest ecosystems of which they are a part. Large, old trees of fire-resistant species are the ones most likely to survive a wildfire and subsequently serve as biological legacies and seed sources for ecosystem recovery. They also are exceptionally important as wildlife habitat, before and after a wildfire event, and as sources of the large snags and logs that are critical components of terrestrial and aquatic habitats. For all practical purposes, they are impossible to replace.<sup>14</sup>

Indeed, as this project is planned under the auspices of the Healthy Forest Restoration Act (§102(e)(2)), the Forest Service must follow the Act’s command:

*The Secretary shall fully maintain, or contribute toward the restoration of, the structure and composition of old growth stands according to the pre-fire suppression old growth condition characteristic of the forest type, taking into account the contribution of the stand to landscape fire adaptation and watershed health, and retaining large trees contributing to old growth structure.*

Congress specifically intended for HFRA projects to retain existing older forest structure that existed prior to fire suppression, and **Bark strongly suggests that the Forest Service establish an upper-diameter or age limit on logging, to ensure removal only of trees that are actual fuel hazards.**

In addition, all mechanized fuel treatments guarantee damage to ecosystem components, including soils, aquatics, and vegetation; they also have the potential to spread exotic plants and pathogens. Even if such treatments do reduce fire severity, the ecological cost of those treatments may outweigh any positive effects. In most cases, the negative effects of treatments will cover a substantially greater area than that for which fire severity might be reduced—if, that is, fire does in fact occur (Most fuel reduction projects have little to no influence on fire severity because the probability that a fire will encounter a project in the time frame when fuel reductions are presumed to work is extremely small)<sup>15</sup>. *Bark is unconvinced that the guaranteed detrimental impacts to the*

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<sup>14</sup> DellaSala, D., Williams, J., Williams, C., Franklin, J., 2006. Beyond Smoke and Mirrors: a Synthesis of Fire Policy and Science. *Conservation Biology*, Volume 18, Issue 4 976-985.

<sup>15</sup> Rhodes, J. and Baker, W. 2008. Fire Probability, Fuel Treatment Effectiveness and Ecological Tradeoffs in Western U.S. Public Forests. *The Open Forest Science Journal*, 2008, 1, 1-7

*watershed from logging are outweighed by maybe affecting the potential future impacts of a possible fire.*

How do the environmental impacts of landscape-scale commercial logging compare with the potential impacts of a possible fire? Will the project have an upper-diameter limit? If trees over 7" are included in the thinning prescription, what is the ecological justification?

### **PROPOSED ACTIVITIES EAST OF HWY 35**

On the east side of HWY 35 and west of the Dog River trail, the agency proposes to conduct "recently unmanaged stand thinning" on steep slopes which surround Northern Spotted Owl nest patches (this area is entirely designated NSO critical habitat). Bark is curious as to how the agency will plan on conducting commercial logging on slopes which are this steep. How would these area be accessed, and how would they be logged? Even cable logging would not suffice for several areas highlighted in blue, as these are sheer cliffs. Similarly, there is an apparent lack of any practical spot to land a helicopter loaded with logs in this section of the HWY 35 corridor.

Many areas identified for "Recently Unmanaged Stand Thinning" are not appropriate for any commercial logging. The Dog River trail passes through stands of well-spaced, old growth Douglas Fir & Ponderosa Pine (Fig. 2&3) stands (such as pictured below). How does the Forest Service expect to "treat" these stands? We would presume that NO management of stands like this would be pursued by the agency, but it is difficult for the public to make a presumption like this when these areas are identified on maps for commercial logging.



**Figure 2 & 3: “Recently Unmanaged” stand just east of the Dog River trail (above), and along trail in northernmost portion of project area East of HWY 35 – marked trees are from cancelled Polallie Cooper Timber Sale**



The fact that these steep slopes would be exposed to more direct sun, be overwhelmed with slash piles for up to 5 years, and would have an increased road network certainly creates a much more precarious situation in terms of amplified wildfire hazard, and causes us to request that the Forest Service **immediately drop all commercial logging west of the Dog River trail on this side of the highway.**



**Figure 4: Area proposed for “sapling thinning” on the east side of HWY 35**

We are also curious about the motivation for “sapling thinning”. In Bark’s on the ground experience, these stands are previously thinned, well-spaced with a minor sapling presence in many areas. How long ago were these areas thinned? Can we expect similar conditions and silvicultural prescriptions for native forest slated for logging in this proposal?



**Figure 5: Example of large “gap” within “plantation” east of HWY 35, directly north of 4400-622**

Many areas identified for “plantation thinning” on the east side of the 35 contain large, open gaps or meadows (fig. 5), both natural and seemingly human-created. Bark volunteers have regularly spotted deer foraging in these “plantations”. Because so much open forest exists in these areas (which are also adjacent to previously thinned “sapling thinning” areas), we would be surprised if the Forest Service proposed any additional gap creation in this part of the forest.

## **AFFECTS TO WILDLIFE SPECIES WITHIN THE PROJECT AREA**

### *Potential effects to northern spotted owls*

Well over half the project area (and the entire area east of Highway 35) is designated 2012 Critical Habitat for northern spotted owls. According the scoping letter, this project would “maintain all suitable Northern spotted owl habitat located within treatment units.” How many acres of suitable habitat exist in Polallie Cooper? Does the above statement mean that NO suitable habitat will be removed through logging? How many acres of dispersal habitat exist in Polallie Cooper? Does the above statement also mean that NO dispersal habitat would be removed through logging? Wasser et al.<sup>16</sup> concluded that northern

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<sup>16</sup> Wasser, S.K., K. Bevis, G. King, and E. Hanson. 1997. Noninvasive physiological measures of disturbance in the northern spotted owl. *Conservation Biology* 11(4): 1019–1022.

spotted owls on average create an avoidance buffer of 1312 feet from “forestry roads”, multiply this buffer by the miles of roads built into critical habitat in this project and it becomes suspicious that all suitable owls habitat will be maintained.

The Critical Habitat Rule for Northern Spotted Owls determined that all of the unoccupied and likely occupied areas in critical habitat are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of northern spotted owl habitat. The increase and enhancement of northern spotted owl habitat is necessary to provide for viable populations of northern spotted owls over the long term by providing for population growth, successful dispersal, and buffering from competition with the barred owl (Fig. 6).

Northern spotted owls rely on areas of unbroken mature and old growth forest for nesting, as well as downed trees and snags both for nesting sites and foraging. Commercial thinning decreases the amount of large dead standing and down wood, which provides important habitat for prey species such as the northern



**Figure 6: Barred owl within Polallie Cooper project area. Photo taken from Cooper Spur warming shelter**

flying squirrel, along with the majority of other forest vertebrates.<sup>17</sup> The northern flying squirrel is the principle prey of the northern spotted owl on the west side of the Cascades. There is a serious trade-off in several aspects of thinning to promote spotted owl habitat: the reduction in snags and down wood and the increased spacing of

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<sup>17</sup> Pollock, Michael M. and Timothy J. Beechie, 2014. Does Riparian Forest Restoration Thinning Enhance Biodiversity? The Ecological Importance of Large Wood. Journal of the American Water Resources Association (JAWRA) 50(3): 543-559. DOI: 10.1111/jawr.12206



trees can reduce the productivity of the site for the northern flying squirrel for 20-40 years.<sup>18</sup>

In critical habitat for northern spotted owls, stands should not be thinned below a canopy cover of 60%. Removing spotted owl habitat to address hypothetical fire risk is not appropriate, particularly given the fact that spotted owls are competing with barred owls (fig. 6) and require all the suitable, closed canopy forest they can get in order to decrease the chances of competitive exclusion.

Recent concerns over high-severity fire have led to programs to commercially log forests for fuels reduction, even within habitat designated as “critical” for spotted owls. However, thinning is only allowed under the federal spotted owl guidelines if the long-term benefits clearly outweigh adverse impacts. Odion et al. analyzed fire and forest recruitment trends in 19,000 km<sup>2</sup> of dry forests in the Klamath and 18,400 km<sup>2</sup> in the Cascades provinces. They found that “(e)ven if rates of fire increase substantially, the requirement that the long-term benefits of commercial thinning clearly outweigh adverse impacts is not attainable with commercial thinning in spotted owl habitat. It is also becoming increasingly recognized that exclusion of high-severity fire may not benefit spotted owls in areas where owls evolved with reoccurring fires in the landscape.”

Knowing that the Hood River Ranger District has planned recent timber sales using extremely outdated NSO population data, we expect that this time around, the agency will be **conducting surveys in this important area for owls in advance of any project decision**. Studies suggest that to determine whether and how habitat disturbance affects California spotted owl occupancy within 3 years, managers should strive to annually survey affected AND unaffected historical owl sites 5 times per year. Given the low probability of detection in one year, Bark recommends at least one year of surveys be used to determine site occupancy before management that could be detrimental to the spotted owl is undertaken in potentially occupied habitat.<sup>19</sup>

#### *Surveys required for red tree voles under Northwest Forest Plan*

The Northwest Forest Plan Record of Decision (page C-5) requires that "Within the known or suspected ranges and within the habitat types or vegetation communities associated with the species, surveys for . . . red tree voles, must

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<sup>18</sup> Wilson, T. 2010. Limiting factors For Northern Flying Squirrels In the Pacific Northwest: A Spatio-Temporal Analysis. Union Institute & University, Cincinnati, Ohio

<sup>19</sup> Lee, D. E., Bond, M. L., Siegel, R. B. Dynamics of Breeding-Season Site Occupancy of The California Spotted Owl in Burned Forests. 2012. *The Condor* 114(4):792–802

precede the design of all ground-disturbing activities that will be implemented in 1997 or later."

Have surveys for red tree voles been completed for this project area? If they have not, which season of which year will they be completed? The Polallie Cooper area includes suitable habitat for red tree voles and should be surveyed as required by the NFP ROD.

## **PROPOSED ROADBUILDING, NEEDED CLOSURES AND DECOMMISSIONING**

The Polallie Cooper Timber Sale's Proposed Action calls for building **12 miles of roads** (4 miles rebuilt and 8 miles newly built) in order to facilitate logging activity (the original cancelled Polallie Cooper included only *4.1 miles* of roadbuilding). Bark worked hard to help obtain Congressional funds through Legacy Roads and Trails Fund to help Mt Hood achieve the 51% percent reduction in its road network forest wide. This 51% is what Mt Hood Forest staff believed to be in the best interest for the forest, and all ecological indicators suggests this is still the case.

The Hood River Stewardship Group, which provided recommendations for this timber sale, also agreed in these recommendations to include a request for an overall reduction in road density within the project area. Being eligible for Key Watershed designation, the East Fork Hood River should be a priority area for right-sizing it's road system. In this project however, the Forest Service has opted to include *zero* road decommissioning or even road closures.

If the primary purpose and need of the Polallie Cooper project is truly to reduce wildfire risk, the district must recognize that road density has known effects on fire susceptibility. Arienti and others<sup>20</sup> found increased fire frequency in "road-saturated" areas. They found a "positive association between lightning fire frequency and road density...owing to increased availability of flammable fine fuels near roads."

In his study of the effects of roads on wildfires in national forests in California, Robert F. Johnson concluded that over 52 percent of human-caused fires occurred within 33 feet of a road edge.<sup>21</sup> DellaSala and Frost<sup>22</sup> also argue that

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<sup>20</sup> Arienti, M. Cecilia; Cumming, Steven G.; Krawchuk, Meg A.; Boutin, Stan. 2009. Road network density correlated with increased lightning fire incidence in the Canadian western boreal forest. *International Journal of Wildland Fire* 18(8):970-982.

<sup>21</sup> Johnson, R.F. 1963. The roadside fire problem. *Fire Control Notes* 24: 5-7

<sup>22</sup> DellaSala, D. A., and E. Frost. 2001. An ecologically based strategy for fire and fuel management in national forest roadless areas. *Fire Management Today*, v. 61, no. 2, p. 12-23.

“in the Western United States, most of the more than 378,000 miles of National Forest roads traverse heavily managed forests with the greatest potential for fire. According to the Forest Service, more than 90 percent of wildland fires are the result of human activity, and ignitions are almost twice as likely to occur in roaded areas as they are in roadless areas.”<sup>23</sup>

Further, it has been shown that wildland fire ignition is almost twice as likely to occur in a roaded area as in a roadless area and the median size of large fires on national forests is greater outside of roadless areas. According to the 2000 USDA report cited above, human-ignited wildfire is almost 5 times more likely to occur in a roaded area than in a roadless area.

Currently, MHNH operates under the Roadless Area Conservation Rule, which prohibits road construction, reconstruction and maintenance in inventoried roadless areas 5,000 acres or larger. In a recently released white paper on water quality in Mt. Hood National Forest, The Pacific River Council published key management recommendations after they were reviewed and contributed to by the Western Environmental Law Center, Friends of Mount Hood, Oregon Wild, CRAG Law Center, the Columbia River Inter-Tribal Fisheries Commission, Clackamas River Providers, Oregon Trout Unlimited, Bark and several others.<sup>24</sup> The paper recommends that a road-building moratorium should be embedded into the Forest Plan to protect roadless areas greater than 1,000 acres. Several of these 1,000 acre areas have been identified across MHNH and should receive the same protections as 5,000 acre roadless areas to maximize the amount of landscape not contributing sedimentation to watersheds.

The east side of Highway 35 contains a significant chunk of forest that is over 1,000 acres, roadless, Critical Habitat and mostly unmanaged. **Please consider moving forward with this project in a way that does not require building roads into significantly large roadless areas (1,000 acres or larger).** As precious aquatic, terrestrial and airborne species rely on these forests, it is essential that the ecological integrity of the area be preserved and that potential effects on the environment be avoided, including effects of the loss of roadless areas 1,000 acres or greater in size.

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[http://www.fs.fed.us/fire/fmt/fmt\\_pdfs/fmn61-2.pdf](http://www.fs.fed.us/fire/fmt/fmt_pdfs/fmn61-2.pdf). Donato, D.C., J.B. Fontaine, J.L. Campbell, W.D. Robinson, J.B. Kauffman, and B.E. Law. 2006. Post-wildfire logging hinders regeneration and increases fire risk. *Science* 311: 352

<sup>23</sup> USDA. 2000. Forest Service Roadless Area Conservaon Rule Final Environmental Impact Statement, Ch. 3,.

<sup>24</sup> Pacific Rivers Council, 2013. Protecting Freshwater Resources on Mt. Hood National Forest: Recommendations for Policy Changes. Available online at: <http://pacificrivers.org/prc-mt-hood-report-1>

There two key site specific road-related projects which we recommended to the Forest Service through the Travel Analysis Process which could very well be done in conjunction with Polallie Cooper.

*Road 3512-640: Opportunity for a road-to-trail conversion.* This road is in significant need of maintenance, and poses aquatic risks at two stream crossings. **The road is visibly dumping excessive amounts of fill off the north side towards Doe Creek.** Currently a low-use road, it ends at an existing trailhead which includes a historic warming shelter. Users of this conversion could include snowshoers and day-hikers. We'd like to see this road decommissioned.

*Road 4400-620: Opportunity for a road-to-trail conversion.* This road, which extends past the trailhead for Trail 678, provides a great opportunity for mountain bikers accessing the Dog River trail to the northwest. The road is already used by mountain bikers for this very reason, and has low motorized vehicle traffic. However, there is pothole and erosion-related maintenance if this road is to be left open, or used for log haul. A closure to motorized vehicles on this road would complete a loop connecting the Dog River and Zigzag trails.

**Bark believes that the best way to truly pursue the purpose and need in project area is to remove roads which provide pathways to human-caused ignitions, and requests that the Forest Service examine in detail an alternative that require build any new roads, or re-building any roads that are currently decommissioned.**

## **LOGGING AND ROADBUILDING IN RIPARIAN RESERVES CONTRADICTS THE RECOMMENDATIONS OF THE BEST AVAILABLE SCIENCE AND THE AQUATIC CONSERVATION STRATEGY**

Looking at the Proposed Action project area map, it appears that if the Forest Service were to conduct a commercial logging and roadbuilding project in all the areas identified, there would be a high probability of entering areas designated as Riparian Reserves. **Bark does not support logging in Riparian Reserves and will challenge this activity's rationale if included in this project.**

This is based both on the clear direction of the Northwest Forest Plan and on new and developing science as synthesized in *Conservation of Aquatic and Fishery Resources in the Pacific Northwest: Implications of New Science for the*

*Aquatic Conservation Strategy of the Northwest Forest Plan*<sup>25</sup>, recently published by the Coast Range Association. Collectively, the report's authors and science panel members not only represent the best available science, but have developed much of the relevant science over the course of their professional careers. In these key findings, the authors recommend that "(t)hinning and fuels reduction by means of mechanized equipment or for commercial log removal purposes should be generally prohibited in Riparian Reserves and Key Watersheds." This final report is the best synthesis of aquatic science related to the Northwest Forest Plan (NFP) since the development of the NFP in 1994.

The Northwest Forest Plan established the Aquatic Conservation Strategy to "restore and maintain the ecological health of watersheds and aquatic ecosystems" and established land use designations, such as Riparian Reserves, to ensure heightened protection of ecologically sensitive lands. *NFP at B-9*. The Aquatic Conservation Strategy Objectives require that Forest Service-administered lands be managed to "[m]aintain and restore" nine indicators of watershed health, such as the physical integrity of the aquatic system, water quality, in-stream flows, and habitat for riparian-dependent species. *NFP at B-10*. The Northwest Forest Plan provides that "[c]omplying with the Aquatic Conservation Strategy objectives means that an agency must manage the riparian dependent resources to maintain the existing condition or implement actions to restore conditions." *NFP at B-10*. By contrast, "[m]anagement actions that do not maintain the existing condition and lead to improved conditions in the long-term do not 'meet' the intent of the Aquatic Conservation Strategy and should not be implemented.

Thus, the starting place is that commercial logging in Riparian Reserves is prohibited, unless the Forest Service makes an affirmative finding that it is needed to attain the ACS Objectives. As detailed below, the best available science shows that the logging and roadbuilding in Riparian Reserves in Polallie Cooper is not be needed to achieve the ACS objectives, in fact, these actions may retard such compliance. It is the agency's task to demonstrate the contrary if they are to log in Riparian Reserves.

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<sup>25</sup> Frissell, Christopher A., R. J. Baker, D. DellaSala, R. M. Hughes, J.R. Karr, D. A. McCullough, R. K. Nawa, J. Rhodes, M.C. Scurlock, R. C. Wissmar. 2014. Conservation of Aquatic and Fishery Resources in the Pacific Northwest: Implications of New Science for the Aquatic Conservation Strategy of the Northwest Forest Plan . Coast Range Association, Corvallis, OR. 44 pp. (<http://coastrange.org/documents/ACS-Finalreport-44pp-0808.pdf>)

Several sources are now pointing to passive management as the best approach to achieve ACSOs in Riparian Reserves. Pollock and Beechie<sup>26</sup> reviewed the sizes of deadwood and live trees used by different vertebrate species to understand which species are likely to benefit from different thinning treatments. They then examined how riparian thinning affects the long-term development of both large diameter live trees and dead wood. Ultimately, they used a forest growth model to examine how different forest thinning intensities might affect the long-term production and abundance of live trees and dead wood. In Pollock and Beechie's study, passive management created dense forests that produced large volumes of large diameter deadwood over extended time periods as overstory tree densities slowly declined.

Pollock and Beechie's results showed that the few species that utilize large diameter live trees exclusively may benefit from heavy thinning, whereas species that utilize large diameter dead wood can benefit most from light or no thinning: "because far more vertebrate species utilize large deadwood rather than large live trees, allowing riparian forests to naturally develop may result in the most rapid and sustained development of structural features important to most terrestrial and aquatic vertebrates."

Similarly, Spies et al.<sup>27</sup> concluded that thinning produces unusually low-stem-density forests and causes long-term depletion of snag and wood recruitment that is likely detrimental in most Riparian Reserves. According to this work, thinning with removal of trees will generally produce fewer large dead trees across a range of sizes over the several decades following thinning and the lifetime of the stand relative to equivalent stands that are not thinned. Generally, recruitment of dead wood to streams would likewise be reduced in conventionally thinned stands relative to un-thinned stands.

The topic of riparian thinning generally being at odds with the ACS has been far-reaching, with a recently circulated [sign-on letter](#) sent to the Secretary of Interior and the Secretary of Agriculture. This letter was signed by 31 organizations and urged careful consideration of any efforts to weaken aquatic protections in the

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<sup>26</sup> Pollock, Michael M. and Timothy J. Beechie, 2014. Does Riparian Forest Restoration Thinning Enhance Biodiversity? The Ecological Importance of Large Wood. *Journal of the American Water Resources Association (JAWRA)* 50(3): 543-559. DOI: 10.1111/jawr.12206

<sup>27</sup> Spies, T., M. Pollock, G. Reeves, and T. Beechie. 2013. Effects of riparian thinning on wood recruitment: A scientific synthesis. Science Review Team, Wood Recruitment Subgroup, Forestry Sciences Laboratory, Corvallis, OR, and Northwest Fisheries Science Center, Seattle, WA. 28 January 2013. 46pp.  
<http://www.mediate.com/DSConsulting/docs/FINAL%20wood%20recruitment%20document.pdf>

area of the Northwest Forest Plan. This letter is significant to this objection because it demonstrates strong support for generally keeping timber harvest out of Riparian Reserves. One of the “key ecological reasons” cited in this letter was that “***Recent research underscores the original ACS presumption against timber harvest in aquatic emphasis areas, and now more clearly indicates that even harvest in the form of thinning and fuels reduction generally is inconsistent with attainment of aquatic objectives.***”

One riparian area of concern for us is the area **Buck Creek**. This creek ducks below ground, fans out in several places, and is generally unpredictable in its flow & presence underground. Bark volunteers have seen areas like this in previous timber sales be crushed under ground-based logging and slash piles because the cruiser and operators misunderstood the complex nature of the stream and its boundaries. Even members of the Hood River Stew Crew expressed this groundwater concern on a field trip while simultaneously calling out that fuels reduction was not needed in the particular area we were in due to its moist conifer plant associations and overall density.

**For all of these reasons, Bark does not support and will challenge an alternative that includes logging or roadbuilding in Riparian Reserves. We request that the Forest Service provide a detailed analysis of an alternative that does not include logging in Riparian Reserves.**

## **CUMULATIVE IMPACTS OF POLALLIE COOPER AND OTHER NORTH SLOPE SALES**

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).

In Bark’s comments for the Lava Timber Sale, we raised concerns that the Forest Service failed to prepare a cumulative analysis of the impacts of the Lava Timber Sale in conjunction with Red Hill and Polallie Cooper Timber Sales. In response, the Lava PA did include brief discussion of Red Hill in the cumulative effects

sections of the document, but did not mention Polallie Cooper. At this time, Forest Service had communicated to us several times that Polallie Cooper was being considered and developed through collaborative group discussions and preliminary field surveys, but “(w)ithout a proposed action, the direct and indirect effects of these projects cannot be considered in the cumulative effects analysis...because there is no way to determine whether or not the effects overlap in time and space.” *RtC at 3-6.*

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 (which has also experience recent logging) in the east. This situation warrants a strong cumulative impacts analysis in the Polallie Cooper PA and we are looking forward to understanding more of these effect after reading it.

## **EXCEPTIONS TO MT. HOOD LRMP STANDARDS**

The Scoping notice notes that several guidelines in the Mt. Hood Land & Resource Management Plan (LRMP) will not be met by this project, yet does not indicate why. Regarding the standards relating to organic matter (FW-033), silvicultural systems (FW-333) and snags (FW-215), Bark is curious as to why these will not be met. Is it because there are already too little down woody material and/or snags in the project area, or is it because this project would effectively rake the ground clear of “fuel”, and fell more wildlife trees than otherwise allowed? If the answer to the latter question is yes, Bark is very concerned that this project will excessively remove essential wildlife habitat and nutrients from the forest and requests a thorough discussion of the reasons behind, and impacts of, such action.

## **CONCLUSION**

Bark has some key suggestions for moving forward with the Polallie Cooper project, and request that the agency take these suggestions as *separate alternatives or combinations of alternatives* which the agency can then assess for their economic feasibility and value.



First, Bark suggests that the Forest Service create, and analyze in detail, an action alternative based on peer-reviewed fire science, which almost uniformly states that removal of large trees from the forest does not help, and may harm, increased fire resiliency. A “non-commercial” science based alternative would enact the very prescriptions – understory thinning, removal of ladder fuels, and reduction in fine surface fuels – that the Forest Service says are necessary to meet the purpose and need. Bark’s proposed alternative would in no way limit these actions, it would simply remove the commercial incentive to log the most economically valuable trees, which are often the trees with the most ecological value for both fire resiliency and wildlife habitat.

In addition:

1. Add road decommissioning miles to the Proposed Action;
2. Provide a map in advance of the Preliminary Assessment comment period which includes units where thinning is proposed, and old growth stands so commenters can field check these areas;
3. Clarify rationale for proposing fuels reduction activities outside the WUI and how these activities both within and outside the WUI compare to the recommendations of the Hood River Community Wildfire Protection Plan;
4. Do not pursue commercial logging or roadbuilding within the E. Fork Hood River Wild & Scenic River Corridor;
5. Only pursue activities consistent with the 2009 Omnibus Public Lands Management Act, including within the Crystal Springs Watershed Special Resource Management Unit;
6. Remove Riparian Reserve logging from this project until it is demonstrated to be *needed* to achieve ACSOs;
7. Invest in a two-year slash treatment window as part of this project, instead of giving themselves a dangerously long five year window to do such work;
8. Establish an upper-diameter or age limit on logging activities;
9. Drop all commercial logging west of the Dog River trail on the east side of Highway 35;
10. Conduct at least one year of surveys for northern spotted owls to determine site occupancy before management that could be detrimental to the spotted owl is undertaken in potentially occupied habitat;
11. Complete surveys for red tree voles in suitable habitat as required by the NFP ROD;
12. Remove 8 miles of new temporary road construction from the project;
13. Avoid rebuilding 4 miles of “existing” temporary road alignments; and

14. Remove any roadbuilding into roadless areas 1,000 acres or more from this project

As the Forest Service is considering the optimal method of accomplishing the purpose and need for the Polallie Cooper project, please consider that active management is not always the best avenue to achieve forest health. In the comments above, Bark has provided ample suggestions to improve this project – based on our field surveys of the project area and relevant scientific literature pertaining to thinning, roads, and forest health. We anticipate a thorough review of these comments and look forward to the necessary changes made to both the forthcoming EIS and the project itself.

Thank you,



Michael Krochta

Forest Watch Coordinator, Bark