



**RISK AND OPPORTUNITY
ASSESSMENT GUIDE
RISK CRITERIA**

TABLE OF CONTENTS

1.	PURPOSE	3
2.	SCOPE	3
3.	RELATED DOCUMENTS	3
4.	PROCEDURE	3
5.	RISK MANAGEMENT PROCESS	3
6.	STEP 1 RISK ANALYSIS	3
7.	STEP 2 EVALUATE THE RISK	3
	7.1 Management and Response	3
8.	RISK CRITERIA	4
	8.1 Table 2 Consequence Descriptors (Consequence: the outcome or impact of an event)	4
	8.2 Table 3 Likelihood Descriptors	5
	8.3 Table 4 Risk Matrix	5
	8.4 Table 5 Risk Tolerability and Accountability Table	5
9.	OPPORTUNITY MANAGEMENT PROCESS	6
10.	STEP 1 OPPORTUNITY ANALYSIS	6
11.	STEP 2 EVALUATE THE OPPORTUNITY	6
	11.1 Assessment Criteria for Strategic Alignment.....	6
	11.2 Assessment Criteria for Sustainable Contribution.....	6
	11.3 Assessment Criteria for Project Risk.....	6
12.	STEP 3 OPPORTUNITY APPROVAL	6

1. Purpose

This document contains guidance to Queensland Urban Utilities staff in the process of undertaking a risk assessment and includes the risk criteria risk descriptors used for consequence and likelihood and the risk matrix to be used when assessing risks within Queensland Urban Utilities.

It also contains the criteria for assessing strategic and operational opportunities, which link to innovative ideas and delivering better services in better ways.

2. Scope

The risk assessment guide and criteria contained within this document is to be used for all risk and opportunity assessments conducted within Queensland Urban Utilities.

3. Related documents

- POL11 Risk Management Policy
- STD 119 Risk Management Procedure
- Innovation Governance Framework

4. Procedure

Consistent application of the risk and opportunity assessment process will ensure that risks and opportunities are effectively assessed, recorded, prioritised and approved by the appropriate levels of management.

The Risk Assessment Guide is part of the QUU risk management framework.

NOTE: Refer to the **Risk Management Procedure STD 119** for details on how the risk management steps work together.

5. RISK ASSESSMENT PROCESS

6. STEP 1 RISK ANALYSIS

Following the identification of a risk, the first step is to understand the risk. The analysis of the risk will include determining the Inherent, Residual and Target risk ratings.

The inherent risk is *the risk rating if there were no controls in place to reduce or mitigate the risk*. Inherent risk will give an understanding of QUU's potential exposure should the controls fail.

Residual risk is the level of risk with all existing controls in place.

Target risk is the risk level after all further treatments are implemented.

To analyse the risk we need to identify the causes of the risk (why would the risk occur).

The next part of the analysis is to determine and record the impacts of the risk by identifying the worst, credible consequences that could evolve from the risk event. (Refer to the Table 2 Consequence Descriptors).

The final step is to select the consequence (**worst credible**) that could evolve from the risk event from the consequence table and select the likelihood of risk occurring resulting in the selected consequence. The

combination of consequence and likelihood is represented in the risk matrix, and will determine the inherent risk rating.

Risk Rating = Consequence x Likelihood

Table 2 Risk consequence descriptors

Consequence is the worst credible impact of a risk event. A series of descriptors are provided in the table 2 to assist with determining the consequence rating of each risk. If multiple descriptors apply to a risk, then the **worst credible** consequence rating should be selected and recorded in the risk register.

The risk consequence table (**Table 2 - Consequence**)

Table 3 Risk likelihood descriptors

Likelihood is the chance of the risk event occurring resulting in the nominated consequences.

The risk likelihood table (**Table 3 - Likelihood**)

Table 4 Risk matrix

Once the consequence and likelihood ratings are established using the above assessment criteria, they are combined to assign a risk rating using the risk matrix. The resultant risk rating is used to determine the relevant escalations and decisions and prioritise the risk to enable structured monitoring and management of each risk.

The risk matrix (**Table 4 – Risk Matrix**)

The next part of the risk analysis is to identify the existing controls that are in place to reduce or mitigate the risk. Controls are activities that are in place and operating in QUU, and include, policies, procedures, systems and physical methods implemented to reduce the likelihood or the consequence of a risk. Key controls for each risk are to be appropriately documented in the risk assessment. The risk is analysed and assessed with all existing controls absent as described above for inherent risk and taking all controls and their effectiveness into account to determine the residual risk rating.

7. STEP 2 EVALUATE THE RISK

The residual risk rating from the risk analysis phase is now used to evaluate the risk and determine the risk response, this is how the risk will be managed going forward. The risk assessment team is to evaluate the risk against the tolerability scale in table 1 and Table 5:

Risk tolerance

As a general guide, **low** rated risks receive a risk response of **"tolerable"**. **Medium and High risks** are conditionally tolerable subject to the implementation of all reasonable and practicable controls. **Extreme** rated risks receive a risk response of **"intolerable"** and require immediate further treatment.

The risk owner is to select an initial risk response based on the risk rating, risk tolerability and response is defined in section 7.1 Table 1.

7.1 Management and Response

Now that the risk has been evaluated a risk tolerability and response is to be selected.

There are two tolerability choices and five basic risk responses the assessment team can choose from, as described in the table 1.

Table 1 Risk Tolerability and Response

Tolerable risks	Monitor	Indicates management are satisfied that the risk is well managed. The risk is subject to change and is to be monitored by the risk owner; further treatment action is at discretion of the risk owner.
Conditionally Tolerable	Monitor	Indicates management are satisfied that the risk is AS Low As Reasonably Practicable. (ALARP) The risk is subject to change and is to be monitored by the risk owner.
	Further Treat	Further treatment action is at discretion of the risk owner if they are not satisfied that the ALARP principal has been applied.
Intolerable risks	Further Treat	Indicates management are not comfortable with the level of risk (risk rating) and that risk treatment investment will be implemented immediately to reduce the risk rating to a level which is tolerable.

For risks where the risk owner selects to "further treat" the risk, the risk owner must identify and recommend further risk treatments to be implemented to manage the risk and reduce the risk rating. The process to identify and implement improvement actions is provided in the Risk Management Procedure STD119.

Target risk rating

Once 'further treatment' has been selected a risk assessment is to be undertaken to determine the target risk rating (the risk rating once all proposed treatments have been implemented).

Risk assessment approval

The risk owner is required to analyse and evaluate the risk assessment details and submit the risk assessment for approval to the appropriate level of Management as detailed in table 5.

NOTE: Table 5 Accountability and Action provides advice on the level of management assigned for approval and ongoing monitoring and review of risks within Queensland Urban Utilities.

Risk treatment plan

Where the risk owner selects or approves the risk response as "Further Treat" a risk treatment plan is to be developed.

For advice on developing a risk treatment plan refer to Section 9 Risk Treatment in the Risk Management Procedure STD119

Risk accountability and action

The risk accountability and action table 5 provides guidance on the accountabilities and actions required for the ongoing monitoring and review of risks within Queensland Urban Utilities.

8. RISK CRITERIA

8.1 Table 2 Consequence Descriptors (Consequence: the outcome or impact of an event)

	Organisational/ Project Performance. Organisational/ Project Performance is impacted in terms of achieving Strategic initiatives, key performance indicators / Project outcomes or benefits and delivery of critical processes and services or project schedule elements	Customers Customers and community are impacted in terms of service disruption or damage.	Occupational Health & Safety Employees, contractors and the public are impacted in terms of injury, illness.	Customer and Community Health Action or activities of QUU affect the health and well-being of customers and community.	Financial Performance Financial losses or unplanned expenditure is incurred by QUU.	Compliance Breach of regulatory, common law or contractual obligations, internal policy/ procedures or requirement to notify a regulator of an event.	Natural Environment The natural environment is impacted in terms of adverse effects on organisms, flora, fauna, heritage area or aesthetics.	Reputation The QUU brand and or reputation value is impacted in terms of stakeholder and trust in the ability to deliver on reliability, quality, transparency and value for money expectations.
Catastrophic	Majority of Strategic initiatives / Project outcomes will not be achieved. Majority of strategic KPIs / Project benefits will not be achieved. Inability to deliver critical processes/ services or Project schedule elements.	Customer/Community disruption > 25 hours. Multiple Key Account customer shutdowns. Widespread displacement of people.	Fatality and / or amputation of a limb. Long term/ terminal illness. Permanent disability.	Fatalities or widespread hospitalisation of many customers. Note: Wide Spread is regional, multiple catchments or pressure zones.	Corporate Financial losses > \$100 million Projects >40% of budget.	Successful criminal prosecution, imprisonment of QUU officer. Government inquiry. Loss of licence to operate. Civil action, refer Financial Performance.	Permanent or irreversible damage to the natural environment or heritage area. E.g. A wilful or negligent act that causes serious harm to the environment, such as destruction of heritage asset, conservation areas, threatened species or protected bushlands.	Long term (3 month) loss of confidence among key stakeholders. Widespread community action or protest. Sustained state and national adverse media/ social media coverage. Shareholder intervention.
Major	Multiple Strategic initiatives / Project outcomes will not be achieved. Breach of multiple strategic KPIs / Project benefits. Disruption to multiple critical processes/services or Project schedule elements.	Customer/Community disruption >15 <= 25 hours. Individual Key Account customer shutdown. Localised displacement of people.	Serious / Hospitalisation injury Long term > 4days Lost Time Injury or illness Long term disability.	Wide spread or multiple clusters of illness with some hospitalisation of customers. Repeated breach of chronic health criteria.	Corporate Financial losses \$50 - 100 million. Projects >20% -40% of budget.	Regulator issues notices, corrective action order and/or penalties, common law liability confirmed. Order to stop work. Multiple PINs, Prohibition notice. Breach of Code of Conduct resulting in dismissal. Civil action, refer Financial Performance.	Long term reversible impact to the natural environment or heritage area that requires significant effort (time and resource) to remediate (>1 year). E.g. Sewage or chemical spill to an aquatic or terrestrial environment which causes major life kill.	Medium term (1 month) loss of confidence among key stakeholders. Community campaign or action. Short term state and/or national adverse media/ social coverage. Board intervention.
Moderate	One specific Strategic initiative / Project outcome will not be achieved. Breach of Strategic KPI / Project benefit. Disruption to individual critical process/service or Project schedule element.	Customer/Community disruption >10 <= 15 hours. Individual Key Account customer service disruption.	Lost Time Injury or Illness < 4 days. Short term disability	Localised illness. Breach of chronic health criteria. Note: Localised is a single catchment or pressure zone.	Corporate Financial losses \$10 - 50 million. Projects >10% -20% of budget.	Regulator/ external auditor issues improvement notice, multiple non-conformances or PIN. Systemic breach of internal obligation, procedure or policy. Civil action, refer Financial Performance.	Medium term reversible impact to the natural environment or heritage area which requires moderate effort (time and resources) to remediate (>1 week to <1 year). E.g. Sewage overflow which does not cause major life kill but requires moderate time to remediate. Removal of native vegetation within a National Park or conservation area.	Short term (1 week) loss of confidence among some key stakeholders. Adverse widespread community concern Short-term local adverse media/ social media coverage. CEO intervention.
Minor	Impairment in achieving Strategic initiative / Project outcome. Strategic KPI / Project benefit impacted - no breach. Disruption to noncritical process/service or Project schedule element.	Customer/Community disruption >5 hours. No Key Account customer disruption.	Medical Treatment/ Suitable Duties Injury or illness. Short term illness	Isolated illness or minor illness where people will recover. Isolated breach of chronic health criteria	Corporate Financial losses \$5 - 10 million. Projects >5% -10% of budget.	Regulator/external auditor 'non-conformance' or request for further explanation. Notification to Regulator required. Local area breach of internal obligation, procedure or policy. Civil action, refer Financial Performance.	Short term reversible impact to the natural environment or heritage area which requires minor effort (time and resources) to remediate (<1 week). E.g. Sewage overflow which cannot be remediated in 24 hours. Noise or odour complaints.	Minimal stakeholder interest/concern. Adverse localised community concern Isolated local adverse media/social story. ELT intervention.
Insignificant	No material impact to Strategic initiative / Project outcome. No material impact or breach of Strategic KPIs / Project benefit. No material disruption expected.	Customers/ Community disruption event < 5 hours.	Injury or illness requiring first aid treatment. Near miss events.	No Illness expected. Standard Water Quality Complaints No chronic health criteria exceeded.	Corporate Financial losses < \$5 million. Projects <5% of budget.	No regulatory involvement expected. Individual breach of internal policy or procedure. No civil action expected.	Temporary, reversible environmental impact quickly contained & immediately restored (<24 hours). E.g. No lasting impact on species, habitat or community amenity or Cosmetic remediation.	Standard Complaints Notification of potential adverse media/ social media coverage. Media Team intervention

8.2 Table 3 Likelihood Descriptors

Likelihood: the chance / frequency of an event happening

	Rare	Unlikely	Possible	Likely	Almost Certain
Definition (Qualitative estimates of probability)	Will occur in exceptional circumstances; highly unexpected event	Will occur in specific range of circumstances; surprised if it happened	Will occur in a narrow range of circumstances	Will occur in most circumstances; not surprised if it happened	Is expected to occur; almost inevitable
Probability (1 year horizon)	< 5%	5 to 10%	10 to 50%	50 to 95%	> 95%
Frequency	Less frequent than once every 20 years	Once every 10 to once every 20 years	Once every 2 to once every 10 years	Once a year to once every 2 years	More frequent than once a year

8.3 Table 4 Risk Matrix

Risk Rating = Consequence x Likelihood

		Likelihood				
		1. Rare	2. Unlikely	3. Possible	4. Likely	5. Almost Certain
Consequence	E. Catastrophic	High 10	High 15	Extreme 20	Extreme 25	Extreme 30
	D. Major	Medium 4	Medium 5	High 10	High 15	Extreme 20
	C. Moderate	Low 3	Medium 4	Medium 5	High 10	High 15
	B. Minor	Low 2	Low 3	Medium 4	Medium 5	High 10
	A. Insignificant	Low 1	Low 2	Low 3	Medium 4	Medium 5

8.4 Table 5 Risk Tolerability and Accountability Table

	Low	Medium	High	Extreme
Risk Tolerability	Tolerable	Conditionally Tolerable If all reasonably practical measures to treat the risk are implemented.	Conditionally Tolerable If all reasonably practical measures to treat the risk are implemented.	Intolerable
Management Action	Monitor risk for any change	Further Treat the risk where all reasonably and practical measures to treat the risk have not been implemented.	Further Treat the risk where all reasonably and practical measures to treat the risk have not been implemented.	Immediately treat the risk to reduce the risk to a tolerable level. For safety risks cease the activity until the risk is reduced to a tolerable level.
Level of Risk	Strategic Risks	Group Risks	Operational Risks	Project Risks
Risk Owner	Executive Leadership Team (ELT) Member	General Managers/ Direct reports to ELT members	Team Leaders	Project Manager
Risk Approval	Board	ELT Members	General Managers/ Direct reports to ELT members	Project Director/ Project Control Group

9. OPPORTUNITY MANAGEMENT PROCESS

10. STEP 1 OPPORTUNITY ANALYSIS

Strategic opportunities are identified as part of the SWOT analysis carried out in the Strategic Planning process.

These opportunities are discussed with ELT and Board, as part of planning workshops.

Operational opportunities are identified as part of the innovation framework. An Innovation Governance Framework was agreed with ELT on 17 October 2013.

This framework is to be used for assessing all opportunities.

11. STEP 2 EVALUATE THE OPPORTUNITY

Opportunities are evaluated based on the value that the opportunity brings to QUU.

This is determined as a function of:

Strategic Alignment + Sustainable Contribution + Project Risk

11.1 Assessment Criteria for Strategic Alignment

Opportunities are assessed in terms of their alignment to the strategic pillars, based on the level of:

- Organisational strategic fit.
- Strategic leverage in terms of offering additional future development/benefits.
- Future impact on the organisation.

11.2 Assessment Criteria for Sustainable Contribution

Opportunities are assessed in terms of their sustainable contribution to:

- Organisational financial benefits.
- Environmental benefits, (may only apply to operational opportunities).
- Social benefits, (may only apply to operational opportunities).
- Public health benefits, (may only apply to operational opportunities).

11.3 Assessment Criteria for Project Risk

Opportunities are assessed in terms of their level of project risk, represented by:

- The probability of implementation success.
- The level of implementation complexity.
- The time taken to deliver the opportunity.

12. STEP 3 OPPORTUNITY APPROVAL

Strategic opportunities are approved by the Board.

Operational opportunities are approved by the Chief Executive Officer, as part of the innovation framework.