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Comments on the Coos District 2010 Annual Operation Plans

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Please consider these comments in your final decisions for the Coos District 2010 annual operation plans. Some of our concerns detailed in these comments include:
* clearcutting in the South Slough National Estuarine Reserve, especially at a time when the Reserve's staff is implementing their own upland forest restoration plans;
* logging big, old trees in the long-rotation watersheds, in violation of the 1995 HCP;
* clearcutting spotted owl habitat while barred owl numbers are increasing
* edge effects to Marbled Murrelet Management Areas (MMMAs).

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1. Logging in the South Slough

The 2010 Annual Operation Plans (AOP) for the ODF Coos District includes a pre-operation report for a proposed timber sale called "South Slough", containing 3 logging areas. Two areas are "within the administrative boundary of the South Slough National Estuarine Reserve". The third area is on the south boundary of the South Slough National Estuary Research Reserve (SSNERR).

The ODF should drop this sale. The South Slough National Estuarine Reserve (SSNER or the Reserve) already has a timber management plan for that area. The latest draft is 3/2009. ODF Silviculturist Norma Kline reviewed that plan and helped put it together. There is no other management plan for this "scattered track" except for a 1987 plan that clearly does not allow clearcutting of young plantations. There is no good reason to over-ride the DSL funded Reserve's forest plan.

The ODF's pre-operation report for Sough Slough says "The planned prescription for Areas 2 and 3 is a clearcut harvest, an alternative thinning prescription... would be chosen contingent on a final decision by the Department of State Lands." However, all the tables, summaries and conclusions for the 2010 AOP use the clearcut alternative for all three areas. Area 1, on the boundary of the South Slough, would be clearcut and herbicide sprayed with no alternative to thin.

All total, the ODF could clearcut and herbicide spray 129 acres. Instead, DSL must consider thinning all three areas and using no herbicide spray in the estuary uplands. The thinning should be in accordance with the management plan of the Reserve, not a commercial thinning to enhance future clearcuts as ODF plans.

Herbicides: The ODF must reconsider spraying herbicides right into the estuaries watershed. The cumulative impact of ODF's herbicide spraying with the other industrial forests in the uplands of the estuary, cannot be good for healthy estuary functions. The ODF has previously only considered herbicide impacts on rivers that continuously flush themselves. By contrast, water collects in the estuary. Before ODF sprays the uplands of the state's estuary reserve, the ODF should have some scientific evidence that the chemicals they are using will be beneficial or neutral to the estuary. The state has spent millions of dollars trying to restore estuary functions in the South Slough. The ODF must show they are enhancing, not hurting those efforts

Dueling Desired-Future-Conditions: ODF states that their "desired future condition" for the Reserve upland forests is "an intermediate stand structure", meant to keep forests perpetually young with optimum monetary value. This is the opposite of the desired future condition of the Reserve's forest plan for these very same areas. The Reserves desired future condition is to restore native ecosystem functions and late-seral forests, protecting the estuary and downhill water quality. The ODF must address their conflicting Desired Future Conditions before clearcutting here. The State of Oregon has spent millions of dollars in working toward the Reserve's desired future condition. The ODF will add back to the state (and not to the same fund, but to the

Common Fund School Lands) only a tiny percent of what DSL is spending on the Reserve's forest plan in revenue from the sale (even smaller because of bad market conditions). In fact, with ODF's logging plan there could be increased herbicide damage, increased ATV trespassing, increased water-runoff, and maybe even increased erosion, so later the Reserve will have to spend more money in restoration. It doesn't make sense for the state to be restoring the estuary reserve with one hand, and degrading it with the other, using dueling Desired-Future-Conditions.

A proposal to clearcut within this important reserve is a shock, especially since an ODF Coos District representative attended the two day meeting discussing how to enhance the forests within the reserve for wildlife and water quality. This meeting was held on February 2nd and 3rd 2009. The ODF representative had good suggestions on how the degraded forests of the Reserve could be restored to original-forest conditions. It is incredible that ODF never disclosed their real intention – a proposal to clearcut and herbicide spray the Reserve's forests.

Because it will be clearcut, ODF says they will trap mountain beavers on all three clearcut units[1]. Killing wildlife for the sake of timber production, inside the Reserve meant to protect wildlife and the prey of wildlife, should not be allowed. Not only will a prey for larger wildlife be killed, trapping boomers can kill other wildlife in the Reserve, such as skunks and squirrels[2]. The Reserve is reserved for the entire ecosystem, including the mammals ODF proposes to kill to accomplish intensive forest management

The **thinning alternative could also be a problem.** The alternative suggested for areas 2 and 3 is "commercial thinning", not a density management prescription meant to restore diversity. Density Management sets the forest on trajectory to a native-ecosystem, wildlife-friendly forest. In contrast, the commercial thinning alternative proposed by ODF is meant to maximize profits in the near future, when the forests are clearcut in a few years. The customary commercial thinning homogenizes the forest by spacing the trees on a grid for maximum commercial value, eliminating clumps of trees sharing a root and crown space, and reducing unprofitable minor species (such as hemlock and spruce).

Key Resources were not identified: The ODF's pre-operations report states, "There are no other known resource considerations associated with this sale." The ODF must correct the pre-operation report to recognize the immense resource of a healthy estuary, of a functioning Reserve system, of the upland forest contribution to these important resources, and of the public education potential. In ODF's pre-operation report, the Reserves boundaries were not even put on the logging map. The ODF must at least document the values at stake.

For instance, in addition to impacting water quality and soil stability, the ODF is proposing to clearcut some of the oldest forests within the Reserve – the forests

[1] 2010 AOP Summary and Tables.pdf. ODF. page 13.
[2] http://www.extension.org/faq/1083.

identified by the Reserve as the best places for protection. ODF proposes clearcutting forests up to 67 years old, with "scattered remnant older Douglas-fir, Western Hemlock, and Sitka Spruce." In fact, 17 acres of Area 1 is even considered "Advanced Structure". Clearcutting these important older habitats within the Estuarine Reserve (or even commercially thinning them to maximize future revenue) is counter to the Reserve's restoration forest plan.

Areas 2 and 3 are entirely within the administrative boundaries of the SSNERR, and entirely within the Talbot Creek watershed boundary, as well as within the Talbot Creek management area of the SSNERR draft upland forest management plan. Area 1 borders the SSNERR administrative boundaries on the north and west sides of the proposed logging unit. It is half bordering the Long Island Point SSNERR Management Area and half bordering the Cow Creek Management Area, and entirely within the John B watershed boundaries.

SSNERR Draft Upland Forest Management Plan: The South Slough NERR is a 4800+ acre protected area located within the South Slough watershed in Coos Bay that includes approximately 4,000 acres of coastal upland and riparian habitats. ODF's plans for clearcutting inside the Reserve and in the watersheds of the Reserve, undermines the work and planning that has been put into the SSNERR Upland Forest Management Plan.[3] This plan says:

> "The desired future conditions that guide planned management activities will replicate the functions that produced what are now considered to be late successional or old growth forests. These functions have been compromised, in some cases severely, by 150 years of human intervention in the region."[4]

ODF's proposal will retard the ability of the Reserve to reach the desired future condition. The state has spent thousands of dollars developing this plan, which does not include clearcutting.

The Reserve's restoration plan states:

> "For more than ten years staff at the Reserve have been among the leaders in the Pacific Northwest contributing to coastal watershed stewardship and science through restoration, research, and educational activities addressing key tidal wetland and lower watershed habitats. The Reserve is now in the planning stages of applying that restoration, adaptive management and research framework (supported in part by GWEB/OWEB restoration and monitoring grants) to the management and restoration of degraded coastal forest and upper watershed riparian habitats in the Reserve…. By directing activities upslope the Reserve plans to test and demonstrate holistic approaches to coastal habitat management and restoration at a sub-basin level…"[5]

The ODF had advisory role for the Reserve's forest restoration plan, yet kept silent

[3] SSNERR Upland Habitat Restoration Plan, March 2009. Jake Robinson. Forest Sciences Coordinator. 541 888 2581 ext 329. jake.robinson @ dsl . state . or . us.
[4] SSNERR Upland Habitat Restoration Plan. March 2009. Page 13.
[5] SSNERR Upland Habitat Restoration Plan. March 2009. page 8.

about ODF's plans to clearcut this very same forest. One month after the release of the latest draft of the Reserves restoration plan, ODF releases their own plan to clearcut here instead, ignoring the Reserve's "holistic approach" to restoration.

In contrast to ODF's plan to clearcut, **the Reserves forest restoration plan** has this plan for Areas 1, 2, and 3:

> "Thinning and partial cutting by-passes the competitive mortality stage and can be a good tool to accelerate the growth of larger trees and to encourage the development of multi-layered forest canopies (herbaceous, shrub and sapling layers)….
>
> Varying degrees of wind throw within these stands should be expected post treatment, as many of these stands are not currently windfirm and opening them up will reduce the already low levels of stability. Though small scale wind damage is the dominant disturbance within this forest type, projects should be designed to minimize wind damage as much as possible while accepting that small scale wind damage is the dominant disturbance within this forest type…
>
> Gap level wind damage is one of the dominant processes in the creation of late seral conditions, creating opportunity for establishment of shade intolerant, long lived species, while providing the structural heterogeneity required for a multi-layered canopy. Without manipulation, these stands have the potential to be Hemlock dominated and increase the time required to bring spruce into natural dominance. ***Yount 1997"***[6]

Instead, the ODF has proposed to just clearcut Areas 1, 2 and 3. Even the commercial thinning alternative suggested for half of the ODF logging plans is simply to enhance monetary value, not to restore a Sitka Spruce "spatially complex, heterogeneous forest".

By contrast, the Reserve forest restoration plan has thoughtful suggestions of how to protect and enhance these forests. For instance, the Reserve's plan says:

> "Removing any stems from these stands will likely cause heavy wind damage. Rather then attempting to achieve the desired stand structure with one extractive entry, repeated girdling should be done to reduce competition while maintaining some windfirmness. Weaker stems should be girdled and left standing, with multiple entries over many years, to improve the stability of the stand. Underplanting and some large woody debris creation could be done in conjunction with this."[7]

The Reserve's restoration plan also describes other restoration thinning techniques, such as "Strip and Gap thinning treatment", or "Selective thinning"[8]. In contrast, the

[6] SSNERR Upland Habitat Restoration Plan. March 2009. page 48.
[7] SSNERR Upland Habitat Restoration Plan. March 2009. page 50.
[8] SSNERR Upland Habitat Restoration Plan. March 2009. page 51.

ODF plan has none of these considerations, because the ODF goal is not restoration, it is only money.

The Reserve's forest restoration plan expressed the hopes that:

> "Where possible, partnerships with adjacent landowners will be developed to include in the project the upper portions of those sub basins outside Reserve control."[9]

This includes Area 1 that ODF plans to clearcut and spray with herbicides in the upper portion of the John B sub-basin, on the outside border of the Reserve. Clearcutting this unit, with no alternatives, is likely not the partnership that the Reserve had in mind. Most of the sub basins outside of reserve control are in industrial forest land and are clearcut and herbicide sprayed on a short-rotation basis. By contrast, the State's landownership outside the reserve has a biggest chance of a compatible partnership. The ODF failed to address this partnership in their Sough Slough logging plans.

The Reserve's forest restoration plan states:

> "Habitat restoration is a Reserve wide goal, from ridge top to wetlands…. a watershed scale approach will be taken in regard to restoring the natural processes…"[10]

ODF appears to be opposed to these goals.

Forest Diseases: The Reserve's forest restoration plan documents the problems with **Swiss Needle Cast**[11] inside and near the SSNERR:

> "The Reserve's cool moist habitat with ample summer fog creates conditions which are ripe for infection of Swiss needlecast, a foliage disease specific to Doug fir caused by the fungus *Phaeocryptopus gaeumannii*, resulting in defoliation and reduction of growth…. Levels of infection within the reserve fluctuate from very light to severe depending on stem density and minor differences within geographic location. In the western portion of the Reserve infection is more severe, especially on cooler north facing slopes and within ravines."[12]

The western portion of the Reserve is exactly the area where the ODF logging plan proposes to clearcut. Yet ODF's pre-operation report never mentions Swiss Needle Cast, and never details what species will be replanted. The ODF should address this discrepancy.

This is a Sitka spruce forest zone. "The forests of SSNERR are contained within the *Picea sitchensis* zone"[13]. The ODF must not replant with a majority of Douglas fir in this area of Swiss needle cast.

The South Slough timber sale is within the range of **Port Orford Cedar** (POC), with plenty of disease in the estuary reserve. However, the South Slough pre-operation

[9] SSNERR Upland Habitat Restoration Plan. March 2009. page 8.
[10] SSNERR Upland Habitat Restoration Plan. March 2009. page 9.
[11] SSNERR Upland Habitat Restoration Plan. March 2009. page 27.
[12] SSNERR Upland Habitat Restoration Plan. March 2009. page 59.
[13] SSNERR Upland Habitat Restoration Plan. March 2009. page 30.

report doesn't mention how POC elsewhere in the South Slough or the coast range will be protected from logging equipment that comes in contact with the POC root disease. The ODF 2010 Summary states that POC root rot is not a problem on the Elliott State Forest, but then fails to talk about the problem elsewhere in the 2010 AOP.

Coho Salmon and Water Quality: Coho is an endangered species, and clearcutting the upland forests above its habitat harm this fish. The Reserve's forest restoration plan states:

> "Coho Salmon (*Oncorrhyncus kisutch*) is listed as a threatened resident of the South Slough Estuary. The period of time spend in estuarine habitats is considered critical for migrating juvenile Coho as it provides the special salinity gradient for successful physiological changes required when moving from fresh to saline habitat. *Miller 2003* Reproductive success and survival likely are closely associated with habitat quantity and quality. Slow-water habitats such as secondary channels, backwater pools, alcoves, and beaver pools provide refugia during high winter discharges. Large woody debris slows water velocity, increases habitat complexity, stores sediments and provides food for coho. *Bock 2004* Since the riparian areas within SSNERR are quite narrow and often with steep dissected slopes, **the adjacent forest structure has the ability to directly affect the habitat quality**. *Lockwood 2005.* Forest restoration efforts within the upland areas as well as the riparian zone of influence should have a positive effect on Coho habitat.[14]

Clearcutting here has the opposite effect, whereas the Reserve's restoration plan will benefit water quality. It says:

> "It is expected that upslope forest management will have both direct and indirect effects on the lower riparian and wetland habitats. Restoration treatments for the forest will be designed to benefit both ecosystems through the acceleration to late seral conditions which will provide both the biotic and abiotic essentials for historically healthy watersheds."[15]

ODF's logging plan to clearcut says that "Aquatic Resources and Water Quality: Riparian areas along streams will be managed to support properly functioning aquatic habitat…"[16] What the ODF failed to recognize is that upland forest management, not just riparian areas, contribute to water quality. Clearcutting the upland habitat and aerial spraying it with herbicides degrades water quality.

Road building into the Reserve: Concerning Area 2 and 3, the Reserve's forest restoration plan says:

> "The network of historic skid roads within the… Talbot Creek management areas receive light OHV use, all of which is illegal."[17]

The ODF's logging plan fails to mention OHV use or consider damage caused by

[14] SSNERR Upland Habitat Restoration Plan. March 2009. page 10 (emphasis added).
[15] SSNERR Upland Habitat Restoration Plan. March 2009. page 31.
[16] South Slough Pre Operation Report. ODF. 2010 AOP.
[17] SSNERR Upland Habitat Restoration Plan. March 2009. page 28.

illegal OHV use. Usually, road building and logging, as proposed by ODF, increase illegal OHV use, especially reconstructing the logging road on the east side of Area 2.

Reconstructing the logging road into the east side of Area 1 will also frustrate the Reserve's attempts at road restoration. The Reserves forest restoration plan says[18]:

> The major issue with the network of abandon skid roads within the reserve is the use by OHV riders. Many of the erosion problems mentioned above would be reduced if OHV use was eliminated. OHV use of dedicated roads within the reserve is prohibited and attempts at posting this at our boundaries has had limited success in deterring use. Many of these old skid roads originate on adjacent industrial forest lands where OHV use is also prohibited, though still common."

This is exactly where ODF plans to build the logging areas 2 and 3. The ODF's pre-operation plan failed to address this OHV concern. However, the ODF's 2010 summary document implies **ODF will encourage ATV use on these roads in the South Slough**. It says that roads "not surfaced will be closed to traffic, with the exception of ATV's, once the operation is complete".[19]

Because the ODF was at the table developing the Reserve's forest restoration plan, ODF must have known about the ATV problem. So why is ODF actually encouraging ATVs into the South Slough? The Reserve's forest restoration plan continues:

> "Contact has been made with adjacent land owners/managers, and cooperative enforcement has been discussed. Many of the well used trails would have been completely re-vegetated by now if not for the constant use and maintenance by OHV riders. Use is not limited to recreational riding, OHVs are also used by commercial mushroom harvesters and brush pickers, both of which are also prohibited within the reserve. Along with the continued use and degradation of the roads by OHVs, they are also potential vectors for transmittal of invasive species and *Phytopthera lateralis*, hastening the spread of the pathogen."

The ODF's logging plan failed to address any of these problems. The introduction of invasive species and diseases into the Reserve could be especially destructive. The ODF's logging plan simply addressed how to extract money from the Reserve's resources, without addressing how to protect this very special place. The Reserve's restoration plan says: "Future attempts at limiting OHV use will have to include restricting usability of these abandon skid roads, either by decommissioning or blockading", whereas the ODF's logging plan welcomes ATVs on these roads.

The state of Oregon has spent thousands (or millions) of dollars on this forest restoration plan. The ODF should have considered it in their logging plans.

Recreation: The South Sough Estuary Reserve is a public area where hiking is encouraged and scenic values are high. The ODF pre-operations report fails to recognize this, and simplistically says that clearcutting will enhance deer habitat for

[18] SSNERR Upland Habitat Restoration Plan. March 2009. page 56.
[19] 2010 Summary and Tables.pdf. page 11.

hunters. While some hunting might be allowed on the Reserve, it is low on the Reserve's recreation priority areas. The ODF must correct this erroneous recreation report, and instead include the immense and important recreational values of the SSNERR.

Ecosystem Services: The ODF failed to consider the other ecosystem services provided to the State by a healthy estuary. For instance, a healthy estuary increases fish populations, which increases a healthier fishing industry. The Pre-Operation report for the South Slough only accounts for money earned by intensive forest management of clearcuts and herbicide spraying. It fails to consider the money saved by the state in the ecosystem services provided by an estuary that is not degraded by upland forest practices.

This Scattered Track has no management plan. Lands managed by the Coos District that are outside of the Elliott State Forest are known as Scattered Track lands. There is no management plan for the ODF ownership in South Slough scattered track, therefore, the ODF cannot log here until there is an approved plan. The ODF mentions the desired future conditions for scattered tracks outlined in the "draft 2006 Elliott Forest Management Plan (FMP) and the draft Coos District Implementation Plan." But those plans are a draft or are not being implemented until the Elliott Habitat Conservation Plan (HCP) is implemented, as they are connected plans.

In any case, the draft 2006 FMP calls Scattered Tracks management basin 14 while the Pre Operations report calls this management basin 18. There are no existing plans that reference management basin 18, not the past Forest Management Plans and Habitat Conservation Plans, or the newer, proposed plans. There is no management basin 18 anywhere. Not even the 2006 draft FMP describes the South Slough. The ODF cannot log here until management basin 18 is defined and the resource values determined.

The South Slough Pre-Operations Report says: "The Scattered Tracts basin is under a long-range plan approved in 1987." I asked for a copy of that plan, and in an email response, Roger Welty confirmed: "The Scattered Tracts basin is under a long-range plan approved in 1987."[20] But that 1987 plan doesn't cover South Slough at all. For instance, it describes the scattered tracks as having an average Douglas fir Site Tree Index of 115.[21] South Slough is in the Sitka Spruce zone, not Douglas fir. By using this old, non-relevant plan, the ODF doesn't even know what the sustainable harvest is on the South Slough, especially in light of the resources that are protected as a "reserve". In fact, these **South Sough lands were procured after 1987, so it is impossible for the 1987 plan to apply to them**.

Even if the 1987 plan did apply, the ODF is violating it. The 1987 plan says, "managed stand rotations are… 75 to 86 years."[22] The South Slough sale is only 50 to 70 years old. The 1987 plan says, "Managed stands harvested in the future will be at

[20] Email from Roger Welty, ODF, 5/4/09.
[21] 1987 plan, page 3.
[22] 1987 plan page 10.

least 19 inches in diameter and will have achieved 96% of maximum wood growth". The Sough Slough sale averages only about 12 inches in diameter, and is nowhere near maximum wood growth. So*, if* the 1987 plan is being used, it is also being violated.

Why propose to log this special place at all? The ODF's South Slough pre-operations report says:

> "ODF believes that managing these tracts using the strategies and standards contained in the draft 2006 FMP will provide the best overall results for all forest resources on the scattered tracts."

The ODF failed to define "best overall results". The Reserve's forest restoration plan gives the best overall results, not ODF's clearcutting plan.

The State of Oregon funded and sanctions the Reserve's forest plan, whereas the ODF has no corresponding plan for the South Slough. Finding the management plan that ODF is using for the South Slough National Estuary upland forests is important for discovering cumulative impacts. Does the ODF plan on clearcutting (or thinning for revenue, not restoration) the entire estuary upland forests? If so, how fast? If so, why has the ODF kept silent while the Reserve's staff develop their own management plan?

The ODF's South Slough sale even has "advanced structure" habitat, and forests up to 70 years old. This is a very valuable forest in the otherwise much-younger estuary reserve. Not only would some of the Reserve be clearcut, but also some of the best forests in the Reserve would be clearcut. Instead, ODF should abide by the Reserve's management plan for Area 2-3, and for Area 1, give it to the Reserve for management. All of the upland forests in a watershed is important for the downstream estuary health. Clearcutting it, and spraying it with herbicides, and then trapping and killing any wildlife that interferes with intensive tree farms, is incompatible with the Reserve's goals. ODF should turn the entire 130 acres, as well as other state lands in the watershed, over to the Reserve to contribute to the Reserve's desired future condition.

2. Long Rotation Watershed Basins

Two 2010 ODF sales are in long-rotation basins, the North and South Middle Ridges Thin, in management basins 6 and 7 respectively. These are some of the oldest forests in the Elliott (up to 145 years old), with some of the biggest trees (over 5' DBH), providing the best murrelet and spotted owl habitat on the entire south coast.

The proposal to thin these long-rotation, mature, non-plantation forests is not in compliance with the 1995 Habitat Conservation Plan, as well as having no basis in science. The pre-operation plan for both sales states the reason for logging is to reach the following desired future condition: "maintain and accelerate creation of a more complex stand structure with the further development of an understory of hemlock, red cedar, big leaf maple and myrtle by managing stand density in accordance with the Balanced Landscape strategy of the Elliott State Forest Management Plan. Thinning

will allow for development of a more complex stand structure over time."[23]

The pre-operations report failed to compare current conditions with this desired future conditions. These forests already have a remarkable complex understory of beautiful myrtlewood trees, western hemlock and other species. There is no need to thin here to reach this condition. Most of these units also already support spotted owl and murrelet nesting habitat. Most of the areas are native, never before logged forests. The ODF fails to explain why they can do a better job of "enhancing" these older forests than what is occurring naturally.

The pre-operation report documents how the "target" stand – what is left over after thinning, will **reduce the average diameter and age**. For instance, in North Middle Ridges, Area 1 has a target DBH averaging only 21", when many areas have an average DBH of 25 or 26" DBH[24]. The silviculture prescription appears to not retain the largest trees, when big trees is what owls and murrelets need. At 6 mmbf each, these sales will offer most of the volume for 2010, and that is what appears to be the real purpose of these sales.

The Pre-operations report for both sales says: "Harvesting this unit will provide forage areas to help promote healthy deer and elk populations." So, you DO plan to open it up so much there will be early seral gaps. This is in spotted owl and murrelet reserved areas – we don't need any more deer and elk habitat here. Long-Rotation basins have a completely different purpose. Right across the 2000 road from these sales are horrendously large clearcuts in short-rotation basins. You don't need to create gaps in long-rotation basins adjacent to clearcuts.

Concerning group selection in long-rotation basins, the 1995 HCP says:

> "Group selection would be used in conjunction with thinning operations, and periodically during extended rotations. The testing of the group selection method has just been initiated on Oregon State University's MacDonald Forest by John Tappeiner, et al. **If** this method is used… it should be done initially on a small trial basis until we gather enough data and experience to decide that it is appropriate to apply the practice operationally"[25]

The pre-operation reports for South and North Middle Ridges sales failed to point to any test or trail, and instead, just embarks on thinning very special and unique 1,200 acres of old, mature spotted owl reserves, immediately across the road from really big forest openings.

The 1995 HCP does not allow logging these old forests in basins 6 and 7, long-rotation basins. "Nesting, roosting, foraging habitat objectives for the action area and the individual management basins,… would be accomplished in part through management of these long rotation basins over the term of the ITP."[26] These are not

[23] North and South Middle Ridges Pre-operations Report
[24] North Middle Ridges Pre-Operations Report. Table 2. Page 2.
[25] 1995 HCP Page IV-40 and 41.
[26] DEIS for new HCP, describing the current condition. Page 2-17

meant to make into habitat for deer and elk.

The 1995 HCP considers these long rotation basins as "reserves" for endangered species. It said that the Elliott HCP "would provide T&E reserves through HCAs and long rotation basins."[27]

The HCP promises (IV-30): "Long rotation basins provide an important basis for mitigation for marbled murrelets and spotted owls. **Little or no harvest is planned in basins 1-8 and 17 for the first three decades**." The 2010 summary states North and South Middle Ridges are in compliance with the 1995 HCP.[28] But they are not. Three decades has not yet passed.

Three decades means little or no harvest can happen until 2025. Logging 658 acres in the South Middle Ridges and 639 acres in North Middle Ridges, for a total of 1,297 acres, is not "little", especially when you have already logged hundreds of acres in the Hidden Valley and Lower Skunk sales in long-rotation watersheds (more on these sales below).

You are not allowed to log here because "The restriction of harvest in the long rotation basins will allow murrelet nesting habitat to increase over the next 30 years from 25,174 acres to 28,373 acres. The result will be a greater consolidation of nesting habitat than currently exists on the Elliott and blocks of potential nesting habitat will increase. Also, superior habitat (stands 156+ years old) will begin to develop in these basins after 30 years, and will dramatically increase with time."[29]

There is no basis in science that thinning mature forests enhances endangered species nesting habitat. The 1995 HCP says:

> "… habitat may be thinned or treated with other silvicultural activities, to create late successional stands. It is generally recognized that enhancement of late successional forests benefits most when management is conducted early in stand development (Tappeiner et al. 1992). Thus, thinning treatments will be restricted to stands 0-80 years old, with an emphasis on stands less than 40 years old."[30]

These stands are already late successional, you don't need to create it. The 1995 HCP forbids thinning in stands over 80 years old, while most of these stands are over 130 years old. It is illegal to log here. The 1995 HCP is very clear on this.

The ODF needs to explain why young, managed plantations in the long-rotation basin are not a higher priority for thinning. It appears that money as set the priority, not what's legal. North Middle Ridges is right across the 2000 road from Howell-About-Combo units 10 and 11. The ODF have been trying to sell this plantation-thinning for years, unsuccessfully. Perhaps ODF feels mature-forest thinning is more marketable. While this could be true, money should not trump the 1995 HCP reserves.

[27] 1995 HCP III-14
[28] Summary and Tables.pdf page 5.
[29] 1995 HCP IV-31
[30] 1995 HCP page IV-4.

The ODF's proposal degrades habitat more than any enhancement benefits. For instance, many recent snags would have to be cut for logger safety[31]while many trees would be girdled to convert to snags. The ODF failed to consider how may snags currently exist and how many more are needed. It makes no sense to cut snags for logger safety, and then create snags, if the unit doesn't need thinning to begin with.

The Environmental Assessment (EA) for the HCP said:

> "These basins would have long rotations of 200 and 240 years. Over time, these 6 basins would provide large blocks of contiguous habitat, and much of the blocks would develop into superior habitat (forest 156+ years old). Because these basins would provide large blocks of habitat and increasing amounts of superior habitat, it is likely that owls in these basins would provide the greatest contribution toward a stable regional population."[32]

The ODF cannot cut in these basins because, according to the EA for the HCP, there should have been 574 acres of stands over 156 years of age by 2003[33] This has not happened.

Hidden Valley: We have seen other ODF thinning projects in long-rotation basins that degraded spotted owl habitat by plucking out the largest trees form native, mature, never-before logged forests. For instance, the Hidden Valley timber sale was in a long-rotation watershed basin (basin 17). We stopped by to look at the stumps (see pictures). It does not appear that logging out big trees did anything to help the spotted owl. In fact, the so-called ecological thinning of Hidden Valley sold an average Douglas fir DBH of 25"[34]. That is very large for the Elliott – an average of 25" means many trees over 4' and 5' across could have been sold. We assume the ODF has the same type of logging in mind for North and South Middle Ridges.

Group selection happened in Hidden Valley, where, as I recall[35], the ODF claimed the forest needed to be opened up with mini clearcuts to diversify ages. However, right across the road was a clearcut in a short-rotation basin. The same will be true for North and South Middle Ridges sale, as explained above. In fact, there is no need to diversify age on the mature, old forests anywhere. ODF is not better than nature. The reality is there are a shortage of old forests and an abundance of clearcuts. That's why endangered species are endangered.

Currently **Permanent Plots are being monitored in the Hidden Valley** sale[36]. By now, the ODF must have about 10 years of data. The ODF should disclose the information from these plots, before using this silvicultural prescription again in the long-rotation basins.

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[31] North and South Middle Ridges pre-operation reports.
[32] HCP EA III & IV-9.
[33] HCP EA III & IV-19.
[34] Hidden Valley Timber Sale Notice 9/01. ODF.
[35] The ODF lead a tour of these sales that I was on several years ago.
[36] 2010 AOP Summary_Report_and_Tables.pdf. ODF draft 09/17/08 page 17.

In the 2001 Hidden Valley sale, 60 mature, healthy, large trees were "topped or girdled" to create snags.[37] What does the permanent plot monitoring say about this? Are there more wildlife using the area now, because of the snags created, than before the project? This information should be disclosed in the AOP.

The AOP for these long-rotation basin sales never mentioned the **permanent plot monitoring**. It is especially important to monitor past logging of this type because the ODF's **5-year review of the HCP said there are some problems** with thinning mature forests. That report said[38]:

> "8. Submit for USFWS review a copy of ODF's "Pre-sale Plan Report" for all proposed harvest involving ecological thinning planned during upcoming reporting period:
>
> A Pre-Sale Plan Report for Hidden Valley SM should be received by the USFWS in the first 1/4 of 2001.
>
> 9. Identify any corrective measures or changes (e.g. editorial, logistical) that need to be made, in ODF's view, to clarify implementation of the HCP.
>
> Language in the HCP regarding "ecological" and silvicultural thinning in mature stands is not as clear as it needs to be and has caused some confusion. ODF will propose language for the re-opener that will clearly state the criteria for when this type of treatment will be done and what the objectives of the treatment are, as well as the acreage of the this type of treatment, by basin, that will be accomplished each year."

The ODF needs to explain what was the confusion of Hidden Valley, and how were the criteria and objectives restated.

The spotted owl already uses the North and South Middle Ridges Thin Timber Sale. You can't make it any better in any timely way. You can't accelerate old growth habitat by logging big trees in your best, mature forests. There is no science presented in the operation plans that backs up what you are doing.

3. Northern Spotted Owls (NSO)

The Elliott State Forest is the only public land between the 209,000-acre Millicoma Tree Farm and the Pacific Ocean. This hole in public lands means the Elliott is of critical importance to the regional populations of owls in the coast range. The 2010 AOP must fully comply with the 1995 HCP, including adaptive management when that HCP is flawed or outdated.

The 2010 HCP proposes to clearcut 589 acres of spotted owl habitat, and thin 1,297 acres of some of the best owl habitat in the owl reserves (long-rotation basins). That is

[37] Hidden Valley Timber Sale Notice 9/01. ODF.
[38] Five Year Review for the Elliott Habitat Conservation Plan. ODF. 2/18/02. page A-3.

a big impact on spotted owls, especially considering all the new information ODF has learned since the 1995 HCP was approved, such as climate change, or the barred owl invasion and the NSO Recovery Plan's recommendation (RA 32) to mitigate for that invasion.

Barred Owls: The last NSO survey was 2003, 7 years before 2010. Because the survey in 2003 was the first time barred owls were found on the Elliott, and because there were suddenly so many barred owls, even though they were not the subjects of the survey, the ODF should be monitoring this situation. It is quite possible that additional barred owls are living on the Elliott in the last 7 years, and additional spotted owl territories have been lost.

The ODF did a spotted owl survey on all state forestlands in 2007, *except for the Elliott*. Those surveys should have been expanded to the Elliott, Oregon's best state lands harboring spotted owls. The lack of current information on NSO, and the new information on barred owls, ensures that the 2010 AOP and 1995 HCP do not accurately predict impacts to spotted owls. For all we know, Habitat Conservation Areas are protecting barred owls, while spotted owls are living in proposed timber sales.

According to the 2003 NSO survey, barred owls were detected at eight spotted owl sites including two sites that appear to have failed likely in part because of barred owls[39]. ODF does not know where the spotted owls, displaced by barred owls, have moved to because the old 1995 HCP does not require surveying for spotted owls before logging their habitat. Clearly, as part of adaptive management on this unexpected turn of events, the ODF should be looking for the displaced owls because the 1995 HCP never seriously considered this displacement. Adaptive Management must be done in a timely way. For years, almost for a decade, the ODF has been claiming the new HCP is their Adaptive Management. But Adaptive Management is useless if ODF waits a decade or more to address any problems, while continuing to log habitat.

In the 2008 Spotted Owl Recovery Plan, the FWS says that barred owls are a major threat to the spotted owl, and that "Based on the best available scientific information, competition from the barred owl (*S. varia*) poses a significant and complex threat to the spotted owl."[40] There is no uncertainty associated with the effect of the barred owl on the northern spotted owl.

Recovery Action 32: The threat posed to the spotted owl by barred owl is part of the cumulative impacts that ODF must evaluate when considering the impacts of logging. Recovery Action 32 is one of the most important recommendations for non-federal lands, especially non-federal lands that are coping with barred owls impacting spotted owl reserves.

[39] Kingfisher Ecological 2003.
[40] Final Recovery Plan for the Northern Spotted Owl. FWS. May 2008.

> Recovery Action 32: "Maintain substantially all of the older and more structurally complex multi-layered conifer forests on Federal lands outside of MOCAs…. *Encourage maintenance of forests with these conditions on non-Federal Lands."*

The Oregon Department of Forestry's 2010 AOP does not attempt to follow this recovery action because structurally complex, multi-layered Douglas fir forests are proposed for clearcutting. This violates the spirit and intent of Recovery Action 32.

The 1995 HCP is inadequate to protect spotted owls. The 2010 AOP claims to follow the requirements of the Elliott's 1995 HCP. However, it has recently come to our attention that the FWS considers the 1995 HCP inadequate to protect spotted owls, a change in how they felt when they approved it in 1995.

The 8/08 DEIS (Draft Environmental Impact Statement) for the new HCP discloses that the 1995 HCP is inadequate, and that the 1995 HCP EA and ITP were in error. Under Alternative 1, the DEIS says under the "no-action" alternative (the current 1995 HCP), only three activity centers would have "sufficient suitable habitat under Alternative 1 to give resident owls a high potential for persistence"[41]. This contrasts sharply with the conclusions of the biological opinion for the HCP issued in 1995, which predicted that 13 activity centers would be maintained for the life of the permit[42]. This new information means that the ODF should reconsult with the FWS on the biological opinion for the original HCP before ODF logs more under the authority of the 1995 HCP.

The 8/08 DEIS table 4.6-2 shows that, of the 13 OWL activity centers (and 4 historic centers), only *three* have a high potential for persistence under the 1995 HCP over the next 50 years-- just three. And one of those is the Alder Creek Owl, found to have a barred owl lurking near it's cite in the 2003 surveys. Thus, one of the best activity centers could now be protecting a barred owl.

What is also alarming is that the two owl pairs that were identified in the 5-year review as the most productive owls in the Elliott, that should receive the most protection, Roberts Creek and Salander Creek owls, BOTH are predicted to have a LOW potential for persistence under the 1995 HCP over the next 50 years, even without taking into account barred owls. This lack of protection in the existing 1995 HCP must be addressed by ODF before proposing to log more.

4. Protecting MMMAs

Many timber sales clearcut right up to the boundaries of the Marbled Murrelet Management Areas (MMMAs). This introduces a large edge effect into the MMMA, perhaps as much as 700 feet.

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[41] DEIS. 08/08. page 4.6-46.
[42] USFWS, October 2, 1995, Biological Opinion on the incidental take permit for northern spotted owls and marbled murrelets, to Oregon Department of Forestry on the Elliott State Forest.

> "Fundamental changes in the microclimate of a stand have been recorded greater than 700 feet from the forest edge (Chen et al. 1995) and changes in microclimate regimes with forest fragmentation can potentially stress old-growth associated species, including the MAMU. Effects on humidity, in particular, may extend beyond **700 feet from edges**. Effects of strong wind, as well, may extend beyond that distance (see Chen et al. 1995)"[43]

Therefore, we are concerned with all the sales that clearcut up to the edge of a Conservation Area or Marbled Murrelet Management Area. The ODF should explain if the choice of MMMA size takes this edge effect into account. Some MMMAs seem pretty small (like the new one at Panther Bowl), and have fluted edges, increasing edge impacts and decreasing interior forest acres.

Please explain how the size and shape of the MMMAs were determined and what is the scientific basis for that choice.

In the 2010 AOP, four sales adjoin MMMAs, increasing disturbance to murrelets via edge impacts. An example of edge impacts can be seen in Comodos, Area 1, next to the Lower Beaver timber sale clearcut in 2003. The trees left standing on the edge of Comodos Area 1 have suffered – many trees are dead, many have dead tops, many have sun scald, and several blew down.

After Comodos Area 2 is clearcut next to the Elk Forks MMMA, we can expect the same types of edge impacts. Was this accounted for when determining the size of the Elk Forks murrelet reserve? If so, what are the total acres of interior forest acres in Elk Forks MMMA?

We believe it was never accounted for. Therefore, you must leave an additional buffer to take the edge impacts, and leave interior forests for the murrelet. Without interior forests, the murrelet nest is likely to be predated. 70% of murrelet nests fail and 50% of those failures are from corvid predation due to a lack of interior forest protections. Even the 1995 HCP found stand buffers for murrelets to be necessary:

> "Stand buffers are highly recommended by biologists, to a) minimize mortality and windthrow from wind along an edge; b) minimize microclimate and biological changes (productivity, decomposition, tree mortality) related to increased light, temperature and drying; and c) minimize nest predation from corvids (ravens, crows and jays) (Nelson 1993c, Washington State Forest Practices Board 1993)."[44]

The new HCP is also clear about this:

> "Limit the amount of early structure adjacent to T&E core areas. The juxtaposition of early structure with advanced structure produces areas of high edge contrast. Although this edge habitat is valuable to many species, it is detrimental to others—in particular, to the northern spotted owl and marbled murrelet. By limiting the amount of early structure adjacent to T&E cores, and providing advanced and

[43] LNG DEIS, 2008. Page 4.6-34.
[44] 1995 HCP. Page II-12.

intermediate structure surrounding T&E cores, interior habitat values for these species will be enhanced."[45]

The ODF should provide additional protections to MMMAs by restricting human use of near-by clearcuts. Humans attract corvids by leaving food scraps. The human activity of the logging operation will increase the presence of corvids. ODF also encourages recreational hunting on clearcuts adjoining MMMAs. Instead, the ODF should consider how to minimize attracting corvids to areas next to MMMAs.

5. Specific Sale Comments

Comodos: Unit 2 of Comodos borders the Elk Forks Marbled Murrelet Management Area (MMMA). While there is a border drawn on the map, up a broad ridge, it is virtually impossible to tell where that border is on the ground. How will ODF determine this correctly? Fudging that border just a few feet west will allow numerous big, beautiful, murrelet potential trees to be logged.

The ODF should disclose how the Elk Forks MMMA was designed, i.e. how many acres is it and how many of those are interior forest acres. The Comodos pre-operations report should have disclosed how many acres of the Elk Forks MMMA will remain interior habitat after the Comodos clearcut.

The Comodos sale contains old growth. The ODF defines old growth as trees over 180 years old.[46] Comodos Area 2 has old growth trees just east of the western line with the MMMA.

Because of the bordering MMMA, the undefined ridgetop, old growth trees, and protecting edges from blowdown and other edge effects, the clearcut boundary should be well down the ridge, not on the ridge (as drawn).

The Pre-Operations report for Comodos does not show a new road up this ridgetop. However, ODF often adds roads after the pre-operations report comment time is over. The ODF must NOT add a road up the ridgetop, on the western boundary of Area 2. It would degrade the old growth, and severely degrade the adjoining MMMA.

Double Fish: This sale is an occupied site for murrelets. Area 2 had 56 detections, including two that were sub-canopy. This meets the definition of an occupied site. Just because later surveys did not detect the murrelets, does not mean the site looses its occupied status. Double Fish must be retained as a MMMA. In fact, Double Fish has very impressive, big trees, some of the best on the Elliott. The ODF is not allowed to clearcut the best habitat, and instead, should be cutting lower value habitat first.

[45] 2008 Draft HCP/DEIS page 5-20.
[46] 2010 AOP summary, page 7. "Reserving remnant old-growth trees, trees originating prior to the year 1830, is a district policy. Care is taken to walk through the units and mark the residual old-growth as green tree retention. The only exception to this policy is if an old-growth tree is located where it impedes operability and causes a hazardous situation."

6. Roads

The 2010 AOP proposes to build another 1.2 miles of permanent roads in the Elliott. This is in addition to the 5 miles of road per square mile that already exists on the Elliott, far above the watershed goal of 2 miles per square mile. The ODF's response to our comments last year stated there were only 3.7 miles per square mile[47] No source is given for that figure. On the other hand, the Elliott Watershed Analysis puts the figure at more like 5.6 miles per square mile[48].

The ODF often adds new roads to sale contracts, or changes road locations, after the public and FWS has reviewed the pre-operation report for the sale. For instance, the ODF built a new road right through a murrelet reserve that adjoined the Bowl Bound Beaver sale in 2007. There are a number of reserves and special areas that adjoin the 2010 sales, and apparently, ODF feels they can build new roads right through these reserves without disclosure in the pre-operations report. Another example is changing the location of the road in Panther Headwaters from a ridgetop to a steep side-hill. We object to these last-minute changes. If ODF wants to build new roads or not disclosed in the pre-operation reports, or significantly change the location of road, a new report should be issued to the public and to FWS for comments. Otherwise, ODF's significant last minute changes undermines the whole point of public comments and FWS oversight.

ODF puts "coastal erosion mix" grass seed on disturbed areas of roads[49]. But the AOP does not describe this mix. It sounds like it includes non-native grass seed. The ODF should consider the impacts of introducing such a large volume of non-native, potentially invasive plant species into the Elliott.

All of the new roads will be left specifically for ATV use in the forest.[50] This is in spite of the damaging impacts of ATVs. Last year we saw trucks modified for ATV use riding up and down the Millicoma River, right over salmon spawning cobble and pools. The ODF did nothing about this, and in fact, the first person I talked to in the ODF office to report this told me the Elliott is a public forest and people can do what they want. This culture of allowing ATVs to degrade parts of the Elliott is irresponsible stewardship. Instead, the pre-operation reports should consider the resource damage that is possible by unregulated ATV use, before leaving all new unsurfaced logging roads open to year round ATV play. The ODF should also use the term Off Highway Vehicles (OHV) instead of ATV, to include the full range of vehicles that play in the Elliott and on the logging roads ODF leaves for them.

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[47] 2009 response page 31.
[48] Elliott Watershed Analysis. 2003. Page 6-29.
[49] 2010 Summary and Tables.pdf. page 10.
[50] 2010 Summary and Tables.pdf. page 11. "All of the roads that fall under this operations plan that are not surfaced will be closed to traffic, with the exception of ATV'S, once the operation is complete."

7. Recreation

The Annual Operation Plans should include OHV play as a recreational activity on the forest. Instead, the pre-operation reports for individual sales state the only recreational activity is hunting. This is OHV play for play sake, not for hunting. The ODF has noticed this on the Elliott, right? If not, just drive up the 8100 road where OHVs have destroyed vegetation along the Millicoma River, and have turned acres of land into mud while driving OHVs in circles (we sent you a picture of this last year). What is not clear is why the ODF ignores this problem (or doesn't consider it a problem), and simply continues to encourage and condone unregulated OHV use.

Comodos unit 1 is in a Scenic Production area, right across the Millicoma River from some of the best river camping spots. The proposal to log Comodos says: "The location of retained trees will be determined during the sale prep process. Emphasis **may** be given to widening riparian management areas and enhancing land classified as scenic production.[51]

"May" is not strong enough protection. The 1995 HCP requires that scenic production lands "need harvest modifications to protect or enhance scenic values"[52]. You must modify harvest to protect the scenery. Maybe is not a legal option.

Recreation Resources for Comodos never mentions the camping areas across the river. It even says: "No conflict is seen with respect to the undeveloped, dispersed recreation usage of the forest." It is an unreasonable conclusion that people who enjoy camping by a river, also enjoy looking at a raw, ugly clearcut across the water. If that is what ODF really thinks, why was Area 1 of Comodos put in scenic production at all? The ODF brags about the increase in Elk and Deer in clearcuts as the ONLY recreational value, as if every person visiting the Elliott is interested in hunting in clearcuts and no one has any esthetic or scenic values.

8. Killing Mountain Beavers

The ODF should find alternatives to killing mountain beavers[53]. For instance, studies have determined that mountain beavers are less likely to damage trees when other preferred food sources are available. They do not prefer tree seedlings. They prefer salal, ferns, cat's ear, and salmonberry to conifer seedlings when both were provided in ample quantities[54]. If the ODF didn't herbicide spray, stripping the forests of all vegetation except conifer seedlings, ODF wouldn't have to kill the mountain beavers.

Mountain beavers are eaten by bobcats, coyotes, large owls, and occasionally cougars and bears. Killing mountain beavers, especially in the South Sough Reserve, removes

[51] Comodos Pre-Operations Report. Page 2. Emphasis mine.
[52] 1995 HCP page 1-10, I-14.
[53] ODF 2010 AOP page 13: "Mountain beaver trapping is prescribed on all clearcut harvest units under the 2010 AOP."
[54] www.wfpa.org/pdf/fyi/FYIMountainBeaver.pdf.

a food source for these larger mammals. Mountain beavers also serve an important function in nature owing to the amount of soil they move and the number of vacant burrows they leave behind for other wildlife. Over time, their old nests, partially filled food pantries and toilets, are buried well below the surface, where the vegetation and droppings become fertilizer.[55] These mountain beaver ecological services were unacknowledged by the AOP. The ODF should at least disclose the cumulative impacts of killing mountain beavers for decades. Have you ever monitored their population numbers?

9. Economics and timber market

The 2010 AOP summary report states: "The estimated gross revenue for this plan is **$9,808,850**. Project costs are estimated at about $582,452 with a net revenue of about $9,260,398. "[56] This doesn't make sense, in a time of such economic downturn, to put such a high value on the timber. Does ODF expect a complete market come-back by mid-2009 when these sales begin to be sold? If so, ODF is alone in that expectation.

By comparison, the 2008 projected net revenue of virtually the same amount of logging, but during better market conditions, was: "The estimated gross revenue for this plan is **$8,707,788**. Project costs are estimated at about $544,105 with a net revenue of about $8,163,683"[57].

It does not make sense that in these terrible market conditions, the ODF expects to makes a million dollars more than 2008.

The Elliott has only so much prime, mature, native forests available for first-time harvesting. The state should not waste it by selling timber in poor market conditions. If boards are not needed, the trees should at least be left standing for wildlife.

The ODF responded[58] to this issue last year by saying:

> "The Department of State Lands Asset Management Plan direction for Common School Forest Lands is to maintain "a sustainable, even- flow harvest of timber".

The policy should be changed so that the state, and the common school fund, can get the greatest monetary value possible when harvesting timber, instead of selling timber at a serious lower value in a poor economy.

> "Despite the poor market conditions, many Elliott timber sales have sold for amounts much higher than the state average, thus ensuring a revenue stream to the Common School Fund and to local counties."

The commitment of Common School Fund lands is to ensure the best revenue stream to the state. Providing jobs is important, but is not the constitutional purpose of

[55] http://wdfw.wa.gov/wlm/living/mtn_beavers.htm
[56] 2010 Summary and Tables.pdf. page 9.
[57] 2008 Summary and Tables.pdf. page 8.
[58] "Public Comment and Response" to our 2009 comments. Page 30.

CSFLs. The policy must be to procure the greatest economic benefit to the state, not to mill owners.

> "Though some younger sales are selling at a lower value than in the recent past, all sales continue to produce a positive net revenue."

The only reason there is a positive net revenue is because the ODF uses prison labor for tree-planting and other labor-intensive work. The prisoners are paid only $2.50 a day. Yes, anybody can have a positive net revenue when using slave-like labor.

10. 2010 targets are too high

This year, the annual objective clearcut for the Elliott is 510 acres, yet the ODF is proposing to sell 706 clearcut acres[59]. 129 extra acres of clearcuts is in scattered tracks (see reason 1 above for our objection on this). The other extra 67 clearcut acres proposed to be clearcut is simply over the target, with no explanation of why. The HCP does not allow ODF to exceed the target like this.

The table at the bottom of page 4 in the 2010 Summary document implies that 2009 will exceed target clearcut acres by 23 acres. If the ODF succeeds in reaching the target for both years, you will have gone 100 acres (67+23) over your target – about 20% over the 510 acre annual target.

There was no justification for this. Perhaps in response to these comments, the ODF will point to the "-23" acres at the end of 2008, reducing the amount exceeded by 23 acres. But **the -23 is a miscalculation**. 2007 ended with a total of 58 acres under the target. 2008 had an excess of 42 acres. Therefore, 2008 should have had a cumulative loss of only 16 acres, not 26 acres as shown on the table (58-42=16, not 26). Also, the table on the bottom of page 4 fails to disclose the acres clearcut from 1995 to 2000. Were they exactly on target, or was there overcutting during the 1st five years?

Exceeding the target by 67 acres in 2010 and 23 acres in 2009 is the largest target overrun ever in the history of the Elliott. The ODF must explain how this can ever comply with the 1995 HCP. Especially if a new HCP is implemented for 2011, the ODF will never have the opportunity to reduce cutting to average out the legal cut.

In previous years (though not this year) the ODF has gone over target in the Elliott because, ODF claimed, too many murrelets were found in 2001, 02, and 03 timber sales, after the murrelet Incidental Take Permit (ITP) expired in 2001.[60] This catch-up was illegal because there was no target acre-clearcut for the Elliott after the murrelet ITP expired in 2001. The EA for the HCP says for decades 2 through 10: "**Annual Timber Harvest Volume… Assumes an ITP is obtained for... marbled murrelet**

[59] 2010 Summary and Tables.pdf. page 4.
[60] Coos 2008 AOP Summary. 1/17/07. Page 4. "The primary reason for the shortfall was the discovery of a large number of stands occupied by murrelets".

habitat beyond 2001.[61]" Since this never happened, the goal of 510 clearcut acres is not valid. The annual 510-clearcut-acre goal will be increasingly impossible to meet as more and more stands with murrelets are protected on the Elliott.

The ODF previously responded to these comments by saying, "the HCP and Incidental Take Permit make it very clear that this [the EA] is not a legal requirement…"[62] We disagree. EA assumptions are a part of the HCP and ITP, and thus a legal requirement. For instance, the Biological Opinion for the HCP says that the HCP "**is based on information provided in the… Environmental Assessment** (EA) (USDI 1995), for the proposed action."[63] The 1995 HCP clearly embraces the assumptions and findings of the EA.

> "The habitat conservation plan is accompanied by an Environmental Assessment (EA). The EA informs the public about the environmental analysis done in developing the HCP and applying for the incidental take permit. It describes alternative methods for managing northern spotted owls, marbled murrelets, and their habitat, on the Elliott State Forest. It also describes what the environmental effects of each alternative would be. The preferred alternative is the basis for the habitat conservation plan. **The EA will be used by the USFWS to determine if issuance of the incidental take permit** would result in significant effects to the human environment."[64]

If the EA has wrong assumptions, the findings of the HCP are also wrong.

Since the ODF doesn't have an ITP for marbled murrelets, the no-take protocol surveys that have been done instead have justifiability caused a problem in meeting a predictable target harvest volume. Instead of playing catch-up, the ODF should drop all sales in murrelet habitat.

The HCP says: "Alternatives A-D all assume that an Incidental Take Permit would be issued by USFWS. Management activities such as harvesting would therefore occur at *predictable* times and places.[65] When the murrelet ITP was lost, so was the predictability. ODF will never know when a mature stand, in a forest just a few miles from the Pacific Ocean, will shelter a nesting marbled murrelet. The ODF does not have an ITP so there can be no firm target volume or predictability.

The annual clearcut harvest acreage was set by the owl and murrelet combination HCP/ITP. Without the murrelet ITP, ODF cannot insist on predictability or a specific harvest target.

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[61] ESF EA for the HCP. USDI Fish and Wildlife Service. 1995. page III & IV-73. Table III & IV-15.
[62] Response to 2008 AOP comments. Page 22.
[63] Biological Opinion on the Proposed Issuance of an Incidental Take Permit for Northern Spotted Owls and Marbled Murrelets to the Oregon Department of Forestry on the Elliott State Forest, coos and Douglas Counties, Oregon. USDI Fish and Wildlife Service, Oregon State Office. October 2, 1995.
[64] Elliott HCP. 1995. Page I-1.
[65] 1995 Elliott HCP page III-23.

11. Herbicides and Fertilizers

The 2010 AOP documents the ODF plans to use the herbicides Arsenal, Garion-4, Garlon, Glyphosate and 2,4-D. These chemicals, along with fertilizers containing formaldehyde, could have cumulative impacts on the watersheds, salmon, and on the people applying the chemicals or on down-stream water users.

There is clear evidence that herbicides are detrimental to salmon[66], wildlife and people. Mixed with the herbicides are surfactants such as diesel and other unpronounceable chemicals.[67] When these chemicals are aerial sprayed during the wet season, they are sprayed right into the water flowing down small, unseen-from-the-air, headwater streams that flow downstream to fish-bearing streams.

Even if label directions are followed, herbicides can kill species such as amphibians and butterflies, degrade habitat for upland bird species, such as the olive flycatcher, and harm salmon species. Following the label is not enough to ensure herbicide safety for wildlife. Herbicides can have more insidious effects then previously thought. For instance, studies of farmers and other people exposed to glyphosate herbicides have shown that this exposure is linked with increased risks of the cancer non-Hodgkin's lymphoma, miscarriages, and attention deficit disorder and Parkinson's disease. Glyphosate herbicides caused genetic and immune system damage in fish. In frogs, glyphosate herbicides caused genetic damage and abnormal development.[68] Herbicides are meant to kill and cause nerve and hormonal damage.

The 2010 AOP summary states herbicides will be sprayed, likely on over 500 acres aerially plus additional acres ground application. Over 50 miles of roadsides will also sprayed.[69] Yet no studies have been conducted in the Elliott State Forest to monitor chemical concentrations in streams following treatments.[70] This is also a problem in the South Slough Coos Bay Estuary. Even though ODF will spray herbicides on almost 130 acres in the estuary watershed, and more on the new roads into the estuary, the ODF provides no studies showing those herbicides are safe in estuaries.

Herbicide use on the Elliott is at a higher level than any other government agency in Oregon uses. The adjoining BML and Forest Service do just fine without aerial application of herbicides on their regeneration harvests. The ODF even has access to prisoners that make slave-like wages, so it would be more cost effective for the ODF to do manual release. ODF has not kept up with the science on herbicide damage and is way behind other public agencies in their use of chemicals. There is virtually no effective monitoring program on the Elliott to look at both immediate and long-term damage to soils, fish, amphibians, human impacts, etc.

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[66] Diminishing Returns. Salmon Decline and Pesticides. Dr. Richard D. Ewing. February 1999. www.ifrfish.org/salpest.htm
[67] New HCP DEIS 8-08. Page 3.1-10
[68] Journal of Pesticide Reform. Winter 2004 Vol. 24, No. 4. www.pesticide.org/glyphosate.pdf
[69] New HCP DEIS 8-08. Page 3.1-10
[70] New draft 2008 HCP C-25.

Fertilizers effects must also be considered, including adding nitrogen into the watersheds, possibly causing increased algae growth in creeks and streams. Loon Lake could be affected by excessive nitrogen caused by fertilizers. Fertilizer additives can also be toxic. ODF must consider impacts to *all* kinds of people, including the elderly with compromised immune systems and pregnant women and their developing fetuses.

12. Other issues

Swiss Needle Cast: The Swiss Needle Cast (SNC) problem on the coast is expanding, and the Elliott State Forest is not immune. Evidence of SNC can be seen forest-wide. This reduces the growth in plantations in the Elliott by about 21%[71]. On the other hand, the mature forests in the Elliott are not as susceptible to growth reduction or SNC impacts[72]. The ODF failed to consider this when proposing to convert hundreds of acres of mature forests to young tree plantations. The ODF must recognize that in spite of mitigation measures, significant growth loss will occur. The Elliott's sustained yield figures must be adjusted because of this. If ODF is not growing as much volume as you estimated in the 1995 HCP, ODF should be cutting less.

Public Safety Deferred: The Millicoma Between sale borders a large area marked as "public safety deferred". The pre-operation report never described the safety issue that is at risk or how the size and shape of the deferred area was calculated to protect public safety. It doesn't seem wise to clearcut right up to the border of a public-safety-deferred area, especially since most of the sale is in a high landslide hazard location.

Slope Stability: ODF continues to log forests on High Landslide Hazard Locations (HLHL). Comodos unit 1 has likely potential debris flow track reaches with probability of delivery to the Millicoma River – right across the river from high-use recreation sites. Double Fish is a HLHL, and a debris flow would deposit into fish streams below, including Fish Creek. Marlo Millicoma could deliver sediment to Marlo Creek from the HLHL clearcut slopes. Out of 8 clearcut proposals, 6 are on High Landslide Hazard Locations and 5 of those would deliver sediment into fish-bearing streams. Clearcutting on these slopes doubles the incidences of landslides[73]. The ODF should drop the 5 clearcuts that predict a debris flow to salmon streams.

In-Growth: Several sales depend on in-growth to meet the basin's age targets. What the ODF fails to explain is how the in-growth is calculated, and can that method be

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[71] Swiss Needle Cast Cooperative Annual Report 2008. OSU. Page 14. "The inferred cubic volume growth loss for stands experiencing the most severe SNC is therefore approximately 43%, with a population average of 21% growth loss (average foliage retention of 2.5 yrs)"

[72] Swiss Needle Cast Cooperative Annual Report 2008. OSU. page 4. "older trees may not be as impacted from SNC as young plantation trees". Page 76: "Perhaps older individuals are not as susceptible to the effects of the disease, or as natural regeneration, they are genetically resistant…. Overall, radial growth rate does not appear to capture any effects from Swiss needle cast on older trees".

[73] ESF Watershed Analysis. 2003. "Another human-related source of fine and course sediment in streams is that derived from landslides within recent clearcuts. Field studies in the Oregon Coast Range indicate that the frequency of shallow landslides on very steep slopes is about 1.5 to 2.0 times greater in recent clearcuts than in mature stands." Page 11-4.

trusted as accurate. If the calculation was based solely on computer models of growing plantations, it is not trustworthy. Field verification is necessary. How much field verification on ingrowth is done?

Fragmentation: Two sales fragment mature forests[74]. This is not allowed by the 1995 HCP. The ODF responded to this problem last year by saying: "In each case [of fragmentation] we carefully document the nature of the fragmentation and the fact that these areas were chosen because no other areas were available for harvest."[75] The ODF failed to address the big issue – the fact that there are no other areas for harvest. These are the last stands. There are 50 years left on the HCP. Isn't 15 years rather quick for no areas left to harvest?

Incorrect information: Why is the 2010 Summary document dated September 17, 2008? (the date in the footer of every page). Was it prepared 6 months before it was released for public comment?

Why does the FY 2010 Summary document state "It is anticipated that the first year under the new Elliott FMP/HCP will be FY2010?[76] Elsewhere ODF claims that the FY 2010 AOP complies with the 1995 HCP.

13. Climate Change

The ODF failed to mention anything about global warming, climate change, or carbon sequestration in either the AOP summaries or pre-operations reports. It's time for ODF to recognize global warming as an important issue. It's time to consider how mature, coastal forests help to regulate our climate. For more information, see Heiken, D., 2007. "The Straight Facts on Forests, Carbon, and Global Warming," a special report from Oregon Wild.[77]

Climate Change impacts were not considered in the 1995 Elliott Habitat Conservation Plan, so it should now be considered in the individual pre-operation reports, as well as in the new proposed HCP. When we raised this issue last year, the ODF responded:

> "ODF addresses this issue by maintaining State Forests in forest uses, consistent with the 2003 Forestry Program for Oregon. … Strategy G in the FPFO calls for enhancing carbon storage in Oregon's forests by maintaining and increasing Oregon's forest land base and promoting urban forests."[78]

The ODF fails to recognize our comments deal with the impacts of older, native, mature forests on our climate – not tree plantations. There is no science showing that maintaining young forests as young forests (as is done when maintaining State Forest in forest uses) reduces the impact to the climate from clearcutting mature forests. The

[74] Comodos area 2, Marlow_Millicoma_Divide,.
[75] "Public Comment and Response" to our 2009 comments. Page 25.
[76] 2010 Summary and Tables.pdf. page 15.
[77] http://tinyurl.com/2n96m5.
[78] "Public Comment and Response" to our 2009 comments. Page 34.

FPFO never considered the carbon stored in mature and old growth forests, and how much carbon is lost into the atmosphere when a mature coastal forest is converted to a young, managed plantation.

A recent Australian study found that "untouched natural forests store three times more carbon dioxide than previously estimated and **60 percent more than plantation forests**" and that first-time "logging resulted in more than a 40 percent reduction in long-term carbon compared with unlogged forests."[79] Converting thousands of acres in the Elliott to tree plantations makes a significant contribution to Global Warming. The 1995 HCP never considered this impact, so the cumulative impacts of should be considered in the AOPs.

That was an Australian study. The Elliott State Forest stores even more carbon because of its location in the Pacific Northwest. More carbon is stored per acre in the moist "Westside" portions of the Pacific Northwest than any other forests in the world[80]. Though the forests in Washington, Oregon, and California comprise only 19% of the forested area of the United States (USDA ERS 2002), they contain 39% of the United States' total forest carbon (Birdsey 1992). Logging mature forests on the Elliott releases this carbon into the atmosphere. And these carbon emissions will not be absorbed by younger, managed stands, for centuries to come[81].

Older forests, like those on the Elliott, are important because they store more carbon than any other terrestrial ecosystem on earth (including tropical rainforests) and therefore play a pivotal role in long-term carbon sequestration and climate change mitigation. Carbon storage in western Pacific Northwest forests is higher per acre than other forests in the United States[82] and is in fact the highest in the world[83] because:
* Favorable climate conditions promote growth during all seasons, not just during the normal summer growing season.
* The dominant tree species of the region grow in diameter and height throughout their lives and produce large amounts of decay-resistant litter.
* Infrequent natural disturbances such as wildfires and windstorms allow trees to grow very old (Wayburn et al. 2000).

Birdsey (1992) found that forests in Washington, Oregon, and California contain 39% of the United States' total forest carbon. The U.S. net forest carbon sink offsets over 10% of all annual U.S. CO2 emissions (EPA 2007).

The coastal, Douglas fir forests of the Elliott State Forest are a rich contribution to stabilizing our climate, especially if the half that has been logged is allowed to return to a mature forest condition.

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[79] Green Carbon: The role of natural forests in carbon storage. Brendan G. Mackey, Heather Keith, Sandra L. Berry and David B. Lindenmayer. 8/08.
http://cos.anu.edu.au/News/2008/GreenCarbonBook_d3.pdf
[80] Smithwick et al. 2002, Franklin and Waring 1980.
[81] Janisch 2001. Also see Randi Spivak testimony to Congress, March 13, 2008.
[82] Smith et al. 2006; EPA 2007; Woodbury et al. 2007.
[83] Smithwick et al. 2002, Franklin and Waring 1980

Older forests sequester significant amounts of carbon and help keep it out of the atmosphere. Increased logging of these older forests will (a) replace high-inertia forests with young trees that are far more vulnerable to climate stress, (b) release massive amounts of stored carbon into the atmosphere: from forest soils, from sawdust in the forest and at the mill, from slash disposal, from warmer microclimate that accelerates rates of respiration and decomposition, and from wood products that are short-lived compared to the carbon stored in both live and dead trees in old forests, and (c) logging older forest decreases biodiversity which reduces the forest's ability to store carbon and respond to climate change. The ODF failed to account for these issues, either in the 1995 HCP or the AOPs,

In Conclusion, please drop all timber sales that clearcut or thin in endangered species habitat or in the South Slough Reserve. Concentrate timber sales in young plantations outside of reserves. Because of poor market conditions, it is acceptable if this amount of logging does not meet the 1995 HCP target volume or acres. The 1995 HCP never required the state to log the maximum possible every year.

Sincerely

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Elliott State Forest 2010 Annual Operation Plan

Comments from Umpqua Watersheds, Cascadia Wildlands Project, Center for Biological Diversity, Coast Range Association, Klamath Siskiyou Wildlands Center, Oregon Wild, and Oregon Chapter Sierra Club

DOUBLE FISH

Left and below. Murrelet surveys in 1995 found 56 murrelet detections, including two sub-canopy. This beautiful forest, prime for murrelets, should have been protected as a Marbled Murrelet Management Area. Instead, the ODF is proposing to clearcut it.

COMODOS Area 2

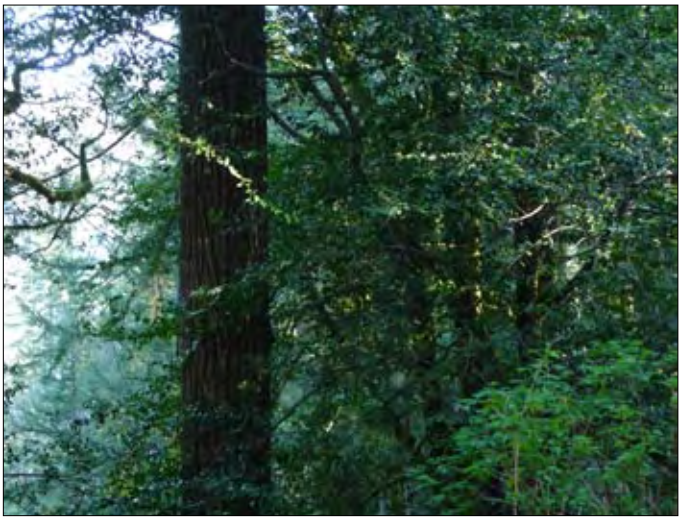
Above: This broad ridge divides the MMMA on east side of ridge and the clearcut unit on the west. The line is clear on a map, but unclear on the ground. Move the line just a few feet east, and trees like the one pictured on the right, 5' across and showing signs of old-growth, would be clearcut. This murrelet reserve will also suffer extreme edge effects from a clearcut to the edge of a ridge top.

NORTH and SOUTH MIDDLE RIDGES Sales

These two timber sales are in the long-rotation basin reserved for spotted owl and murrelet habitat in the western half of the Elliott.

The ODF claims they can improve these forests, containing the oldest and biggest trees in the Elliott, and make them even better by logging them. But this is illegal. The 1995 HCP does not allow logging here until at least 2025.

ODF claims these stands need a more diverse understory, so they have to log some of the overstory. But we found a complex stand structure already existed, with some of the most prolific and mature myrtlewood trees in the Elliott (pictured below). We also found hemlock, alder, and other diverse understory well represented.



The 1995 HCP also did not allow ODF to log the Hidden Valley sale in the long-rotation basin in 2003 (pictured below). This is what ODF now has in mind for North and South Middle Ridges. Taking out big trees does not enhance late-seral characteristics when the stand is already late-seral, and especially when there are near-by plantations that really need to be thinned. If nothing else, the ODF should disclose the results of Hidden Valley monitoring before logging more long-rotation basins.