

Position Description



Lead Project Engineer

Business Unit: Operations

Reporting to: Project Engineering Manager

Position Purpose

To provide expert engineering advice and technical guidance to ensure optimal whole of life solutions are effectively identified and delivered. Lead Project Engineers provide recommendations on complex projects in response to project needs applying WaterNSW project delivery frameworks and other tools to deliver customer outcomes. All this is done with safety at front of mind while also coaching and developing other Project Engineers.

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. Lead development and implementation of technical/engineering solutions for assigned projects and provide robust engineering recommendations to the project manager. Includes provision of timely accurate and complete technical support, advice, reporting and recommendations that minimise risk, environmental impact and ensure overall project objectives are met.
4. Manage a team Project Engineers and oversee the quality and effectiveness of work for team of Project Engineers, providing technical guidance and coaching.
5. Manage engineering aspects of projects regarding problem identification, optioneering, and recommendations to meet project needs, including assessment of associated project costs and to ensure key stakeholders are well consulted.
6. Ensure project specifications and documentation is clear and comprehensive, and to ensure all consultants and contractors effectively respond to requests for tender and to minimise number and nature of requests for information (RFIs).
7. Oversee the management of design consultants during development of solutions options, concept and detailed designs and REFs or EIAs where relevant.
8. Oversee the project design process ensuring all relevant engineering specifications and standards are met, appropriate inspection and test planning is in place. Support and review

design review meetings including HAZOP (Hazards and Operability Analysis) and CHAIR (Construction Hazard Assessment Implication Review) workshops. Ensure design optimisation and value engineering processes are undertaken effectively and that recommendations are made and adopted where appropriate.

9. Regularly monitor Project Engineers and Consultants to ensure all work complies with quality and WaterNSW standards, and meets agreed requirements, including project completion and performance expectations. Manage all requests for design or other engineering changes to ensure that they are reasonable, meet original project aims and are within defined scope.
10. Develop and implement inspections, testing procedures, commissioning, and handover plans for all relevant projects, and to modify these in accordance with any approved change procedures to ensure agreed solutions are consistent with WaterNSW requirements.
11. Ensure drawings, operating and maintenance manuals, training, and other non-build deliverables are produced in a timely manner and meet specifications or other requirements of the business and that defects identified during the defect period are addressed in a timely manner.
12. Provide general technical support and critical thinking to Asset Delivery tasks to ensure the best outcomes are achieved across all project phases, and across programs of work, to ensure that designs and engineering deliverables meet operational requirements and engineering standards.
13. Share lessons learnt and grow competencies in design, engineering and construction activities amongst project managers, project engineers, construction managers in Asset Delivery and project support staff involved from other areas of WaterNSW.

Key Challenges

- Getting alignment and commitment of number of different, predominantly internal stakeholders to meet project objectives without direct line management authority to do so.
- Acceptance of approved solutions by Project Sponsor and other stakeholders who may be resistant to change
- Competing project priorities and time constraints creating pressures for developing robust and cost-effective solutions.

Significant Internal Relationships

Stakeholder	Purpose of Relationship
Design Consultants	Align on engineering approach
AMS staff (Planning, Asset Engineering, Operations, Maintenance Engineering etc)	Advice and general consultation

Significant External Relationships

Stakeholder	Purpose of Relationship
Other Authorities e.g. SWC, DPIE, council etc	Consultation and advice on project requirements, permissions, permits etc

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 & Developing others	B	<ul style="list-style-type: none"> Challenges to ensure potential is achieved Actively listens to others Supports others to establish meaningful goals Asks questions to create awareness and encourage self-directed problem solving
Communicating with Influence	B	<ul style="list-style-type: none"> Tailors communication to suit the audience Supports messages with relevant examples, demonstrations and stories Builds support by taking the time to educate and consult others Handles challenging questions confidently and constructively

Customer	Level	
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Collaboration & Engagement with Stakeholders & Customers	B	<ul style="list-style-type: none"> • Builds and maintains relationships with individuals from other work groups to accomplish shared goals • Adapts approach to meet the needs of a broad range of customers and stakeholders
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Business	Level	
Safety & Risk Management	B	<ul style="list-style-type: none"> • Implements and monitors policies, procedures and programs. • Role models safety behaviour • Takes appropriate action to minimise risk • Considers safety & risk in all decisions
Analysis & Problem Solving	C	<ul style="list-style-type: none"> • Takes a broad view when analysing complex and ambiguous situations • Recognises patterns and draws linkages between data and/or situations • Develops long term solutions that address the root cause of problems & prevent recurrence • Selects and uses problem solving tools appropriate to the problem and the context • Takes necessary action to implement the identified solution • Evaluates the effectiveness of implemented solutions
Continuous Improvement	B	<ul style="list-style-type: none"> • Analyses current processes & practices to identify opportunities for improvement • Identifies patterns in data & information & implements improvements based on analysis • Has knowledge of & able to apply appropriate continuous improvement tools to achieve the best outcome

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| | <ul style="list-style-type: none">• Undertakes improvement projects within own team or business area to improve outcomes by utilising innovative thinking |
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Mandatory Candidate Requirements

Qualifications:

- Bachelor's degree or higher tertiary institution in relevant engineering discipline.
- Current NSW driver's Licence

Knowledge:

- Knowledge of Project Management methodologies e.g. PMBOK, Prince 2, Agile etc
- Knowledge of assets relevant to WaterNSW core asset base such as dams, water regulating structures, bridges roads, canals, embankments, buildings and cranes etc.
- Advanced knowledge and experience of regulatory requirements and standards including WHS as they relate to the design and delivery of engineering aspects of projects
- Proven expertise in the interpretation, assessment and review of engineering designs, drawings and construction, and other work methodologies to ensure compliance with standards and to meet required objectives.

Experience:

- Demonstrated experience in managing the engineering and design aspects of multiple and complex multi-disciplinary infrastructure projects
- Experience working collaboratively and effectively with stakeholders to review, analyse, negotiate and implement technical solutions
- Demonstrated experience to problem-solve complex engineering issues and to determine appropriate solutions to technical challenges through evaluation of options
- Experience in development of technical specifications including interpretation of regulatory and other standards in developing those specifications.

Favourable Candidate Requirements

- 10+ year's professional experience in Project Engineering

- Post Graduate qualifications in Engineering, Project Management and/or equivalent with experience in managing various forms of commercial arrangements to drive 'value for money' engineering outcomes.
- Line Management experience of multifunctional engineering teams
- Advanced expertise in utilising engineering principles, methodologies and skills in the management and execution of engineering outcomes
- Effective oral and written communication skills at all levels with internal and external stakeholders and advanced experience in workshop facilitation
- Advanced influencing, negotiation and conflict resolution skills.
- Demonstrated ability to lead change.
- Strong Safety and Customer focus and excellent interpersonal skills
- Expert knowledge in the application of engineering related legislation including Workplace Health and Safety requirements

Pre-Employment Checks Required

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