ARR 2016 Ministerial Foreword

In late 2010 and early 2011 Queensland and Victoria were devastated by a series of storms, floods and cyclones that resulted in loss of life, significant property damage and financial loss for many communities. Events such as these highlight the challenges in predicting these extreme events as well as managing their impacts.

The Australian Government recognised this challenge and committed to the comprehensive revision of the Australia Rainfall and Runoff (ARR) guidelines.

ARR 2016 will have national application and will be essential for policy and planning decisions related to flood risk in areas as diverse as:

- infrastructure such as roads, rail airports, bridges, dams, stormwater and sewer systems
- town planning
- mining
- developing flood management plan for urban and rural communities
- flood warnings and flood emergency management
- operation of regulated river systems, and
- estimation of extreme flood levels.

The ARR was last updated completely in 1987. Since then, our understanding of the complexity of the Australian landscape has grown. This understanding has been gained through the collection and analysis of new data, reflective of Australia's variable landscape. In previous versions of the ARR, only limited Australian data was available so overseas models were applied in many cases. The 2016 revision is based wholly on Australian data, including a national database of extreme flood hazards and 30 years of over 8000 rainfall gauges. Not only does the ARR 2016 make use of rich historical data but its digital format will allow new data and information to be incorporated as it becomes available.

The revision of the ARR would not have been possible without the support and funding from the Australian Government as well as the significant contributions from Engineers Australia members, flood practitioners and academia. This collaborative effort is a testament to the willingness of those in industry, academia and government to improve our understanding the nature of flooding. It is hoped that these guidelines willhelp to reduce the social and economic impacts of floods and will help strengthen the resilience of our communities.

The Hon Karen Andrews MP
Assistant Minister for Science