**Aquatic ecosystems toolkit**

 **CASE STUDY 1:**Lake Eyre Basin

Based on work undertaken by Ms Jennifer Hale and Dr Shane Brookes
 for the Aquatic Ecosystems Task Group

2012

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These trials were undertaken during the time when guidance on the identification, delineation and description of aquatic ecosystems was an area of active policy development. The work informing the contents of this publication was carried out under budgetary and time restraints, resulting in limited ability to incorporate all available datasets and information into the process.

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# Abbreviations

|  |  |
| --- | --- |
| **AETG** | Aquatic Ecosystems Task Group |
| **ANAE** | Australian National Aquatic Ecosystems (Classification Scheme) |
| **AquaBAMM** | Aquatic Biodiversity Assessment Mapping Methodology |
| **AWRC** | Australian Water Resources Council |
| **CAMBA** | China–Australia Migratory Bird Agreement |
| **CDI** | Catchment Disturbance Index |
| **CFEV** | Conservation of Freshwater Ecosystem Values Framework  |
| **DEM** | Digital Elevation Model |
| **DSEWPaC** | Department of Sustainability, Environment, Water, Population and Communities |
| **EFZ** | Ecological Focal Zone |
| **EPBC** | Environment Protection and Biodiversity Conservation Act 1999 (Cwlth) |
| **ERP** | Expert Reference Panel |
| **GAB** | Great Artesian Basin |
| **Geofabric** | Australian Hydrological Geospatial Fabric |
| **HCVAE** | High Conservation Value Aquatic Ecosystems |
| **HEVAE** | High Ecological Value Aquatic Ecosystems |
| **IBRA** | Interim Biogeographic Regionalisation of Australia |
| **IUCN** | International Union of Conservation of Nature |
| **JAMBA** | Japan–Australia Migratory Bird Agreement |
| **LEB** | Lake Eyre Basin |
| **NCB** | National Catchment Boundaries |
| **NRETAS** | Department of Natural Resources, Environment, The Arts and Sport (Northern Territory) |
| **RDI** | River Disturbance Index |
| **ROKAMBA** | Republic of Korea–Australia Migratory Bird Agreement |
| **SWMA** | (Australian) Surface Water Management Areas |
| **TWG** | Technical Working Group |

# Introduction

Draft components of the national Aquatic Ecosystems Toolkit, developed by the Aquatic Ecosystems Task Group (AETG), were trialled in the Lake Eyre Basin. Trial application of module 3 was undertaken by a multijurisdictional team, led by Jennifer Hale, and module 4 by Jennifer Hale and Shane Brooks.

The base information developed and collated was done so within time and resource constraints and with regard to the objectives of the High Ecological Value Aquatic Ecosystems (HEVAE) trial and the HEVAE ‘Framework’ as it was at that time. Therefore, while the ancillary outcomes of this project such as the aquatic ecosystem mapping may be fit for the purpose of this trial, they should not be considered final products.

Note that at the time the trial was undertaken:

* The terminology ‘High Conservation Value Aquatic Ecosystems’ (HCVAE) was still in use. However, to reflect the change in name to ‘High Ecological Value Aquatic Ecosystems’, the term HEVAE has been used in this case study, consistent with the other toolkit documents.
* Module 3: Guidelines for Identifying High Ecological Value Aquatic Ecosystems (HEVAE) was known as the HEVAE Framework.
* There were six HEVAE criteria; ‘evolutionary history’ has since been incorporated into ‘distinctiveness’.