BACKGROUND
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.
In relation to aquatic fauna, fords are the minimum preferred structure for a Class 4 Waterway, with unlikely fish habitat. Refer to Table 1.

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 and include an apron zone.

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.
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.

Table 1

<table>
<thead>
<tr>
<th>Classification</th>
<th>Stream Characteristics</th>
<th>Minimum Preferred Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 1: Major fish habitat</td>
<td>Large named permanently flowing stream. Aquatic vegetation present. Known fish habitat.</td>
<td>Bridge</td>
</tr>
<tr>
<td>Class 2: Moderate fish habitat</td>
<td>Smaller named permanently or intermittently flowing stream. Aquatic vegetation present. Known fish habitat.</td>
<td>Large box culvert or bridge</td>
</tr>
<tr>
<td>Class 3: Minimal fish habitat</td>
<td>Named or unnamed watercourse with intermittent flow.</td>
<td>Box / pipe culverts</td>
</tr>
<tr>
<td>Class 4: Unlikely fish habitat</td>
<td>Named or unnamed stream with flow during rain events only.</td>
<td>Ford or culverts</td>
</tr>
</tbody>
</table>

Figure 1 Rock Ford

NWL = Normal Water Level