

Summary

Water is vital for life on earth. However, communities and ecosystems are feeling the impact of historically poor water practices and increasing climatic events.

EIANZ believes:

- Water needs to be better and more sustainably managed nationally and locally to provide resilience and enhance environmental, economic, cultural and wellbeing outcomes.
- 2. We must better engage with First Nations peoples to understand their values and imperatives for decision making.
- 3. Reform of our practices needs to accommodate water's relationships with ecosystem health, climate change, energy, and cultural and regional needs.
- 4. Reforms should encourage catchment-scale management practices.
- 5. Sustained and sustainable investment is needed in infrastructure, assessment tools and monitoring.
- 6. Ongoing awareness raising, and education are essential.
- 7. A robust approach to compliance and enforcement should support awareness raising.

Introduction

Australia is the world's driest inhabited continent. Water scarcity, droughts and floods are common and are exacerbated by climate change. Since the 1880s, Australia has extensively developed its rivers and groundwater resources, and over-allocation of water has impacted the quantity and quality of water. Irrigated agriculture accounts for around 70% of annual water use.

Water is core to life for Aboriginal and Torres Strait Islander peoples. Protecting and managing water is a custodial and intergenerational responsibility, and First Nations Australians have many dreaming stories linked to water. If the cultural and spiritual values of water are sustained, many other components of First Nations life will be healthy.

Aotearoa New Zealand is rich in water; however, its ecosystems are under strain from human activity. Some nationally important rivers are subject to large scale hydroelectric or irrigation projects, and municipal wastewater and industrial discharges. Most freshwater resources are affected by excess nutrient runoff from farming.

Māori regard water as a living entity (having its own lifeforce or *mauri*) and the concept of *Te Mana o te Wai* has been written into government policy since 2014. This recognises that protecting the health of freshwater protects the health and well-being of the wider environment.

Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community. It protects the mauri of the water. It refers to the vital importance of water; and when managing freshwater, it aims to ensure the health and wellbeing of the water is protected and human health needs are provided for, before enabling other uses of water.

The New Zealand coalition government (formed November 2023) intends to review and "rebalance" these objectives to better reflect the interests of all water users.



Looking ahead

Despite efforts to improve water management over the past 30 years, issues remain. Nationally significant resources, such as Australia's Murray Darling Basin, continue to degrade, and the fate of World Heritage Places, such as the Great Barrier Reef, in part, will be decided by water management controls.

It is now time to move away from viewing water as a commodity, to value our natural resources for future generations, and recognise water's intrinsic value as part of a natural cycle. Key factors requiring attention are:

- Integration of First Nations perspectives including use of local knowledge to inform sustainable water practices.
- Climate change, which is increasing rainfall intensities, droughts and wildfires.
- Water degradation through increased urbanisation and diffuse discharges.
- Clearance of native vegetation, the drawdown of aquifers, and the loss of wetlands through land drainage.

Water policy is complex, with tensions caused by the multiple stakeholders involved, the multiple uses of water, and the multiple issues being faced. Tensions also arise due to the broad geographic areas needing to be addressed, the complexity of ecological and hydrological processes, over allocations, quality degradation, and poor understanding of groundwater and its connection with surface water. Trade-offs are inevitable and to date the natural environment has tended to come off second best.

Decision-makers (including policy makers, regulators, and managers at all levels) are often heavily lobbied by significant water users.

Role of decision makers

Cooperation and coordination – Collaboration is required at all levels of government and between departments, planners, the primary and energy sectors, business and community to ensure aquatic systems are used and managed sustainably. First Nations perspectives, especially those based on local knowledge and partnerships, must be respected. Decisions should include wide stakeholder engagement and be made in partnership with First Nations Peoples.

Risk – Decisions need to be based on an understanding of risk and be future looking.

Ecological, social, cultural and economic risks must be understood for a range of scenarios and the precautionary principle applied. The consequences and acceptability of trade-offs must be understood. Water management needs to be evidence-based, holistic, accountable and economic. Assessment of water-related risk should be part of strategic decision making and long-term planning.

Investment – Investment is needed in new approaches and technologies that have been developed over recent years. Investments should anticipate future needs and be evaluated. Specific investment areas include sustainable water harvesting; water efficiency; water sensitive urban design; integrated water and catchment management; water cycle accounting and budgeting; and industrial best water practices.

Innovative funding – Innovative funding is needed for: establishing a fair value for water for commercial and ecological needs; offsetting of nutrients and sediments; and evaluating insurance claim benefits from improved water and catchment management.

Awareness and involvement – Decision makers must provide relevant information to everyone with an interest in water. Stakeholders need to understand key issues and their effects and the future of water as natural asset.

Water rights and environmental flows – Environmental flows must be protected and accounted-for. Governments, when separating water rights from land (in terms of entitlement, volume reliability, transferability, and quality), should consider the physical, cultural, and natural constraints of the catchments and environmental priorities. Water allocation should be carefully considered and monitored with enforcement provisions.

Resilience and adaptation – Policies and plans should reasonably anticipate the impacts of natural and climate change induced cycles.

Policy into practice

EIANZ has a clear interest in environment protection, sustainable development and maintaining objective professional standards. The Institute will continue to:

Educate – Train and certify environmental professionals to build capacity and capability to address water related issues.

Engage – Work with other associations with aligned interests to promote sound outcomes and accelerate improved water management.

Influence – Work with government at all levels by reviewing and providing submissions on relevant policy and participating in governmental workshops and consultation processes.



EIANZ encourages environmental practitioners to be guided by the following principles:

- 1. Understanding and incorporating Take steps to understand and incorporate First Nations values and requirements for sustainable water management.
- 2. Informed decision-making Develop and use credible research results and consider cultural knowledge and local First Nations perspectives in decision making.
- 3. Resilience building Consider the impacts of a changing aquatic environment on the future needs of species, ecosystems and communities and design for their protection.
- 4. Verification When monitoring and evaluating the outcomes of policy, strategies and actions, account for hydrological, ecological, social, cultural and economic changes.
- Collaboration Co-design and implement strategies with sectors, Te Mana o te Wai and communities to increases water use efficiency, water quality, habitat conservation and community resilience.

The Environment Institute of Australia and New Zealand (EIANZ) is a not for profit, professional association for environmental practitioners from across Australia and Aotearoa New Zealand. EIANZ has a certification scheme that recognises ethical and professional practice which assures government, industry, and the community of practitioners' professional standing. EIANZ is represented by jurisdictional Divisions, a New Zealand Chapter and supported by Special Interest Sections covering climate change, heritage, ecology, environmental accounting, and impact assessment. Its membership is drawn from all areas of environmental practice, and includes practitioners with industry, government, community, and academic careers.