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## Restriction on the installation of new steel culverts

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### Background

An extensive assessment of steel culvert products is about to commence, which will review the range of steel culverts available to assess their suitability for use in road formations and determine any specific requirements for installation

This Technical Direction sets out the restrictions to apply regarding the installation of new steel culverts while the assessment process takes place.

### Information

There have been incidents where steel culverts have failed well before their expected service lives have been achieved.

As a result the RTA's product assessment process will be used to assess the range of steel culverts currently available and make recommendations concerning the installation of new steel culverts. Further advice and contact with culvert suppliers will be outlined separately.

In use, steel culverts face significant challenges with water quality (chemical and suspended material) and backfilling around the culvert, which can contribute significantly to reducing the expected culvert service life. Also different steel culverts may be more susceptible than others to the corroding impact of water flow and or type of backfilling, and to construction impacts.

Maintenance of culverts is difficult and costly. Accordingly, the potential whole of life maintenance regimes of steel culverts will also be considered in the assessment process.

## Culvert Technical Direction

In the interim, while the product assessment process is being completed, steel culverts are not to be used in new works or as replacements for existing culverts, without the formal approval of the Principal Road Design Engineer.

A request for approval to use a steel culvert will require a supporting business case, which includes a comparison of available culvert options in terms of risks and whole of life costs. It should provide details of stream base flow and ground water analysis including velocities, chemical properties, resistivity and suspended materials, and an analysis of proposed backfill materials.

Approval will only be considered where it can be demonstrated that there is a significant cost and operational advantage, and that significant risk mitigation measures are planned to safe guard the service life of the culvert.

## Implementation

This Technical Direction is to be implemented immediately.

**Approved By: Chris Harrison**  
**Group General Manager**  
**Engineering Technology**

**Date:**