

Fords

Ford type crossings may be used in waterways where the frequency of crossing is low. Fords are not acceptable for regular stock movements such as on dairy farms due to animal wastes being directly discharged to the waterway.

Potential Waterway Impacts

The impacts of fords can include:

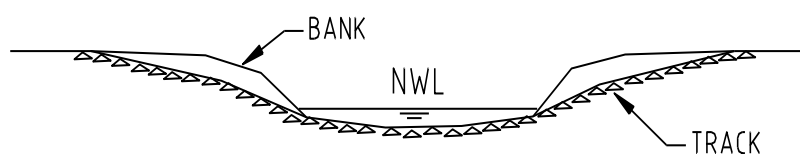
- Reduced capacity for fish and aquatic fauna movement;
- Reduction in wildlife and aquatic fauna habitat in the immediate vicinity of the crossing;
- Adverse impacts on macrophyte communities;
- Contaminants from vehicles reduce water quality;
- Increased nutrient loads where crossings are used for stock movement;
- Sediment input during construction.

Assessment Criteria

The ford crossing is to be a defined crossing point using rock or concrete generally set at or near bed level to maintain natural flow velocities. Natural stream “cross overs” or riffles are often selected as fords.

Where the ford is raised above the bed level to improve trafficability, the downstream side of the ford is to be a graded rock chute adequate to provide for fish passage. The rock chute is to extend the full width of the stream.

Figure 1: Rock Ford



NWL = Normal Water Level

Depth indicators and signage should be provided. These are mandatory if the crossing is open to public access.

Local drainage from the approach access track should be directed to sedimentation basins or grassed filter zones to trap sediments and nutrients rather than discharging directly to the stream. Where outfall directly to the waterway cannot be avoided, piped or rock chute outfalls may be needed.

On dairy farms, the culvert surface and tracks are to be graded away from the waterway to a drainage recycling system to prevent animal wastes directly discharging to the waterway.

There should be no direct connection of any dairy track to a stream or connected drain. Local drainage from low level crossings should be directed to grassed filter zones to trap sediments and nutrients.

The batters of the access track excavated into the stream bank should be on a slope of 1(v):2(h) or flatter to facilitate the establishment of a grass cover. Table drains at the toe of the batters should be stabilised with graded rock.