

Tasmanian Critical Minerals Prospectus





Acknowledgement of Country

We acknowledge Tasmanian Aboriginal people as the traditional owners of this Land and pay respects to Elders past and present for they hold the knowledge, memories and culture of Aboriginal people in Tasmania.

Photo credits and acknowledgements

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Contents

Minister's foreword	4
Critical minerals	6
Critical minerals in Tasmania and their uses	8
Tasmania's mineral wealth	9
Tasmania's critical mineral and strategic material resources	10
Pre-competitive datasets	12
Stewardship and sustainability	13
Emerging innovation in the circular economy	14
Infrastructure	15
On-island processing	16
Collaborations and partnerships	17
Supportive government	18
Getting started with tailored support	20
Contact	23



Minister's foreword

Tasmania has an active and long-standing mining industry, and an exciting pipeline of new opportunities in the sector. Mining is a cornerstone of Tasmania's economy, from our rich deposits of tin, copper, and gold to the world-class production of zinc and iron ore, this sector not only provides local jobs and infrastructure but also drives innovation and sustainability across our industries.

Tasmania is an island state south of the Australian continent, with a diverse geological landscape and rich mineral wealth, Tasmania is globally recognised for its premium exports and as a hub of scientific research and innovation, all powered by renewable hydroelectricity.

Tasmania has emerged as a notable player in the critical minerals sector, where global demand is rapidly accelerating. Critical minerals such as tungsten, rare-earth elements and silica are essential to the development of advanced technologies, including defence applications.



From high-performance alloys used in aerospace and naval platforms to rare-earths critical for radar technologies and communications, Tasmania's resources can play a key role in developing innovative technologies to support essential industries.

With over a century of mining history, Tasmania is an ideal destination for growth, innovation, and long-term investment. We have a significant renewable energy advantage that sets us apart from other Australian jurisdictions, being the first in Australia to achieve net zero emissions and 100 per cent renewable energy generation capacity. This enables mineral projects within Tasmania to demonstrate environmental sustainability and high environmental, social and governance standards.

The Tasmanian Government is committed to securing value-adding investment for our mining industry. We want future investors and businesses in this state to succeed. To do this, the Tasmanian Government provides investment in supply chain infrastructure, world-class pre-competitive datasets, supportive policy settings, a robust approvals process and a strongly connected network of industry, government, and research bodies.

Now is the perfect time to invest in Tasmania's rapidly growing critical minerals sector. We welcome business opportunities and are committed to supporting investors in projects that drive job creation, technological advancement, and economic growth.

Hon Felix Ellis

**Minister for Business, Industry
and Resources**

Critical minerals

Critical minerals are defined by Geoscience Australia as elements considered essential for modern technologies, economies or national security, with vulnerable supply chains that threaten availability¹. Increased interest in critical minerals is being driven by demand for renewable energy infrastructure and other technological advancements, and critical minerals are a major focus for explorers and developers within Australia and globally.

Strategic materials are also defined as important for the renewable energy transition and future technologies, but without current supply chain vulnerabilities. This prospectus includes both critical minerals and strategic materials.

Each nation maintains a list of what it considers critical minerals and strategic materials, based on their priorities, access and market demands.

The Australian Government regularly updates its own list, which can be viewed by visiting:

www.industry.gov.au/publications/australias-critical-minerals-list-and-strategic-materials-list

The Tasmanian Government launched its Critical Minerals Strategy in 2024, with a vision to grow a sustainable critical minerals industry in Tasmania, by leveraging its geological, infrastructure and clean energy advantages.

Due to its complex geological setting, Tasmania hosts an abundance of critical minerals and strategic materials that can play a vital role in many future-facing industries, including:



Defence
Technologies



Renewable
Energy



Battery
Technologies



Electronics



Manufacturing



Aerospace



Electric
Vehicles



Healthcare

1. <https://www.ga.gov.au/scientific-topics/minerals/critical-minerals>



Tasmanian critical minerals with defined resources*

Silicon	Rare-earth elements
Tungsten	Fluorine
Nickel	Magnesium
Titanium	Arsenic
Zirconium	Cobalt
Germanium^	Vanadium
Indium^	Bismuth

Tasmanian critical minerals with demonstrated economic potential*

Antimony
Gallium^
Platinum-group elements
Chromium

Tasmanian strategic materials

Zinc
Tin
Copper
Aluminium
Phosphorus

Tasmanian critical mineral occurrences

Molybdenum
Lithium
Niobium
Selenium
Tantalum
Tellurium
Scandium

* Including by-products and co-products
^ By-product from processing

Critical minerals in Tasmania and their uses

1 Tungsten



Construction, ammunition, aerospace

2 Silicon



Solar panels, electronics, microchips

3 Nickel



Aerospace, healthcare, naval vessels

4 Cobalt



Hydrogen fuel cell, jet engines, batteries

5 Fluorine



Propulsion systems, electronics, batteries

6 Rare earth elements



Permanent magnets, defence technologies, electric vehicles

Dolphin
Tungsten

2 Blackwater
Silicon

Avebury*
Nickel

5 Moina
West Skarn
Fluorine

4 South Dora Mining
Cobalt

6 Deep Leads
Rare earth
elements



● Mining operation

□ Mineral occurrence △ Defined resource

* In care and maintenance

Tasmania's mineral wealth

Tasmania has a complex geology with rocks dating from the Proterozoic to the Cenozoic, underpinning its status as one of Australia's most richly mineralised regions.

This complexity has given rise to a robust resource industry, featuring active mining operations, known deposits at various stages of development, and significant exploration potential across known mineralised belts.

The state's mineral endowment is shaped by at least four distinct episodes of economic mineralisation, each contributing to the overprinting, enrichment, and upgrading of commodities.

These processes have concentrated critical and strategic minerals, positioning Tasmania as a premier destination for resource development and investment.²

Tasmania's four major episodes of economic mineralisation



2. www.mrt.tas.gov.au/products/publications/the_geology_and_mineral_deposits_of_tasmania_a_summary

Tasmania's critical mineral and strategic material resources

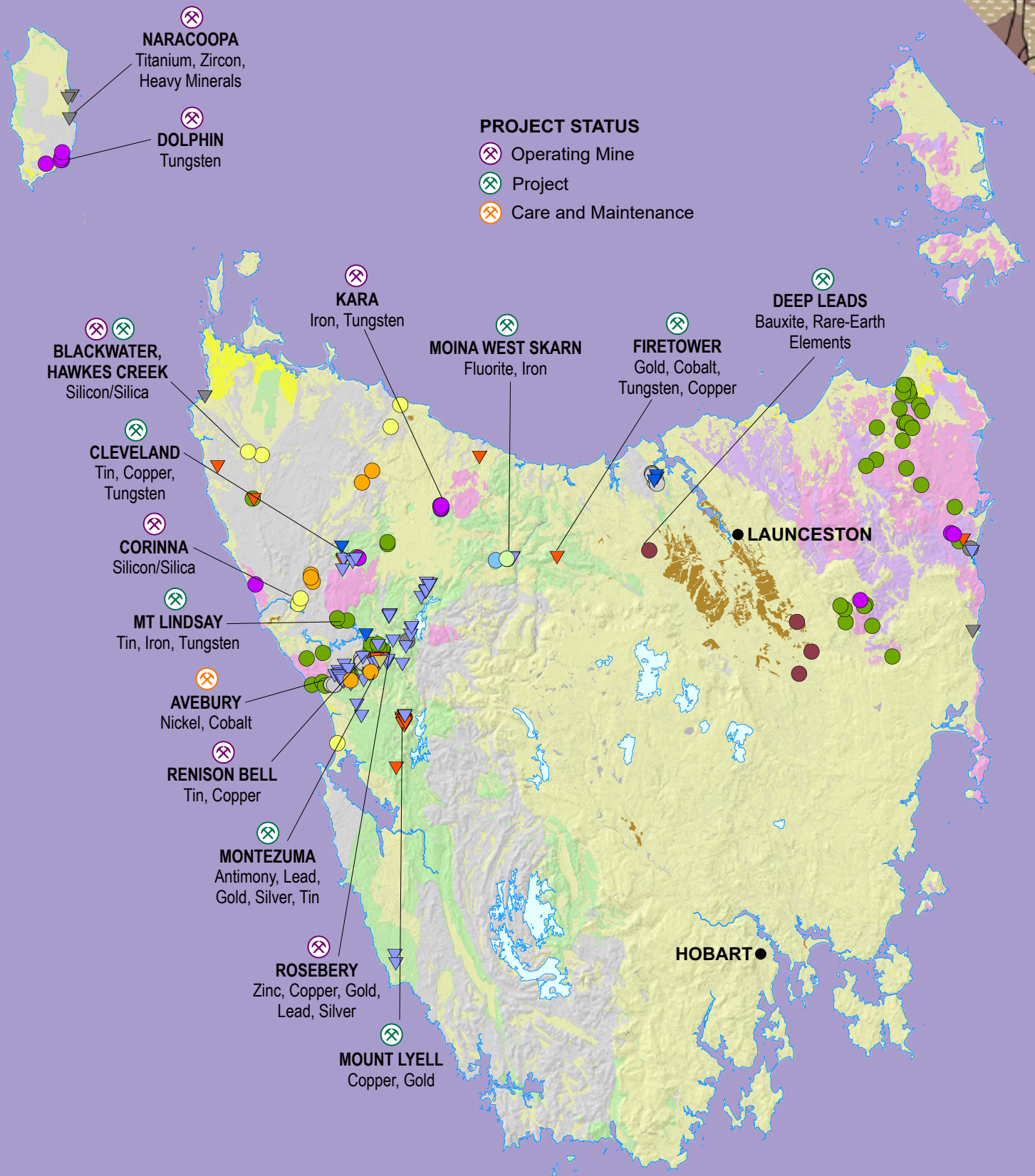
Critical minerals and strategic materials

● Arsenic	■ Heavy Mineral Sands
● Bauxite ± Rare-Earth Elements	■ Rare-Earth Elements
● Bismuth	▼ Copper
● Fluorine (Fluorite)	▼ Zinc
● Silicon (Silica)	▼ Antimony
● Manganese	▼ Titanium and Zirconium (Heavy Minerals)
● Tungsten	▼ Platinum-Group Elements (PGE) and Chromium
● Nickel	
● Tin	

Geological legend

■	Post Carboniferous sequences: sediments, dolerite and basalt.
■	Devonian to Carboniferous granitoids and pyroclastic rocks.
■	Ordovician to Devonian sediments.
■	Cambrian sequences: volcanic rocks, sediments and mafic-ultramafic complexes.
■	Proterozoic sequences: metasediments and granitoids.







Pre-competitive datasets

MRT offers detailed, high-resolution geoscience data to support exploration and land-use planning. These pre-competitive datasets de-risk exploration, decision making and investment. They include:



Comprehensive geological maps



Mineral occurrences



3D geological models



Geophysical survey datasets

Drilling and geochemical datasets



There are several sources of freely available information about the geology of Tasmania, provided by Tasmania's Geological Survey from Mineral Resources Tasmania (MRT).

The Tasmanian Information on Geoscience and Exploration Resources (TIGER) system is a database that captures, maintains, integrates and delivers high-quality geoscientific information of our regions. It is a one-stop-shop for accessing all Tasmania's pre-competitive data.

The MRT Map viewer is another resource that provides a simple way to interact with a wide range of geoscientific data.

Both the TIGER database and MRT Map viewer can be viewed at the following:

www.mrt.tas.gov.au/products



Stewardship and sustainability

Tasmania strikes a rare balance between economic development and environmental stewardship. Its economy features mining, agriculture, forestry, tourism and hospitality, and the Tasmanian Government continues to ensure the mining industry coexists with the preservation of its natural landscape. This is achieved through balanced land use policies that promote minimal impacts to the natural environment, and through continued government and industry progress towards reducing emissions.

Renewable energy

Tasmania is the first state in Australia with the capacity to meet its annual electricity needs from 100 per cent renewable energy generation. This is predominantly due to its hydroelectricity system, which generates over 80 per cent of Tasmania's electricity in an average year ³, and is the backbone of Tasmania's energy system. Thanks to the mountainous terrain, numerous rivers and high rainfall, Tasmania can harness the power of natural resources to provide renewable energy.

Tasmania's energy mix also includes wind energy, batteries, and solar farms, offering cost-effective and environmentally sustainable options for powering mining and mineral processing.⁴ Tasmania also has a Renewable Energy Target to increase its capacity to 200 per cent by 2040.

Mineral projects within Tasmania can benefit through lower emissions mining contributing positively to sustainability targets and ESG goals.

Energy security

Tasmania maintains energy security through its connectivity to the mainland of Australia via the underwater Basslink cable. Basslink allows Tasmania to trade electricity with Victoria, exporting excess renewable energy or importing power when demand is high or hydro generation is low.

Tasmania also has a gas power station located in Bell Bay, this is used rarely during droughts or in energy crisis to supplement hydroelectric power. This ensures a reliable supply of energy is available in Tasmania.⁵

3. www.aemc.gov.au/energy-system/electricity/changing-generation-mix/tasmania

4. www.recfit.tas.gov.au/what_is_recfit/energy_vision/100_target_achievement

5. www.apa.com.au/operations-and-projects/electricity-transmission/electricity-interconnectors/basslink

Emerging innovation in the circular economy

New mining, refining and recycling technologies have the potential to diversify critical mineral supplies in Tasmania.⁶ Emerging innovations such as the processing of ionic adsorption clays and re-processing of tailings, are just two examples of the new technologies Tasmanian industries are exploring.

Instead of discarding tailings, explorers and operators are re-evaluating them as a source of recoverable minerals. Ionic adsorption clays often contain valuable rare-earth elements and processing them efficiently can reduce environmental disruption while maximising resource use.

Historic tailings facilities with economic potential are included in MRT's pre-competitive datasets.


These opportunities demonstrate key principles of the circular economy, including reducing waste, preserving resources and unlocking value from by-products.

Strategic Prospectivity Zones

These zones are areas identified for their high mineral potential. They provide secure ongoing access for exploration and mining on crown land. The areas identified make up about 37 per cent of the total land available in Tasmania.⁷

Mineral occurrences in tailings facilities

1. Cleveland Mine Tailings Dam North (tin, copper, tungsten)
2. Renison Bell Tailings (tin)
3. King Island Scheelite (tungsten)
4. Razorback Tailings (tin)

-  Tailings facilities
-  Strategic Prospectivity Zones



Infrastructure

Tasmania's advanced infrastructure network and transport system ensures smooth logistics. The island's size means its distribution network is quick and efficient, and well-connected to mainland Australia and the international market with freight options via sea and air.

Ports over the state are typically located within 100 km of production sites. A dedicated rail network and frequent shipping services support streamlined supply chains, enabling air-freighted goods to reach overseas markets within 48 hours. These well-established trade links and Australia's proximity to key Asian markets offer strong business opportunities. Additionally, Tasmania has site-ready industrial precincts, ready for businesses looking to establish operations.⁸

TasRail plays a vital role in supporting Tasmania's mining industry by providing an integrated, efficient, and sustainable freight solution from pit to port. Its West Coast rail services connect directly with on-port storage and ship loading facilities, streamlining the transport of mining concentrates and bulk minerals for export.

Tasmania's transmission network, operated by TasNetworks, plays a vital role in powering the state's mining industry by linking energy generation sources to key mining precincts—especially in the mineral-rich North-West region.

Burnie Bulk Mineral Export Facility

The Tasmanian Government is making targeted investments across the mineral supply chain to support industry. For example, in 2024, the Port of Burnie in Tasmania saw the completion of a transformative \$82 million upgrade to its Bulk Mineral Export Facility, including the installation of a state-of-the-art ship loader.⁹

The project replaced aging infrastructure dating back to 1969 and introduced four new hopper units, a modern reclaim system, and a wharf gallery conveyor that seamlessly connects to road and rail networks.

The new ship loader now boasts double the previous loading capacity—up to 2,000 tonnes per hour—significantly enhancing freight productivity and reducing operating costs for the region's mining industry. This investment strengthens Tasmania's supply chain resilience and supports over 500 jobs, marking a major milestone in the state's economic development. This new facility provides the mining industry with reliability, along with environmental and safety benefits.

6. <https://iea.blob.core.windows.net/assets/a33abe2e-f799-4787-b09b-2484a6f5a8e4/GlobalCriticalMineralsOutlook2025.pdf>

7. www.abs.gov.au/ausstats/abs@.nsf/Previousproducts/C620F52A5DC5D08FCA25710E0075625B

8. www.cg.tas.gov.au/investment_opportunities/why_tasmania/impressive_infrastructure

9. www.tasrail.com.au/shiploader-project/



On-island processing

Tasmania has an established mineral processing and advanced manufacturing industry, with existing industrial precincts with renewable energy, port, road, and rail infrastructure access. In Tasmania's North, Liberty Bell Bay is a leading producer of ferromanganese and silicomanganese and is the only commercial ferroalloy operation in Australia.¹⁰ Ferroalloys are used primarily in steel manufacturing, as well as in speciality alloys for aerospace and military application.

The Nyrstar zinc works in Tasmania's south predominantly produces zinc and has been operational since 1916. Nyrstar is in the process of exploring the feasibility of extracting critical

minerals germanium and indium as by-products of the zinc smelting process.¹¹ Indium is a key material used on smartphone screens, renewable energy technology and innovative technology. Germanium is used in defence applications primarily for its unique infrared properties, which enable thermal imaging.

Tasmania's established mineral processing and advanced manufacturing industries demonstrate our capability in providing the setting for expanding this capacity to critical minerals processing in the future. The Tasmanian Government is committed to supporting existing industrial precincts for future processing needs.

10. <https://libertysteelgroup.com/our-operations/liberty-steel-australia/>

11. www.nyrstar.com/resource-center/press-releases/transitionary-funding-secured-for-nyrstar-australias-critical-metals-processing

Collaborations and partnerships

Tasmania boasts a well-connected network of industry leaders, researchers and government partners, united in their commitment to advancing the state's critical minerals sector.

CODES – Centre for Ore Deposit and Earth Sciences

CODES, the Centre for Ore Deposit and Earth Sciences, is a globally recognised research hub based at the University of Tasmania. It is a leading centre for ore deposit research, focusing on mineral exploration, geoscience, sustainable mining practices and geoanalytical methodology. Its research footprints span 35 countries, cementing its roles as a global leader in the field of Economic Geology. CODES provides cutting-edge insights and training of the next generation of geoscientists as well as analytical services for the minerals industry.

CODES offers an industry partners program where it can cater to the research and training needs of individuals through to major multinationals. Read about CODES and becoming an industry partner by visiting:

www.utas.edu.au/codes/home

Mornington Core Library

MRT maintains a core library in Mornington, on the eastern outskirts of Hobart. It houses drill core samples, rock specimens and historical collections from

Tasmania's mining and exploration history, from early prospecting efforts to present. Everything is carefully archived to preserve its value for future generations, in accordance with the *Mineral Resources Development Act 1995*.¹²

Industry professionals, universities and research institutions can access these materials for viewing and sampling, supported by cutting and analytical facilities, geological databases and workspaces. MRT also offers a HyLogger service to scan drill cores, chips and hand specimens. This system was developed by the CSIRO, Australia's national science agency, to rapidly log mineralogy and capture high resolution digital images to assist geologists interpreting drill cores.

Skilled workforce

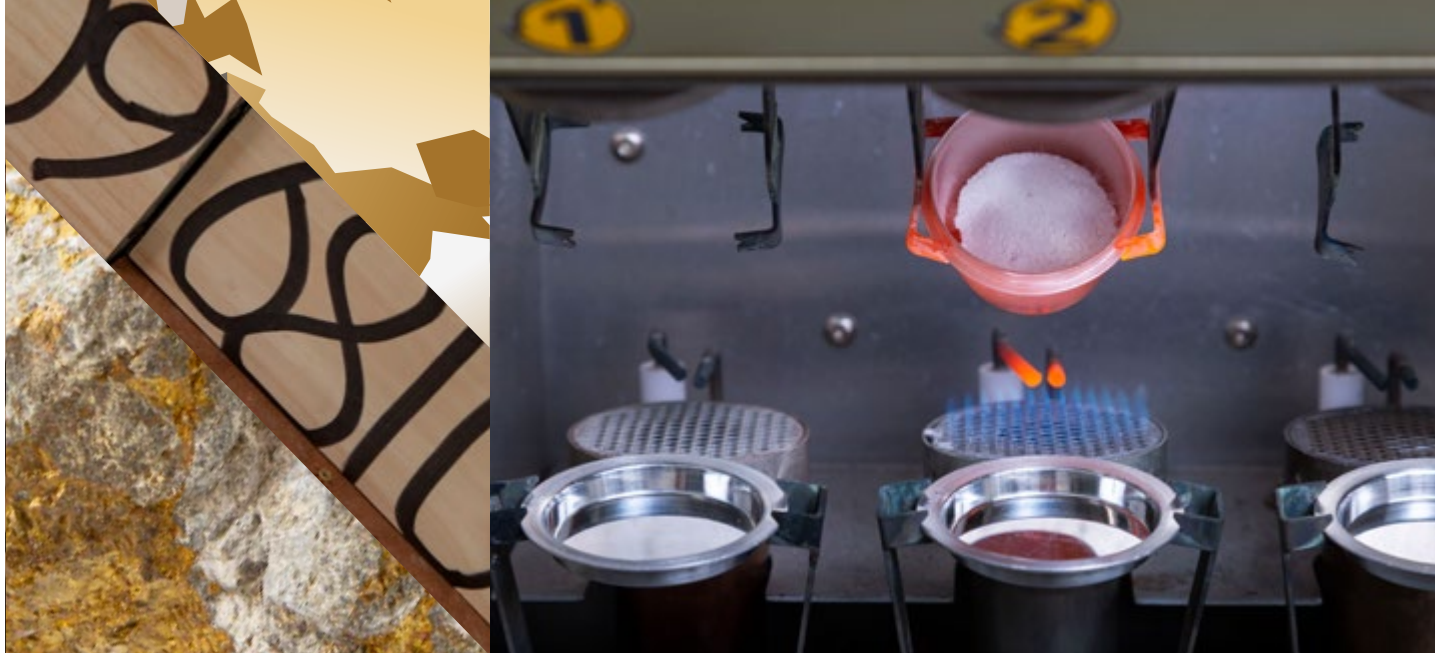
Tasmania's mining workforce is known for its adaptability and technical proficiency. Tasmania has a long history in mining and has fostered generations of highly skilled workers, with strong collaboration between industry and government creating training and education pathways that lead to a skilled workforce.

TMEC

The Tasmanian Minerals, Manufacturing and Energy Council (TMEC) is an industry body representing the mining, manufacturing and energy sectors in Tasmania. TMEC focuses on workforce development and innovation to support businesses and workers in these industries. They run programs such as the Tasmanian Mining Pathways Passport to upskill workers and strengthen the industry.¹³

12. www.mrt.tas.gov.au/products/services/mornington_core_library/viewing_requests

13. <https://tmec.com.au/>



Supportive government

Successive Tasmanian governments have actively promoted mining, through policies and legislation that minimises sovereign risk, promotes the mining industry and protects the environment. It has also taken action to accelerate development of critical mineral projects.

In 2024 the Tasmanian Government committed \$3 million over three years to the Critical Minerals Initiative. This is intended for research and studies to support the Tasmania critical minerals sector.

Targeted funding has been dedicated to the continued collection and maintenance of publicly available geological and geophysical data by the Tasmanian Geological Survey from Mineral Resources Tasmania (MRT), mapping initiatives and research projects, the expansion of the Mornington Core Library, new analytical equipment and co-funding of drilling exploration through the Exploration Drilling Grant Initiative (EDGI) grant.

The mining sector is a top export earner for Tasmania. In 2025 it contributed more than \$2.8 billion to the Tasmanian economy and provided 6,000 jobs.

The Tasmanian Government recognises the economic importance of a healthy mining industry and provides strong policy support for future projects.

Current government initiatives

The Tasmanian Government is supporting co-funded exploration drilling projects, through its Exploration Drilling Grant Initiative (EDGI). Designed to boost greenfield exploration across Tasmania, the program prioritises minerals listed in the 2024 Australian critical minerals list.

With a \$5 million commitment over 10 years, this initiative aims to drive investment and discovery in the sector. MRT is responsible for administering the program.¹⁴

14. www.mrt.tas.gov.au/exploration/exploration-drilling-grant-initiative-round-11



Since its inception in late 2018, EDGI co-funded drilling programs have contributed valuable geological information to exploration projects undertaken by many explorers operating in Tasmania.

Tasmania's education sector also benefits from the EDGI program, with all drill core and samples stored at the MRT Core Library in Mornington becoming available for public viewing and sampling after a confidentiality period of six months.

Notable success from the EDGI programs have included:

EDGI Round 6 2022	ABx Group's exploration drilling around their Deep Leads – Rubble Mound Rare Earth Elements deposit near Deloraine, contributing to definition of a significant clay hosted rare earth elements resource estimate.
EDGI Round 8 2023	The intersection of a new zone of high-grade tin and base metal mineralisation, with anomalous Indium and gallium, at Stellar Resources' North Scamander prospect.
EDGI Round 9 2024	Elementos Ltd, deep beneath the historic Cleveland Mine, has also highlighted the potential of the Foley Zone to host a large deposit of tungsten, fluorine, rubidium, molybdenum and bismuth.



Getting started with tailored support

The Office of the Coordinator-General (OCG)

The OCG is the first point of contact for any business looking to establish, expand or relocate to Tasmania. The OCG's specialist team works with potential investors to provide tailored, confidential assistance. The OCG does this by:

- providing information on Tasmania's industry capabilities and strengths, specific business opportunities, investment, regulations and government assistance to support business case development
- assisting investors to identify and select the best Tasmanian site for their business
- facilitating visits to Tasmania, assisting with itineraries and arranging appropriate meetings

- providing introductions to local industry, government departments and potential joint venture partners
- identifying potential sources of financial assistance from various levels of government
- assisting access to export markets.

Mineral exploration process

Mineral exploration in Tasmania is a straightforward and efficient process, administered by MRT, the division within the Tasmanian Government that regulates mineral and petroleum exploration in Tasmania, and provides up-to-date geoscientific information.

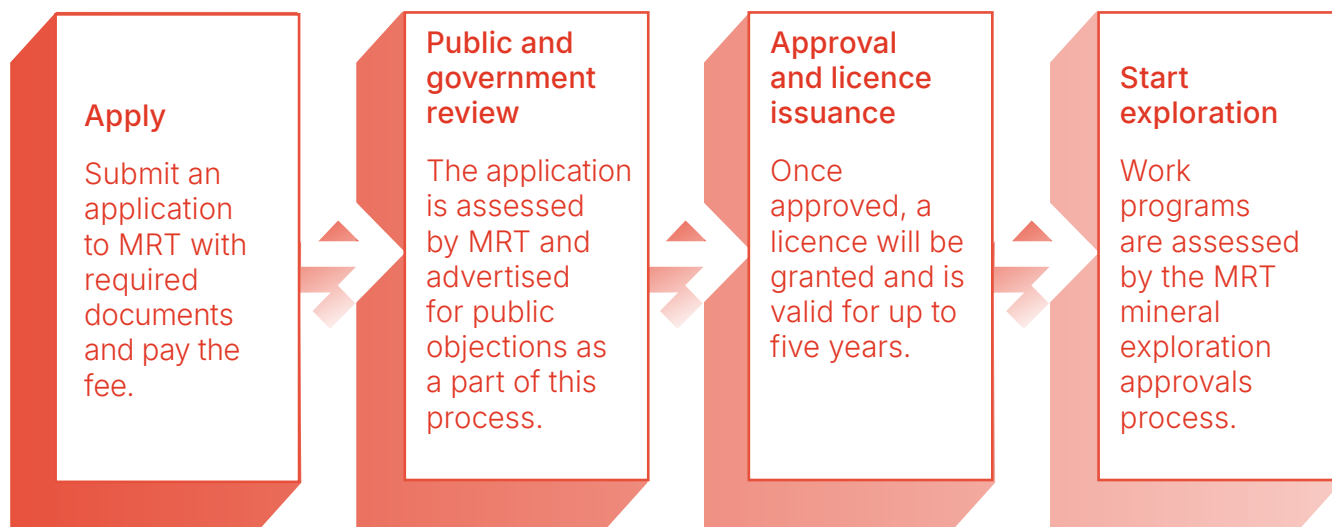


Tasmania's smaller size means that government departments, regulators and support services are easier to access. Exploration activities in Tasmania are generally more streamlined and predictable, compared to other jurisdictions.

The infographic below details the process for exploration application and approvals.

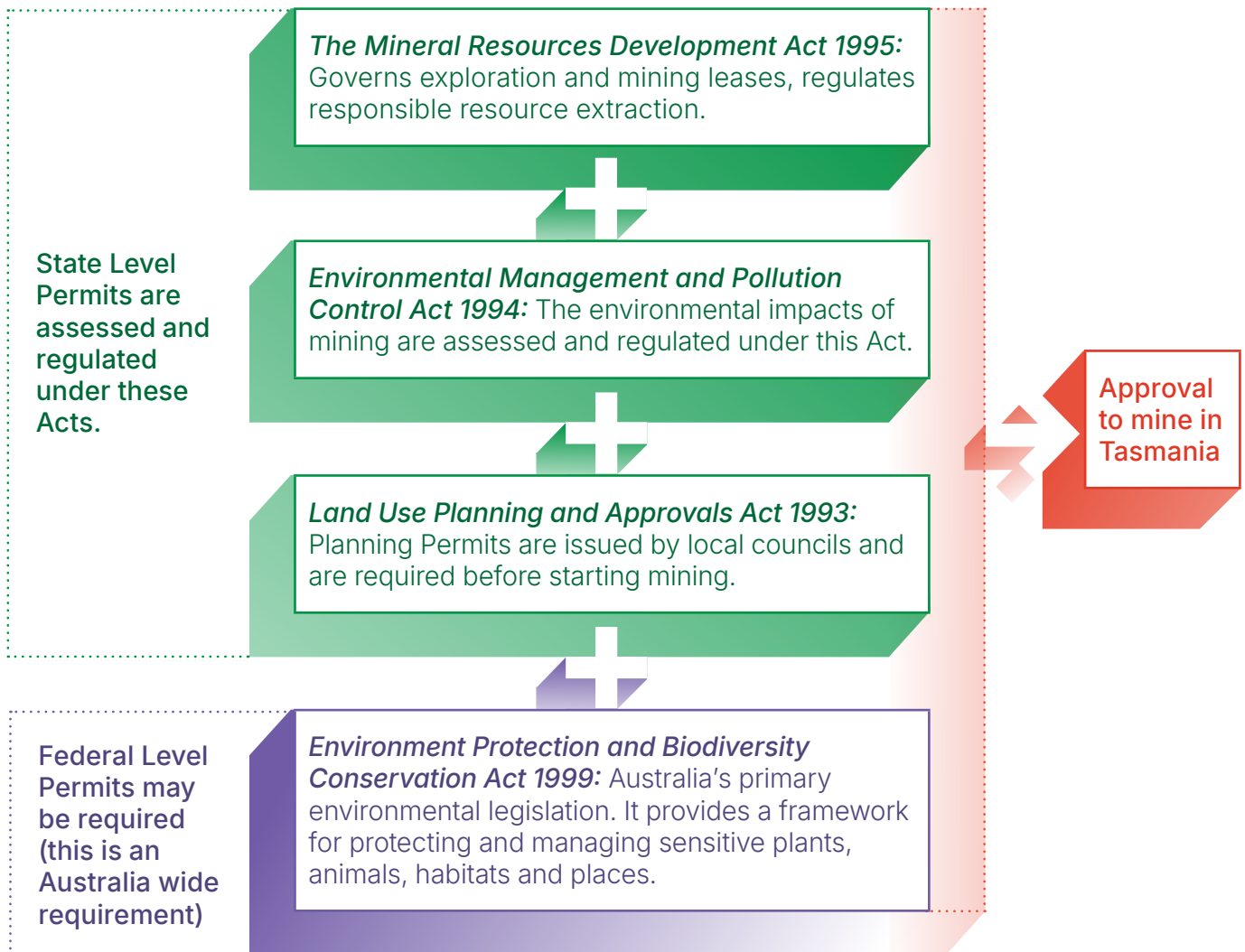
For more information visit:

www.mrt.tas.gov.au/exploration/exploration_licences



Mining approvals process

Mining in Tasmania is regulated through a framework of long-established state and Australian laws. Approval under each of these Acts is required to commence mining in Tasmania.



Average application processing times:

- Mining lease: 6–9 months
- Exploration license: 8–10 months

Noting that this timeframe estimate is dependent on complexity, type of application and information provided by the applicant, and current level of activity in Tasmania.



Contacts

The Office of the Coordinator General (OCG)

General queries and guidance for future developers to relevant regulatory bodies.

Visit: www.cg.tas.gov.au

Phone: (03) 6777 2786

Email: cg@cg.tas.gov.au

Mineral Resources Tasmania (MRT)

General queries about applications, and the approvals process.

Visit: www.mrt.tas.gov.au

Email: mrt.info@stategrowth.tas.gov.au

Environmental Protection Authority (EPA)

EPA Tasmania is the state's environmental regulator. Requests for information or guidance on regulations can be directed to the Industrial Regulation Branch.

Visit: <https://epa.tas.gov.au>

Phone: (03) 6165 4599

Email: Enquiries@epa.tas.gov.au

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