

**Table 7** The high inherent climate change related risks on our climate change risk register and key control measures

Risk	Site affected	Description	Inherent Risk Rating	Key control measures	Residual risk rating	Planned action
Groundwater scarcity	Australia	Decreased average total annual rainfall causes drier surface conditions and underground aquifers to be replenished slowly.		<ul style="list-style-type: none"> <li>• Third party reviews of usage and aquifer health</li> <li>• Recycled water use with underground and processing.</li> <li>• Decant water from tailings facilities for reuse in all our operating process plants.</li> <li>• Thickener installed in Jundee</li> </ul>		Proposed thickener installation at KCGM during potential Fimiston expansion
Flooding	Australia and Alaska	In Western Australia, rainfall is becoming more concentrated and cyclones more severe; in Alaska, total rainfall is increasing and permafrost melting off-site, both pointing to an increase in the frequency and severity		<ul style="list-style-type: none"> <li>• Surface water management infrastructure installed at all sites (e.g. diversion ditches, bunds).</li> <li>• Water level monitoring at surface water structures.</li> <li>• Severe Weather and Cyclone Management Plans in place.</li> <li>• Scenario analysis completed as per TCFD recommendations</li> </ul>		<p>Review and audit of site specific risk exposure.</p> <p>Flood mitigation infrastructure review.</p>
Extreme temperature changes	Australia and Alaska	Increase in the frequency of extreme temperature days (both hot and cold) can cause worker health issues and impact production		<ul style="list-style-type: none"> <li>• Working in Adverse Temperature/ Occupational Health &amp; Safety procedures and guideline.</li> <li>• Daily hydration testing undertaken at Australian operations.</li> </ul>		Increase live monitoring capability of personnel and environmental conditions
Shareholder divestment & activism	Australia and Alaska	Shareholders may change their investment decisions for not demonstrating action on climate change generally.		<ul style="list-style-type: none"> <li>• Climate Change Policy aligned to Paris Agreement Net Zero ambitions.</li> <li>• 2030 emissions reduction target.</li> <li>• Annual ESG roadshows with key Company representatives to discuss ESG related matters.</li> </ul>		<p>Full adoption of TCFD recommendations.</p> <p>Auditing and verification of sustainability data.</p>

**Table 8** Risk Rating

Risk Rating	Priority	Description
High	1	<ul style="list-style-type: none"> <li>High inherent risks are generally considered unacceptable</li> <li>The implementation of mitigating strategies to be actively pursued</li> <li>Notification to, and approval to conduct or continue activity required from, Executive management prior to commencement or continuation when first identified or assessed as high risk</li> <li>A risk owner is appointed to ensure mitigation strategies are pursued and progress reported at least quarterly to the Audit and Risk Committee</li> </ul>
Medium	2	<ul style="list-style-type: none"> <li>Where appropriate, further risk mitigation strategies should be considered and applied as practicable.</li> <li>A risk owner is appointed to ensure that all aspects relating to the risk and its mitigation are managed</li> </ul>
Low	3	<ul style="list-style-type: none"> <li>Where appropriate, further risk mitigation strategies should be considered as part of the process of continuous improvement</li> <li>A risk owner is appointed to ensure all aspects relating to the risk and its mitigation are managed</li> </ul>

**Table 9** Northern Star's Climate Related Opportunities

Climate Related Opportunities	
Products and Services	Increase in gold demand
	Low emissions mining
	Diversification into low emissions technology commodities
	Ethical gold certification
Energy source	Carbon trading
	Trade off excess renewable energy
	Renewable Energy & Energy Efficiency Certificates
	Energy price volatility resilience
	Diversification of energy sources
	Renewable backup generation
Resource efficiency	Lower input tailings treatment
	Reducing water consumption
	Increased operating efficiency
	Electrification of operations
	Track climate performance
	Daily hydration testing undertaken at Australian operations.
Resilience	Improve social licence to operate
	Improved employee safety and satisfaction
	Community resilience initiatives
	Joint venture partnership collaborations
	Reinforce assets to increase resilience to physical impacts
	Renewable energy to maintain power quality
	Diversify operation locations
	Diversify supply chain
	Monitor and communicate weather conditions
	Consider climate change in environmental management
	Determine retreat thresholds
Emerging gold processing techniques	
Markets	Action and disclosure to increase stakeholder confidence
	Action and disclosure to access to capital for adaptation
	Incorporate climate change criteria in decision making
	Favourable financing for green assets