

# Position Description



## Integrated Water Resources Modelling Manager

**Portfolio: Strategy and Performance**

**Reporting to: Manager Operating Strategy**

### Position Purpose

Manage and lead the Integrated Water Resources Modelling team to enable sustainable water supply system's management, leading the delivery of WaterNSW integrated modelling systems and integrated water resources and catchment long-term management strategies and the provision of related advice, in accordance with regulatory and customer requirements, and drive 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. **Leadership:** delivering strategic priorities and developing the culture, capability and performance of our people.
4. **Program management:** Implement effective program controls and governance, and coordinating submissions for external grants and funding opportunities to ensure projects are identified, prioritised, and resourced to deliver agreed outcomes on time and on budget.
5. **Modelling:** Lead the delivery of complex water quality, land use, hydrology, and hydraulic modelling systems, including consideration of climate scenarios to inform long term risk and strategy development.
6. **Climate Change Advise:** Deliver insights into the climate vulnerabilities and interdependencies of existing water supply system. Lead technical input relating to application of climate model data for long term planning of assets and water delivery services and the integration of climate model data into the application of a strategic suite of 'water' models, in line with NSW government policy.
7. **System Resilience:** Provide strategic leadership for the development of systems and tools to optimise and inform water supply system's resilience and adaptation strategies, improving theoretical system understanding of impacts to water supply and long-term performance, including water quality and quantity, under all conditions, including drought and flood.
8. **Continuous Improvement:** review and improve procedures and processes for analysis, evaluation, and mitigation of risk in model development and operation.

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9. Develop the Integrated Water Resources Modelling strategy and develop a corresponding Business Plan to achieve alignment with the strategic direction of Operating Strategy Team, collaborating across the industry and with key customers and stakeholders to identify priorities and objectives for the program delivery.
10. Manage and lead the Integrated Water Resources Modelling team, developing the team to maximise its capability, effectiveness, engagement, and achieve business objectives.

## Key Challenges

- Sound judgement on the use of complex hydraulic/hydrologic/water quality engineering applications at their limitations
- Keep abreast of emerging knowledge and trends in the industry in the face of rapidly evolving scientific knowledge, techniques, and approaches.
- Application of state of art technologies on computing for modelling
- Sound judgement on trade-offs of competitive customer requirements

## Significant Internal Relationships

Stakeholder	Purpose of Relationship
Sustainability and Catchment Management	Provision of technical advice, project client and key stakeholders
Water Planning and Delivery	Provision of technical advice, project client and key stakeholders for water supply system operations
S&P - Regulatory Strategy and Economic Regulation	IPAT audit, project client and key stakeholders for pricing submission support and budget forecasting
System Resilience Strategy	Provide modelling advice on water security infrastructure projects

## Significant External Relationships

Stakeholder	Purpose of Relationship
Sydney Water	Provide advice on long term water quality scenarios for raw water

## Delegations, Financial Accountabilities & Freedom to Act

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

## WaterNSW Leadership & Performance Competencies

People	Level	
Coaching and Developing Others	C	<ul style="list-style-type: none"> <li>Builds a safe and open team environment where robust feedback and growth is valued</li> <li>Supports and assists ongoing opportunities for growth and development</li> <li>Has the courage to provide honest, candid development feedback and coaching on an ongoing basis</li> <li>Ensures the team has a robust talent and succession pipeline</li> </ul>
Driving Performance	C	<ul style="list-style-type: none"> <li>Motivates teams by linking individual and team work to the achievement of organisational goals</li> <li>Capitalises on opportunities to encourage and reward successful performance.</li> <li>Sets up consistent procedures and communication processes to establish goals, clarify responsibilities, engage team members, leverage their strengths, share feedback, and adjust plans.</li> <li>Identifies which activities with the biggest strategic impact and which trade offs to make to effectively establish business plans.</li> <li>Establishes clear measures for team and business unit; monitors performance against these measures to keep performance in control and on track.</li> </ul>
Customer	Level	
Partnering & Advice	C	<ul style="list-style-type: none"> <li>Consider broader purpose and the long-term context of the customer when providing advice</li> <li>Provides sophisticated and value adding insights for customers</li> <li>Assists customers to explore new ideas and to navigate the road ahead</li> </ul>

Collaboration & Engagement with Stakeholders	C	<ul style="list-style-type: none"> <li>Proactively builds relationships internally and externally to positively impact the business</li> <li>Actively engages with customers and stakeholders to understand concerns and leverage opportunities for adding value</li> <li>Initiates and maintains extensive networks to enable the achievement of business objectives</li> </ul>
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Business	Level	
Analysis & Problem Solving	C	<ul style="list-style-type: none"> <li>Takes a broad view when analysing complex and ambiguous situations</li> <li>Recognises patterns and draws linkages between data and/or situations</li> <li>Develops long term solutions that address the root cause of problems and prevent recurrences</li> <li>Selects and uses problem solving tools appropriate to the problem and the context</li> <li>Evaluates the effectiveness of implemented solutions</li> </ul>
Planning & Delivering results	C	<ul style="list-style-type: none"> <li>Defines and constructs the parameters, processes and resource requirements for successful delivery of initiatives</li> <li>Develops plans according to stakeholder requirements, and business context</li> <li>Regularly reviews plans and performance, and revises according to risk or impacts</li> </ul>

## Mandatory Candidate Requirements

### Qualifications:

- Relevant Tertiary Engineering qualifications and expert knowledge in hydrology and water quality through post graduate studies or through demonstrated extensive experience.
- Current NSW Drivers Licence

### Knowledge:

- Strong understanding of catchment health and integrated water resources management principles.
- High level understanding of climate change assessment related to modelling application.
- Knowledge of the water industry operating environment and its regulatory requirements

- Evidence of understanding of water quality and quantity issues confronting the water sector

**Experience:**

- Demonstrated experience in leading the development of hydrological/water quality modelling solutions and the use of analytical techniques to solve business problems and providing key insights to support business decision making.
- Experience in provision of expert technical and strategic advice to inform long term planning.
- Experience leading a high performing team.
- Demonstrated successful delivery of complex projects/program of works, including, preparing business cases, budget tracking and forecasting and identifying and managing project risk.
- Highly developed written and verbal communication and presentation skills, including the ability to prepare complex technical reports and communicate at all levels.

**Favourable Candidate Requirements**

- Evidence of understanding of water quality and quantity issues confronting Government and how this directly impacts on the WaterNSW.
- Demonstrated understanding 3D reservoir modelling, long-term water balance modelling and integrated stormwater solutions. Experience in developing research scope and investigative projects to mitigate risk and reduce uncertainty.

**Pre-Employment Checks Required**

- Identification
- Qualifications
- Drivers Licence
- Pre-employment Medical
- Police Check