



This guide is intended for reference by Timber Sale License (TSL) Licensees and Contractors in the BC Timber Sales (BCTS) Business Areas to satisfactorily achieve conformance where roads are identified in TSLs and Road Permits (RPs) for deactivation or rehabilitation.

Having A Plan

There are clauses contained in the TSL document (part 4.00) that require primary forest activities on the cutting authority area to be covered by a plan. If BCTS has a Road Plan (Construction, Maintenance and Deactivation Plans) completed by a Road Activity POR (Professional of Record) and are included in the tender package the TSL holder may use them for the purpose of TSL part 4.00.

If, during operations, the TSL holder chooses to conduct activities in a way that is different from what is described in a plan, the TSL holder must engage a Road Activity POR to prepare an alternate plan or plan amendment. If the deactivation plan is complex the Coordinating Registered Professional (CRP) or POR may be required to retain a specialist and or a professional (see link on simple vs complex at end of document). The TSL holder must submit an alternate plan or amendment to the Timber Sales Manager upon request.

Further information regarding the requirement to have a plan may be found at the following weblink ([2015-09-01-Advisory Bulletin-Having a Plan](#))

Road Deactivation

The intent of deactivation is to place the road in a self-maintaining state that will indefinitely protect adjacent resources at risk. Deactivated roads must be **barricaded to prevent access by motor vehicles** other than all-terrain vehicles (ATVs) (FPPR, s.82(1)). Access by ATVs is required for BCTS reforestation obligations and other resource users. The barrier is not to be easily removed and is permanent in nature.

A barricade exemption may be granted when requested to the District Manager or their delegate under Forest Planning and Practices Regulation (FPPR) s82(2). It is the responsibility of the licensee to request exemption.

Deactivation for water management is critical to **maintain surface drainage patterns** so that they are consistent with natural drainage patterns (FPPR, s.39). This is achieved by:

- ✓ Removing temporary crossing installs (bridges, culverts, log bundles, etc.) (FPPR, s.82),
- ✓ Replacing cross-drain culverts with cross-ditches,
- ✓ Installing cross-ditches or water bars,
- ✓ Out sloping or in sloping road surface.

Deactivation of soil erosion/sediment control is critical to **minimize the impact of silt and sediment transport**. This is achieved by:

- ✓ Ensuring approach slopes at deactivated locations are sufficiently gradual to minimize future erosion/sediment movement and permit safe traverse by ATVs,
- ✓ Grass seeding crossings sites with a risk of erosion or sediment transport (FPPR, s.40),

- ✓ Installing sediment control measures (silt fences, catch basins and check dams).

Additionally, it is expected that log bundles/corduroy installed at wet sections of a road and installed geotextile material be removed during deactivation (to aid in the stabilization of the road prism, FPPR, s.82(1)(d)) unless otherwise discussed with BCTS representative.

Seasonal Road Maintenance (temporary deactivation)

When a licensee intends to be inactive for a period when precipitation/snowmelt can be expected or prior to spring freshet when increased water flow can be expected, **removal of temporary crossing structures (including log bundles) will be required** to maintain surface drainage patterns.

Road Rehabilitation

The intent of rehabilitation, from a TSL perspective, is to **return the access structure to a measure of site productivity and to use it as a means of access management**. In accordance with the conditions of a TSL or RP, rehabilitation consists of:

- De-compacting compacted soils,
- Returning displaced surface soils, retrievable side cast and berm materials,
- Either placing woody debris on exposed soils or revegetating the exposed mineral soil.

Figure 1.0 Cross-Ditch Installation

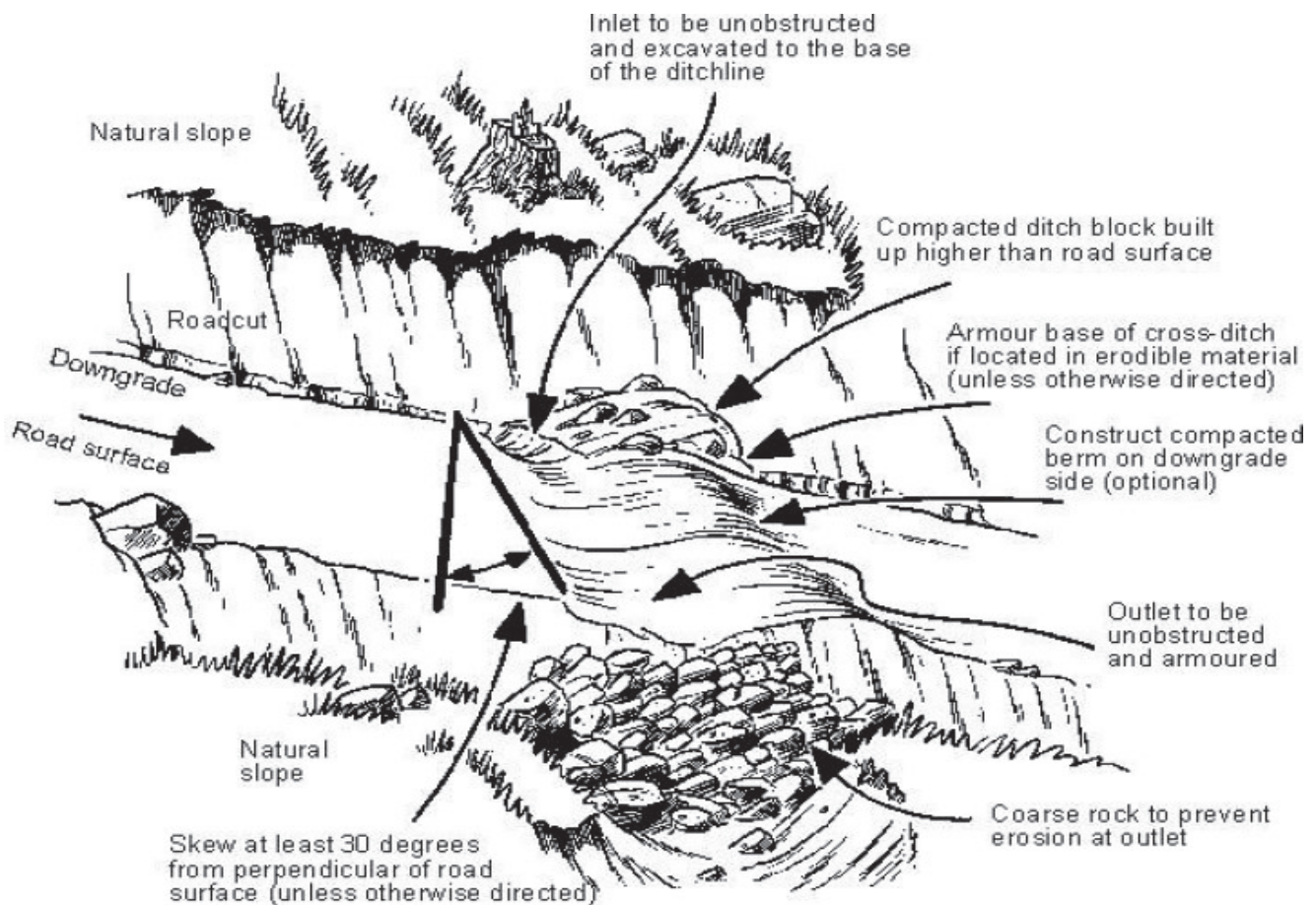


Figure 2.0 Waterbar Installation

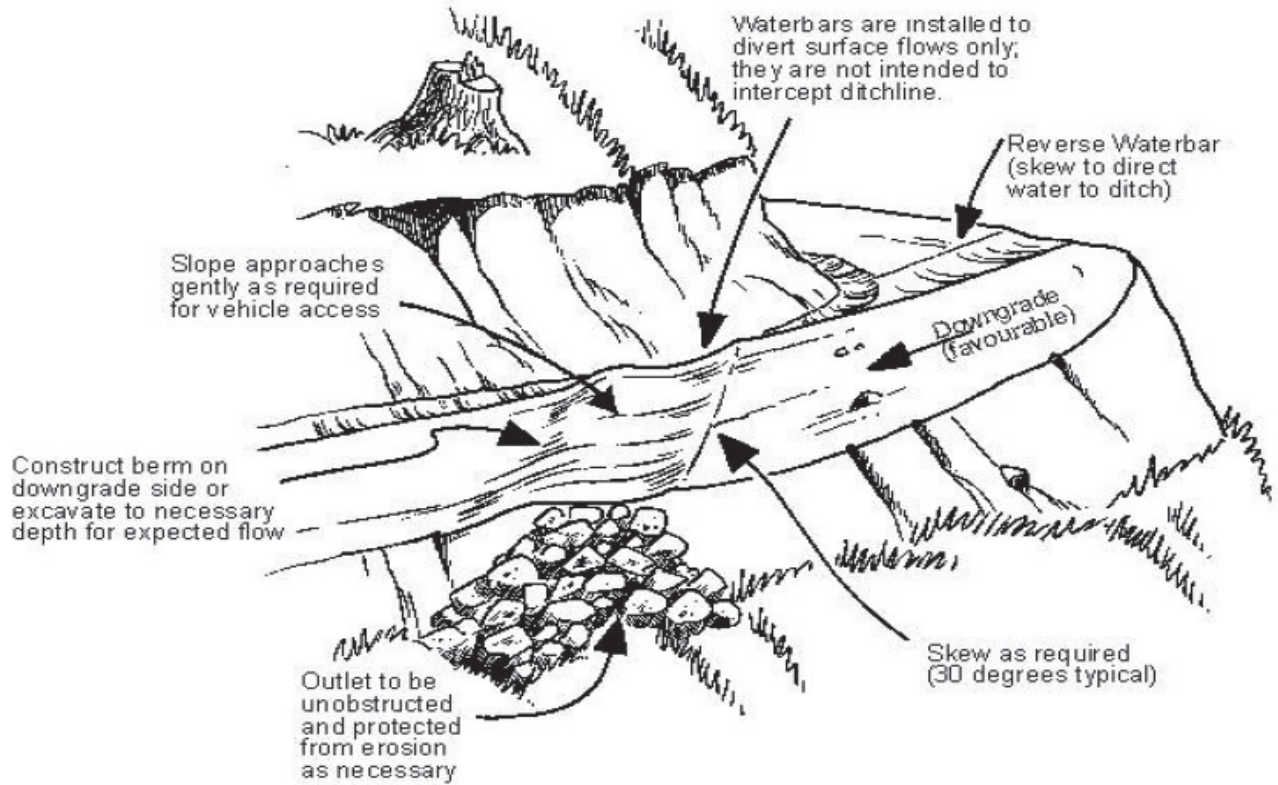


Figure 3.0 Non-fish Stream Culvert Removal

Metal/plastic culverts.

- ① Excavate next to culvert from the outlet to inlet. Leave material on the inlet side to keep flow in the pipe.
- ② Move to camp side. Divert flow from culvert to armoured channel.

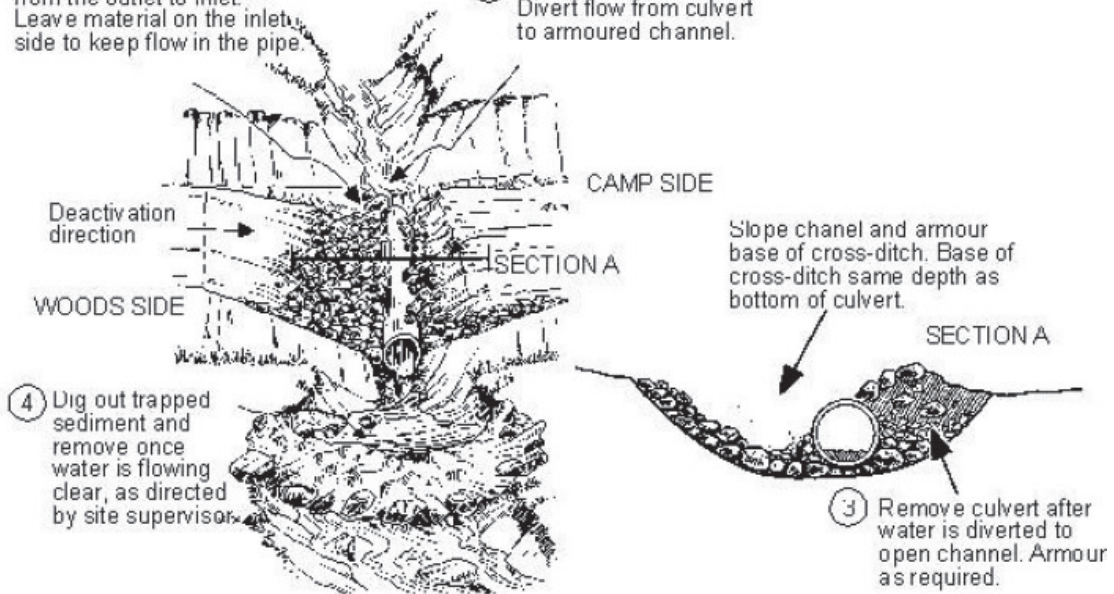


Figure 4.0 Log Culverts Removal

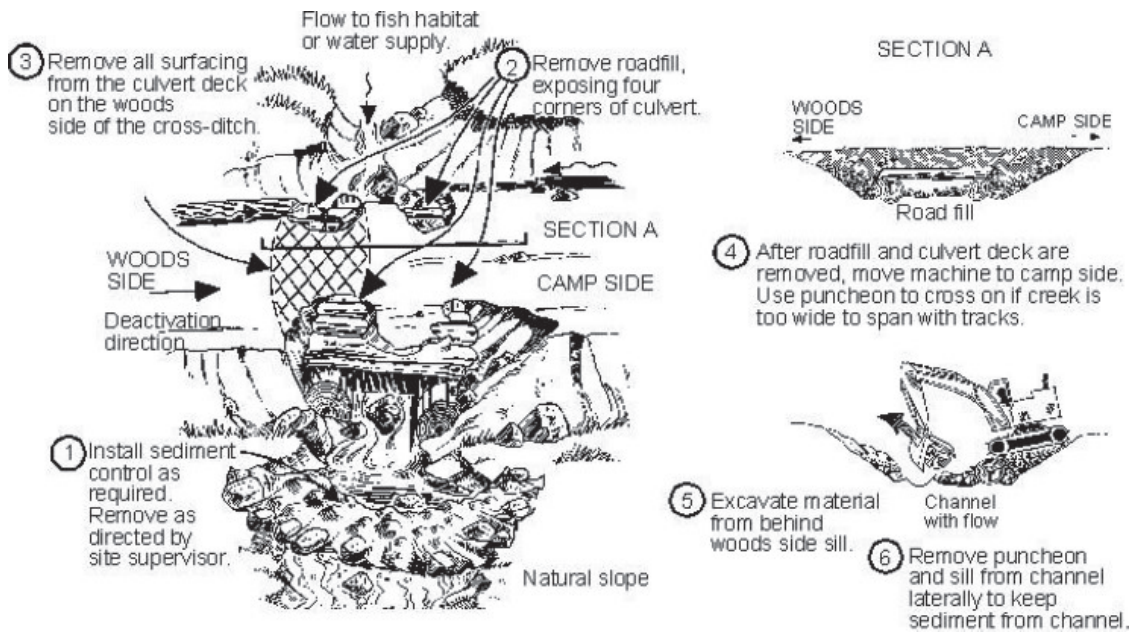
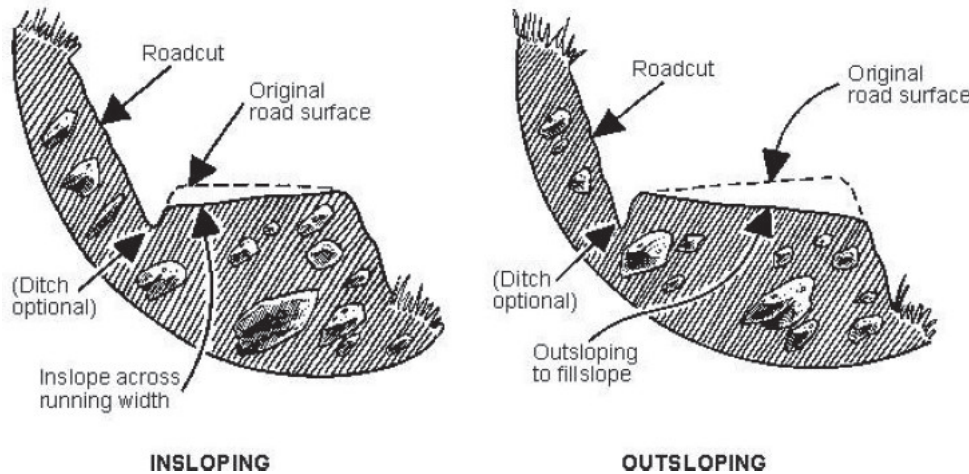


Figure 5.0 In sloping and Out sloping Road Surface



Grass/legume Seeding

Seeding is often the most cost-effective means of treating deactivated crossings to prevent erosion.

It may be necessary to scarify the road surface and/or reuse displaced topsoil to promote revegetation.

The seed must be weed free and ecologically appropriate to the area.

Road Fill Pullback Techniques

Where there is potential for unstable road cut or fill slopes to develop during periods of inattention, consider using road fill pullback. This removes marginally stable side cast fill that has a high risk of failure and effectively adds a weighting berm to the toe of the road cut.

Full Road Fill Pullback

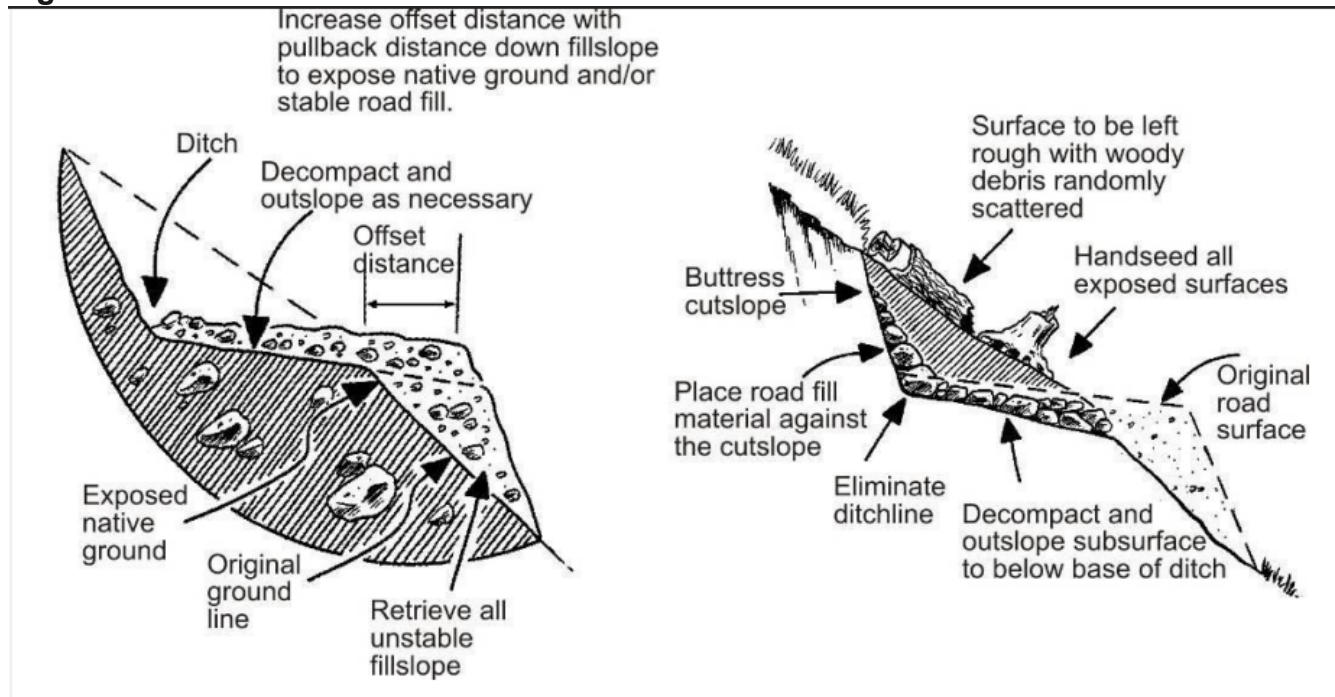
The purpose of full road fill pullback is to retrieve all potentially unstable side cast material and place it tight against the road cut, thereby reducing the landslide hazard to the greatest extent possible. Usually, no access or only limited access for foot or all-terrain vehicle traffic is possible after full road fill pullback (Figure 6.0).

Full road pullback is the deconstruction (also known as “re-contouring” or “de-building”) of the road subgrade to restore the original hillslope profile and contours.

Decompaction may also be necessary. This involves breaking up road fill materials to a depth equal to, or greater than, the depth of the ditch, and removing this material to out slope the surface before pullback material is placed over top.

Refer to best management practices in Hillslope Restoration in British Columbia - Chapter 3.5.14 <https://www.for.gov.bc.ca/hfd/pubs/Docs/Mr/Mr096.pdf> for further details.

Figure 6.0 Full Road Fill Pullback



Partial Road Fill Pullback

Partial road pullback may be appropriate to maintain motor vehicle access if the road is open to traffic or if road access is needed in the future. Full road fill pullback may be required at some future date to provide long-term stability of the road prism.

Partial road pullback (Figure 7.0) retrieves the currently or imminently unstable portions of the road fill and leaves those portions with no evidence of immediate instability intact. Retrieved road fill is placed tightly to the road cut with organic soil and woody debris on top to promote revegetation.

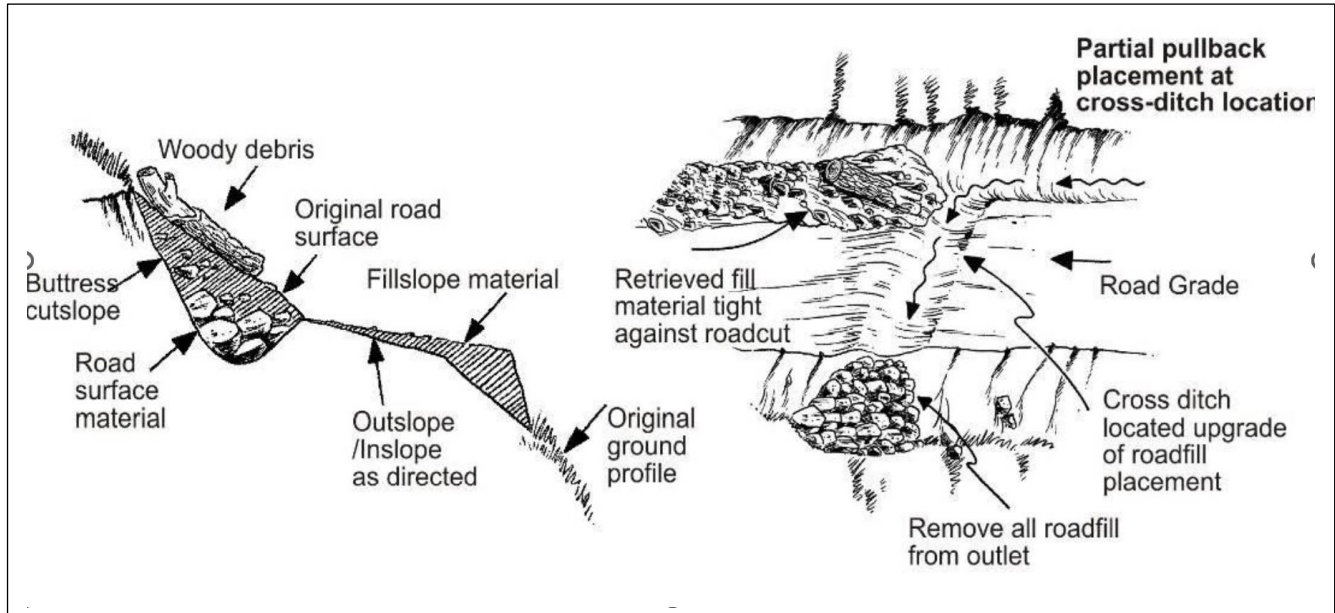
Refer to BMP: Hillslope Restoration in British Columbia - Chapter 3.5.13 <https://www.for.gov.bc.ca/hfd/pubs/Docs/Mr/Mr096.pdf> for further details.

End haul the pullback material when the unstable volumes of road fill exceed the available room in the ditch line. This is the process of removing excess road fill and placing it in an approved waste area. Refer to BMP: Hillslope Restoration in British Columbia - Chapter 3.6.1

<https://www.for.gov.bc.ca/hfd/pubs/Docs/Mr/Mr096.pdf>

for further details.

Figure 7-0 Partial Road Fill Pullback



Other Resource Links:

- Environmental Field Procedure 04 Roads, Bridges and Culverts [BC Timber Sales - Business Area Environmental Management System \(EMS\) and Sustainable Forest Management \(SFM\) - Province of British Columbia](#)
- [Engineering Manual - Province of British Columbia](#)
- Forest Practices Code of BC Forest Road Engineering Guidebook https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/resource-roads/forest_road_engineering_guidebook.pdf
- [Forest Planning and Practices Regulation](#) see section 82
- Forest Road Deactivation Practices Infoplip <https://culvertbc.ca/fieldguide2/index.html>
- Joint Professional Practice Guidelines: Professional Services in the Forest Sector: <https://www.fpbc.ca/wp-content/uploads/2024/10/2024-10-10-EGBC-FPBC-Forest-Roads.pdf> FOREST ROADS <https://www.fpbc.ca/wp-content/uploads/2024/10/2024-10-10-EGBC-FPBC-Forest-Roads.pdf> and [Practice Standards for Forest Resource Activities - Forest Professionals BC](#)
- Road Deactivation Templates https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/resource-roads/engineering-manual/example_data_form_for_deactivation_field_assessments.pdf
- Simple vs complex deactivation: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-resource-use/resource-roads/engineering-manual/deactivation_prescription_examples.pdf