

NIPF Road Upgrade and Stream Crossing Costs under Washington Forest and Fish Regulations

Information on stream crossing and road maintenance costs were collected for the Small Business Economic Impact Statement (SBEIS). The sample on costs was very small. Estimates of costs were collected from forest consultants and operators covering a high cost to low cost range that might be representative of a range of different sites. These were not estimates for actual operations. It would take a substantial effort and additional time to develop and conduct a more comprehensive survey.



While using these cost estimates is subject to a substantial degree of uncertainty, they appear to be the best that is available. Cost estimates for each stream crossing type were provided by DNR, a large company, and several forestry consultants/engineers. These costs were applied to the SBEIS sample of 98 sections for western Washington and 66 sections in eastern Washington. These samples were then scaled up to the total forested acreage in the state based on the USFS Forest Inventory Analysis for state and private lands. The Small Business sample was scaled to the total non-industrial acres in the state and also reduced to the share not affected by the 20-acre exemption. It should be noted that a large percentage of small businesses on the Westside are exempt. The estimated small business road and stream crossing improvement costs are as shown on page 2.

The SBEIS study assumes a 5.8% discount rate and spreads these costs over 15 years to arrive at a discounted present value for the total cost. There is little doubt that these costs will be front loaded in time, however the actual time pattern of expenditures is very uncertain. If the 15-year period is a reasonable guess, the annual cost rate would be about \$25 million per year.

The more critical issue is, can the small owners source the cash flow for these costs? An acceptable road plan must be in place before one can obtain a harvest permit resulting in a large cost obligation before revenue would be available from harvesting. The acceleration of some harvests to provide some of the cash for road and stream crossing cash needs can be expected, as this is one of the few available sources of funds for small owners.

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Stream Crossing & Road Upgrade Costs

SBEIS sample and scaled to State

Westside					
SBEIS sample	Acres	% Distribution			
Large	26,860	58.52%			
Small	19,040	41.48%			
Total	45,900	100.00%			
Small>20	10,895	57.22%	Scale from SBEIS sample to state: 0.00793995		
Small<20	8145	42.78%			
		100.00%			
State Large	3,311,000	58.00%			
State NIPF	2,398,000	42.00%			
State Total	5,709,000	100.00%			
Small Bus stream crossings	SBEIS	State >20 acres	Cost per unit	State cost	Annual Cost per year if over 15 yrs (w/no inflation)
S, F	49	6,171	\$40,000	\$246,852,941	
NP	7	882	\$5,933	\$5,230,638	
NS	2	252	\$1,500	\$377,836	
Total crossings	58	7,305		\$252,461,415	\$16,830,761
Road Miles	44	5,542	\$12,000	\$66,499,160	\$4,433,277
Grand Total - Westside				\$318,960,574	\$21,264,038

Eastside					
SBEIS sample	Acres	% Distribution			
Large	5,597	19.48%			
Small	23,142	80.52%			
Total	28,739	100.00%			
Small>20	17,108	73.93%	Scale from SBEIS sample to state: 0.015721467 (used this factor as SBEIS SB sample is overstated)		
Small<20	6,034	26.07%			
		100.00%			
State Large	876,000	37.31%			
State NIPF	1,472,000	62.69%			
State Total	2,348,000	100.00%			
Small Bus stream crossings	SBEIS	State >20 acres	Cost per unit	State cost	Annual Cost per year if over 15 yrs (w/no inflation)
S, F	17	1,081	\$41,000	\$44,334,284	
NP	0	0	\$5,267	\$0	
NS	3	191	\$3,200	\$610,630	
Total crossings	20	1,272		\$44,944,914	\$2,996,328
Road Miles	15	954	\$12,000	\$11,449,313	\$763,288
Grand Total - Eastside				\$56,394,227	\$3,759,615

East plus West Total	\$375,354,801	\$25,023,653
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