

**ECONOMIC ANALYSIS**  
**Rule Making for Small Forest Landowner**  
**Road Maintenance and Abandonment Planning**  
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## **OBJECTIVES**

In 2003 the Washington State Legislature enacted Second Substitute House Bill (SSHB) 1095 to assist small forest landowners with the forest road maintenance and abandonment plan (RMAP) elements of forest practices law (RCW 76.09.410). It authorized the Forest Practices Board to adopt emergency rules by October 2003 to remain in effect until permanent rules could be adopted. This economic analysis is being completed in anticipation of permanent rule making. The RMAP forest practices rules were based on recommendations from the Forests and Fish Report, a discussion of which follows. The objectives of this economic analysis are to determine whether the benefits of the proposed rules exceed the costs, and whether the compliance costs of the proposed rules will disproportionately affect the state's small businesses.

Completion of a Cost-Benefit Analysis (CBA) prior to rule adoption is required by the Administrative Procedure Act (RCW 34.05)<sup>1</sup> in order to demonstrate that probable benefits of the proposed new rule exceed its probable costs and, further, to demonstrate that the proposed rule change is the most cost-effective means of achieving the goal of the rule change. Completion of a Small Business Economic Impact Statement (SBEIS) is required by the Regulatory Fairness Act (RCW 19.85)<sup>2</sup> to reduce the disproportionate impact of state administrative rules on small businesses, defined as those with 50 or fewer employees. An SBEIS compares the costs of compliance for small businesses with the cost of compliance for the ten percent of businesses that are the largest businesses required to comply with the proposed rules.

This economic analysis combines the SBEIS and the CBA and complies with the legislative requirements for these analyses as part of the rule-making process.

## **HISTORICAL CONTEXT**

### **The Forests and Fish Report and the 1999 Salmon Recovery Act**

In November 1997, in anticipation of the federal listing of several subspecies of Washington salmon as threatened or endangered, participants in Timber, Fish, and Wildlife (TFW) began negotiating a proposal for new forest practices rules. The goal of this proposal was to protect and restore riparian habitat on non-federal forest lands in compliance with the Endangered Species Act and the Clean Water Act, while maintaining the economic viability of Washington's timber industry. Participants in the TFW process included the federal government, state government, tribal governments, and various interest and constituency groups. The participants agreed to a proposed concept for new forest practice rules to protect salmon habitat on non-federal forestlands in Washington. The process became known as the "Forests and Fish" negotiations and the stakeholders' recommendations became known as the "Forests and Fish Report," which is the foundation for the forestry module portion of the Washington State salmon recovery plan.

In 1999 the Legislature recognized the Forests and Fish Report by passing the 1999 Salmon Recovery Act (Chapter 4, Laws of 1999, 1st Special Session). To address salmon recovery this act directed the Forest Practices Board to adopt rules related to riparian habitat management, including the maintenance and abandonment of forest roads to prevent sedimentation and fish blockages in water bodies, and landowners' planning of related management activities.

### **Road Maintenance and Abandonment Plans (RMAPs)**

The Forests and Fish rules required that all forest landowners submit a detailed RMAP to the Department of Natural Resources (DNR) by December 31, 2005, or concurrent with an application for a forest practice, whichever occurs sooner, and to report work accomplishments annually (WAC 222-24-051). Subsequent to

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<sup>1</sup> For CBA requirements, see [Chapter 34.05.328 RCW - The Washington State Legislature](#).

<sup>2</sup> For SBEIS requirements, see [Chapter 19.85.040 RCW - The Washington State Legislature](#).

the enactment of the 1999 Salmon Recovery Act and adoption of the Forests and Fish rules it became apparent that RMAP requirements “may cause an unforeseen and unintended disproportionate financial hardship on small forest landowners.” The legislature addressed this by enacting SSHB 1095, which required emergency rule making by October 2003, to be followed by permanent rule making to assist small forest landowners with the forest road maintenance and abandonment plan (RMAP) elements of the forest practices rules (WAC 222-24-051). This analysis is focused on proposed permanent rules for small forest landowners’ RMAPs requirements.

## **PROPOSED RULES SUMMARY**

The proposed rules simplify small forest landowners’ road maintenance and abandonment planning requirements, define “small forest landowner”, revise the terms “forest road” and “forest land” for small forest landowners, and describe a cost-share program available to them for the removal or repair of fish passage barriers.

In contrast to standard RMAP requirements (WAC 222-24-051), under the proposed rules small forest landowners are allowed to file a simplified checklist RMAP upon applying for a permit to harvest or salvage timber and they are exempted from annual reporting of progress on road maintenance and fish passage barrier removal (WAC 222-24-0511).

“Small forest landowner” is generally defined as a person or entity who harvests less than two million board feet per year. The definition includes a hardship clause allowing a landowner to harvest more than two million board feet if the DNR is satisfied that the harvest limits were exceeded to raise funds for estate taxes or other unexpected obligations.

Definitions of “forest road” and “forest land” as they relate to small forest landowners’ RMAP planning are revised. “Forest road” excludes residential driveways and “forest land” excludes agricultural croplands, pastures and orchards, ensuring RMAP exemptions in those areas. Also, small forest landowners are relieved of continuing forest land obligations under proposed WAC 222-20-055 and small forest landowners who own a total of 80 acres or less of forest land are not required to submit an RMAP for any tract of land that is 20 contiguous acres or less in size (proposed new section WAC 222-24-0511).

In addition to simplified planning, the proposed rules provide for state financial and technical assistance for removal of fish passage barriers through the Family Forest Fish Passage Program (FFFPP) to small forest landowners who sign up for this Department of Natural Resources (DNR) program. Participants are relieved of any obligation to remove a fish passage barrier until the state determines the barrier is a high priority, and a forest practices application will not be denied solely on the grounds that fish barriers have not been removed if the landowner agrees to remove the fish barriers when cost-share funding is available. The participating landowner will be able to conduct all otherwise permissible forest practices until the cost-share program provides funding for the removal of barriers.

The most a landowner must pay is 25 percent of project costs, or \$5,000, whichever is less. However, the state will pay 100 percent of project costs if:

- A forest practices application or hydraulic project approval was provided for the existing barrier, or
- A forest practices application for timber harvest has not been submitted by the landowner between May 14, 2003 and the time the project has been selected for funding.

SSHB 1095 allowed that if a landowner corrects more than one barrier in a calendar year, the maximum required matching contribution varies according to the average annual timber volume harvested from the landowner’s lands in Washington during the three preceding calendar years and whether the barrier is in Eastern or Western Washington. The following table shows the maximum cost-share required by a small forest landowner who corrects more than one fish barrier in the same year.

**TABLE 1**  
**MAXIMUM ANNUAL SMALL FOREST LANDOWNER MATCH**

Average Annual Board Feet Harvested	Maximum Match Required Per Calendar Year	
	Western Washington	Eastern Washington
Less than 500,000	\$8,000	\$2,000
Between 500,000 and 999,999	\$16,000	\$4,000
Between 1,000,000 and 1,499,999	\$24,000	\$12,000
Greater than or equal to 1,500,000	\$32,000	\$16,000

Project match may be a direct money payment or in-kind services. In-kind services may include labor, equipment, materials, and other services determined by the state to have an appropriate value to the removal of a particular fish passage barrier.

## ECONOMIC ANALYSIS

This economic analysis is in response to:

- the Administrative Procedure Act (APA), which requires agencies to assess whether probable benefits of a proposed new rule exceed its probable costs and whether the proposed rule change is the most cost-effective means of achieving the goal of the rule change; and
- the Regulatory Fairness Act (RFA), which requires that a SBEIS be prepared for proposed rules that will impose more than minor costs on businesses in an industry.

To comply with the APA and RFA this analysis identifies potentially affected industries, defines small and large businesses and determines the compliance cost for these businesses. It then estimates the total cost of compliance with the proposed rules and compares the cost of compliance for small businesses with large businesses. If there is a disproportionate economic impact on small businesses, the RFA requires that the cost imposed by the rule on small businesses be reduced where legal and feasible to meet the statute's objective. If steps are not taken to reduce the costs on small businesses, the agency must provide reasonable justification.

The proposed rules amend existing Forest Practices Rules. Benefits and costs and their effects on small business are therefore calculated using the provisions of the Forest Practices rules as the base case. A Cost Benefit Analysis and a Small Business Economic Impact Statement were completed in 2001 for the forest practices rules that implemented the Forests and Fish Report.<sup>3</sup> This economic analysis utilizes the approach developed by Dr. John Perez-Garcia et al. for those analyses, which were based on a sample of private forest acreage identified by DNR. The methodology is discussed below.

### Potentially Affected Industries

Businesses that own or control the cutting rights on forest land are the rule-complying community. Aside from the landowner, potentially affected industries include those holding timber cutting rights, so the complying community is defined broadly as those with the right to dispose of the timber. Even though forest landowners may have other aspects to their business such as agriculture, manufacturing, or other land-based businesses and may be classified as a different type of business than forest based, they comprise the potentially affected industries in this analysis. The term "forest business" is used to define this rule-complying community.

### Small Businesses Versus Large Businesses

The RFA defines a "small business" as one with 50 or fewer employees. The 2001 Forests and Fish SBEIS applied this definition by using the business identification number associated with a land parcel to

<sup>3</sup> The Cost Benefit Analysis can be accessed at <http://www.dnr.wa.gov/sflo/publications/cba.pdf>. The Small Business Economic Impact Statement can be accessed at <http://www.dnr.wa.gov/sflo/publications/sbeis.pdf>.

determine the number of employees associated with that business. All others were categorized as “large businesses.”

### **Benefits and Costs Included in the Analysis**

To ensure compatibility, the benefits and costs that are ~~analyzed-quantified~~ in this analysis are restricted to those quantified ~~costs~~ in the 2001 Forests and Fish CBA and SBEIS. ~~RMAP reporting requirements were not quantified and are thereby not quantified in this economic analysis. We also identify costs and benefits associated with changes to RMAP reporting requirements but do not attempt to quantify them.~~ Revising the definitions “forest road” and “forest land” may have some effect on benefits and costs, but they are difficult to quantify and most likely minimal on the statewide level. This analysis is focused on the costs of replacing fish passage barriers for the state and small business, particularly the cost savings accrued by small businesses eligible to receive financial assistance from the FFFPP for fish passage barriers.<sup>4</sup>

There are no changes to the provisions regarding elimination of fish passage barriers under the proposed rules. This analysis assumes that all fish passage barriers on state and private forest land will be removed in accordance with existing statute. The proposed rules effectuate a transfer of a portion of the costs of fish passage barrier elimination and potentially some monitoring costs from small forest landowners to the state. The cost benefit analysis therefore focuses on the dollar amount of this transfer.

### **Compliance Cost for Businesses**

The proposed rules do not impose additional costs on small business. Small forest landowners who enroll in the Family Forest Fish Passage Program will receive financial benefits for fish passage barrier removal. ~~Simplified, as well as potential savings from simplified~~ RMAP reporting requirements ~~and limiting.~~ Limiting the definitions of “forest road” and “forest land” may result in some further cost savings, but these are not analyzed in this economic analysis. ~~By virtue of less rigorous planning requirements, it is anticipated that this translates into a cost savings.~~

### **Involvement of Concerned Stakeholders**

The RFA requires the SBEIS to include a description of small business involvement in the development of the rule. For this rule proposal the stakeholder group includes representatives from government agencies, tribes, landowner organizations and environmental organizations. Small businesses are represented by the Washington Farm Bureau, the Okanogan Farm Bureau, Washington Farm Forestry Association, and the Forest Practices Board's Small Forest Landowner Advisory Committee.

DNR held several stakeholder meetings to develop permanent rule language in Fall 2004. DNR held a follow-up meeting with the same stakeholder group in April 2006 to summarize the results of the public review process, including comments on the rule proposal and the draft environmental and economic analyses.

## **METHODS OF ANALYSIS**

This analysis uses the cost per \$100 of sales to estimate the effect of the rule changes on forest businesses in Western and Eastern Washington. The effects on small businesses are calculated using the 2001 Forest Practices rules as the base case, which require that all fish passage barriers will be replaced on forest land acreage at the owner's expense, and that all forest landowners complete a detailed RMAP within five years of the effective date of the rule (i.e., by July 1, 2006). The state's contribution to fish passage barrier removal is estimated statewide and reported as a net benefit to small businesses on a percentage of revenue basis, according to the requirements of the RFA.

The state contribution to fish passage barrier elimination on small business forest acreage is based on the analysis of sample sections completed for the 2001 Forests and Fish SBEIS. For that analysis, DNR

<sup>4</sup> The Family Forest Fish Passage Program (FFFPP) also provides technical assistance to small forest landowners, but these benefits have not been factored in to this analysis.

collected detailed spatial information for 158 random sections within Washington State. Ninety-two sections were sampled in Western Washington and 66 sections were sampled in Eastern Washington. Selection criteria were that the section must include private ownership, it must contain some forest land, and it must not be entirely within a habitat conservation plan area or an urban growth area. The GIS data for the sections included section boundaries, parcel information from county assessors' offices, timber stand/land cover information from photo interpretation, buffer zones for the proposed 2001 rules and past rules, and new water type and road information.

The process to determine the costs and benefits of the proposed RMAPs rules and the net benefit to small businesses is similar to the process used in the 2001 Forests and Fish SBEIS, except this analysis expands on the 2001 analysis by including an estimate of the state contribution to fish passage barrier elimination on small forest landowner parcels from the Family Forest Fish Passage Program. The analysis process includes:

- Step 1. The sample sections were photo-interpreted to determine forested acreage in the sample sections and count the number of fish passage barriers.
- Step 2. Data on Uniform Business Identification (UBI) and employment from county records was collected by DNR and incorporated into the GIS database. Each parcel was assigned to one of two categories (large or small business) depending on whether or not there were more than 50 employees in the business.
- Step 3. Acreage and the incidence of fish passage barriers were calculated for small and large business parcels.
- Step 4. Forest acreage and the number of fish passage barriers on small and large business parcels were extrapolated to the statewide level based on the proportion of statewide private forest acreage in the sample sections.
- Step 5. Average per-unit costs of fish passage barriers (including bridges, culverts and arches) were identified, based on costs of recently replaced barriers.
- Step 6. The proportion of statewide small business forest acreage that meets the qualifications for "small forest landowner" was estimated.
- Step 7. The statewide cost of eliminating fish passage barriers on small business parcels was calculated by multiplying the estimated number of fish passage barriers (Step 4) by the average per-unit cost of fish barriers (Step 5).
- Step 8. The cost share of fish passage barrier elimination was determined for the state and small businesses, as well as for the subset of small forest landowners.
- Step 9. Net benefit to small business was calculated as a percentage of revenue and compared to large businesses.

To ensure compatibility with the 2001 Forests and Fish CBA and SBEIS, small business revenue is defined as total timber asset value, calculated in the 2001 documents as follows:

The (sample) parcel's timber value is determined using data on the average value per acre for the last three years of timber sales from each county. The present value for pole timber is determined using a 5.8% discount rate and 30 year maturity date. The present value calculation for recently cut areas (reproduction acres) uses a 5.8% discount rate and 50-year maturity date.

Total timber asset value for the sample sections was then extrapolated statewide based on the percentage of small business forest acreage contained in the sample section parcels.

[The implications resulting from changes to RMAP reporting requirements are discussed from a policy perspective. We attempted to gauge the magnitude of potential impacts by analyzing past trends in Forest Practices Applications by small forest landowners.](#)

## ANALYSIS

### Sample Section Findings (Steps 1, 2 and 3)

Table 2 summarizes the forest acreage and number of fish passage barriers included in the sample sections. Large businesses account for more than half the acreage in Western Washington, but only about 20 percent in Eastern Washington. The density of fish passage barriers is higher in Western than in Eastern Washington and is significantly greater on large business acreage than on small business acreage – more than double in Western Washington and more than four times in Eastern Washington.

**TABLE 2**  
**SAMPLE SECTION FINDINGS**

	Acreage	% of Total	Fish passage barriers	Barriers per 1000 acres
<b>Western Washington</b>				
TOTAL	45,900	100	210	4.6
Large Businesses	25,860	58.6	161	6.0
Small Businesses	19,040	41.5	49	2.6
<b>Eastern Washington</b>				
TOTAL	28,739	100	35	1.2
Large Businesses	5,597	19.5	18	3.2
Small Businesses	23,142	80.5	17	0.7

### Statewide Extrapolation of Sample Section Findings (Step 4)

Forest acreage and the number of fish passage barriers on small and large business parcels are extrapolated to the statewide level based on the proportion of statewide private forest acreage in the sample sections. This calculation is done separately for Western and Eastern Washington. The use of this methodology is predicated on the assumption that sample sections identified for the 2001 Forests and Fish SBEIS and utilized for this economic analysis represent the statewide apportionment of small and large business ownership acreage, and that the incidence of fish passage barriers on small and large business parcels are likewise representative. The sample size (98 sections in Western Washington and 66 sections in Eastern Washington) is considered sufficient to ensure representation of the state's private sector forest acreage.

The sources of statewide private forest acreage data are the USDA Forest Service (USFS) reports, "Timber Resource Statistics for Non-National Forest Land in Western Washington, 2001" for Western Washington, and "Washington's Public and Private Forests", Resource Bulletin #PNW-RB-218; (1992 data) for Eastern Washington. The USFS forest acreage data is considered the most reliable source of such data for the state of Washington. Data for Western Washington has only recently been released, and an update for Eastern Washington is underway but not yet available. Although data for Eastern Washington dates from 1992, according to USFS staff, private forest acreage has not changed significantly since then.

Estimates of large and small private forest acreage are generated by taking the USFS data on private forest acreage – approximately 5.1 million acres in Western Washington and 2.2 million acres in Eastern Washington – and apportioning it between large and small businesses based on the proportions of acreage found in the sample sections. Table 3 presents the results of these calculations.

**TABLE 3**  
**ESTIMATED STATEWIDE SMALL BUSINESS FOREST ACREAGE**  
**AND NUMBER OF FISH PASSAGE BARRIERS**

	Acreage	% of Total	Total private forest acreage	% Sampled	Survey fish passage barriers	Extrapolated total fish passage barriers
<b>Western Washington</b>						
Total	45,900	100	5,122,000	0.9	210	23,434
Large Businesses	25,860	58.5	2,997,000	0.9	161	17,966
<i>Small Businesses</i>	<i>19,040</i>	<i>41.5</i>	<i>2,125,000</i>	<i>0.9</i>	<i>49</i>	<i>5,468</i>
<b>Eastern Washington</b>						
Total	28,739	100	2,170,000	1.3	35	2,643
Large Businesses	5,597	19.5	423,000	1.3	18	1,359
<i>Small Businesses</i>	<i>23,142</i>	<i>80.5</i>	<i>1,747,000</i>	<i>1.3</i>	<i>17</i>	<i>1,284</i>

About 59 percent of the sample forest acreage in Western Washington is allocated to large businesses based on sample sections, and 41 percent is allocated to small businesses. This contrasts sharply with the proportions in Eastern Washington, where small businesses account for a large majority of private forest acreage – more than 80 percent. The sample sections from Eastern Washington account for a higher proportion of private forest acreage than in Western Washington. Approximately 1.3 percent of Eastern Washington’s private forest acreage is included in the sample sections compared to 0.9 percent in Western Washington.

The number of fish passage barriers on small business forest acreage is calculated by extrapolating the number of barriers identified on sample parcels to Western and Eastern Washington. There are estimated to be 5,468 fish passage barriers on small business forest acreage in Western Washington and 1,284 in Eastern Washington.

### **Estimating the Per-unit Cost of Replacing Fish Passage Barriers (Step 5)**

The 2001 Forests and Fish CBA and SBEIS estimates of the per-unit costs of replacing fish passage barriers were derived from personal communications between DNR and representatives from large and small enterprises in Western and Eastern Washington. For fish-bearing streams, these were \$40,000 in Western Washington and \$41,000 in Eastern Washington. Since then, more than 1,200 fish passage barriers have been replaced in Washington, providing more recent data on expected costs. The average cost for removing fish passage barriers has been \$42,300 on DNR-managed lands and \$41,027 for Department of Fish and Wildlife projects. The average cost for the FFFPP projects completed to date has been \$33,190. The estimates used in the 2001 Forests and Fish SBEIS are in the range of recent projects and are retained for this analysis.

### **Determining the Small Forest Landowner Proportion of Small Business Forest Acreage (Step 6)**

Efforts are underway to establish a small forest landowner database, but at this time small forest landowner forest acreage is unknown. It is also subject to change, as forests are converted to other uses, and since the definition of a small forest landowner is based on timber harvest volume, individual owners may base their business decisions on qualifying for small forest landowner status. Under these circumstances, USFS other private lands forest acreage, defined as private forest lands not owned by forest industry firms, is considered the best proxy for small forest landowner acreage.

The proposed rules provide a revenue increase to landowners who qualify for the Family Forest Fish Passage Program by meeting the definition of small forest landowner. The proportion of small business acreage that is also small forest landowner acreage is calculated by dividing the other private lands forest acreage for Western and Eastern Washington (excluding Native American forest land) by the small business forest acreage calculated previously. The sources of this data are those used and mentioned in Step 4 above, and results are presented in Table 4.

**TABLE 4  
SMALL FOREST LANDOWNER PROPORTION  
OF SMALL BUSINESS FOREST ACREAGE**

	<b>Statewide Total</b>	<b>Western Washington</b>	<b>Eastern Washington</b>
Total Private Forest Acreage	7,292,000	5,122,000	2,170,000
Small Business Acreage <sup>5</sup>	3,872,000	2,125,000	1,747,000
Small Forest Landowner (SFL) Acreage	2,928,000	1,636,000	1,292,000
SFL % of Small Business Acreage	75.6	77.0	73.9

Small forest landowner acreage accounts for about three-fourths of small business acreage in both Western and Eastern Washington; this portion is eligible for state assistance for removal of fish passage barriers. Fish passage barrier removal on the remaining one-fourth of small business forest acreage is not eligible for state assistance.

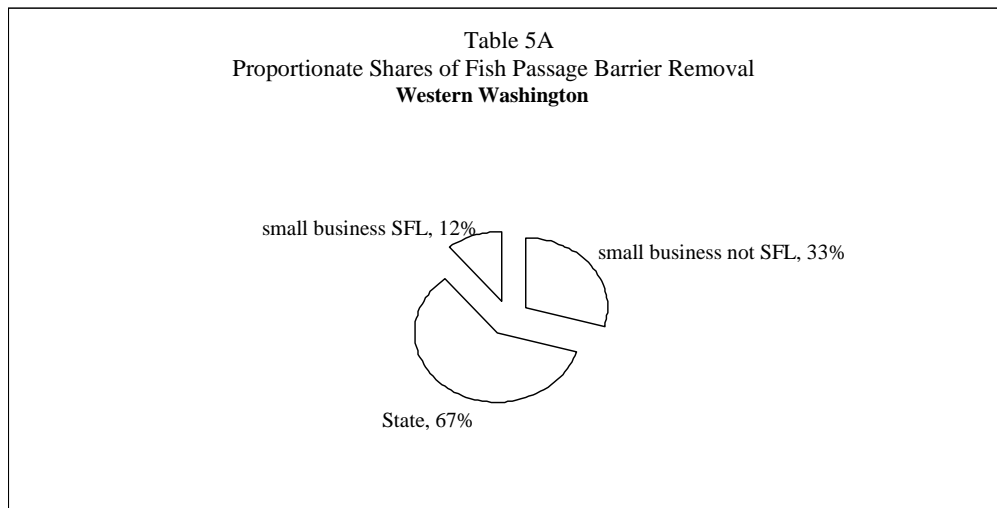
<sup>5</sup> Defined as other private lands forest acreage, excluding Native American forest land.

**State and Small Business Cost Share (Steps 7 and 8)**

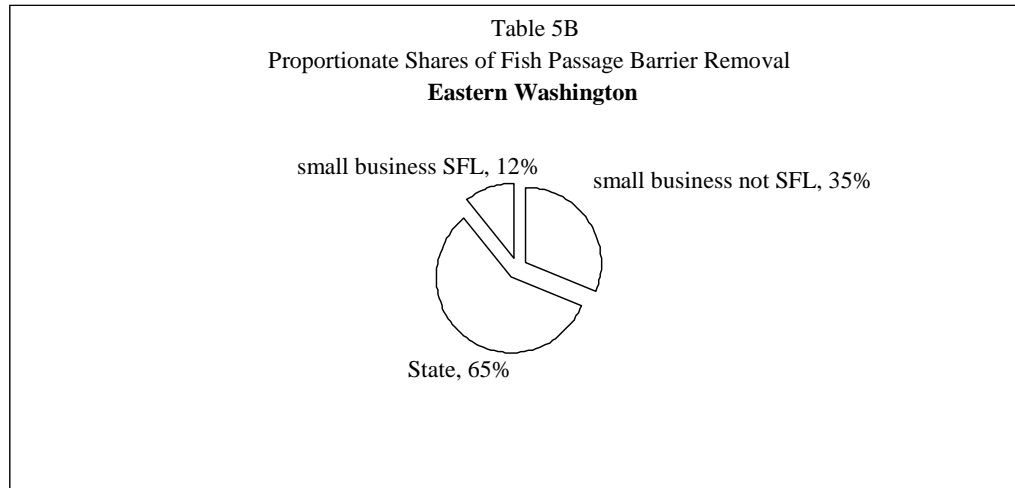
The total cost of replacing fish passage barriers and the small business/state cost share are calculated based on the assumption that small forest landowners would pay 25 percent of project costs, or \$5,000, whichever is less, for each fish passage barrier on their property. Using an average cost per barrier of \$40,000 in Western Washington and \$41,000 in Eastern Washington, the small business cost share is calculated at \$5,000 per fish passage barrier for small businesses who qualify as small forest landowners and \$40,000 and \$41,000 (for Eastern and Western Washington, respectively) for small businesses that don't qualify for small forest landowner designation. The state's share is \$35,000 and \$36,000 per fish passage barrier in Western and Eastern Washington for small forest landowners, and zero for small businesses that are not small forest landowners.

**TABLE 5  
TOTAL AND PROPORTIONATE SHARES  
OF FISH PASSAGE BARRIER REMOVAL ON SMALL BUSINESS FOREST ACREAGE  
(millions of dollars)**

	<b>Statewide Total</b>	<b>Western Washington</b>	<b>Eastern Washington</b>
Total cost of removing fish barriers on small businesses	\$271.3	\$218.7	\$52.6
State contribution	\$181.5	\$147.4	\$34.2
state portion of cost share	67%	67%	65%
Small business contribution	\$89.8	\$71.4	\$18.5
small business portion of cost share	33%	33%	35%
Small business, not SFLs, contribution	\$64.0	\$50.3	\$13.7
state portion of cost share	0%	0%	0%
small business portion of cost share	100%	100%	100%
Small forest landowner contribution	\$25.8	\$21.1	\$4.7
state portion of cost share	88%	88%	88%
small forest landowner portion of cost share	12%	12%	12%







In Western Washington, the total cost of replacing fish passage barriers on small business forest acreage is estimated at \$218.7 million, of which \$147.4 million, or 67 percent, will be funded by the state through the FFFPP. Small businesses contribute the remaining \$71.4 million, of which \$21.1 million is from small forest landowners and \$50.3 million from small businesses that are not small forest landowners.

In Eastern Washington, the total cost of replacing fish passage barriers on small business forest acreage is estimated at \$52.6 million, of which \$34.2 million, or 65 percent, will be funded by the state through the FFFPP. Small businesses contribute the remaining \$18.5 million, of which \$4.7 million is from small forest landowners and \$13.7 million from small businesses that are not small forest landowners.

From the perspective of a small forest landowner, the FFFPP contributes a substantial portion of the costs of replacing fish passage barriers. At a minimum, the state contributes 88 percent on small forest landowner parcels. The state’s contribution will likely be higher, as some barriers are eligible for total state funding, and some landowners may meet the maximum annual contribution levels established for the FFFPP, described on page 2.

**Net Benefit to Small Business as a Percentage of Revenue and Comparison to Large Businesses (Step 9)**

This analysis uses the cost per \$100 of sales to report the effect of the rule changes on forest businesses. The 2001 Forests and Fish CBA and SBEIS and this economic analysis use Total Timber Asset Value as a proxy for sales. Total timber asset value for small business parcels for Western and Eastern Washington was calculated by apportioning the statewide timber asset value reported in the 2001 Forests and Fish Cost Benefit Analysis to small and large businesses based on the proportion of small/large total asset value.

**TABLE 6  
CHANGE IN REVENUE PER \$100 OF SALES**

	<b>Statewide Total</b>	<b>Western Washington</b>	<b>Eastern Washington</b>
Timber Asset Value (\$millions)	\$6,183.1	\$5,657.6	\$525.5
Small business revenue change (\$millions)	181.5	147.4	34.2
Change in revenue per \$100 of sales	\$2.94	\$2.60	\$6.50

The proposed rules accrue a net benefit to small businesses of \$2.60 per \$100 of timber asset value (revenue) in Western Washington, and \$6.50 in Eastern Washington. This is a decrease of 47 and 43 percent in costs from the road maintenance and stream crossing costs reported in the 2001 Forests and Fish SBEIS for Western and Eastern Washington, which were \$5.50 and \$15.20, respectively. The percentage

decrease is lower than for fish passage barriers because the road maintenance and stream crossing costs reported in the 2001 Forests and Fish SBEIS included road maintenance, which is not addressed in the proposed rules. The cost of road maintenance and stream crossings decreases to \$2.90 per \$100 of revenue in Western Washington and \$8.70 in Eastern Washington. For large businesses, which are ineligible for FFFPP assistance, it remains the same, at \$6.90 per \$100 of timber asset value in Western Washington and \$17.00 in Eastern Washington.

**TABLE 7**  
**COMPARISON OF EFFECTS OF PERMANENT RULES**  
**ON SMALL AND LARGE BUSINESSES**  
**Road Maintenance and Stream Crossings**

	LARGE BUSINESS		SMALL BUSINESS	
	Western Washington	Eastern Washington	Western Washington	Eastern Washington
Base Case <sup>6</sup>	\$6.90	\$17.00	\$5.50	\$15.20
Permanent Rule	6.90	17.00	2.90	8.70
Change	0	0	2.60	6.50
% Reduction	0	0	47%	43%

It is important to note that fish passage barrier removals are one-time, non-recurring expenditures. No attempt has been made to annualize the expenditures, which would have yielded much lower annual values.

### Changes to RMAP Reporting Requirements

Under the proposed rules small forest landowners are allowed to file a simplified checklist RMAP upon applying for a permit to harvest or salvage timber via a Forest Practices Application (FPA) and they are exempted from annual reporting of progress on road maintenance and fish passage barrier removal. Those who own a total of 80 acres or less of forest land are not required to submit an RMAP for any tract of land that is 20 contiguous acres or less in size. These provisions do not relieve small forest landowners of their Forest Practices obligations to prevent damage to public resources, but they place additional oversight responsibilities on DNR in the absence of more stringent reporting requirements for those small forest landowners who do not submit a Forest Practices Application.

We analyzed the potential magnitude of this issue by considering the amount of small forest landowner acreage that would not have been covered by a FPA by 2016. Forest Practices Applications have included an optional question on small forest landowner status since mid-May, 2005. Between May 14, 2005 and January 31, 2006, FPAs covering 342,136 acres were received from small forest landowners (utilizing the revenue-based SFL definition). Extrapolating this through 2016 suggests that all of the estimated 2,928,000 small forest landowner acreage would be covered by Forest Practices Applications by 2016. We cannot place much confidence in this extrapolation, however, because the period of record (8 ½ months) is fairly short, such that unidentified factors may have had a bearing on the pace of FPA submittals.

### **CONCLUSIONS**

The proposed rules do not change ~~Forests and Fish road maintenance and abandonment resource protection standards, and thus have no impact on the benefits of existing regulations~~ but relaxed reporting standards will place additional oversight responsibilities on DNR for those small forest landowners who do not submit Forest Practices Applications. Impacts on costs are positive for the small forest landowner sector of the rule-complying community: 1) planning costs are minimized by a simplified planning process; and 2) financial assistance available from the Family Forest Fish Passage Program (FFFPP) transfers fish passage barrier repair-related costs of Forest and Fish RMAP compliance from small forest landowners to the state, providing a benefit to the 75% of small businesses that qualify as small forest landowners. This benefit is substantial, since the FFFPP contributes a minimum of 75% of the cost of fish passage barrier repair.

<sup>6</sup> Forests and Fish requirements pertaining to road maintenance and stream crossings. Source: 2001 Forests and Fish SBEIS.

In terms of cost per \$100 of revenue, the proposed rules accrue a benefit of \$2.60 per \$100 to Western Washington small businesses and \$6.50 to Eastern Washington small businesses. The proposed rules have no effect on large businesses because they don't qualify for small forest landowner status.