MT LYELL COPPER MINE

Copper Mines of Tasmania Pty Ltd

Mt Lyell New Processing Plant

Environmental Impact Statement

Physical Climate-Related Risk Assessment

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EXECUTIVE SUMMARY

This study identifies physical climate-related risks (risks) relevant to the Mt Lyell New Processing Plant by evaluating all 21 priority risks identified in the Tasmanian Government's 2024 Climate Risk Assessment.

Of the 21 risks identified at the state level, three our are directly applicable to the new processing plant infrastructure and its use. Two risks (B2 and B4) relate to extreme weather events and chronic climate impacts on built infrastructure and stormwater systems. One risk (S3) relates to worker safety and public health during climate-modified meteorological conditions including extended fire seasons and extreme heat events. These three risks represent direct exposure pathways where climate hazards affect processing plant design, operations, or workforce and public safety.

The remaining eighteen state-level risks are relevant to broader Mt Lyell operations but fall outside the processing plant-specific assessment.

The three processing plant risks are addressed in specialist technical assessments provided under separate cover. Climate risks B2 and B4 are addressed in Section 6.1 Water Quality. Climate risk S3 is addressed in Section 6.2 Air Quality.

Broader operational climate-related risks will be addressed as the mine transitions from care and maintenance to active operations.

1 INTRODUCTION

1.1 Purpose

This study report has been prepared by EAGER Environmental for Copper Mines of Tasmania Pty Ltd (the Company) to support the Environmental Impact Statement (EIS) for the new Mt Lyell Processing Plant.

The study identifies the **physical climate-related risks** (risks) relevant to the new processing plant based on the Tasmanian Government's 2024 Climate Risk Assessment. This assessment, mandated under the Climate Change (State Action) Act 2008, identifies 21 priority risks and adaptation urgency ratings across Tasmania's natural, social, economic, and built domains.

This approach aligns with Tasmanian Government expectations for early risk recognition and strategic adaptation and positions the project for regulatory preparedness under evolving climate disclosure requirements.

1.2 Scope

This study addresses the risk assessment requirements specified in:

- EPA TAS (April 2025) **Section 6.8 Greenhouse gas emissions, ozone depleting substances and climate change** from the Environmental Impact Statement Guidelines - Copper Mines Tasmania Mt Lyell New Processing Plant, Mt Lyell Mine, Queenstown.

1.3 Related EIS Sections

This risk assessment is one component of the broader EIS. Related technical assessments are provided under separate cover by other specialist consultants, including:

- EPA TAS (April 2025) **Section 6.1 Water Quality** from the Environmental Impact Statement Guidelines - Copper Mines Tasmania Mt Lyell New Processing Plant, Mt Lyell Mine, Queenstown.
- EPA TAS (April 2025) **Section 6.2 Air Quality** from the Environmental Impact Statement Guidelines - Copper Mines Tasmania Mt Lyell New Processing Plant, Mt Lyell Mine, Queenstown.

2 TASMANIAN GOVERNMENT'S CLIMATE RISK ASSESSMENT 2024

2.1 Framework Overview

The Tasmanian Government's 2024 Climate Risk Assessment is the state's first comprehensive, legislated climate risk assessment, completed by Deloitte in partnership with the Climate Change Office. The assessment uses a risk framework consistent with IPCC AR6 methodology, evaluating:

- **Hazards**: Physical climate drivers (temperature, rainfall, extreme weather, sea level rise).
- **Exposure**: Geographic and sectoral vulnerability across Tasmania.
- **Consequence**: Impact magnitude across four value domains.
- **Adaptation urgency**: Prioritized as Tier 1 (Ready to Act) through Tier 4 (Monitor).

The framework identifies 21 priority risks rated for current and future consequence (2030, 2050, 2090) under moderate and high emission scenarios (SSP2-4.5 and SSP3-7.0).

2.2 Application to Project-Level Assessment

2.2.1 State-level vs Project-Level Assessment

The Tasmanian Government's risk assessment framework provides statewide climate-related risk identification across entire sectors and systems across Tasmania's natural, social, economic, and built domains.

All 21 state-level risks were reviewed for relevance to the new processing plant infrastructure. Of these, three risks have direct applicability to processing plant design, operations, and workforce safety (see Section 2.2.2). The remaining eighteen risks relate to broader mining operations, regional systems, or community-scale impacts that fall outside the scope of this processing plant-specific assessment.

This scope limitation reflects the focus of this EIS on new processing plant infrastructure only, not a dismissal of climate risk materiality to broader Mt Lyell operations. Operational climate-related risks will be addressed as the mine transitions from care and maintenance to active operations.

2.2.2 Relevant Assessment for New Processing Plant

Table 1 presents all of the Tasmanian Government's 21 risks and identifies their relevance to the new processing plant. This review demonstrates that three risks are applicable to the new processing plant and are assessed in the EIS:

- **Social Domain (S3)**: Worker and community health due to potential impacts from meteorological changes and air emissions.
- **Built Domain (B2, B4)**: Two risks have direct applicability to processing plant infrastructure and relate to extreme weather events and chronic climate impacts on built infrastructure and stormwater systems.

Table 1: Tasmanian Government Priority Climate-Related Risks - Relevance to New Processing Plant

Risk ID	Priority Impact Statement	New Processing Plant
NATURAL DOMAIN		
N1	Risks to inland water ecosystems and species	✗
N2	Risks to terrestrial ecosystems and species	✗
N3	Risks to coastal ecosystems and species	✗
N4	Risks to marine ecosystems and species	✗
N5	Risks to native ecosystems and species	✗
N6	Risks to alpine ecosystems and species	✗
SOCIAL DOMAIN		
S1	Risks to social cohesion and community wellbeing	✗
S2	Risks to mental health and wellbeing	✗
S3	Risks to physical safety, health and wellbeing	✓
S4	Risks to cultural heritage	✗
ECONOMIC DOMAIN		
E1	Risks to businesses and public organisations from extreme weather events	✗
E2	Risks to national and international supply/distribution networks due to extreme weather events	✗
E3	Risks to the insurability of businesses, public sector and private assets	✗
E4	Risks and opportunities to land-based primary sector	✗
E5	Risks and opportunities to ocean-based aquaculture and fisheries	✗
BUILT DOMAIN		
B1	Risks to healthcare and emergency services	✗
B2	Risks to the built environment due to climate extremes	✓
B3	Risks to contaminated sites due to extreme events and chronic climate impacts (1)	✗
B4	Risks to stormwater and sewerage systems due to extreme events and chronic climate impacts	✓
B5	Risks to ports and coastal infrastructure	✗
B6	Risks to transportation networks due to extreme events and chronic climate impacts	✗

✓ Applicable to new processing plant

✗ Not applicable to the new processing plant

(1) While Mt Lyell is specifically mentioned in the Tasmanian Climate Risk Assessment regarding contaminated sites (page 162), those risks relate to legacy mining areas rather than new processing plant infrastructure

2.3 Integration with EIS Technical Assessments

The three processing plant risks are addressed in specialist technical assessments provided under separate cover:

- **Climate risks B2 and B4** (extreme weather events and chronic climate impacts on built infrastructure and stormwater systems) are addressed in Section 6.1 Water Quality.
- **Climate risk S3** (worker and community health from meteorological changes and air emissions) is addressed in Section 6.2 Air Quality.