

# Forest Service Roads: Bridge Replacement Program

In December 1996 Forest Renewal BC approved in principle a Ministry of Forests proposal for a 5-year program costing \$70 million to replace approximately 1,100 temporary wooden bridges on Forest Service Roads (FSRs). These bridges must be replaced as they were constructed of untreated wood, which has a short life span of 5 to 15 years. The timber rapidly deteriorates rendering the bridge unsafe to use.

There is some 40,000 km of FSR, including 4,000 bridges, which provide access for the forest industry, communities, recreation, mineral exploration and to Forest Renewal activities. FSRs are maintained by the Ministry of Forests (MOF); however in recent years funding has been insufficient to rectify problems of bridge crossings. In some situations, licensees have replaced bridges, with compensation through adjustment of the licensee's stumpage. However this is only a stopgap measure which is not favoured by licensees nor does it adequately address the scale of the problem.

To be eligible for replacement under this program a bridge must:

- need replacement to ensure environmental protection (e.g., damage through excessive scour and erosion; see culvert article *Streamline Vol. 2 No. 2* for a related discussion), user safety, or continued fibre supply;
- be on an FSR as of April 1, 1996; or
- be an existing structure crossing a stream (cross drain culverts are not eligible).

Table 1 below shows the allocation of funding for each forest region for the overall program and for the current fiscal year 1997.

In addition to the current expenditures, the program is retroactive to January 1, 1996. Licensees who re-

placed structures between that date and March 31 1997, the main program implementation date, are eligible to claim reimbursement if the structures meet the eligibility criteria.

Overall coordination and direction of the bridge program will be through the Resource Tenures and Engineering Branch at MOF headquarters in Victoria. At the regional level administration will be through the Regional Engineering Officer (REO) with input from forest districts, the regional Forest Renewal office, and licensees. The REO will develop a multi-year project plan, with annual detailed Business Plans. Business Plan development will include consultation with the Forest Worker Employment Agency to identify opportunities to employ displaced forest workers. The regional plans will be rolled up provincially for approval and allocation of funds by Forest Renewal.

One of the advantages of the program will be the benefits to the environment. A detailed hydrological study will be done at each site to ensure that an adequate bridge span and stream channel is provided. This will help to ensure that "washouts" and excessive erosion are minimized. Where present, any barriers to fish passage will be eliminated during design and construction.

Economic benefits will also result from the program. The new bridges will be permanent structures, designed and constructed professionally from more durable materials, namely steel and concrete, instead of logs. Economies of scale of a large program will be realized in the design, purchase of materials, and larger construction contracts. The program will generate an estimated 735 person years of employment. Local employment will be promoted by encour-

aging and giving preference (where possible) to tenders from local companies and to those which feature employment of displaced forest workers.

For further details on the program please contact:

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**Table 1 - Bridge Replacement Program**

Forest Region	5-Year Program		F.Y. 1997/98	
	No. Bridges	\$ Million	No. Bridges	\$ Million
Cariboo	46	3.5	7	0.894
Kamloops	250	17	28	1.822
Nelson	414	19	54	2.859
Prince George	60	8.5	15	1.315
Prince Rupert	32	3	14	0.880
Vancouver	298	19	21	2.202
<b>Totals</b>	<b>1100</b>	<b>70.0</b>	<b>139</b>	<b>9.980</b>