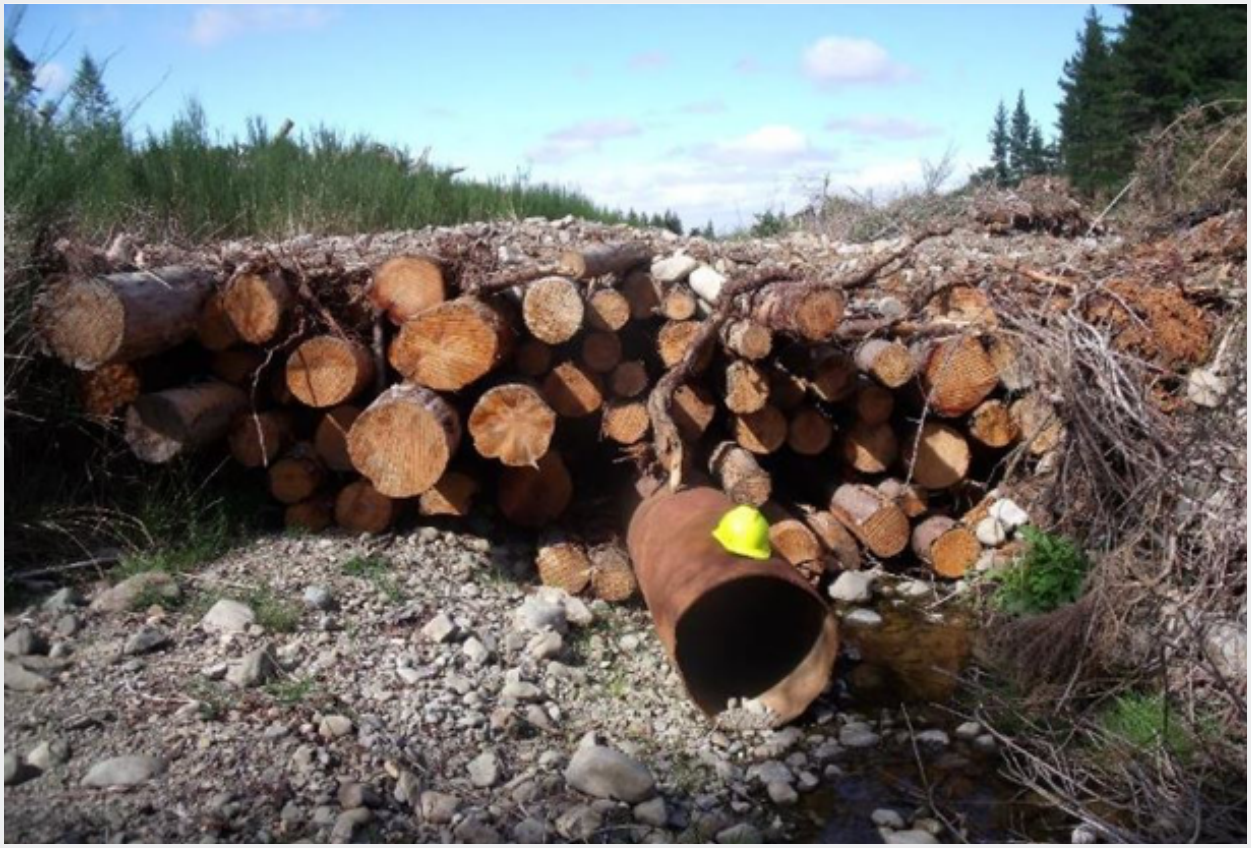
Forest Practice Guide

Non-Regulatory

Crossings
3.6 Temporary Crossings

Many forestry operations require *rivers* to be temporarily crossed. Temporary *river* crossing designs can include a *culvert* and log structure sitting in the bed of the flow path, or log bridges that span across it. The design varies with the *river* and approach of the extraction track.

Poorly planned, constructed or maintained temporary crossings pose one of the greatest opportunities for *sediment* delivery to water.



Please refer to the 'how to use' section of the introduction at http://docs.nzfoa.org.nz/forest-practice-guides/ for advice on how to use this guide.

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Crossings
3.6 Temporary Crossings

A Where and when to use

1. When temporary access is required across a *river.*

B Where not to use

1. When crossing permanently dry gullies.

C Design

1. Plan for temporary harvest crossings at the harvest planning phase.
2. Consider factors such as the *catchment* size, the *river's* banks, width and substrate, and downstream infrastructure.
3. Aim to minimise the number of crossings needed to safely and productively harvest.
4. Ensure the crossing locations are clearly marked out for the operator.

D Construction

1. Minimise the disturbance of the natural shape of the *river*.
2. Minimise soil entering the *river* during construction.
3. Reduce potential *sediment* entering the *water body* from the approach tracks:
    a. Wherever practicable, maintain the track grade over the crossing.
    b. Consider *corduroying* the approaches or use *slash* on the approaches to limit rutting.
    c. Construct the track approaches so that extracted logs do not sweep off the crossing into the *river* (e.g. logs can be driven vertically at corners and crossing entrances to keep trees aligned to the crossing).
4. If logs are placed in the bed of the *river*, a *culvert* of at least 300 mm diameter must be installed at the base of the crossing.

E Maintenance and removal

Maintenance

1. Maintain *river* crossings and approaches so that stormwater control is effective. *River* crossings can be difficult to maintain in wet periods.
2. Ensure *culverts* are not getting blocked with woody debris from the harvest operation.
3. Maintain the integrity of log crossings.
4. During wet weather limit the use of the crossing to minimise mud accumulating on the track leading into and away from the crossing.
5. Stop operations when the approach tracks or the crossing are releasing *sediment* to the *river* and divert any track stormwater onto the cut-over.

Crossing removal

6. Remove the material used to construct the crossing within one week of finishing the harvesting operation.
7. Crossing material should be placed in a location that minimises the risk of it entering the *river*.
8. Rehabilitate or *decommission* the approaches.

National Environmental Standards for Plantation Forestry

Particular relevant provisions for crossings are Regulations 38 – 49.

Refer also to the Department of Conservation **Fish Passage Guidelines:** https://www.doc.govt.nz/nature/habitats/freshwater/fish-passage-management/nz-fish-passage-guidelines/

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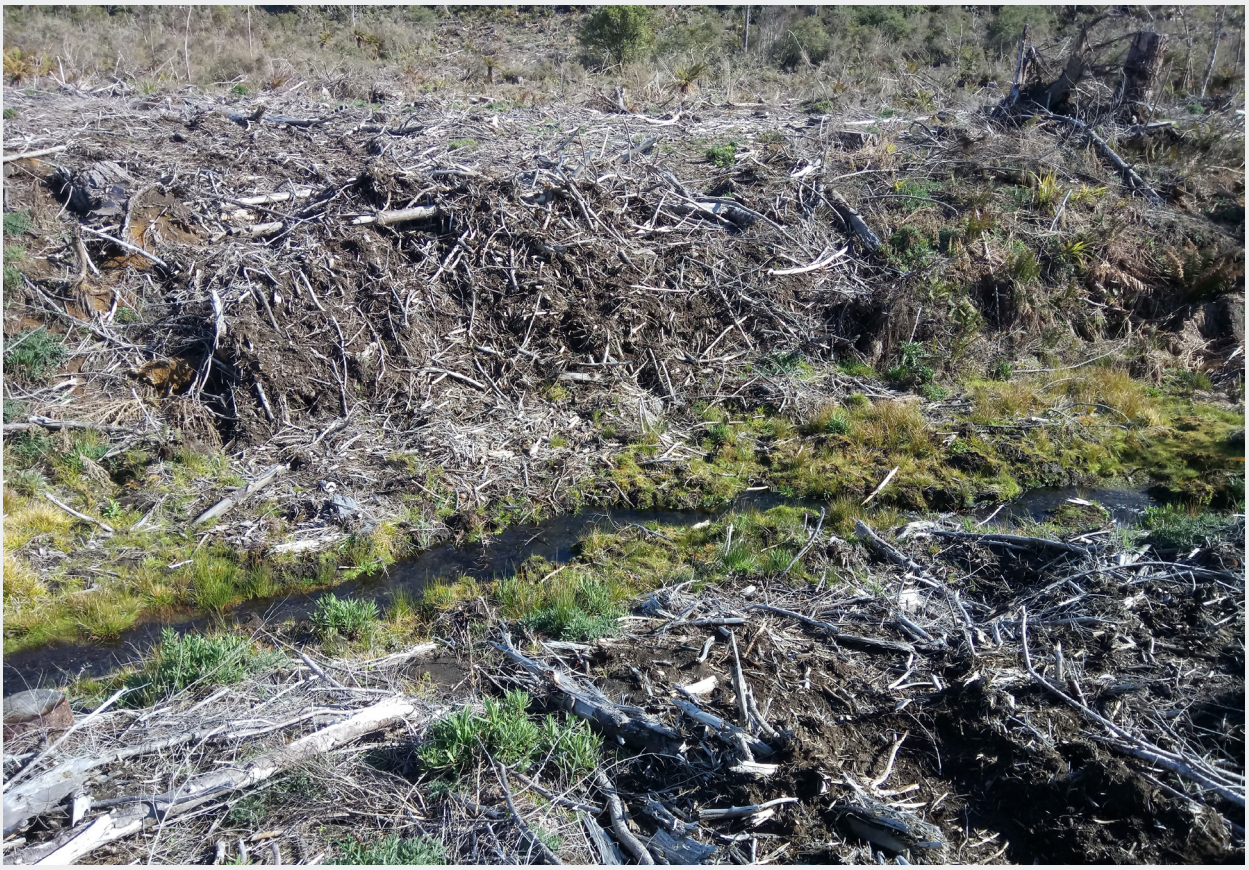

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