

POLICY NAME: URBAN WATER QUALITY
POLICY REF: U05
MEETING ADOPTED: 23 November 2023
Resolution No. 231123/28
POLICY HISTORY: 281119/25; 221015/22



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OBJECTIVE

Provide effective Management Systems to ensure the quality of drinking and recycled water supplied to consumers and the impact upon waterways by Council's wastewater operations meets legislative, consumer and other regulatory requirements.

POLICY

Ballina Shire Council is committed to managing its Drinking and Recycled Water Supplies and Wastewater Services effectively to provide a safe, high-quality urban water that consistently meets the requirements of the *Australian Drinking Water Guidelines*, the *Australian Guidelines for Water Recycling* and the water quality requirements of Council's *Environmental Protection Licenses*, consumer needs and expectations, and other regulatory requirements. To achieve this, in partnerships with stakeholders and relevant agencies, Ballina Shire Council will:

- manage water quality using a multi-barrier approach from source water (through supply agreements where the source water is managed by Rous County Council and trade waste agreements where the source water is a trade waste) to the consumer or end point;
- use a risk-based approach in which potential threats to urban water quality are identified and balanced;
- integrate the needs and expectations of our consumers, stakeholders, regulators and employees into our planning;
- establish regular monitoring of the quality of urban water and effective reporting mechanisms to provide relevant and timely information, and promote confidence in the water supply and its management;
- develop appropriate contingency planning and incident response capability;
- participate in appropriate research and development activities to ensure continued understanding of urban water quality issues and performance;
- contribute to the debate on setting industry regulations and guidelines, and other standards relevant to public health and the water cycle;
- continually improve our practices by assessing performance against corporate commitments and stakeholder expectations.

Ballina Shire Council will implement and maintain water quality management systems consistent with the *National Water Quality Management Strategy Guidelines (Australian Drinking Water Guidelines, Australian Guidelines for Water Recycling, Guidelines for Sewerage Systems, Australian and New Zealand Guidelines for Fresh and Marine Water Quality)* to effectively manage the risks to urban water quality.

All managers and employees involved in the supply of urban water are responsible for understanding, implementing, maintaining and continuously improving the urban water quality management systems.

BACKGROUND

Need for a Policy

The urban water quality policy defines Council's commitments and priorities relating to urban water quality. Organisational support and long-term commitment by senior management is the foundation to implementation of effective systems for urban water quality management. Successful implementation of these systems requires:

- an awareness and understanding of the importance of urban water quality management and how decisions affect the protection of public and environmental health;
- the development of an organisational philosophy that fosters commitment to continual improvement and cultivates employee responsibility and motivation;
- the ongoing and active involvement of senior management to maintain and reinforce the importance of urban water quality management to all employees as well as those outside the organisation.

Relevance of Related Documentation

National Water Quality Management Strategy

The National Water Quality Management Strategy (NWQMS) is a nationally agreed approach to managing water quality developed by the Australian Government.

The NWQMS focuses on understanding and protecting water quality so that it is suitable for its intended use and meets community values including businesses, industry, environment and communities that depend on water for their continued development.

The key elements in the NWQMS relevant for Council's management of urban water quality management are the guidelines, in particular the:

- Australian Drinking Water Guidelines (ADWG)
- Australian Guidelines for Water Recycling (AGWR)
- Guidelines for Sewerage Systems
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality

The guidelines provide a solid foundation for assessing water quality by providing a framework for risk management and specifying health-based, environmental and aesthetic criteria.

Drinking Water and Recycled Water Guidelines

The ADWG and AGWR promote the management of water quality through the philosophy of a multiple barrier approach from catchment to tap to ensure the safety of the water and the "Framework for Management of Water Quality".

The ADWG are directed by six fundamental principles vital to ensuring safe drinking water quality:

- The greatest risks to consumers of water are pathogenic microorganisms. Protection of water sources and treatment are of paramount importance and must never be compromised.
- The drinking water system must have, and continuously maintain, robust multiple barriers appropriate to the level of potential contamination facing the water supply.

- Any sudden or extreme change in water quality, flow or environmental conditions (e.g. extreme rainfall or flooding) should arouse suspicion that water might become contaminated.
- System operators must be able to respond quickly and effectively to adverse monitoring signals.
- System operators must maintain a personal sense of responsibility and dedication to providing consumers with safe water, and should never ignore a consumer complaint about water quality.
- Ensuring drinking water safety and quality requires the application of a considered risk management approach.

The approach to risk management in the AWRG is modelled closely on the ADWG.

The Framework for Management of Water Quality (the “Framework”) is a preventive approach to assuring water quality. The Framework addresses four general areas describing good management of a water supply system:

- *Commitment to water quality management.*
- *System analysis and management:* Understanding the entire water supply system, the hazards and events that can compromise water quality, and the preventive measures and operational control necessary for assuring safe and reliable drinking water.
- *Supporting requirements:* Activities and attitudes that support management of the supply system such as employee training, community involvement, and validation of the effectiveness of processes.
- *Review:* The evaluation and audit of the effectiveness of the management system, and the adoption of improvements based on the evaluation.

Figure 1 is a diagram of the Framework, showing the interactions of its different elements for Drinking Water. The Framework is identical for Recycled Water.

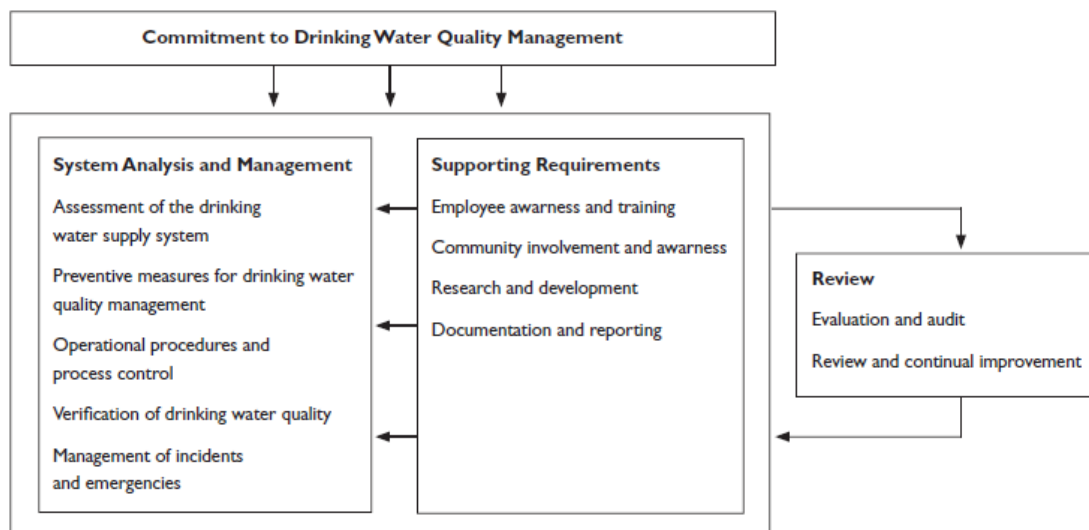


Figure 1 - Framework for Management of Drinking Water Quality

Wastewater (Sewage)

The NWQMS Guidelines for Sewerage Systems do not replicate the same framework. Despite this, Council sees there are benefits in managing its wastewater operations using the same framework, in particular:

- It is compatible for the Guidelines for Sewerage Systems
- It provides a robust way of managing wastewater operations
- It offers consistency across Council, and as such more synergies can be realised
- Wastewater Treatment Plants are also Recycled Water Treatment Plants and much of the risk mitigation measures are the same
- The staff, management and reporting structure for Drinking Water, Recycled Water and Wastewater are the same

Part 5 Public Health Act 2010

The Public Health Act 2010 and Public Health Regulation 2022 provide the NSW regulatory mechanism for compliance with the ADWG. Part 5 of the Public Health Regulation requires suppliers of drinking water to have a quality assurance program addressing the elements of the ADWG Framework.

Section 60 Local Government Act 1993

The Local Government Act provides the authority of the Minister for Energy and Environment to approve a recycled water scheme and apply conditions (such as the condition to manage the risks to recycled water quality using the risk based framework in the AGWR).

NSW DPI Water Publication: Recycled Water Management Systems

[DPIE Water] encourages and adopts the [Australian Guidelines for Water Recycling] framework for approving local water utility recycled water schemes under section 60 of the Local Government Act 1993 or s292 of the Water Management Act 2000. Demonstrating compliance with the AGWR is ideally achieved with having a documented risk-based recycled water management system (RWMS) in place.

Section 48 Protection of the Environment Operations (POEO) Act 1997

The POEO Act provides Council with the Environmental Protection Licences necessary to legally operate its wastewater treatment plants. It also contains penalties for non-compliance and requirements to operate infrastructure in a 'competent manner'.

DEFINITIONS

Drinking Water	Drinking Water is used for drinking and direct contact purposes (cooking, showering etc). It sourced from surface waters, ground waters, rain water or ocean waters
ADWG	The Australian Drinking Water Guidelines – a document that sets out the water quality requirements and risk management practices to operate a drinking water supply
DWMS	A Drinking Water Management System; a document that describes how Council's management practices comply with the ADWG

Recycled Water	Water used for non-drinking and non-direct contact purposes (toilet flushing, laundry, irrigation etc.). Sourced from wastewater
AGWR	The Australian Guidelines for Water Recycling – a document that sets out the water quality requirements and risk management practices to operation a recycled water supply
RWMS	A Recycled Water Management System; a document that describes how Council's management practices comply with the AGWR
Wastewater	Water collected from Council's wastewater network from residential or commercial (trade waste) premises and treated prior to discharge to the environment or reuse
EPL	An Environmental Protection Licence authorises Council to discharge treated wastewater to the environment at set locations with certain water quality requirements
PIRMP	A Pollution Response Incident Management Plan which stipulate how Council responds to Wastewater incidents to comply with the requirements of the POEO Act for its licenced facilities
WWMS	A Wastewater Water Management System; a document that describes how Council's management practices comply with its EPLs and the POEO Act

SCOPE OF POLICY

This policy applies to:

- Council employees
- Councillors
- Community members
- Council owned-businesses
- Committees of Council
- Consultants/Contractors

RELATED DOCUMENTATION

Related documents, policies and legislation:

- Public Health Act 2010 (NSW)
- Local Government Act 1993 (NSW)
- Protection of the Environment Operations Act 1997 (NSW)
- National Water Quality Management Strategy guidelines
 - Australian Drinking Water Guidelines ([Australian Drinking Water Guidelines | NHMRC](#))
 - Guidelines for Sewerage Systems – Effluent Management
 - Guidelines for Sewerage Systems – Biosolids management
 - Guidelines for Sewerage Systems – Use of Reclaimed Water
 - Guidelines for Sewerage Systems – Sewerage System Overflows
 - Guidelines for Sewerage Systems – Acceptance of Trade Waste (Industrial Waste)
 - Australian Guidelines for Water Recycling (Phase 1)

- Australian and New Zealand Guidelines for Fresh and Marine Water Quality
- Ballina Shire Urban Water Management Strategy
- Community Strategic Plan 2022 - 2032
- Strategic Business Plan for Water Supply & Wastewater Services (2010)
- Developer Servicing Plans for Water Supply and Wastewater Services 2015
- Rous County Council Service level agreement 2020

REVIEW

The Urban Water Quality Policy is to be reviewed every four years.