7.7 Road Deactivation Objectives

For elements at risk – including forest resources and social and economic values – within and adjacent to the road location, ensure that deactivation minimizes the risk from hazards such as landslides, gully processes, fan destabilization, uncontrolled soil erosion, and sediment transport. Ensure that prescriptions and works for road deactivation consider a range of techniques (see Road Deactivation Techniques) to meet the following objectives:

- place the road in a self-maintaining state that will protect indefinitely the elements at risk;
- stabilize the road prism and clearing width;
- maintain natural surface drainage patterns on the area within the road right-of- way and in adjacent or connected areas affected by the works both during and after deactivation activities;
- minimize the impact of silt and sediment transport on other forest resources;
- prevent adversely impacting water quality in community watersheds or in streams diverted for human consumption by a licensed waterworks (also, ensure that at least 48 hours notice of impending deactivation work is provided to water licensees or water purveyors in community watersheds)
- for a fish stream, provide for safe fish passage and protection of fish habitat immediately upstream and downstream, both in the timing and extent of the works;

7.7.1 Achieving Deactivation Objectives

The choice of water management, road fill pullback, and revegetation techniques to stabilize the road prism or clearing width depends on the terrain, slope gradient, soils, and climatic conditions of the area. Apply deactivation measures most aggressively where roads traverse areas of steep terrain or erodible soils, especially in geographical areas that receive high levels of precipitation.

Expand All | Collapse All

Water management

Maintain surface drainage patterns so that they are consistent with natural drainage patterns. Achieve this by applying some or all of the following techniques:

- Remove cross-drain culverts and replace them with cross-ditches to re- establish drainage patterns, especially on steep road grades and side hills. If the likelihood of failure is minimal or the consequences of a failure are low, consider leaving the cross-drain culvert intact, provided it is backed up with a cross-ditch or armoured swale as necessary.
- Install cross-ditches or waterbars where there are steep grades, heavy groundwater seepages, switchbacks or road junctions, ditches prone to plugging, places where ponding may occur, and other potential drainage problem areas.
- Remove or breach windrows on the road surface.

- Outslope or inslope the road surface as appropriate.
- Install trench drains, blanket drains, French drains, fords, and armoured swales.

Soil erosion and sediment control and road prism stabilization

Activities to minimize the impact of silt and sediment transport on forest resources include erosion control measures (such as grass seeding, vegetation planting, soil bioengineering, and installation of erosion control blankets) and sediment control measures (such as silt fence, catch basins, and check dams). See Chapter 5: Road Construction for examples of surface soil erosion and sediment control techniques, as well as for works shutdown indicators and procedures.

For roads that have been built on fans, ensure that care is taken to minimize erosion and sediment transport during the deactivation works; in particular, avoid any non-essential excavation of the stream channel or banks.

Where the road prism is unstable, consider using partial or full road fill pullback and cut slope buttressing or other measure to suitably address the landslide hazard and risk of damage or loss to values. As well, take measures to remove organic material (stumps, roots, embedded logs, and topsoil) that may reasonably be expected to fail and destabilize the road fill.

Take care in verifying indicators of slope instability. For example, tension cracks or minor slumps in the road surface may indicate a failing road fill, rather than signaling unstable terrain. Consider using a partial pullback of the road fill to stabilize the road prism and protect users of the road and adjacent resources. However, if the slope instability indicators occur outside the road prism (e.g., a small slide) or the instability within the road prism has the potential to affect adjacent resources (e.g., debris from a potential fill slope failure could reach a fish stream), consider the area to be unstable.