



Job Profile

Principal Reliability Engineer

Group: Water and Environment Services

Job Summary

To be completed by People and Culture team			
Job Family	Engineering	Career Stage	F
Job Function	Generalist Engineering	Career Stream	Professional
Coverage EA = Enterprise Agreement ICE = Individual Contract of Employment	ICE	Last Modified Date	21/05/2024
To be completed by Manager ~ (Team Size relates to People Leadership)			
Work Environment	Hybrid	Team Size	
People Leader	No	Indirect Team Size	

Who we are.

At Sydney Water, we exist for our customers. We're more than 3,500 people working together, striving to do more and be better—better for the environment, our customers, our people, and our water. Our people are passionate about working together, and driving agility, accountability, innovation, sustainability, and exceptional customer experiences.

Sydney Water is the main provider of water, wastewater, recycled water, and stormwater services in Greater Sydney. Our employees are dedicated to our customers, ensuring services are reliable and affordable, we are proactive and easy to engage with, forward-thinking, and environmentally focused.

Working with us means helping to provide essential services, safeguarding Sydney's future with a sustainable water supply, and protecting our iconic waterways. Our strategy guides our journey to enhance customer outcomes and continue delivering robust services to our city into the future.

Job Purpose

The Principal Reliability Engineer role is critical to enable Sydney Water's obligations to be met for best cost, risk and performance outcomes over the asset lifecycle incorporating creation, maintenance and renewals. This role is accountable for leading the organisations reliability strategy in terms of best practice and innovation around reliability engineering. It is accountable for leading, developing, coaching and executing reliability, availability, maintainability and safety modelling and assessment, which includes analysis of condition assessment data, lifecycle modelling and assessment curves, maintenance predictive analytics as well as assessment of operations and performance data and breakdown liability for SWC.



Accountabilities

Job Specific	Reliability Engineering leadership accountabilities and deliverables include: • Act as the leader in reliability, availability, maintainability and safety modelling and assessment, which includes analysis of condition assessment data, lifecycle modelling and assessment curves, maintenance predictive analytics as well as assessment of operations and performance data and breakdown liability for SWC. • Lead, analyse and identify performance gaps in current asset & system performance. • Lead and develop asset class and asset system performance requirements. • Lead the development and application of the Performance, Cost and Risk (PCaR) approach to maintenance liability. • Actively seek to introduce reliability maintenance techniques and innovations, particularly insight around use of data to the 1–10 year strategies related to infrastructure systems • Strongly contribute to the setting of engineering standards • Lead the strategy, methods and execution of means to assess system-focused reliability, availability and maintainability to identify aggregated and single points of failure, criticality of assets and risks in systems resilience. • Coach and quality assure the sourcing of performance information (e.g. condition ratings and inspections results) to identify emerging risks • Lead root cause analysis and problem solving for complex asset failures, and high cost/ frequent failure assets. • Source technical expertise, innovation and insights from market where internal capability not available for complex root cause analysis and problem solving Agility • Sydney Water expects all staff to do other projects and perform additional duties as required in accordance with business priorities • This role is responsible for leading and ensuring the application of expert reliability engineering knowledge and capacities that support the asset performance and maintenance strategies of the organisations. As a senior technical leadership role within the Water and Environment Services Group, you will be expected to: • Lead the application of reliability engineering expertise to maintenance strategies across all asset classes • Make decisions using expert knowledge and professional judgment that balances cost, risk, outcome to achieve asset class strategies and maintenance, performance and compliance outcomes. • Apply professional practice insight, technical expertise and communications skills to positively influence and negotiate with maintenance and engineering stakeholders and external regulators • Identify and implement continuous improvement within our reliability improvement practice • Contribute to Asset Management systems improvements and conformance • Align with and deliver our common purpose, priorities and goals • Collaborate effectively with peers to deliver enterprise goals • Participate in the development of enterprise strategy and plans
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Role Requirements

Education / Qualifications

Required	A tertiary qualification in engineering, science or a related discipline and/or proven experience in operations, maintenance/renewals or treatment/quality aspects of water &/or recycled water &/or wastewater &/or stormwater systems
Desired	

Certifications / Licences

Required	Current drivers licence or can obtain one immediately
Desired	

Experience

Required	- Minimum of 6 years' experience with complex asset management applicable to water/wastewater treatment or similar and/ or related engineering field. - Experience in measurement, analysis and evaluation of system performance and condition and the development of strategies and work programs to improve performance, reliability and condition. - Strong reliability centred maintenance, including production of risk-based maintenance strategies and use of reliability tools such as RCM2, FMECA, RAM, RBD - Strong knowledge of mechanical or electrical assets used within Production and Environment - Strong written, verbal and interpersonal communication skills. - Strong problem-solving skills and lateral thinking. - Strong negotiation skills. - Proven ability to influence stakeholders to meet positive business outcomes. - Strong ability to foster an environment that encourages safety, innovation and organisation change. - Advanced use of computerised asset management systems, preferably Maximo - Advanced capability in leading root cause analysis and problem solving for asset failures, and high cost/frequent failure assets. - Experience in developing, implementing and optimising asset maintenance strategies for complex assets
Desired	



Capabilities and Skills

The capability and skill requirements for this role are identified in the skills profile listed below. This is comprised of Enterprise Capabilities, that are essential for all roles and functional skills, which are specific to each role.

Enterprise Capabilities (F-H)			
Capability	Descriptor		
Accountability	Sets direction and motivates others to hold themselves accountable for achieving goals. Leads by example, collaborates, and sets a high standard for accountability and commitment.		
Agility	Creates team culture to encourage agile ways of thinking and working. Role models flexibility and adaptability in teams/business areas.		
Innovation	Improves or adapts existing methods and processes to achieve greater value. Manages risks, is open to and shares lessons learnt with others.		
Functional Skills			
Skill	Priority	Essential or Desirable	Proficiency level
Reliability Engineering	1	Essential	Mastery
Reliability Centered Maintenance	2	Essential	Mastery
Computerized Maintenance Management Systems	3	Essential	Mastery
Role-related technical discipline	4	Essential	Advanced
Workshop Facilitation	5	Essential	Advanced
Troubleshooting (Problem Solving)	6	Essential	Advanced
Risk Management	7	Essential	Advanced
Results Focused	8	Essential	Advanced
Organizational Skills	9	Essential	Advanced
Business Acumen	10	Essential	Advanced
Proficiency Level Descriptors			
Developing - Building practical experience, needs continued coaching.			
Intermediate - Independent execution, minimal guidance.			
Advanced - Fully independent execution, coaches' others.			
Mastery - Strategic, sought as expert internally and externally.			

Additional notes

Sydney Water takes the safe provision of its services to the public and the protection of its information assets extremely seriously. As a Sydney Water employee, you are required to understand your obligations under the [Acceptable Use of Information Technology Policy](#) and how Sydney Water's Information Technology is to be used. You must also help keep your workplace secure by ensuring you do not enable non-authorised people access to sites, maintain the integrity of locked entries and exits, and where appropriate, alarms being engaged.

Sydney Water requires all users to embrace and adhere to all enterprise and protective security policies, awareness programs and frameworks for Sydney Water assets.