

Providing a consistent approach to risk management and prioritisation

The Asset Risk Management Framework was developed by the Water Services Association of Australia (WSAA) as an initiative of the WSAA Asset Management Program. The objective of the project was to develop a risk management and prioritisation framework that would provide water utilities with a clear understanding of what was required within an organisation to effectively manage project risks.

Background

Irrespective of a water utility's ownership, the legislation it operates under or the regulatory controls it comes under, the utility must eventually be able to demonstrate that its projects, programs, and associated expenditure are prudent and efficient. Key justification is the consequence of failure and the likelihood of that failure. The prioritisation methodology used by an utility will typically use these considerations, along with other considerations, to rank projects against each other when funding and resources are limited.

The utility will determine that the combination of consequence and likelihood (risk) for any particular hazard is either acceptable, acceptable with additional monitoring/maintenance or unacceptable. These thresholds are typically referred to as 'risk appetite thresholds', and from AS/NZS ISO 3100 : 2009. While the standard provides a structure for undertaking risk assessment it does not identify a uniform set of consequences and likelihood definitions that are appropriate for the water industry. A specific outcome of this project is the identification of a consistent set of definitions that can be utilised by the water industry together with recommendations on how these can be modified to better align with the specific circumstances of the utility involved.

This project is based on the fundamental assumption that all water utilities in Australia have very similar drivers and aspirations and this allows an industry specific guideline to be generated. There is the potential that the utility will not achieve these aspirations and the consequences are typically defined in risk management terms as falling between 'insignificant' and 'catastrophic' with the associated likelihood of that failure ranging from 'almost certain' to 'very rare'. What is missing in this approach are uniform definitions for these descriptors as they relate to the water industry and a uniform approach for modifying these to specific situations of each utility and a standard set of categories that the risks are assessed within.

The project commenced in 2014 and was compelled by KPMG; in consultation with WSAA and the industry. The project will be delivered to member participants in September 2015.

Outcomes and benefits

Outcomes:

- Provides a structured framework outline that would enable a water utility to effectively identify and manage risks associated with the management of their assets.
- The framework is aligned with the capital prioritisation project undertaken by WSAA in 2011.
- It provides a summary of the level of maturity of asset risk management practices within the water industry based on information provided, during the project, through a survey and water utility interviews.

Strategy & Risk Appetite	Risk Governance	Assessment & Measurement	Management, Monitoring & Assurance	Risk Reporting
Linkage to Corporate Strategy	Board Oversight & Committee	Asset Risk Identification	Risk Mitigation & Response	Board & Executives Risk Reporting Requirements
Asset Strategy & Plans	Risk Operating Structure	Asset Classification	Validation & Assurance	Business/Operational Requirements
Risk Appetite & Tolerance	Roles & Responsibilities	Asset Risk Assessment	Monitoring	
	Risk Guidance	Scenario Analysis & Stress Testing		
	Decision Support	Capital Allocation		

Benefits:

- Provides insights into the key elements of an Asset Risk Management Framework as well as the key procedural elements to implement the framework.
- The document includes case study examples (from participating utilities) on each key element of the framework so the reader can gain insight into what good practices across the water industry may look like in the context of asset risk management.

Participating members: Barwon Water, Central Highlands Water, Coliban Water, Gippsland Water, Gladstone Area Water Board, Gosford City Council, Goulburn Valley Water, Hunter Water, Icon Water, Mackay, Power and Water, Queensland Urban Utilities, SA Water, Seqwater, South East Water, South Gippsland Water, TasWater, Wannon Water, Water NSW, Unity Water, Water Corporation, Yarra Valley Water.

How to purchase

This subscription project was funded by participating WSAA Member utilities. Non-participating WSAA Members and those without WSAA membership will be required to purchase the project deliverable. The deliverable will only be made available to water utilities. Prices will be calculated according to a utility's number of connections.

Participating members can access this project via the [WSAA Member Portal](#). If you do not have access to the portal please contact web@wsaa.asn.au.

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