

Technical Tips

is imperative that the hole is extensively cleaned with a wire brush and flushed with water before the gluing process. Approximately 6-7 pumps of epoxy are sufficient for adhering the cable to the rock. Using this technique we were able to transport 2700 kg boulders. An important advantage of this method is that only one person is required at the hookup end and no-one is needed at the receiving end (which is marked with a painted number).

Another adaptation of the method is to join two

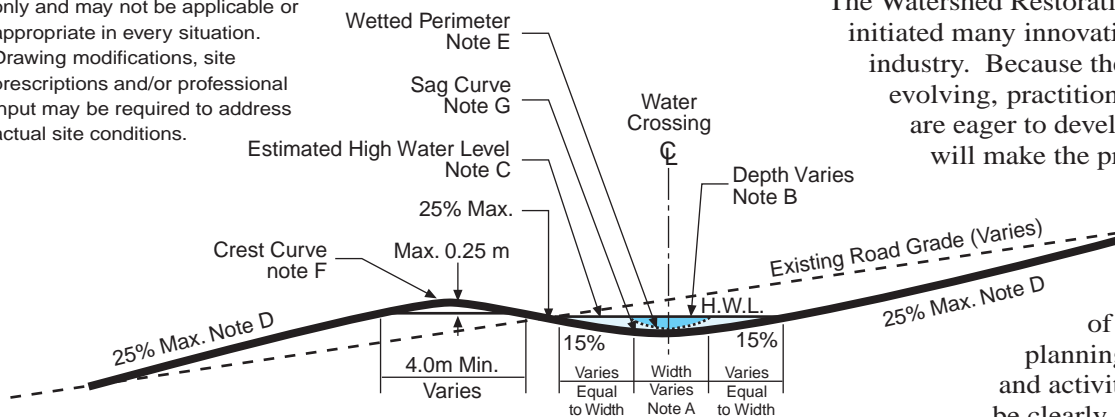
boulders by a length of cable, and lift them at the mid-point of the cable. They can then be dropped as a two-boulder ballast over log structures that have already been positioned. This technique can be used by excavators as well as helicopters (R. Finnigan pers. comm.).

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The Development of Typical Drawings for Road Deactivation Planning and Prescriptions in the Kamloops Forest Region

NOTE: These are typical drawings only and may not be applicable or appropriate in every situation. Drawing modifications, site prescriptions and/or professional input may be required to address actual site conditions.



The Watershed Restoration Program (WRP) has initiated many innovative concepts in the forest industry. Because the WRP is new and evolving, practitioners around the province are eager to develop and share ideas that will make the program a success.

In the Kamloops Forest Region (KFR), the WRP is now an integral part of the overall land-use

planning process. Terminology and activities under the WRP must be clearly and concisely presented to and discussed with a wide variety of stakeholders. In this process of consultation on proposed WRP activities, it has become obvious that the current drawings depicting typical WRP work details are lacking in clarity.

In the Kamloops Region, the planning process which most involves the public and watershed stakeholders is the Land Resource Management Plan (LRMP). In the Okanagan Timber Supply Area (OK TSA), the LRMP is a higher level planning exercise that involves three forest districts and many stakeholders. With the involvement of such a variety of different players, WRP staff recognized a need for standardizing the terminology and activities, such as road deactivation planning. As a result, the KFR initiated a contract with a consultant, SNC Lavalin Inc., to, "Develop

GENERAL NOTES

- Typical water crossing templates are used to describe the size and shape of a dip to be constructed in a road to facilitate vehicular access at water crossing and other locations.
- Typical cross ditch templates are used to describe the size and shape of a dip to be constructed in a road to carry road surface water and ditch water off or across road and to provide vehicular access along road.
- For cross ditch and ford definitions and notes see dwg.#05
- For armoring details of fords see dwg.#04 'Typical ford and Squamish culvert details'.
- This drawing to be read in conjunction with dwg.#04 'Typical ford and Squamish culvert details' and dwg.#05 'Typical water control methods'.

TYPICAL WATER CROSSING TEMPLATE NOTES

- Water crossing width - The greater of 2 times the design culvert dia. or the width of the active stream channel. Width is specified on road deactivation prescription plans.
- Water crossing depth - Depth of cut from existing road grade to water crossing invert at intersection of road and water crossing centrelines. Depth is specified on road deactivation prescription plans.
- Estimated high water levels - Water crossing width X 0.15 (For all templates except #4)
- Maximum template grade may vary as directed by licensee/ministry representative to conform to actual site conditions.
- Wetted perimeter to be constructed below existing road grade.
- Crest curves that form a transition between the shape of the water crossing and the existing road are to be constructed to accommodate the specified access level. The maximum crest curve height of 0.25 m in 4.0 m horizontal distance as shown on template will accommodate all access levels.
- Sag curves that form the bottom of the water crossing are to be constructed to accommodate the specified access level.

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Typical Drawings and Specifications for Road Deactivation Planning and Prescriptions”.

The concept of the contract was to develop more detailed typical drawings for road deactivation activities such as:

- road deactivation mapping symbols
- cross-sections
- sidecast pullback
- fill placement
- road deactivation profiles
- ford design, and
- standard vehicle dimension templates

The consultant went through a step by step consultative process with regional WRP staff to produce the typical drawings. The process included research to ensure a product based on engineering principles, with due consideration of actual field work procedures.

The final product of the contract is a set of typical drawings that will clearly and effectively present the

concepts of road deactivation to a wide spectrum of users. Figure 1, adapted for Streamline from Drawing 012094-00-03-02, illustrates typical cross ditch templates for two-wheel drive, four wheel drive and All Terrain Vehicle access. It is expected that users of the drawings will include, licensees, staff of the Ministry of Forests, consultants, contractors, and land-use planners.

The typical drawings have been very well received in the Kamloops Forest Region, and are currently being distributed to the other forest regions in the province. Together with a similar set of drawings done for the Vancouver Forest Region, they form the basis for the new Advanced Road Deactivation Course being offered at regional centers this fall.

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Update

Conferences

Squamish River Watershed Fisheries Sustainability Forum. November 27-29. A first call for presentations has been issued. Major objectives include exchange of information between a wide array of stakeholder groups, discussions about fisheries sustainability, and how to achieve it in the Squamish River watershed over the long-term. For information, send a FAX to 604-685-5373 or write to the sponsors: Sustainable Fisheries Foundation, 2376 Yellow Point Rd, RR#3, Ladysmith, B.C., V0R 2E0, and the Squamish River Watershed Fisheries, c/o Forest Alliance of B.C., P.O. Box 49312, 1055 Dunsmuir St., Vancouver, B.C. V7X 1L3

The following conferences sponsored by Insight Information will be held at the Four Seasons Hotel in Vancouver. For more information contact: Tel: 416-777-2020 FAX: 416-777-1292.
Site Deactivation and Rehabilitation Under the B.C. Forest Practices. December 2. Cost \$695.50. Covering new application requirements; differ-

ing deactivation standards under the Code, on private land and for the FRBC; developing reclamation planning strategies; and techniques to restore natural drainage, rehabilitate soil and re-vegetate the sites.

Recent Initiatives to Streamline Forest Practices in B.C. December 3-4. Cost - \$909.50. Effects of the most recent development in the evolution of the Code will be explored, including: industry experiences in complying with the reduced planning requirements, trends in logging costs under the Code, standards to protect community watersheds, new economic effects criteria, extending the Code to private land, the effect of the new amendments on enforcement and the impact of the recently announced Jobs and Timber Accord.

Training Courses and Seminars

Watershed Restoration Program

The Ministry of the Environment is offering several short training workshops this fall: Fish Habitat Assessment and Rehabilitation Procedures

(FHAP/FHRP) in Port Hardy from October 20-24, and Channel Conditions and Prescriptions Assessment (CCPA). The CCPA will be offered in Kamloops on October 15-16, Chilliwack on October 29-30, and Nanaimo on November 3-4. A pilot workshop on Riparian Assessment and Prescription Procedures is under development. To receive registration information on WRP training courses, please call Irma Stevens (250-741-2678) and ask to be placed on the BC Forestry Continuing Studies Network's WRP mailing list.

The Ministry of Forests is continuing to sponsor a number of courses and seminars this fall, also through the BC Forestry Continuing Studies Network. Contact your closest Network office for course details of date, cost, and location.

The 1997 Forest Site Rehabilitation Workshop. This annual workshop will be held on November 27-28, at the Coast Bastion Inn in Nanaimo. The Workshop Organizing Committee request participants interested in presenting 20 to 25 minute talks about their rehabilitation projects or expe-