REVISED PRELIMINARY ECONOMIC ANALYSIS
Forest Practices Board
Rule Making Affecting Northern Spotted Owl Habitat
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OBJECTIVES

The Forest Practices Board is considering a rule proposal to amend WAC 222-16-010 that could affect timber harvest in Northern Spotted Owl circles within Spotted Owl Special Emphasis Areas (SOSEAs) in Washington State. The objectives of this economic analysis are to analyze the costs and benefits of the proposal pursuant to RCW 34.05.328, and to determine whether the costs to comply with the proposal are likely to disproportionately impact the state's small businesses pursuant to RCW 19.85.040.

According to the Administrative Procedure Act (chapter RCW 34.05) agencies must complete a cost-benefit analysis (CBA) to:

- Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented; and
- Determine, after considering alternative versions of the rule, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives of the statute that the rule implements.

A small business economic impact statement (SBEIS) is required by the Regulatory Fairness Act (chapter RCW 19.85) to consider the impacts of administrative rules adopted by state agencies on small businesses. The statute defines small businesses as those with 50 or fewer employees. To determine whether the proposed rule will have a disproportionate cost impact on small businesses, the impact statement compares the cost of compliance for small business with the cost of compliance for the ten percent of businesses that are the largest businesses required to comply with the proposed rules.

CONTEXT

Since 2005, the Board considered whether and how the forest practices rules should be changed to conserve habitat for the Northern Spotted Owl. In November 2005, the Forest Practices Board adopted rules that placed a temporary moratorium on the practice of decertifying spotted owl site centers to allow time to develop a long-term conservation strategy. This was due to reported declines in suitable habitat in the decade since the 1996 adoption of state rules to conserve spotted owl habitat[1], and in Washington's spotted owl population since the species was listed as threatened in 1990 under the Endangered Species Act.[2] The Board maintained the moratorium, through a succession of emergency and permanent rules, through December 31, 2008.

Under current rules, with no moratorium on decertification, a landowner may, after having followed survey protocol for three consecutive years, petition the Department of Fish and Wildlife (WDFW) to decertify the owl circle. If WDFW finds that the landowner has properly followed the survey protocol and that the habitat associated with the owl site center is no longer occupied, the site center is decertified and the restrictions on harvest within the circle are lifted.

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[1] See *An Assessment of Spotted Owl Habitat on Non-federal Lands in Washington Between 1996 and 20*04, John D. Pierce et al., August 2005 at http://wdfw.wa.gov/wlm/research/papers/spotted_owl/index.htm .
[2] See *Final Briefing Report to the Washington State Forest Practices Board Regarding Spotted Owl Status and Forest Practices Rules*, Joseph B. Buchanan and Paula Swedeen, August 2005 at http://wdfw.wa.gov/wlm/research/papers/spotted_owl/forest_practices.htm .

To help develop a long-term conservation strategy for the spotted owl, on July 7, 2008 the Board established a multi-stakeholder Policy Working Group on Northern Spotted Owl Conservation. This group's goal was to recommend measures that result in strategic contribution from non-federal lands in Washington to the conservation of a viable population of the Northern Spotted Owl.

The Board adopted an emergency rule effective January 1. 2009 that deleted language pertaining to the moratorium, and created a multi-stakeholder Spotted Owl Conservation Advisory Group to review any surveys demonstrating the absence of spotted owls at spotted owl site centers for a period of one year, from January 1, 2009 to December 31, 2009. The Board also directed staff to begin the permanent rule making process with the same rule language. Because emergency rules are effective for only 120 days unless an agency is actively undertaking the appropriate procedures to adopt the rule as permanent, the Board has re-adopted emergency rules three times while permanent rule making is in progress.

On November 10, 2009, the Policy Working Group on Northern Spotted Owl Conservation presented its recommendations to the Board. Among the group's recommendations was the following: "The Group recommends that the current decertification process continue under an open ended rule with an annual review, until the revised federal spotted owl survey protocols are released and the Board resolves outstanding questions regarding this issue."[3] "Current decertification process" means that process specified in the emergency rule, except to extend the timeframe for the spotted owl conservation advisory group to exist and function. The end date would not be specified, but would be reviewed annually by the Board.

PROPOSED RULE

The proposed rule has three parts:

1. Removes language from WAC 222-16-010 "Northern Spotted owl site center**"** pertaining to the moratorium on the decertification of Northern Spotted Owl site centers which expired on December 31, 2008.
2. Creates in WAC 222-16-010 the "spotted owl conservation advisory group" and explains that the Board will annually review whether the group's function continues to be needed for spotted owl conservation.
3. Adds language to WAC 222-16-080, "critical habitats", which specifies the advisory group's function: To evaluate sites on which WDFW has approved surveys demonstrating the absence of spotted owls, and determine whether, "… the site need not be maintained while the board completes its evaluation of rules affecting the northern spotted owl."

The primary purpose of the proposed rule change is to assure that no habitat currently protected in owl circles and deemed important to the Northern Spotted Owl is altered through forest practices while the Board determines a long-term strategy for spotted owl habitat conservation.

The concept of the spotted owl conservation advisory group was a result of a stakeholder (state, forest industry, conservation community) agreement to have an interim process in place while the Policy Working Group on Northern Spotted Owl Conservation develops recommendations for a long-term conservation strategy. The advisory group consists of three representatives, one from the Washington forest products industry, one from a Washington-based conservation organization actively involved with spotted owl conservation, and one from the forest practices program. Members of the group will have a detailed working knowledge of spotted owl relationships and factors affecting spotted owl conservation.

The advisory group's role is to evaluate whether habitat currently protected in owl circles should be maintained after WDFW determines the site is likely unoccupied. If the advisory group members reach consensus that the site center need not be maintained while the Board completes its evaluation of rules affecting the Northern Spotted Owl, then and only then can the site center be decertified. In such case, the advisory group will communicate its findings to the Department of Natural Resources (DNR) in writing within 60 days of WDFW's approval of the survey.

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[3] See page 10, *Report to Forest Practices Board,* Owl Group 2009, November 10, 2009 at http://www.dnr.wa.gov/Publications/bc_fp_materials_20091110_05_nsofinalreport.pdf .

In short, the rule imposes additional analysis by experts on any survey submitted and approved by WDFW for an unspecified temporary period of time. The site may not be decertified unless the advisory group reaches consensus that the site center need not be maintained while the Board determines a long-term conservation strategy.

COST-BENEFIT ANALYSIS

To estimate the economic impacts of the proposed rule change, cost estimates are analyzed quantitatively and discussed in terms of probability of occurrence. The potential benefits are described only qualitatively. It is important to note that both costs and benefits are uncertain because it is unknown whether WDFW will receive and approve any surveys while the advisory group and its function exist, and it is unknown how long this process will be in place before the Board determines a long-term conservation strategy for the spotted owl.

Benefits

This rule is intended to benefit Washington State's Northern Spotted Owl population. This species is designated "state endangered" and "federal threatened." As explained under "CONTEXT", for the past several years the Board has been concerned about whether to increase spotted owl habitat protection on non-federal lands. This is because suitable habitat has declined under the current rules, and also Washington's spotted owl population has declined since the species was listed as threatened in 1990 under the Endangered Species Act. The Board established the Policy Working Group for Northern Spotted Owl Conservation to develop recommendations for a long-term conservation strategy, and received the group's recommendations in November and December 2009.

As previously explained, as the interim measure the Board desires additional analysis by experts on any survey submitted to and approved by WDFW, in which a landowner demonstrated the absence of spotted owls at a spotted owl site center (circle). It is expected that this will add assurance that no potentially important habitat is lost through timber harvest while the Board determines any appropriate changes to its rules related to spotted owl habitat conservation. It is a public benefit to protect Washington's Northern Spotted Owl population.

Costs

The rule-complying community affected by the proposal is composed of businesses that own or control the timber rights on non-federal forest land (all hereafter referred to as "landowners"). However, for landowners owning less than 500 acres in a spotted owl special emphasis area (SOSEA), the effects of the proposed rules are limited to habitat within the inner 0.7-mile circle of a site center.

The first of the proposed rule changes is the removal of language about a past moratorium on spotted owl site center decertification which is no longer relevant. As such, it has no economic impact.[4]

It is the other proposed rule changes that have potential to result in economic impact on those that must comply with the proposed rule. As explained above, the proposed rule creates the spotted owl conservation advisory group to evaluate habitat associated with any spotted owl site center that WDFW determines is no longer occupied. Under existing permanent rule, the site center would be decertified and any forest practices applications for forest practices within the circle associated with that site center would not be classified Class IV-special for that reason. Under the proposed rule, the site center would not be decertified unless the advisory group reaches consensus that the site need not be maintained while the Board completes its evaluation of rules affecting the spotted owl. If the advisory group cannot reach a consensus decision on this question, the site would retain its current status with restrictions on harvest according to the rules protecting spotted owls.

For the proposed rule, additional costs would be incurred by the landowners of "suitable spotted owl habitat"[5] within particular site centers (circles) (see Step 1 below) only if all of the following activities have occurred:

[4] The impacts of imposing the moratorium were analyzed as part of the rule making in 2006 and 2008.
[5] WAC 222-16-085(1)

- A landowner within the site center (circle) completed three years of surveys according to current federal protocol, which demonstrated the absence of spotted owls.
- The landowner submitted the appropriate survey documentation to WDFW.
- WDFW reviewed the surveys and determined the site is likely unoccupied (i.e. the surveys followed appropriate protocol for detecting the presence of spotted owls, but no responses that could be attributed to spotted owls occurred).
- The Spotted Owl Conservation Advisory Group evaluated the surveys and the habitat associated with the site center.
- One or more members of the advisory group determined that the site center must be maintained while the Board completes its evaluation of the forest practices rules affecting the spotted owl.

In short, costs (in the form of potentially foregone revenue) will only be borne by landowners within any spotted owl site center (circle) that the advisory group decides, by not being able to reach consensus to the contrary, should not be decertified until the Board determines a long-term strategy for spotted owl conservation. However, it is not known exactly what length of time such a circle will not be allowed to be decertified, and therefore be ineligible for harvest. It is also unknown whether any landowners will submit, or would submit, in the absence of this rule, surveys to WDFW. To date, no complete surveys have been submitted to WDFW since the end of the moratorium on December 31, 2008. Therefore, we estimated timber volume and value calculations for certain individual circles to show possible impacts on forest landowners within each circle.

We took the following steps to estimate potentially foregone timber value in each circle:

Step 1. Identified owl circles potentially affected by the rule change.
Step 2. Determined forest land acreage within the owl circles identified in Step 1 that potentially could be affected by the rule change.
Step 3. Estimated the timber volume on acres identified in Step 2 that potentially could be harvested if a circle were decertified.
Step 4. Estimated the stumpage value of the timber volume identified in Step 3.

Step 1. <u>Identify owl circles</u> potentially affected by the rule change.
There are 12 site centers (circles) within spotted owl special emphasis area (SOSEA) boundaries that are potentially affected by the rule. The circles do not include federal lands, or lands covered by an HCP or a landowner option plan. The forest land potentially affected within those circles is "suitable spotted owl habitat" described in WAC 222-16-085(1). Suitable spotted owl habitat is sub-categorized as "old forest", "sub-mature", "mixed forest", and "young forest marginal."

Step 2. <u>Determine forest land acreage</u> within the owl circles identified in Step 1 that potentially could be affected by the rule change.
This acreage was determined by analyzing DNR Geographic Information System data for each owl circle identified in Step 1. Each circle's acreage was calculated as an individual circle by suitable spotted owl habitat type. The results are summarized in column C-1 of Table 1.

Step 3. <u>Estimate the timber volume</u> on acres identified in step 2 above that potentially could be harvested.
Aerial stereo photos were used to estimate tree heights for each habitat type in each circle. Using the Log Scaling and Timber Cruising book (J.R. Dilworth, 1975, p.444), the average heights were used to find normal tree diameters at breast height (DBH) for trees of these heights. The average tree height and the DBH were used in conjunction with tariff table #40 to find the volume in board feet for each tree. The volume per tree was then multiplied by the trees per acre (TPA) requirements specified in WAC 222-16-085 to calculate the volume per acre. The ranges of TPA for each habitat type were averaged. To estimate the total board feet per habitat type for each circle, the board feet per acre total was multiplied by the number of acres of each habitat type for each circle. The results of this analysis are summarized in column C-2 of Table 1.

The estimated volume per acre was then multiplied by the number of acres per habitat type to determine the total volume potentially affected by the rule; these volumes are shown in column C-3. This volume category was then reduced by a factor of 13 percent (shown in column C-4) to account for a timber volume in riparian zones that cannot be harvested under the Forest Practices rules.[6]

The resulting estimated forgone volume is shown in column C-5. The estimated harvestable volumes presented here are likely overstated and represent a worst case for at least three reasons:

1. Site specific forest practices permits would likely reduce the amount of timber actually permitted for harvest due to other issues such as unstable slopes and size of timber harvest units;
2. Some of the subject timber likely would not be harvested because of physical or economic reasons; and
3. Landowners may otherwise not be motivated to pursue timber harvest during the rule's timeframe (e.g., because of the current relatively low stumpage prices).

Step 4. <u>Estimate the stumpage value</u> of the timber volume identified in Step 3.
The price per thousand board feet of $204/mbf was used to calculate stumpage value. This is based on the estimated stumpage price for Westside Douglas fir in DNR timber sales over the last 1 ½ years. The price is based on the average composite DNR log price for Douglas fir during the eighteen month period ending in December 2009 of $354/mbf, less an estimated harvest and delivery cost of $150 per thousand board feet.[7] Applying the estimated value of $204/mbf resulted in the estimated stumpage value shown in column C-6.

<u>Cost Analysis</u>
In total, the 12 circles cover an estimated 23,452 acres of habitat that currently cannot be harvested that would be released for harvest should the circles be decertified. However, it is extremely unlikely that this rule will impact all of the circles, and in fact may not impact any of the circles. It is more reasonable to consider the possible cost of the rule on a circle by circle basis. As can be observed on Table 1 and Figure 1, the current potential timber value within a given circle ranges from $0.0 to $17.6 million. The averages for all 12 circles in volume and timber value are 50.1 million board feet and $10.2 million. The three circles in the Mineral SOSEA have little or no habitat currently, therefore the cost of maintaining the habitat in these circles would be low. If we calculate the average cost after removing these three circles, the average increases to $13.6 million per circle.

It is important to stress that the potentially foregone value of timber revenue (cost) estimated as a possible impact of the rule proposal (shown in column C-8 of Table 1) would be incurred only by the landowners of currently designated "suitable spotted owl habitat" within particular site centers (circles). It bears repeating that landowners would be impacted only when all of the following activities have occurred:

- An landowner of forest land within the site center completed three years of surveys according to current federal protocol which demonstrated the absence of spotted owls.
- The landowner submitted the appropriate survey documentation to WDFW.
- WDFW reviewed the surveys and determined the sites unlikely occupied (i.e., the surveys followed appropriate protocol for detecting the presence of spotted owls, but no responses that could be attributed to spotted owls occurred).
- The Spotted Owl Conservation Advisory Group evaluated the surveys and the habitat associated with the site center.
- One or more members of the advisory group determined that the site center must be maintained while the Board completes its evaluation of the forest practices rules affecting the spotted owl.

Between January 1, 2009 and December 31, 2009, only one landowner submitted survey documentation to WDFW. In that case, WDFW found the documentation to be incomplete and returned it to the landowner as disapproved. DNR program staff are unaware of any other landowner who is conducting a survey during the period covered by this rule.

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[6] Based on the estimate from the 2001 cost-benefit analysis of the Forests and Fish rules; available upon request.
[7] Unpublished data on file with the author and available upon request.

Based on this information, and after staff conversations with WDFW and DNR field staff, our professional opinion is that the probability that all of the above-listed events will occur even for one owl circle is very low, and therefore the probable cost of the proposed rule change is considerably less than even the average cost of one owl circle of $10.2 million, if not zero. The cost could be from $0 to $122.6 million, depending on whether no site centers, or any number of site centers (between 1 and 12), are affected by the advisory group's analysis during the group's life span of uncertain tenure.

Benefits Exceed Costs

It is a public benefit to protect Washington's Northern Spotted Owl population. The benefit of the rule proposal is assurance that no potentially important habitat is lost through timber harvest while the Board determines any appropriate changes to its rules related to spotted owl habitat conservation.

As for the costs, the expected probability that even one of the 12 circles will be impacted by this rule is judged to be very low if not zero, and therefore the expected cost of the rule is proportionately low if not zero. Therefore it is reasonable to conclude that the probable benefits of the rule are greater that its probable costs, taking into account both the qualitative and quantitative benefits and costs of the proposed rule.

Figure 1: Estimated Potential Value of Harvestable Timber by Site Center Designation

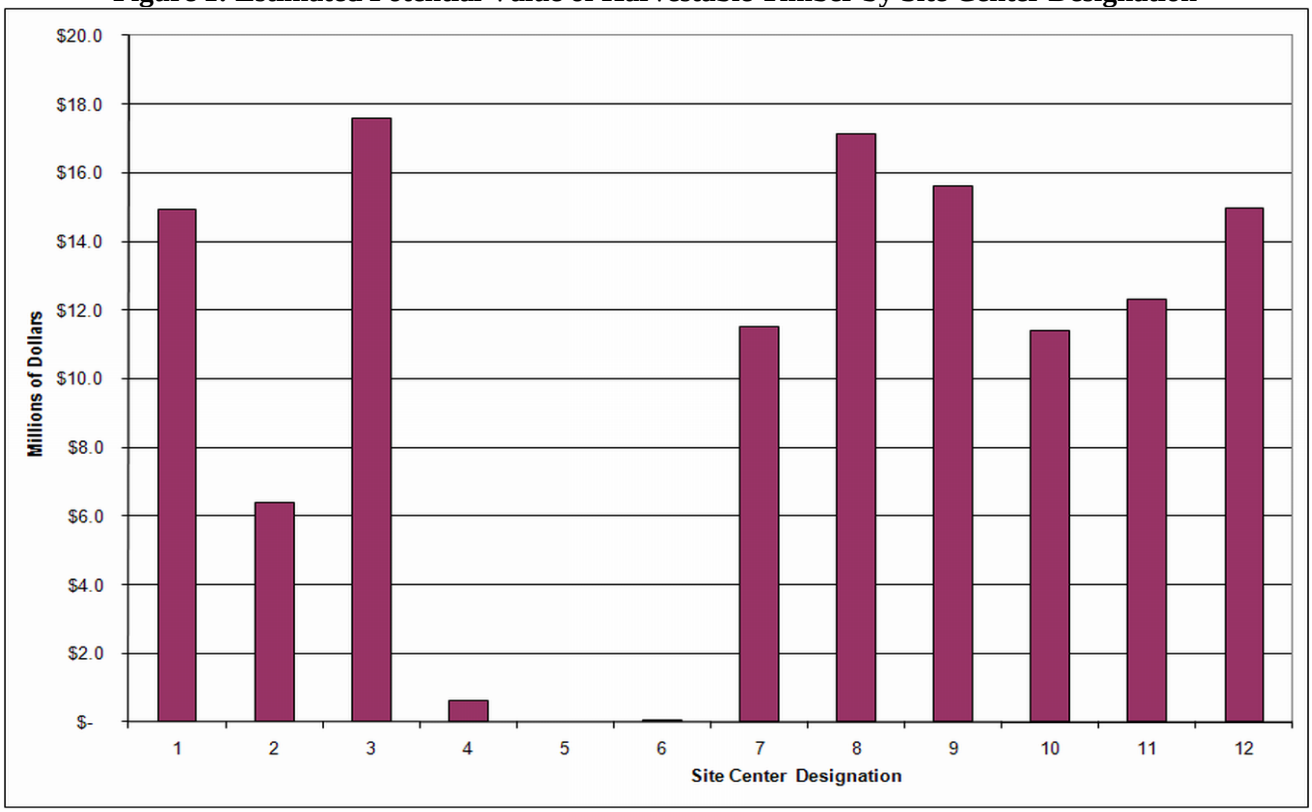

Table 1: Potentially Affected Acres and Timber Volume, and Associated Values

SOSEA	Site Center Designator	NSO_HABITAT CODE	Habitat Acres Including Core Areas	Volume/Acre Including Core Area*	Total Volume Including Core Area*	Estimated RMZ Volume*	Estimated Foregone Volume*	Estimated value of harvestable timber**
		Column========>	C-1	C-2	C-3	C-4	C-5	C-6
I-90W	1	Old Forest Habitat	482	17,050	8,222,874	1,070,002	7,152,872	$ 1.5
		Sub-Mature Forest Habitat	705	43,340	30,568,569	3,977,738	26,590,831	$ 5.4
		Mixed Forest Habitat	319	34,500	11,008,605	1,432,496	9,576,109	$ 2.0
		Young Forest Marginal Habitat	919	37,430	34,411,645	4,477,819	29,933,826	$ 6.1
		Total	**2,426**	**34,711**	**84,211,693**	**10,958,055**	**73,253,637**	**$ 14.9**
	2	Old Forest Habitat	852	14,850	12,647,003	1,645,693	11,001,310	$ 2.2
		Sub-Mature Forest Habitat	709	29,550	20,951,541	2,726,321	18,225,220	$ 3.7
		Mixed Forest Habitat	184	13,790	2,530,879	329,331	2,201,548	$ 0.4
		Total	**1,744**	**20,714**	**36,129,422**	**4,701,345**	**31,428,077**	**$ 6.4**
Finney Block	3	Old Forest Habitat	1,264	14,850	18,775,746	2,443,196	16,332,550	$ 3.3
		Sub-Mature Forest Habitat	172	45,310	7,794,226	1,014,225	6,780,002	$ 1.4
		Mixed Forest Habitat	1,461	46,500	67,913,715	8,837,279	59,076,436	$ 12.1
		Young Forest Marginal Habitat	109	43,340	4,743,130	617,200	4,125,929	$ 0.8
		Total	**3,006**	**33,006**	**99,226,817**	**12,911,900**	**86,314,917**	**$ 17.6**
Mineral	4	Old Forest Habitat	207	14,850	3,078,851	400,636	2,678,215	$ 0.5
		Mixed Forest Habitat	17	33,000	544,500	70,853	473,647	$ 0.1
		Total	**224**	**16,188**	**3,623,351**	**471,489**	**3,151,862**	**$ 0.6**
	5	No Habitat	**0**		0		0	**$ -**
	6	Old Forest Habitat	5	14,850	74,993	9,758	65,234	$ 0.0
		Total	**5**	**14,850**	**74,993**	**9,758**	**65,234**	**$ 0.0**
White Salmon	7	Young Forest Marginal Habitat - Closed Canopy	1,928	24,000	46,266,480	6,020,431	40,246,049	$ 8.2
		Young Forest Marginal Habitat - Open Canopy	780	24,000	18,727,440	2,436,910	16,290,530	$ 3.3
		Total	**2,708**	**24,000**	**64,993,920**	**8,457,341**	**56,536,579**	**$ 11.5**
N. Blewett	8	Sub-Mature Forest Habitat	61	35,200	2,159,520	281,008	1,878,512	$ 0.4
		Young Forest Marginal Habitat - Closed Canopy	1,856	38,000	70,540,540	9,179,095	61,361,445	$ 12.5
		Young Forest Marginal Habitat - Open Canopy	798	30,000	23,940,300	3,115,234	20,825,066	$ 4.2
		Total	**2,716**	**35,586**	**96,640,360**	**12,575,337**	**84,065,023**	**$ 17.1**
I-90E	9	Sub-Mature Forest Habitat	88	35,200	3,095,136	402,755	2,692,381	$ 0.5
		Young Forest Marginal Habitat - Closed Canopy	2,819	30,000	84,582,300	11,006,281	73,576,019	$ 15.0
		Young Forest Marginal Habitat - Open Canopy	10	24,000	251,280	32,698	218,582	$ 0.0
		Total	**2,918**	**30,135**	**87,928,716**	**11,441,733**	**76,486,983**	**$ 15.6**
	10	Sub-Mature Forest Habitat	17	30,400	531,392	69,147	462,245	$ 0.1
		Young Forest Marginal Habitat - Closed Canopy	2,502	24,000	60,038,400	7,812,503	52,225,897	$ 10.7
		Young Forest Marginal Habitat - Open Canopy	155	24,000	3,719,040	483,940	3,235,100	$ 0.7
		Total	**2,674**	**24,042**	**64,288,832**	**8,365,591**	**55,923,241**	**$ 11.4**
	11	Sub-Mature Forest Habitat	42	24,000	1,000,560	130,198	870,362	$ 0.2
		Young Forest Marginal Habitat - Closed Canopy	2,185	30,000	65,543,100	8,528,803	57,014,297	$ 11.6
		Young Forest Marginal Habitat - Open Canopy	120	24,000	2,880,720	374,854	2,505,866	$ 0.5
		Total	**2,346**	**29,586**	**69,424,380**	**9,033,855**	**60,390,525**	**$ 12.3**
Entiat Ridge	12	Sub-Mature Forest Habitat	50	30,400	1,524,256	198,344	1,325,912	$ 0.3
		Young Forest Marginal Habitat - Closed Canopy	2,157	30,000	64,703,400	8,419,537	56,283,863	$ 11.5
		Young Forest Marginal Habitat - Open Canopy	478	38,000	18,148,040	2,361,516	15,786,524	$ 3.2
		Total	**2,685**	**31,431**	**84,375,696**	**10,979,396**	**73,396,300**	**$ 15.0**
		Grand Totals	**23,452**	**29,461**	**690,918,179**	**89,905,801**	**601,012,378**	**$ 122.6**
		Average per Circle	**1,954**	**29,461**	**57,576,515**	**7,492,150**	**50,084,365**	**$ 10.2**

* Volume in Board Feet

** Millions of Dollars, Assumes $204/mbf

SMALL BUSINESS IMPACTS

The proposal does not require any change in reporting, recordkeeping, and other compliance requirements, nor is it anticipated that there will be an increase in the professional services that a small business is likely to need in order to comply with the proposed rules.

The Regulatory Fairness Act definition of small business is one with 50 or fewer employees. RCW 19.85.040 directs that:

> To determine whether the proposed rule will have a disproportionate cost impact on small businesses, the impact statement must compare the cost of compliance for small business with the cost of compliance for the ten percent of businesses that are the largest businesses required to comply with the proposed rules …

To make the comparison required in this statute, we obtained employment information from the Washington State Department of Employment Security. There are 46 separate businesses which own land within the 12 subject circles that is classified as "resource production and extraction" lands according to county records. Employment Security records show that 43 of those businesses employ 50 or fewer employees, which is the legal definition of "small business." However, in this case, 5 of the 46 businesses are the "ten percent of businesses that are the largest businesses required to comply with the proposed rules." So, we must compare the costs for the 5 largest businesses with the costs for the 41 smallest businesses that would be required to comply with the proposed rule.

Small Business Analysis. The largest businesses own 59 percent of the "resource production and extraction" lands in the 12 circles, while small businesses own 41 percent. Based on this information, we estimate the average value of potentially harvestable timber for the largest businesses is $1.2 million per firm ($10.2 million*59%/5=$1.2 million per large business) while the average value for the small businesses is $102,000 per firm ($10.2 million*41%/41=$102,000 per small business).

This shows that the average value of timber on lands classified as "resource production and extraction" owned by small businesses within the circles is 8.5 percent ($102,000/$1,200,000) of that for the largest businesses. This comparison indicates that the proposed rule has no adverse disproportionate impact on small businesses when compared to the largest businesses.

Estimated Number of Jobs Created or Lost. RCW 19.85.040 (2)(d) requires that the economic analysis include "(a)n estimate of the number of jobs that will be created or lost as the result of compliance with the proposed rule." In 2005, the Department of Employment Security showed 37,178 covered employments in the Forest and Logging, Wood Production, and Paper Manufacturing industries. This employment was supported by a harvest in Washington of 3.73 billion board feet, which results in approximately one primary job for every hundred thousand board feet harvested per year. Assuming a proportional relationship between timber volume and the timber related jobs, and given the total potential impact of 600 thousand board feet shown in Column C-5 of Table 1, this rule could have an estimated maximum impact of six jobs for one year, if this rule impacted all of the site centers, which is highly unlikely. The average impact of one site center would be just one half of a job for one year.

Reducing Costs for Small Businesses. RCWs 19.85.030 and -.040 address an agency's responsibility in rule making to consider how costs may be reduced for small businesses, based on the extent of disproportionate impact on the small businesses. We have found that this rule would not have a disproportionate impact on small businesses and therefore no mitigation is required by the law. However, the existing forest practices rules do limit the restrictions for landowners owning less than 500 acres in a SOSEA to the area within the inner 0.7-mile circle of a site center, and this could be expected to reduce cost to small businesses.

LEAST BURDENSOME ALTERNATIVE

The Administrative Procedure Act states that agencies shall determine after considering alternative versions of the rule, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives of the statute that the rule implements.

The Forest Practices Act indicates that, coincident with maintenance of a viable forest products industry, it is important to afford protection to a variety of public resources including wildlife.[8] In addition, the Board's rules include protection of critical habitats of threatened and endangered species, one of which is the Northern Spotted Owl.

Because of the precarious circumstances of Washington's Northern Spotted Owl habitat and population (as explained in the "CONTEXT" section), the Board is considering a long-term conservation strategy for the conservation of spotted owl habitat. The rule currently under analysis is a temporary measure intended to ensure that habitat deemed to be currently unoccupied (as concluded from spotted owl protocol surveys) is not altered if experts determine it potentially important to Washington's spotted owl population.

Not adopting the rule is not a viable alternative because that would not achieve the general goals and specific objectives of the statute that the rule implements (i.e., conserving habitat potentially important for the spotted owl). The rule was the consensus recommendation of the Policy Working Group on Northern Spotted Owl Conservation, who viewed it as a necessary interim step while federal entities and the Board continue to gather and review new data and develop refined approaches to spotted owl conservation in view of the larger than anticipated population declines discovered in the past decade.

The proposed rule is the only alternative considered by the Board. Because of its limited scope and temporary nature, it is less burdensome than other potential alternatives, such as making the spotted owl conservation advisory group a permanent entity rather than a temporary one or permanently prohibiting timber harvest within the circles.

CONCLUSIONS

This economic analysis estimates the cost of the proposed rule for those who are required to comply with the rule. The costs are the result of the potential loss of timber harvest opportunity and revenue on lands within 12 owl circles potentially affected by the proposed rule. The analysis estimates that a total of $122.6 million or an average of $10.2 million worth of timber per site potentially could be impacted by the rule in a worst case scenario. For several reasons, these amounts are likely overstated). However, the probability of even one of the twelve sites being impacted by this rule are judged to be very low, if not zero, and therefore the expected value of the cost of this rule is only a fraction of the average value of timber per site of $10.2 million**.** The cost could be from $0 to $122.6 million, depending on whether no site centers, or any number of site centers (between 1 and 12), are affected by the advisory group's analysis during the group's life span of uncertain duration.

The expected benefit of this rule is additional protection for Washington State's Northern Spotted Owl population. The Forest Practices Board is proposing additional analysis of any survey submitted to and approved by WDFW, in which a landowner demonstrated the absence of spotted owls at a spotted owl site center (circle), while the Board determines a long-term conservation strategy. It is expected that the proposed rule will add assurance that no potentially important habitat is lost through harvest while the Board determines any appropriate long-term changes to its rules related to spotted owl habitat conservation. It is a public benefit to protect Washington's spotted owl population.

The expected probability that even one of the 12 circles will be impacted by this rule is judged to be very low if not zero, and therefore the expected cost of the rule is proportionately low if not zero. Therefore it is reasonable to

[8] RCW 76.09.010

conclude that the probable benefits of the rule are greater that its probable costs, taking into account both the qualitative and quantitative benefits and costs of the proposed rule.

A comparison of the estimated potential impact to small businesses and the 10 percent of the largest businesses that are required to comply with the rule shows that the impact on small businesses is significantly less per firm than for large businesses, and therefore would not disproportionally impact small businesses. Furthermore, the existing 500 acre rule may help to mitigate the impact on small businesses. Therefore, the proposed rule is not expected to impose more than minor costs on Washington's small businesses as a whole, although it is possible that individual landowners will be impacted. The analysis concludes that the rule will have only a minor, if any, impact on overall employment.

Not adopting the rule is not a viable alternative because that would not achieve the general goals and specific objectives of the statute that the rule implements (i.e., conserving habitat potentially important for the spotted owl). The rule was the consensus recommendation of the Policy Working Group on Northern Spotted Owl Conservation, who viewed it as a necessary interim step while federal entities and the Board continue to gather and review new data and develop refined approaches to spotted owl conservation in view of the larger than anticipated population declines discovered in the past decade.

The proposed rule is the only alternative considered by the Board. Because of its limited scope and temporary nature, it is less burdensome than other potential alternatives, such as making the spotted owl conservation advisory group a permanent entity rather than a temporary one or permanently prohibiting timber harvest within the circles.

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