



# Austrroads Guide to Road Design Part 5 Supplement

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## **Roads and Maritime Services supplement to Austrroads Guide to Road Design Part 5: Drainage – General and Hydrology Considerations (2013) Version 2.0**

Austrroads has released the Guide to Road Design, Part 5: Drainage – General and Hydrology Considerations (2013) and all road agencies across Australasia have agreed to adopt the Austrroads guides to provide a level of consistency and harmonisation across all jurisdictions. This agreement means that the new Austrroads guides and the Australian Standards, which are referenced in them, will become the primary technical references for use within the Agency.

This supplement is issued to clarify, add to, or modify the Austrroads Guide to Road Design, Part 5: Drainage – General and Hydrology Considerations.

Roads and Maritime Services (Roads and Maritime) accept the principles in the Austrroads Guide to Road Design, Part 5: Drainage – General and Hydrology Considerations with variations documented in this supplement under the following categories:

- Roads and Maritime enhanced practice: Roads and Maritime practice that enhances the Austrroads Guides
- Roads and Maritime complementary material: Roads and Maritime reference material that complements the Austrroads Guides. These documents include Roads and Maritime Manuals, Technical Directions and/or other reference material and are to be read in conjunction with the Austrroads Guides
- Roads and Maritime departures: Roads and Maritime practice that departs from the Austrroads Guides.

## Document information

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## Document history

Version	Date	Reason for amendment	Page No.	Editor
2.0	07/04/2017	Major amendment in formatting and reduced content to align with current Austroads Guide to Road Design Part 5.	All	Road Policy, Specifications and Technology
1.0	03/03/2011	First issue.	All	Technology Standards (Road)

## Roads and Maritime complementary material

The following documents provide additional detail of Roads and Maritime best practice. It is necessary to comply with complimentary material.

- NSW Bicycle Guidelines
- Roads and Maritime Supplements to Austroads Guides
- Roads and Maritime Australian Standards Traffic Supplements
- Roads and Maritime Traffic Signal Design Guide
- Roads and Maritime Delineation Manual
- Roads and Maritime Technical Direction
- Roads and Maritime Standard Drawings
- Roads and Maritime Standard Pavement Subsurface Drainage Details Volume 1-6
- Roads and Maritime Technical Guide - Standard Pavement Subsurface Drainage Details
- Roads and Maritime Water Sensitive Urban Design Guidelines
- Roads and Maritime Culvert Risk Assessment Guideline
- New South Wales State of the Environment (NSW Environmental Protection Authority).

The documents are published and can be found on the Roads and Maritime website (unless otherwise noted).

## Roads and Maritime departures

### 3 Environment

#### 3.6.10 Energy dissipators

The design of energy dissipators is covered in the U.S. Department of Transportation Federal Highway Administration Hydraulic Engineering Circular No. 14: Hydraulic Design of Energy Dissipators for Culverts and Channels' (HEC 14). In HEC 14, the equivalent types of energy dissipators to those accepted for use by Roads and Maritime are:

Roads and Maritime Energy Dissipator Type	HEC 14 Energy Dissipator Type
Type A	Rip rap basin
Type B	Contra costa basin
Type C	Saf stilling basin
Type D	USBR type VI basin