

Position description

Principal Adviser – Water Quality Risk

Portfolio: Land & Water Operations

Reporting to: Water Quality Risk Manager

Position purpose

To lead the management of water quality risks, safeguarding public health and supporting resilient water systems from catchment to customer. This role provides expert scientific advice, integrating evidence-based approaches with catchment management insights to identify, assess, and continuously improve WaterNSW's water quality risk frameworks. It actively engages with regulators and stakeholders—through expert panels and collaborative initiatives—to ensure WaterNSW's risk management practices remain aligned with public health priorities and industry best practice and drives excellence in safety.

Key accountabilities

1. **Safety:** ensure all activities are undertaken with the safety of our people as the number one priority and always role model safe behaviour.
2. **Values:** behave and make decisions in accordance with the WaterNSW Values at all times.
3. **C2C Risk assessment:** Lead the catchment to customer risk assessment process in alignment with the ADWG and to the satisfaction of NSW Health. Undertake comprehensive water quality risk assessments, ensuring risk insights are informed by catchment-specific data and stakeholder engagement to protect public health and broader water values.
4. **Risk Framework Integration:** Provide leadership in aligning water quality risk assessments with operational and corporate risk frameworks, ensuring consistency and integration across WaterNSW.
5. **Program management:** Oversee planning, execution and evaluation of water quality risk reduction programs using sound project management principles. Apply structured methodologies to manage resources, track progress and mitigate risks. Ensure initiatives are strategically aligned with WaterNSW's regulatory obligations and facilitate cross-functional collaboration to ensure program outcomes contribute to resilient and sustainable water supply systems.
6. **Technical expertise and Advisory:** Provide expert and specialist advice in relation to water quality risks for WaterNSW, customers and regulators. Effectively engaging with NSW health and other regulators, including participation in expert panels to provide advice on water quality incidents, and influencing policy and practice through evidence-based advice and collaborative partnerships.
7. **Continuous Improvement:** Contribute to the development, implementation and continuous improvement of the Water Quality Management System, including health checks, preparation and response to audits, and procedure development, as per Operating Licence.

8. **Stakeholder Engagement:** Ensure that risks are well understood and transparently communicated. Lead proactive and collaborative discussions with internal and external stakeholders on issues related to public health, including risk reviews associated with climate change, emerging contaminants, and changes to existing or new water supply systems.
9. **Strategic Alignment:** Integrate insights from catchment programs, industry trends, scientific research developments and water quality data to provide direction applicable to water quality improvement plans and to drive improvement in water quality outcomes for WaterNSW.
10. **Scientific Rigour and Mentorship:** Provide peer review of scientific findings, research and project outcomes prior to external release. Mentor WaterNSW staff to develop technical and scientific capability in water quality risk management.

Key challenges

- Ensuring WaterNSW remains at the forefront of water quality risk management by integrating emerging science, catchment insights, and industry best practice into operational and strategic decision-making.
- Addressing emerging risks such as climate change impacts, new contaminants, and system vulnerabilities through proactive assessment, strategic planning, and cross-agency collaboration.
- Translating complex scientific and technical insights into actionable strategies that are practical, scalable, and aligned with WaterNSW values and operational realities.

Significant internal relationships

Stakeholder	Purpose of relationship
Land & Water Operations	– Provision of high-quality, trusted advice to support the delivery of the portfolio and business's priorities.
Communications Team	– Coordinated approach when interfacing with external parties.

Significant external relationships

Stakeholder	Purpose of relationship
Relevant government agencies such as LGAs, DCCEE, NSW Health	– Liaise and collaborate with agency partners and organisations to coordinate management of water quality risk, inform policy setting and provide expert advice
External knowledge providers and relevant scientific contacts in the field of water resources management	– Keep abreast of the latest developments in the field of water quality, quantity and values.

Delegations, financial accountabilities & freedom to act

- As defined in the WaterNSW Financial & General Delegations as varied from time to time.

WaterNSW performance competencies

People	Level	Output
Communicating with Influence	C	<ul style="list-style-type: none"> Generates interest in complex ideas and concepts. Builds support by taking the time to educate and consult others. Uses storytelling effectively to meaningfully convey key messages.
Customer	Level	Output
Partnering & Advice	C	<ul style="list-style-type: none"> Consider broader purpose and the long-term context of the customer when providing advice. Provides sophisticated and value adding insights for customers. Assists customers to explore new ideas and to navigate the road ahead.
Collaboration & Engagement with Stakeholders	C	<ul style="list-style-type: none"> Proactively builds relationships internally and externally to positively impact the business. Actively engages with customers and stakeholders to understand concerns and leverage opportunities for adding value. Initiates and maintains extensive networks to enable the achievement of business objectives.
Business	Level	Output
Safety and Risk Management	C	<ul style="list-style-type: none"> Uses various sources of information to gain feedback on the effectiveness of risk treatment actions. Proactively seeks opportunities and analyses suitable solutions Assesses the effectiveness of current policies and practices Initiates policy and procedure change conversations Educates and coaches others in understanding and implementing safety behaviour in the workplace
Analysis and Problem Solving	B	<ul style="list-style-type: none"> Defines the extent and cause of the problem through observation and investigation. Knows when and how to source and use additional information to effectively diagnose the problem and determine suitable solutions. Considers all possible solutions and seeks input from subject matter experts where appropriate. Takes necessary action to implement the identified solution.

- Uses data to prioritise improvement opportunities and reduce variance in organisational processes.
- Undertakes improvement projects that cross business unit boundaries to improve the end to end process and customer experience.
- Coaches and supports team members and colleagues on the selection of and use of continuous improvement tools.
- Challenges the status quo to identify improvement or innovation opportunities when appropriate

Mandatory candidate requirements

Qualifications:

- Post graduate qualifications in science or related field, or demonstrated equivalent experience, with focus on public health and drinking water quality risk assessment.

Knowledge:

- Deep understanding of water quality science, including the Australian Drinking Water Guidelines (ADWG) and NSW regulatory frameworks.
- Expertise in identifying, assessing, and mitigating water quality hazards across the catchment-to-customer pathway.
- Familiarity with integrated risk management frameworks and their application in operational and strategic contexts.

Experience:

- Minimum 15 years of relevant industry experience, including senior roles within a water utility or regulatory body.
- Proven track record in leading water quality risk assessments and delivering strategic advice to internal and external stakeholders.
- Extensive experience in interpreting and applying ADWG and other regulatory guidelines.
- Strong communication skills, with the ability to convey complex technical information to both expert and non-expert audiences.
- Proven ability to contribute to the development of water quality policy and influence regulatory and industry outcomes through evidence-based advocacy and stakeholder engagement.

Favourable candidate requirements

- Demonstrated ability to critically evaluate scientific and operational data to provide timely, evidence-based recommendations.
- Broad experience across a range of water quality topics, including emerging contaminants, climate change impacts, and system resilience.
- Recognised industry expert with a high professional profile in water quality risk and public health networks.
- Experience mentoring and developing technical capability within multidisciplinary teams.

Pre-employment checks required

- Identification
- Qualifications
- Driver's Licence
- Pre-Employment Medical - Office based
- Police Check