

**AUSTRALIAN AND NEW ZEALAND GUIDELINES
FOR FRESH AND MARINE
WATER QUALITY
2000**



Australian and New Zealand Environment and Conservation Council

Agriculture and Resource Management Council of Australia and New Zealand

NATIONAL WATER QUALITY MANAGEMENT STRATEGY

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Fresh and Marine Water Quality**

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Preamble

The Australian National Water Quality Management Strategy (NWQMS) aims to achieve the sustainable use of Australia's and New Zealand's water resources by protecting and enhancing their quality while maintaining economic and social development. The NWQMS is a joint strategy developed by two Ministerial Councils — the Agriculture and Resources Management Council of Australia and New Zealand (ARMCANZ) and the Australian and New Zealand Environment and Conservation Council (ANZECC). The Australian National Health and Medical Research Council (NHMRC) is involved in aspects of the strategy that affect public health. The NWQMS aims to meet future needs by providing policies, a process and national guidelines for water quality management.

Further information on the National Water Quality Management Strategy is provided in Appendix 2.

The Australian Water Quality Guidelines for Fresh and Marine Waters (ANZECC 1992) was one of a suite of 21 documents forming the NWQMS and was released in 1992 as one of the first guideline documents. In 1993 the ANZECC Standing Committee on Environmental Protection (SCEP) agreed to review the water quality guidelines to incorporate current scientific, international and national information in a clear and understandable document.

Since the ANZECC Guidelines were published in 1992 there have been a number of important advances. First, there have been some major policy initiatives at federal and state level that, combined with the National Water Quality Management Strategy, have increased the focus of attention on ecologically sustainable management of water resources in Australia and New Zealand (e.g. Council of Australian Governments (COAG) reform framework, State of the Environment reporting, and modification and implementation of the NZ Resource Management Act). Second, there is a pleasing trend towards a more holistic approach to the management of aquatic systems. Third, as initially recommended in the 1992 ANZECC Guidelines, there has been an increased use of biological indicators to assess and monitor the 'health' of aquatic ecosystems. Finally, a number of major environmental studies (e.g. the Port Phillip Bay Study in Victoria, the Southern Metropolitan Coastal Waters Study in Western Australia) have led to significant advances in knowledge about estuarine and coastal ecosystems.

The scope of this revised version, the Australian and New Zealand Guidelines for Fresh and Marine Water Quality, has also been extended to include a consideration of both Australia's and New Zealand's water resources. The review program is outlined in Appendix 4.

The Guidelines have been revised using data, relevant literature, and other information available to at least 1996, specifically:

- Databases used to derive guideline values for toxicants and sediments (Chapter 3) and aquaculture and human consumers of aquatic foods (Chapter 4) have been updated to include information available to late 1996, while default guidelines for physical and chemical stressors (Chapter 3) have been derived from databases current to early 2000.
- The guidelines for biological indicators (Chapter 3), advice for monitoring and assessment (Chapter 7) and support text for physical and chemical stressors

(Chapter 3) have been revised to include information available to late 1998. However, all support text for aquatic ecosystems (Chapters 3 and 8) and aquaculture and human consumers of aquatic foods (Chapters 4 and 9) capture important developments and key references available to early 2000.

- The guidelines for agricultural water uses (irrigation and general water use and livestock drinking water, Chapters 4 and 9) have been revised to include information available to early 2000.
- The guidelines for recreational water quality and aesthetics (Chapter 5) are still in revision in Australia, while New Zealand readers are referred to the relevant 1999 guidelines. For guidelines for drinking water (Chapter 6), Australian and New Zealand readers are referred to the relevant 1996 and 1995 guidelines respectively.

To be continuously relevant to its users, the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, like other NWQMS benchmark documents, will require ongoing review and revision. The present version was current up to October 2000. Users are invited to comment on the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* by contacting the offices listed on the next page. These addresses can also receive comments on the *Australian Guidelines for Water Quality Monitoring and Reporting*, so users should name the document to which their comments apply.

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Both the Project Committee and ANZECC and ARMCANZ Contact Group and its working parties (Appendix 4) co-ordinated input from all the relevant government jurisdictions, water quality experts, industry and conservation groups, and kept the revision on track.

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Physical and chemical stressors for ecosystem protection;
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Toxicants for ecosystem protection;
- NIWA (NZ)
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- CSIRO Energy Technology
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Photography on ring-binder cover of the Guidelines (from top left)

Child drinking, Ministry for the Environment, New Zealand;

Logan River (Qld), Qld EPA;

Maori war boat, Photosource New Zealand Limited Image Library;

Hereford, Qld EPA;

Irrigation channels, Bruce Cooper, NSW DLWC;

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Beenleigh Rum distillery (Qld), Qld EPA;

Aboriginal cultural ceremony on upper Katherine River (NT), Diane Lucas:

‘Because our great grandmothers and grandfathers been here before, their spirits are still here. Now the spirits smell your sweat and it goes down to the deep water and makes it alright for you to be here, without any harm’ — Margaret Oenpelli & Penny Long, Barunga, NT. The washing of people by spraying water on their head is an Arnhem Land ceremony for newcomers to country to keep away bad health for people and water.