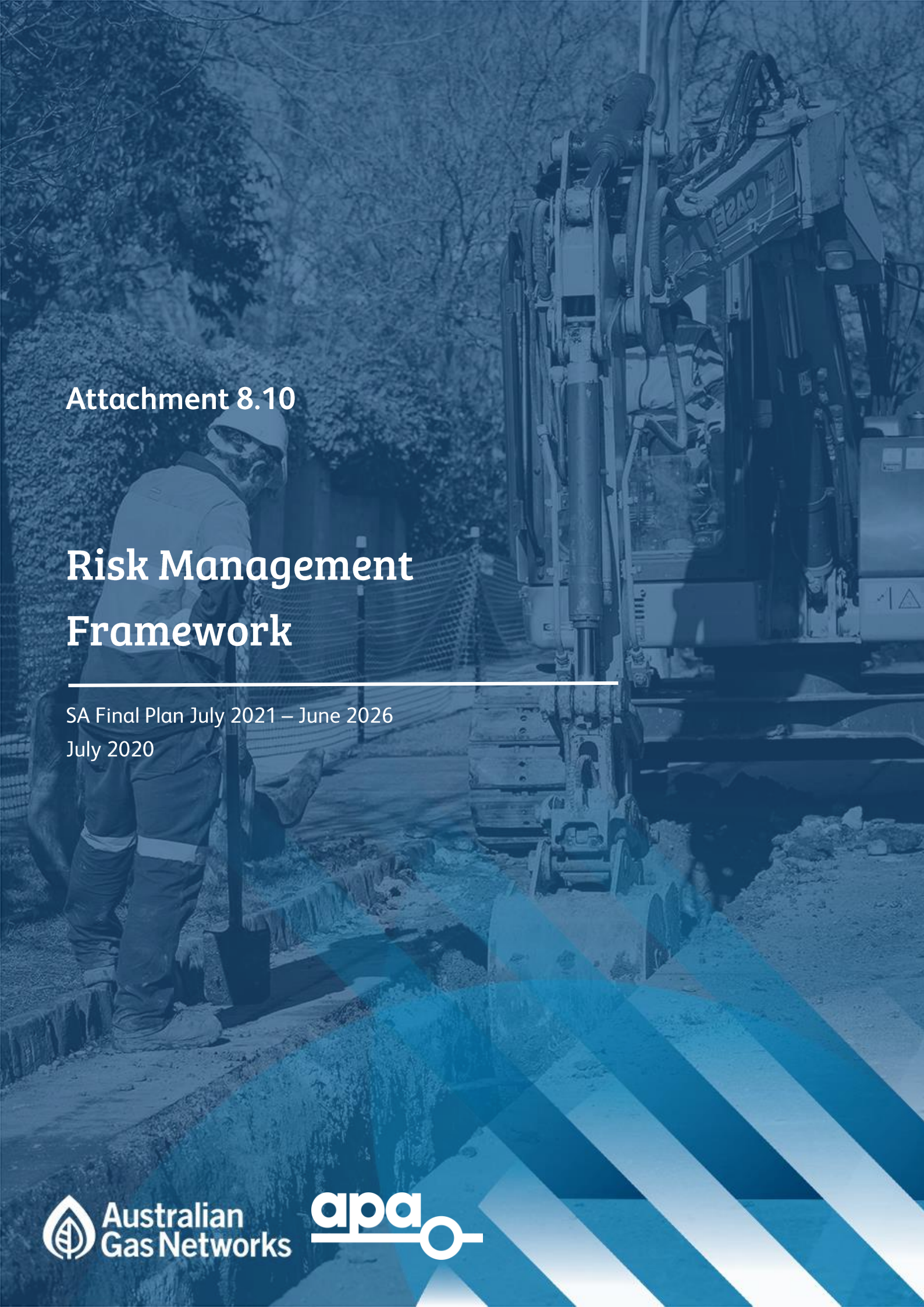


Attachment 8.10

Risk Management Framework

SA Final Plan July 2021 – June 2026

July 2020

Australian Gas Networks

apa

Australian Gas Infrastructure Group

1 Risk Management Policy

AGIG Management is committed to the effective management of risk as part of its Corporate Governance program.

1. Management's Commitment is to ensure that:

- Systems are in place to identify risks that AGIG faces in conducting its business
- The impact of identified risks is understood
- Risk treatment owners are nominated to manage the identified risks
- Assurance is provided on the effectiveness of the risk management system and risk controls.

2. Management's Commitment will be achieved by:

- Identifying, assessing, controlling and recording hazards and risk
- Providing appropriate training
- Establishing and maintaining risk management system
- Ensuring that operational incidents are analysed and learned from and successes reviewed and repeated
- Reviewing and reporting on the risks and associated control systems to the AGIG Boards.

3. Accountabilities:

The Board (assisted by the Risk and Compliance Committee)

- Approves and monitors the implementation of the internal annual audit plan to ensure that planned audit activities are aligned to business risks
- Approves policies and procedures implemented for the ongoing identification and management of risks
- Requires management to provide reports on the system's performance and regularly reviews these reports

Management is responsible to the Board for implementation of AGIG's system of internal control and risk management

- Monitors AGIG's risk and internal control framework and provides reports to the Risk and Compliance Committee on performance in relation to the identification, assessment and management of risks
- Identifies material changes to the company's risk profile and discloses them to the Risk and Compliance Committee.

2 Risk Management Approach

For our AGN networks, we align to the risk management framework of our operations and management partner, APA. Any reference to risk impacts on APA can also be taken to include AGN and AGIG.

Risk management is a constant cycle of identification, analysis, treatment, monitoring, reporting and then back to identification (as illustrated in Figure 2.1). When considering risk and determining the appropriate mitigation activities, we seek to balance the risk outcome with our delivery capabilities and cost implications. Consistent with stakeholder expectations, safety and reliability of supply are our highest priorities.

Figure 2.1: Risk management principles

Our risk assessment approach focuses on understanding the potential severity of failure events associated with each asset and the likelihood that the event will occur. Based on these two key inputs, the risk assessment and derived risk rating then guides the actions required to reduce or manage the risk to an acceptable level.

Our risk management framework is based on:

- AS/NZS ISO 31000 Risk Management – Principles and Guidelines,
- AS 2885 Pipelines-Gas and Liquid Petroleum; and
- AS/NZS 4645 Gas Distribution Network Management.

The Gas Act 1997 and Gas Regulations 2012, through their incorporation of AS/NZS 4645 and the Work Health and Safety Act 2012, place a regulatory obligation and requirement on us to reduce risks rated extreme, high or moderate to low or negligible. If it is not possible to reduce the risk to low or negligible, then we must reduce the risk to moderate and demonstrate the risk is as low as reasonably practicable (ALARP).

A summary of our Risk Management Framework, including definitions, is provided below.

3 Risk Management Process

Risk assessment is the overall process of **risk identification**, **risk analysis and risk evaluation** and includes:

- Engagement and participation of relevant stakeholders in the risk assessment
- Understanding the impact of the internal and external context on the risks
- Identification of the potential risk events
- Identification of causes and impacts (consequences) of risks
- Identification of critical controls to prevent, detect and recover for the causes and impacts
- Identification of the inherent risk rating in terms of likelihood and impact under normal business operation
- Identification of the residual risk rating or mitigated risk rating in terms of effectiveness of the critical controls in managing the risks likelihood or impact.
- Risk treatment actions

A change in the external / internal context can trigger a risk assessment e.g. a new project or activity, change in business process, trends in HSE, change in stakeholder requirements, updates to regulations, updates in strategy and goals, evidence a control is not working or an event suggests the consequence or likelihood are different.

The flow of the risk assessment process is set out below according to the following broad formula:

3.1 Risk Identification

Objective: to identify all the important risks (and opportunities) that might create, prevent, accelerate or delay us from reaching the identified goals / objectives.

Step 1: List the top assumptions supporting the success of your objectives.

Step 2: List 3-5 key activity areas to consider risks eg stakeholder groups (community, regulators, BU teams) objective areas, critical suppliers, customers, key IT systems, asset management.

Step 3: Identify the big uncertainties / risks associated with each group in step 3. This helps get a broad thinking to ensure the important risks have been identified.

Depending on the purpose of the risk assessment consider the best approach for the assessment e.g. via an expert review, workshop or discussion group with key stakeholders/experts.

3.2 Risk Analysis and Evaluation

Objective:

- Analysis helps understand the risk including causes or drivers of the risk, the potential impacts, controls and their effectiveness and the overall level of risk (inherent and residual)
- Evaluation helps to prioritise the risks for treatment especially when no further actions can be taken to bring risk to an acceptable level

Step 1: Identify 2-3 top causes and impacts for each risk identified.

Step 2: Identify the critical controls that prevent or may detect the risk occurring and the mitigating controls that reduce the potential impact if it has occurred.

Step 3: Determine the inherent risk rating – a reasonable assessment of the risk level assuming critical controls are not working or are not in place.

Step 4: Determine the overall control effectiveness – consider overall effectiveness of the identified critical controls to managing the risk. To be considered controls MUST be in place and not potential actions for the future.

Step 5: Determine the residual risk rating (the rating as it currently stands) – assessment of the risk after considering the critical controls and their overall effectiveness). In engineering, it's called mitigated risk.

Step 6: Compare the residual risk rating with the target risk rating – Target risk reflects negligible, low or moderate – ALARP risk rating.

3.3 Determining the risk rating

The risk rating is calculated by assigning the following two attributes to the risk

1. Likelihood

- The likelihood of the risk event occurring
- Use the Enterprise Risk Matrix Likelihood table (Section 5)

2. Impact

- The impact/ consequences under reasonable business operation
- Use the Enterprise Risk Matrix Impact table (Section 4)

3. Determining Risk Rating

- Map the likelihood and highest impact to obtain rating of Negligible, Low, Moderate, High or Extreme
- Use the Enterprise Risk Matrix (Section 6)

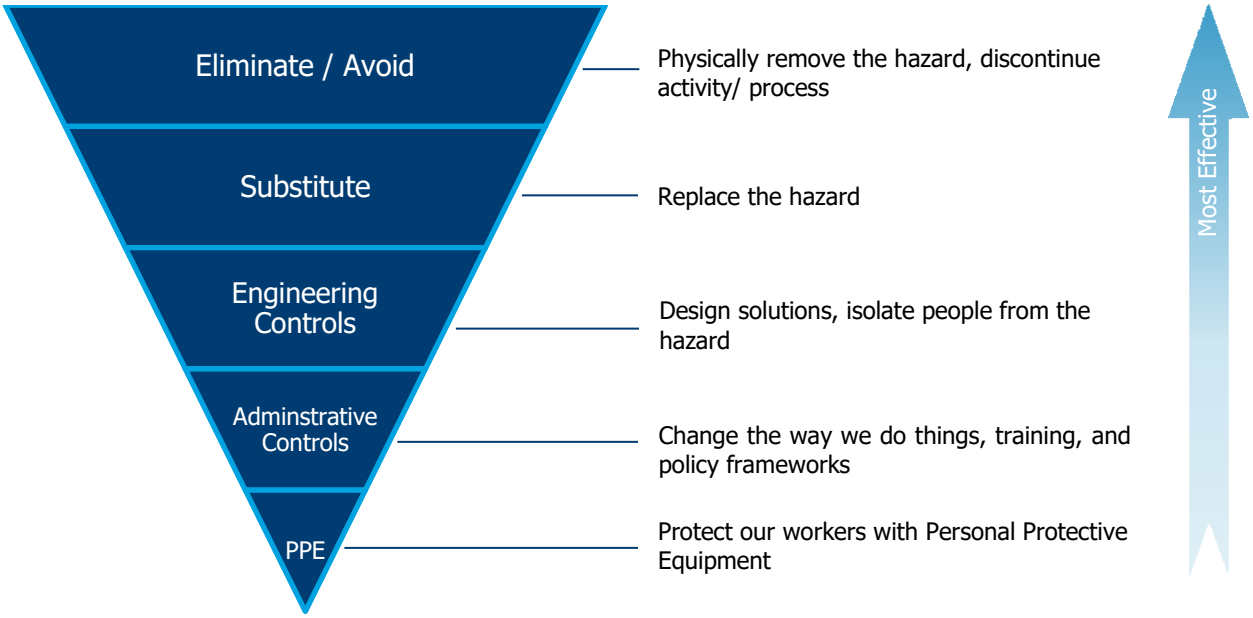
We assess the impact of a risk using the following impact categories. Note all the impact categories need to be considered however only the ones that apply need to be assigned to the risk. Where a risk has multiple impacts, the highest impact rating is used.

Impact Categories	Description
Health & Safety	**Injuries or illness of a temporary or permanent nature, or death, to employees and contractors or members of the public**
Environment (including heritage)	**Impact on the surroundings in which the asset operates, including natural, built and Aboriginal cultural heritage, soil, water, vegetation, fauna, air and their interrelationships**
Operational Capability	**Disruption in the daily operations and/or the provision of services/supply, impacting customers**
People	**Impact on engagement, capability or size of our workforce**
Compliance	**The impact from non-compliance with operating licenses, legal, regulatory, contractual obligations, debt financing covenants or reporting / disclosure requirements**
Reputation & Customer	**Impact on stakeholders' opinion of AGIG, including personnel, customers, investors, security holders, regulators and the community**
Financial	**Financial impact on AGIG, measured on a cumulative basis**

3.4 Determining the overall control effectiveness

Controls are a measure or activity that manages the risk e.g. a manual process, procedure or IT system. A risk could have a number of controls.

When determining overall control effectiveness focus should be given to critical controls – the minimum controls needed to effectively manage risk. A strong control environment will have more preventative than detective and recovery controls. Control activities and their strength as follows:



Overall control effectiveness can be categorised as strong, satisfactory, some weakness, weak and unsatisfactory as per the table below:

Rating	Effectiveness	Description
5	Strong	Control environment is strong with appropriate balance between preventative, detective and recovery controls. The critical controls are operating as intended and meeting their objectives.
4	Satisfactory	Control environment is considered to be operating effectively and a good balance between preventative, detective and recovery controls are in place. Critical controls are operating as intended and meeting their objectives. Some actions are in place to improve the critical controls.
3	Some Weakness	The control environment has some weaknesses/inefficiencies. A number of critical controls have actions plans before they can meet their objectives. These are not considered to present a serious risk exposure.
2	Weak	Gaps identified. Critical controls are not operating as intended and in some instances Critical controls have failed to meet their objective. If not rectified there remains serious risk exposure. A large number of critical controls have actions plans before they can provide reliance.
1	Unsatisfactory	The control environment is not at an acceptable standard, as many weaknesses/inefficiencies exist. High number of incidents have occurred indicating Critical controls cannot be relied on.

3.5 Risk Treatment

Where currents controls are not able to manage the residual risk rating to the acceptable target level, the following risk treatment options are applied:

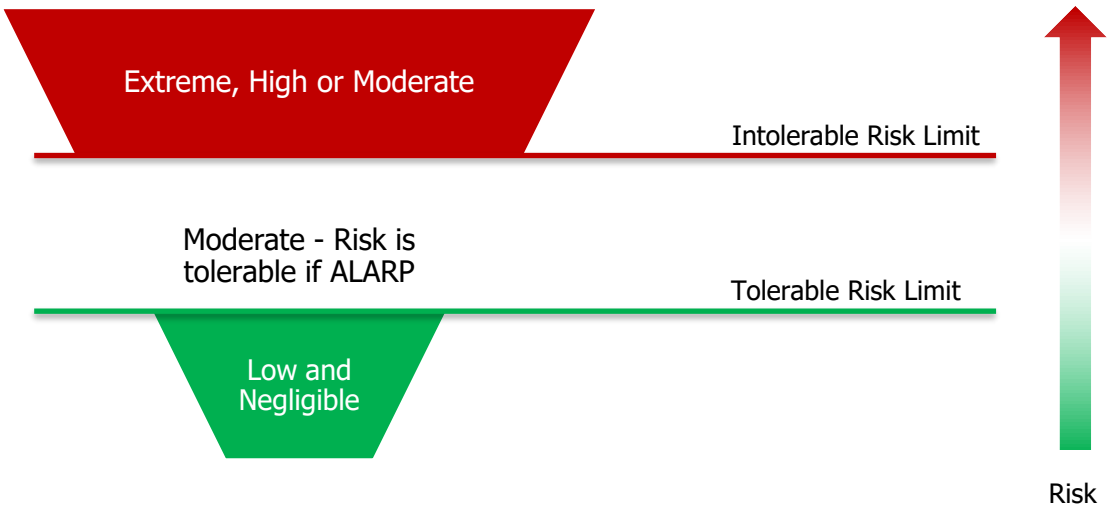
Risk Rank	Required Action
Extreme	Modify the threat, the likelihood or the consequences to ensure that the risk is reduced to moderate or lower. The risk must be reduced immediately.
High	Modify the threat, the likelihood or the consequences to ensure that the risk is reduced to moderate or lower. The risk must be reduced as soon as reasonably practicable.
Moderate	Modify the threat, the likelihood or the consequences to ensure that the risk is reduced to moderate or lower. Where the risk rank cannot be reduced to low or negligible action must be taken to: • Remove threats, reduce frequencies and/or reduce severity of consequences to the extent practicable; and • Demonstrate As Low As Reasonable Practicable (ALARP) The ALARP technique is used in connection with the management and regulation of process and people safety management systems. It attempts to reduce the potential risk of harm to as low as reasonably practicable where the cost of reducing a risk further, outweighs the benefit to be gained.
Low	Determine the management plan for the threat to prevent occurrence and to monitor changes which could affect the classification.
Negligible	Review at the next review interval.

It is important to understand that the process followed is not about eliminating risk but ensuring we can achieve the outcome consistent with our risk target and the cost of doing so is not prohibitive.

3.6 Risk Acceptance and Target Risk

The acceptable level of risk is our target risk. This is achieved when the residual risk evaluated post the treatment actions is reduced to negligible or low, or for moderate risks, the risk has been demonstrated to be as low as reasonably practicable (ALARP).

This is visually represented in the following diagram.



3.7 Risk Monitoring and Review

Objective: Monitoring status of controls, action plans and their effectiveness in managing and treating the risk and incorporating the results of performance management, measurement and reporting treatment

Risk management is an iterative, ongoing process. Monitoring risks, control status and actions should be undertaken in line with the operating rhythm to ensure effort in managing the risks and risk treatment remain appropriate and effective. The following are the minimum standards for monitoring the risk and control environment.

- Risks, controls and actions for high and extreme rated residual risks should be monitored quarterly.
- Risks should be reassessed when trigger events highlight control weakness or changes in the initial risk assessment.
- The accuracy and currency of our risk exposures must be ensured i.e. risk ratings reflect the current state of action plans and effectiveness of the current controls.
- Accurate, relevant and timely reporting is core to ensuring all stakeholders have the information needed to understand our risks, have confidence in our ability to manage the big uncertainties and to consider the risk current information in important decisions.

4 APA Enterprise Risk Matrix - Impact (Consequence) ratings

Consequence Category	Impact (consequences)				
	1. Minimal	2. Minor	3. Significant	4. Major	5. Catastrophic
1. Health & Safety Injuries, illness or death of employees, contractors or members of the public	Injuries or illness requiring first aid treatment only i.e. able to return to work immediately or the next day	- Injury / illness resulting in time lost from work of one day / one shift or more (LTI) - Member of the public requiring medical treatment	- Injury / illness resulting in permanent or partial disability to employees - Member of the Public requiring hospitalisation	Fatality or life threatening injuries or illness or permanent total disability of employees and contractors or members of the public	Fatality arising from systemic failure of APA safety or multiple fatalities of employees and contractors or members of the public
	Psychological illness resulting in inability to return to work for 1-2 months or 1 accepted claim in a month	Psychological illness resulting in inability to return to work for 3-6 months or 2-3 accepted claims in a month	Psychological illness resulting in total inability to return to work or >3 accepted claims in a month	Psychological illness resulting in Fatality	
2. Environment (including heritage) Environmental harm or adverse effect on ecosystem i.e. the surroundings in which APA operates, including natural, built and Aboriginal cultural heritage, soil, water, vegetation, fauna, air and their interrelationships	One or a combination of the following consequences: - onsite and impacting < 1 ha - no remediation needed - impact continues for < 1 wk	One or a combination of the following consequences: - onsite and impacting > 1 ha - able to be remediated easily - impact continues for <1 yr	One or a combination of the following consequences: - offsite and impacting < 1 ha - able to be remediated with some difficulty - impact continues for <5 yrs	One or a combination of the following consequences: - offsite and impacting > 1 ha - able to be remediated with difficulty - impact continues for <10 yrs	One or a combination of the following consequences: - offsite and impact is widespread (>1ha) - unable to be remediated - impact is irreversible or lasts >10 yrs
	Impact that causes negligible or no damage to heritage	Temporary and repairable impact or infringement to heritage	Permanent but repairable impact or infringement to heritage	Temporary but irreparable impact or infringement to heritage	Permanent and irreparable impact or infringement to heritage
3. Operational Capability Disruption in our operations (supply or services)	**Transmission** Unplanned interruption of < 5 days to the delivery of non-firm services	**Transmission** Unplanned interruption of: - ≥ 5 days to the delivery of non-firm services (including bi-directional, reverse flow or backhaul services) - < 1 day to the delivery of firm services	**Transmission** Unplanned interruption of ≥ 1 day but < 1 month to the delivery of firm services	**Transmission** An interruption of ≥ 1 month but < 1 year to the delivery of firm services	**Transmission** An interruption of more than 1 year to the delivery of firm services
	Networks Unplanned loss of service to <100 domestic/I&C corporate customers less than 100 Minor property damage	**Networks** Unplanned loss of service to - 100 - 1,000 customers - a demand customer (>10TJ pa)	**Networks** Unplanned loss of service to greater than - >1,000 customers - multiple demand customers (>10TJ pa) - to a single high risk site, without alternate supply options, (hospital, nursing home, home on life support)	**Networks** Unplanned loss of service to: - a regional area or greater than > 10,000 customers - a demand customer (>10TJ pa)with customer loss of revenue or infrastructure damage - to multiple high risk sites without alternate supply options (hospitals, nursing homes, homes on life support) Extensive property damage	**Networks** Unplanned loss of service to: - a metropolitan area - multiple demand customer (>10TJ pa)with customer losses of revenue or infrastructure damage

Consequence Category		Impact (consequences)				
		1. Minimal	2. Minor	3. Significant	4. Major	5. Catastrophic
		Power - Loss of customer load (firm capacity) equivalent to 2hrs – 1 day or - 100% loss of non-firm contracted supply for 1day – 2days	**Power** - Loss of customer load (firm capacity) equivalent to 1day – 1wk or - 100% loss of non-firm contracted supply for 2days – 2wks	**Power** - Loss of customer load (firm capacity) equivalent to 1wk – 2wks or - 100% loss of non-firm contracted supply for 2wks – 1mth	**Power** - Loss of customer load (firm capacity) equivalent to 2wks – 1mth or - 100% loss of non-firm contracted supply for >1mnt or - Loss of single asset availability resulting in liquidated damages	**Power** - Complete loss of customer load (firm capacity) for > 1mth or - Loss of multiple asset availability resulting in liquidated damages
4. People Impact size, engagement, capability of our Staff		Little or no impact on individual or team engagement	Some impact on team or site engagement / minor site level complaints or breaches	Some impact on Business unit engagement / rising complaints or breach levels / some staff turnover	Some serious complaints or breaches / Staff turnover rising	Increasing serious complaints and breaches/ High staff turnover
5. Compliance Non-compliance with operating licenses, legal, regulatory, contractual obligations, debt financing covenants or reporting / disclosure requirements.		Immaterial non-compliance which can be resolved internally in < 3 months	Non-compliance which can be resolved in 3 - 12 months. Issuance of formal notice.	Non-compliance reportable to a regulator with potential for regulatory investigation or fines	Non-compliance resulting in major fines, restrictions, potential of loss of license or licence variations	Multiple areas of non-compliance / breaches with loss of one or more operating licenses, prosecution of directors or officers of APA.
		Non-compliance with a contractual obligation - negotiations required	Non-compliance with a contractual/legal obligation(s) - arbitration required	Non-compliance with a contractual/legal obligation(s) - results in litigation	Permanent loss of major/material contract	Permanent loss of multiple material contracts
			Review event under debt financing obligation addressed through consultation with lender	Immaterial breach of covenant under debt financing obligation reportable to lender	Material breach of covenant under debt financing obligation reportable to lender	Event of Default under debt financing obligations leading to acceleration of drawn debt facilities
6. Reputation & Customer The view of APA from its stakeholders, customers, investors, regulators, governments and the community.	**a. APA Group**	Isolated adverse: - local media comment or articles on APA - low levels of detrimental social media comments	Sustained: - adverse local media articles on APA - detrimental social media comments One off negative reports by financial analysts	Sustained adverse national: - media articles on APA - viral social media Multiple negative reports by financial analysts	Considerable, prolonged adverse national coverage (social and media) / Sustained negative reports by financial analysts / ASX Trading halt	Considerable and prolonged adverse international coverage (social and media) on APA and energy industry / Suspension from ASX
		Some decline in customer satisfaction recoverable in <12 months	Some decline in customer satisfaction recoverable in >12 months	Sustained deterioration in customer satisfaction / Small contract arbitration	Sustained deterioration in customer satisfaction or loss of one top 10 customer / Major contract arbitration	Sustained deterioration in customer satisfaction or loss of multiple top 10 customers
7. Financial	**a. APA Group** Balance sheet, P&L impact (cumulative or one off)				Permanent downgrade of either credit rating by a single notch	Permanent downgrade of either credit rating by two or more notches (to sub-investment grade)
		≤ $15M	$16M - $30M	$31M - $60M	$61M - $250M or potentially outside market guidance	> $250M or major impact on market guidance
	b. Asset Revenue, Cost impact (cumulative or one off)	≤ $1M	$1M-$5M	$5M-$20M	$20M-$50M	>$50M

5 APA Enterprise Risk Matrix - Likelihood table

Level	Descriptor	Description*	Frequency*
5	Frequent	Expected to occur on a regular basis and many times	Many times in 1yr
4	Occasional	May occur occasionally or in many circumstances	Every 2yrs
3	Unlikely	Unlikely to occur but possible when certain circumstances prevail	Every 5yrs
2	Remote	Not anticipated but may occur if certain abnormal circumstances prevail	Every 20yrs
1	Rare	Conceivable, but has not been known to arise previously	Every 50yrs

*depending on the risks under review, users can choose either the likelihood description, frequency or both. Users can choose based on what is more helpful in risk understanding

6 APA Enterprise 5x5 Risk Matrix

		Impact (consequences)				
		1. Minimal	2. Minor	3. Significant	4. Major	5. Catastrophic
Likelihood	Frequent	Low	Moderate	High	Extreme	Extreme
	Occasional	Low	Low	Moderate	High	Extreme
	Unlikely	Negligible	Low	Moderate	High	High
	Remote	Negligible	Negligible	Low	Moderate	High
	Rare	Negligible	Negligible	Negligible	Low	Moderate