

# Position Description



## Position Title: Dam Engineer

**Business Unit: Asset**

**Reporting to Position Manager: Dam Engineering Delivery Manager**

### Position Purpose

Provide specialist dams engineering advice by conducting studies and investigations to inform risk-based decisions; establish technical & engineering principles to ensure dam safety solutions are in accordance with the Dam Safety Management System and meet relevant industry technical standards; and puts safety first.

### 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:** Actively model the WaterNSW Values and Behaviours, developing and driving corporate strategic priorities and developing the culture, capability, and performance of our people.
3. Conduct and support investigations and studies to inform the development, implementation, and maintenance of the Dam Safety Investment Strategy.
4. Lead the detailed analysis and investigations in response to new and emerging dam safety risks; lead the development and implementation of short-term risk mitigation measures, together with other subject matter experts.
5. Develop and support the implementation of risk management plans in accordance with the DSMS.
6. Develop concept designs and establish design basis for dam safety upgrade projects as required; establish technical and engineering principles, requirements, guidelines, and methodologies for use in dam safety upgrade projects.
7. Provide engineering input to the selection and specification of dam construction materials; support aspects of analysis and design that are specialised to dam and ancillary components and are material to the satisfactory performance of the dam.

8. Plan for and manage dam safety issues, responses and emergencies, together with other subject matter experts, as may be required from time to time.

## Key Challenges

- Ability to work within a small team to produce high quality and cost-effective results to tight deadlines
- Continually keeping up to date with contemporary trends in Dam Safety in Australia and internationally, including particular knowledge of dam engineering trends, standards, innovations and technologies.

## Significant Internal Relationships

Stakeholder	Purpose of Relationship
<ul style="list-style-type: none"> <li>• Asset Delivery</li> <li>• AMS</li> <li>• Asset Capability</li> <li>• Water Operations</li> </ul>	<ul style="list-style-type: none"> <li>• provide concept designs and establish design basis for dam safety upgrade projects as required.</li> <li>• provide technical and engineering principles, requirements, guidelines, and methodologies for use in dam safety upgrade projects</li> </ul>
	<ul style="list-style-type: none"> <li>•</li> </ul>

## Significant External Relationships

Stakeholder	Purpose of Relationship
<ul style="list-style-type: none"> <li>• ANCOLD/ICOLD</li> <li>• Engineers Australia</li> </ul>	<ul style="list-style-type: none"> <li>• Dam engineering guidelines and standards</li> </ul>
<ul style="list-style-type: none"> <li>• Dam Safety Technical Assurance Group</li> <li>• Dam Expert Review Panel</li> </ul>	<ul style="list-style-type: none"> <li>• Technical assurance</li> </ul>

## 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	
Communicating with Influence	A	<ul style="list-style-type: none"> <li>• Uses information, facts and figures to explain an idea or concept</li> <li>• Initiates conversations and asks appropriate questions where necessary</li> <li>• Presents information in a clear and structured manner, both verbally and in writing, to ensure a positive</li> </ul>
Managing Change	A	<ul style="list-style-type: none"> <li>• Maintains a positive attitude during times of change</li> <li>• Works effectively even when faced with disruption and uncertainty</li> <li>• Supports others during times of change</li> </ul>

Customer	Level	
Partnering & Advice	B	<ul style="list-style-type: none"> <li>• Engages in a productive dialogue with the customer to consultatively identify a solution</li> <li>• Provides credible advice for customers based on an understanding of the underlying issue</li> <li>• Knows when to draw on additional resources to provide appropriate support and advice for customers</li> </ul>
Collaboration & Engagement with Customers & Stakeholders	A	<ul style="list-style-type: none"> <li>• Builds effective and positive relationships with customers and stakeholders</li> <li>• Understands customer and stakeholder needs</li> <li>• Forms strong relationships with immediate networks to achieve results</li> </ul>

Business	Level	
Analysis & Problem Solving	B	<ul style="list-style-type: none"> <li>• Defines the extent and cause of the problem through observation and investigation</li> <li>• Knows when and how to source and use additional information to effectively diagnose the problem and determine suitable solutions.</li> <li>• Considers all possible solutions and seeks input from subject matter experts where appropriate</li> </ul>

		<ul style="list-style-type: none"> <li>• Takes necessary action to implement the identified solution</li> </ul>
Planning and Delivering Results	A	<ul style="list-style-type: none"> <li>• Completes work in a timely manner to expected standards</li> <li>• Identifies issues or roadblocks, looks to solve first and if needed advises upwards</li> <li>• Plans and organises work by drawing on necessary tools and resources</li> <li>• Monitors the progress of plans and deliverables</li> <li>• Identifies more critical and less critical activities; adjusts priorities when appropriate</li> <li>• Displays drive and a clear focus on achieving results</li> </ul>

## Mandatory Candidate Requirements

### Qualifications:

- Bachelor's degree or higher in Civil Engineering, or other related engineering discipline as deemed appropriate.
- Eligibility for membership of Engineers Australia.
- Current NSW driver's licence.

### Knowledge:

- Knowledge of principles and practices of dam and weir design, construction, operation, safety surveillance and maintenance.
- Knowledge of principles and practices of dam design, construction, operation, safety surveillance and maintenance.
- Knowledge of relevant Australian and International codes and standards.
- Proven risk management and technical engineering knowledge of policy and regulatory requirements
- Detailed knowledge of relevant Australian and International codes and standards.
- Excellent written and oral communication skills to communicate internally and to technical professionals, client groups, regulators and the public, including reports, addressing forums and providing and interpreting technical information

### Experience:

- 5+ years of experience in dams engineering.
- Experience in the safety evaluation of existing dams.

- Experience in dam design, construction, operation, and maintenance.
- Highly developed analytical and problem-solving skills, ability to analyse and interpret data and information and make sound judgements.

### **Favourable Candidate Requirements**

- Expertise in managing investigations and studies project risks (including quantification and advising project stakeholders) to the benefit of all project stakeholders (using common risk management techniques).
- Experience in comprehensive risk assessments.

### **Pre-Employment Checks Required**

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