

August 2025

Annual Report

Rehabilitation of Mines 2024-25



Contents

1.0 Rehabilitation Trust Fund (RTF) Strategy.....	6
1.1 Project Overview	6
2.0 Project Site Synopsis.....	8
2.1 Anchor	8
2.2 Balfour	8
2.3 Merrywood	11
2.4 Royal George	11
2.5 Storys Creek	12
2.6 Sisters Hills	14
3.0 Adits and Shafts.....	14
3.1 Lefroy	14
3.2 Zeehan	15
4.0 Quarry Rehabilitation Sites.....	16
4.1 Rothalls Road Rehabilitation	16
4.2 Rehabilitation Monitoring	16
5.0 Scotia.....	18
6.0 Legacy Mine Database - DRF Grant Submission	18
7.0 References	19



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1.0 Rehabilitation Trust Fund (RTF) Strategy

The Rehabilitation Trust Fund aims to facilitate the rehabilitation of land that has been impacted by past mining or exploration activities. This fund is defined under the *Mineral Resources Development Act 1995* (The Act) and ensures that financial resources are available for addressing environmental damage, particularly from abandoned mining sites. A Committee has been established to provide advice on the management of the Trust Fund, comprising of government and industry representatives from:

- Mineral Resources Tasmania (MRT);
- Department of Natural Resources and Environment (NRE - Parks and Wildlife Service);
- Environmental Protection Authority (EPA);
- Sustainable Timbers Tasmania (STT);
- Cement Concrete and Aggregates Australia (CCAA); and
- Tasmanian Minerals, Manufacturing & Energy Council (TMEC).

The committee meets quarterly to provide progress reports on individual projects and MRT produces a report of Trust Fund activities annually. The following report is the annual report for the financial year July 2024 through to June 2025. It outlines ongoing and completed projects, along with the operational budget for the 2024/2025 financial year.

1.1 Project Overview

The RTFs purpose is to reduce public health and safety risk, stabilise landforms, enhance biodiversity, eliminate contamination, improve visual appearance, and return amenity at abandoned mine sites. To achieve these priorities, the RTF manages a range of active programs:

1. Rehabilitation, maintenance, and weed control
2. Water quality monitoring
3. Adit and shaft capping
4. Legacy mine database

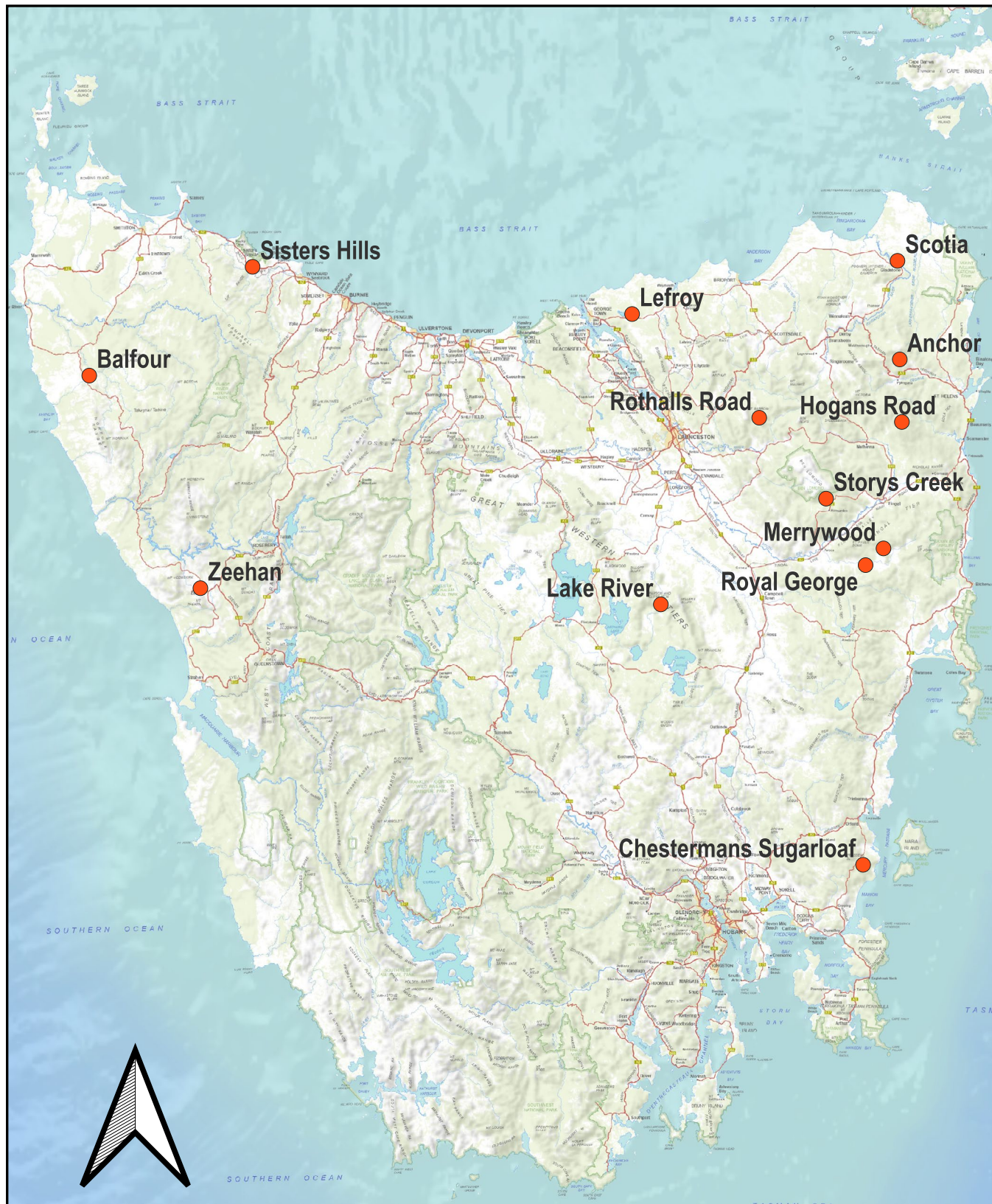
Ongoing projects related to weed control and routine maintenance have continued at the following sites in FY24/25:

1. Anchor
2. Balfour
3. Merrywood
4. Royal George
5. Storys Creek
6. Sisters Hills

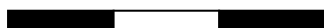
During this period, the RTF undertook adit and shaft capping at the following sites in response to specific intergovernmental and industry requests:

- Lefroy
- Zeehan

In addition to the above listed programs, the RTF also undertook active rehabilitation and routine rehabilitation inspections across a number of abandoned quarry sites and completed dewatering works at the legacy Scotia mine site. A map of project locations is provided in Figure 1 and a site-based synopsis is provided in Section 3.0.



0 25 50 75 km



Legend

- Project Sites - FY24/25

Department of State Growth
Mineral Resources Tasmania
Date: 28/05/2025
CRS: GDA94/MGA Zone 55

Figure 1. 2024-25 Rehabilitation Trust Fund program sites.

2.0 Project Site Synopsis

2.1 Anchor

The Anchor Mine was first worked during the “tin rush” in the 1870s. Initial developments included an underground mine in the late 1800s, followed by a shift to open-cut mining as ore grades declined. Operations ceased in 1913.

The Anchor site was redeveloped in the late 1980’s and tailings from the underground mine were impounded in the valley below the processing area. The mine closed in 2000, with some unsuccessful rehabilitation works completed thereafter.

The RTF funded the establishment of survey prisms and a drone survey in response to historical community concern regarding the stability of the dam wall. Surveillance was undertaken in March 2023, May 2023, and May 2024. No movement was observed based on a comparative analysis of the prisms.



Figure 2. Erosion mitigation required on the Anchor dam wall (October 2024).

Despite underlying stability, significant rill erosion is evident on the dam face. In October 2024, granulated fertiliser was spread on the batter slope of the dam wall to promote the establishment of lichen and moss for stability (Figure 2). The site was inspected in February 2025 and little change was observed. MRT will investigate further options involving surface coverings and revegetation for potential funding by the RTF in 2025/26.

Surface water sampling at Anchor was conducted in January 2025 as a follow-up to initial MRT sampling in 2011 and further sampling in 2016, 2019 and 2022. The sampling results suggest that the Anchor Mine does not appear to be having a notable impact on the water quality in the Groom River downstream.

2.2 Balfour

The Balfour mining field is a legacy tin and copper mine site in northwest Tasmania. Tin was discovered in about 1884 and productively worked until 1899. Copper replaced tin in 1901 with activity intensifying during 1908 and reaching a peak in 1912. Unfortunately, using the mining methods of the day, the mining field rapidly declined and was officially abandoned in 1924, leaving a considerable area in need of rehabilitation. RTF has been active in rehabilitation at the site since 2002.

In December 2024, the removal of *Kunzea ambigua* from historical revegetation sites continued on Specimen Hill in the proximity to Balfour. *Kunzea ambigua* is locally endemic to northeastern Tasmania. Removal of this species has been ongoing since 2019, with observations significantly reduced during the 2024 effort (Figure 3). Follow-up weed monitoring is scheduled for November 2025, coinciding with the onset of flowering.

Mineral Resources Tasmania, funded through the RTF, has undertaken several studies to inform decision-making around the ongoing management of the Balfour Central Shaft (BCS) site. Proximal to the BCS is the repository dam which retains a significant volume of metalliferous sludge. The condition of this dam is very important as failure of the dam could result in the release of metalliferous sludge from storage, negatively impacting the downstream environment. A dam inspection in 2022 showed that the dam was in poor repair and does not meet the current standards of dam construction. Continuous dam surveillance is required to meet ANCOLD guidelines.

The RTF has commissioned GHD to complete a design and bill of quantities for the upgrade of the embankment wall in order to mitigate risk of failure and long-term need for dam safety surveillance (Figure 4). The design program is forecast for completion in September 2025, with potential for commissioning and commencement of on ground works within the financial year. Concurrently, further options are being considered for the long-term rehabilitation of the Balfour site.

Adits and shafts associated with the Balfour Central Mine discharge water to Emmetts Creek, which in turn flows to the Frankland River and eventually downstream into the Arthur River. Surface water sampling was conducted at Balfour in January 2025 as part of an ongoing program that began in 2017. The program has shown that the water quality in the Frankland River downstream of the Balfour site is variable over the seasons due to high water flows in the winter, and comparatively lower water flows in the summer months. Metal concentrations detected in the Frankland River at Blackwater Bridge are likely amplified by influents downstream of Emmett's Creek. Sampling will continue in 2025/26.

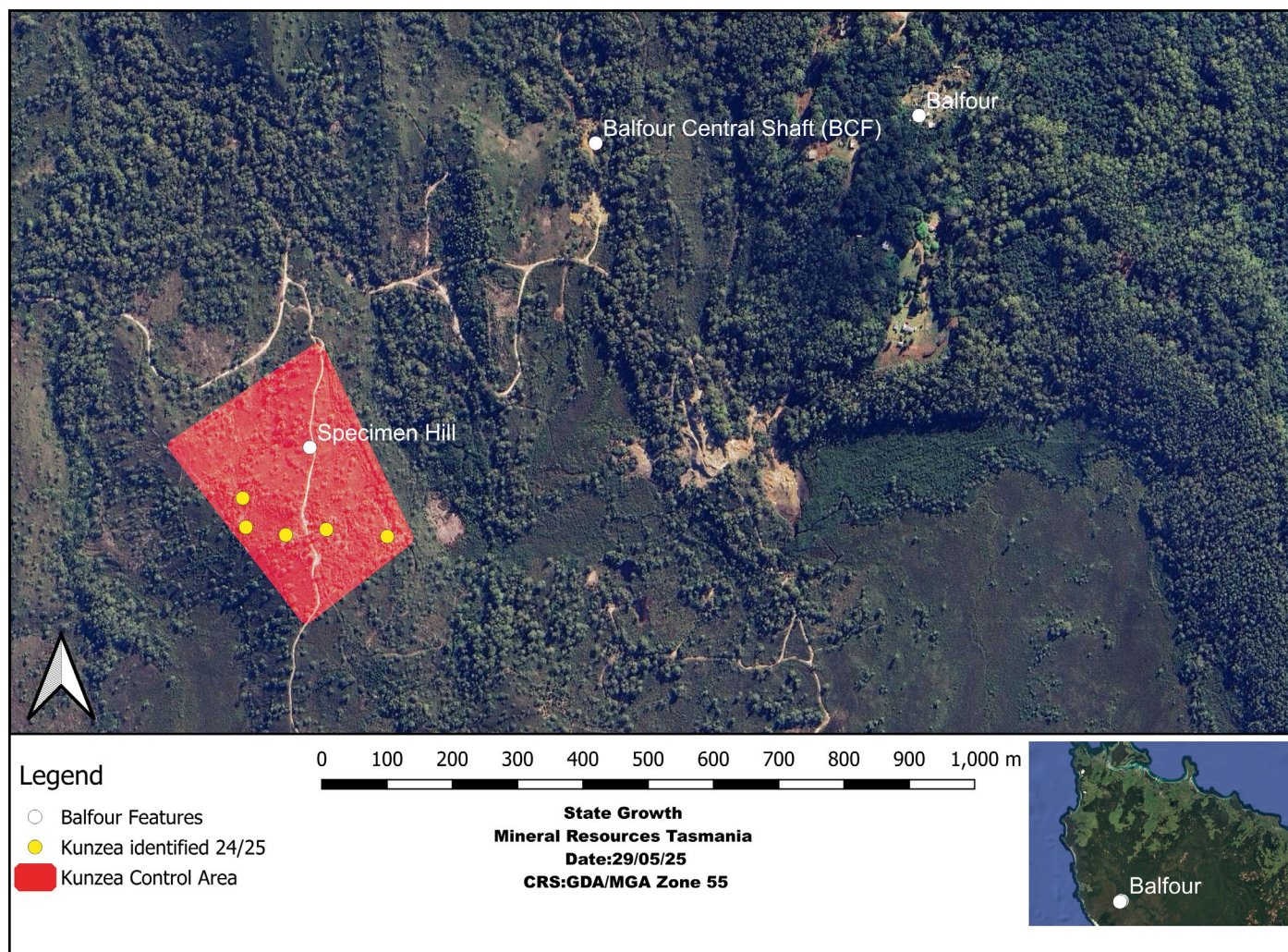


Figure 3. Specimen Hill *Kunzea sp.* control area, December 2024.



Figure 4. Balfour Site features including sludge dam (bottom left), Balfour Central Shaft (bottom right) and dam embankment wall (top), January 2025.

2.3 Merrywood

The Merrywood Coal Mine operated between 1947 and 1963, and again from 1989 to 1997, serving as the state's leading coal producer for much of its operational life. Following mine closure and lease revocation in May 2000, the RTF remediated the site.

In response to community concerns regarding the quality of water in Merrywood Creek downstream of the coal mine, MRT, authorised by the RTF, commenced a water sampling program from late 2021 until June 2023. In addition, MRT commissioned a project to investigate the hydrology, water chemistry, and potential drivers of water quality within the Merrywood catchment. This report was provided to MRT in July 2024 and identified alkaline drainage as a pathway for metal transport into a downstream dam, where the metals precipitate under anoxic conditions leading to water quality degradation. Remediation options under consideration include: sediment removal, upstream treatment, and modification of the dam outflow. However, the RTFs ability to implement these measures is constrained by jurisdiction, as the dam is located on private land and current legislation restricts the use of Trust Fund resources on Crown land.

Landslide monitoring at Merrywood Coal Mine, initiated in October 2022, is ongoing as part of a statewide active landslide study led by the MRT Geohazards team (Figure 5). The program integrates drone imagery, geological, meteorological, and site-specific data to assess subsidence patterns in relation to environmental and climate factors. Surveillance in October 2024 included the inspection of previously installed tell-tales, confirming ongoing displacement, particularly near shear lines at the landslide crest. While the landslide currently poses minimal risk to public safety due to its remote location, MRT will maintain regular monitoring as part of its broader geohazard risk management strategy and to inform ongoing rehabilitation at the site.

2.4 Royal George

Royal George is a legacy tin mine located in north-east Tasmania, immediately south of the town of Royal George. Mining activity at the site occurred between 1911 and 1928, with around 900 tonnes of tin concentrate produced. The site workings included an open cut mine, an adit, a shaft, and a drive.

The RTF has managed progressive rehabilitation at Royal George since 2008, including drainage diversion, earthworks, application of lime, fertiliser and mulch, native seeding, and weed management. Re-vegetation has been determined complete, with a recommended inspection to occur in 4-5 years.

Ongoing weed management to control Californian thistles (*Cirsium arvense*), Gorse (*Ulex europaeus*), and Montpellier Broom (*Genista monspessulana*) at Royal George was conducted in December 2024. Only isolated individuals of each species were identified and treated; however, ongoing inspections and a minimum of biannual treatment will be required into the future. Woody weeds such as gorse and broom remain a concern at the site due to nearby unmanaged populations on private land. MRT will continue to work with local authorities to manage issues relating to unrestricted access and public dumping.

Water quality monitoring of tailings inflow and outflow was not conducted during the 2024–25 reporting period due to dry conditions. However, to maintain a continuous record of background water quality, sampling was carried out at St Pauls River, upstream of the tailings outflow, in January 2025. MRT will continue to monitor local conditions and aims to align future water sampling with high rainfall events to capture surface runoff from the rehabilitated tailings area.

Microbiological sampling of the community water tank at the Royal George Hall has been conducted by MRT since 2017. Property Services confirmed that the hall (and tank) were transferred to private ownership in June 2024. MRT and the RTF no longer have any ongoing responsibility for the infrastructure or obligations for water quality testing related to the tank.



Figure 5. Comparison of photogrammetry from November 2022 (Centre) to March 2023 (right).

2.5 Storys Creek

Tin and wolfram were first mined in 1895, originally via blind adits driven into outcrops by Side Creek, which drains into Storys Creek below the later established mine site. Storys Creek Mining Company was then established and expanded the Side Creek workings. By the early 1920s, the Storys Creek Tin Mining syndicate was the main wolfram producer in the state and an important producer of tin. By 1960, the operation had produced about 800 tonnes of tin and 6300 tonnes of wolfram concentrates. Ore was processed at the Storys Creek Mine until December 1971 when the processing plant was shut down. Thereafter, ore was transferred to the Rossarden mine for processing. Storys Creek mine was operational until 1979.

Since the early 2000s, the RTF has been funding ongoing remediation works at the Storys Creek Mine, including the relocation of precipitate and jig tailings, construction of an anoxic limestone drain (ALD), limestone spreading, and adit capping. Implementation of these activities has seen demonstrable improvements in water quality and its suitability for downstream agriculture and livestock use, however MRT are still working to improve water quality in the immediate vicinity of the milling precinct, particularly addressing the discharge from adits flowing into Side Creek just above its confluence with Storys Creek. In July 2024, the RTF received a report summarising the results of extensive on-site activities commissioned in 2022, which included bore design and installation, a hydrological assessment, and a detailed feature survey of the area. In addition, this report provided a 3D model demonstrating how historical workings have created high permeability zones for groundwater infiltration into the mineralised veins and local groundwater system (Figure 6).

The report recommended priority features for remedial action, recommending drainage diversion and surface capping to reduce surface water penetration. MRT will look to progress this program in FY 25/26. Key focus points for progression involve:

- Scope for functional repair of ALD;
- Analysis of surface microtopography for the optimisation of drainage placement and design;
- Identification of source material proximal to historical mine site to overcome load limit constraining transportation via main access road;
- Approvals for sourcing capping material and quotation for processing and supply;
- Development scope for the capping and revegetation of priority surface features.

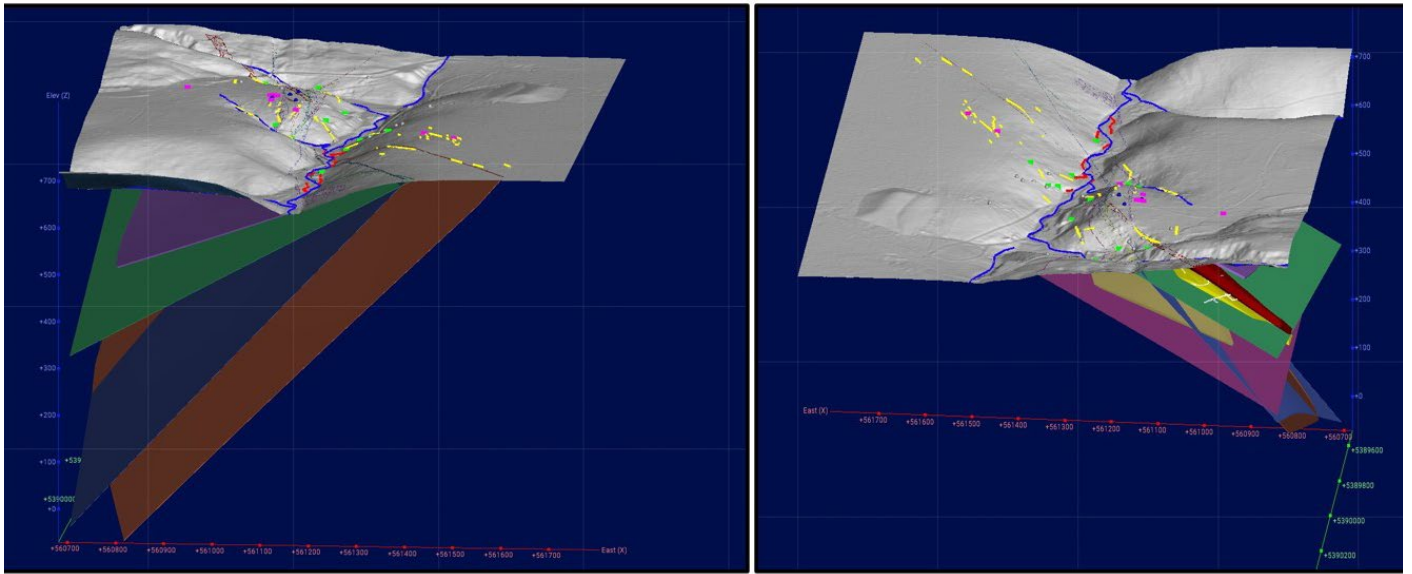


Figure 6. Conceptual hydrogeological groundwater model (not to scale) (Hydro Earth, 2024).

In February 2025, MRT conducted weed mapping for Ragwort (*Senecio jacobaea*) at the Storys Creek Mine following a notification from a local resident about the species' increased presence.

Ragwort is a declared weed under the *Tasmanian Biosecurity Act 2019* and has an associated statutory weed management plan recommending eradication as the most appropriate management objective. The RTF funded an autumn weed control effort, which was completed in April 2024 (Figure 7). The intent of the effort was to eradicate first year rosettes in order to reduce the number of likely flowering individuals in summer 2025/2026. Weed mapping will be scheduled for early December 2025 and follow-up control is proposed for January 2026.



Figure 7. Ragwort (*Senecio jacobaea*) and main face of milling precinct where greatest population was surveyed, January 2025.

2.6 Sisters Hills

Remediation of the Sisters Hills quarry has been ongoing since 2010. Natural State has been responsible for the implementation of the Sisters Hills Weed Management Plan, commissioned by the RTF in 2018 (Figure 8). In November 2024, Natural State continued with the program undertaking progress mapping and weed control. The 2024 survey indicated successful eradication of Blackberry (*Rubus fruticosus*), Blue Butterfly Bush (*Buddleia* sp.), Spear Thistle (*Cirsium Vulgare*) and Montibetia (*Crocasmia* sp.) across the sites. A continuation of the programs in 2025/26 is recommended to manage recruiting Pine (*Pinus radiata*), Pampus grass (*Cortaderia selloana*) and Spanish Heath (*Erica lusitanica*).

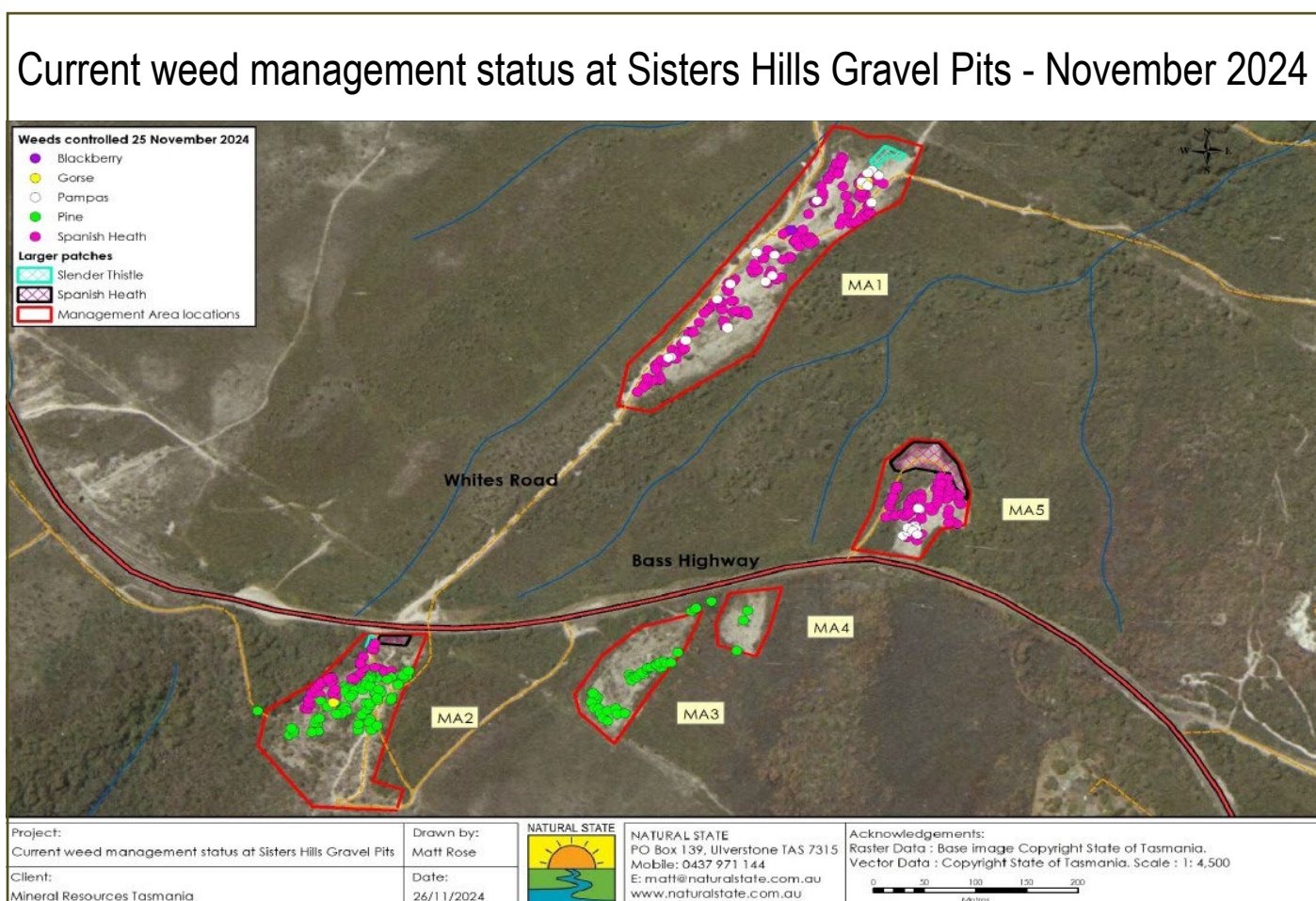


Figure 8. Future target species and focus areas for ongoing management, Sisters Hills, November 2024.

3.0 Adits and Shafts

The RTF funded the remediation of two areas of subsidence in response to requests from local management authorities for advice, support, and funding. MRT undertook historical investigations, advised best practice remediation, and administered funding.

3.1 Lefroy

The Tasmanian Parks and Wildlife Service (PWS) reported a surface collapse in proximity to the Lefroy township in October 2024. Historical mining records indicated that the ground subsidence was likely associated with the Point and Crown shaft and workings. Remediation works involving excavation, back filling with clean fill, and leveling were completed in March 2025 (Figure 9).



Figure 9. Historical workings overlay (top left), sinkhole (bottom left), and remediation works (right), Lefroy, 2024/25.

3.2 Zeehan

Mineral Resources Tasmania were contacted by the West Coast Council regarding subsidence at the Zeehan cemetery car park (Figure 10). Historical records indicated a likely association with Queen No. 2 shaft and drives. MRT provided the West Coast Council with advice regarding best practice approach for remediation and the RTF contributed partial funding for remediation works. Work was completed in February 2025.



Figure 10. Sinkhole (left) and completed remediation (right), Zeehan Cemetery, March 2025.

4.0 Quarry Rehabilitation Sites

4.1 Rothalls Road Rehabilitation

Rehabilitation of a former quarry at Rothalls Road was completed in April 2025. Rehabilitation actions were delivered according to the Rothalls Road Rehabilitation Plan and the EPA quarry code of practice. Comparative As of the quarry site pre and post rehabilitation earthworks are provided in Figure 11. MRT will continue to monitor the site biannually to assess the stability of earthworks and vegetation establishment with the intent to return the site to the regional management authority once safe, stable, and non-polluting.



Figure 11. Comparison of Rothalls Road Quarry pre (left), and post (right), rehabilitation.

4.2 Rehabilitation Monitoring

During FY 24/25, MRT continued monitoring at a number of recently remediated quarry sites including:

- Chestermans Sugarloaf (Figure 12)
- Lake River Road (Figure 13)
- Hogans Road. (Figure 14)

On inspection, all sites remain safe, stable, and non-polluting, however additional time is needed for vegetation to establish and mature.

Water quality monitoring commenced at Hogans Rd. in 2017 due to identification of AMD leaving the site. Sampling conducted in 2024 indicated significant improvement in key indicators such as pH, conductivity and metal concentrations with vegetation now establishing in the outflow channel (Figure 14). At the catchment level, 2024 water monitoring indicates that parameters for pH and metals fall within the freshwater ANZECC trigger values for 95% aquatic species protection.

MRT will continue to monitor these sites to ensure they are safe, stable, and self-sustaining.

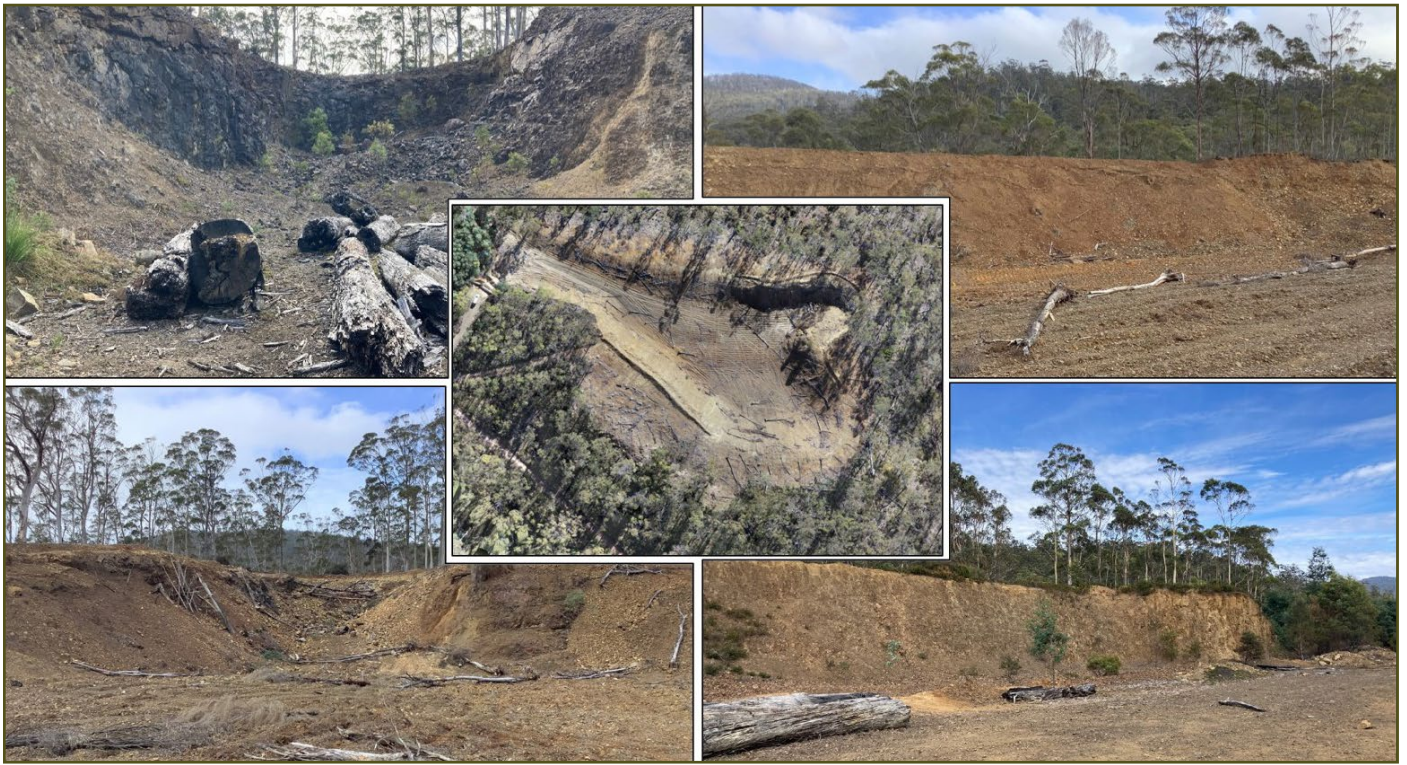


Figure 12. Comparison of Chestermans Sugarloaf quarry pre and post rehabilitation.



Figure 13. Comparison of Lake River Rd. Quarry indicating establishment of vegetation in rip lines.



Figure 14. Shell grit established during rehabilitation (left) and aquatic vegetation in quarry outflow (right), October 2025.

5.0 Scotia

Mineral Resources Tasmania (MRT) has managed the care and maintenance of the Scotia mine site in north-east Tasmania since 2014. During this period, MRT has accumulated significant data through surface water sampling, ground water sampling, water level recording (tailings dams and ground water wells), photogrammetry, LIDAR, and hydrological surveys. This data offers valuable insights into the lithological, geochemical, and mineralogical factors influencing water quality and establishing pre-mining environmental conditions at the site.

MRT carried out a dewatering campaign in May 2025 (Figure 15) funded through contributions from the RTF, facilitating water quality analysis, as well as pump mobilisation, hire, and maintenance. Operations were conducted in full compliance with permit conditions, and water sampling indicated that the receiving Ringarooma River was not adversely impacted, with physiochemical properties and metals remaining within acceptable concentrations.



Figure 15. Outcome of dewatering activities on Scotia Main Pit, May 2025.

6.0 Legacy Mine Database - DRF Grant Submission

Mineral Resources Tasmania (MRT) has launched the Legacy Mine Database to support the systematic assessment and rehabilitation prioritisation of abandoned mining features across Tasmania. This initiative incorporates a risk-based field assessment tool that evaluates safety, environmental, and heritage risks, aligning Tasmania's approach with national standards and similar programs in other states. These integrated tools and processes are designed to enhance the prioritisation of rehabilitation efforts in accordance with the National strategic framework for managing abandoned mines in the minerals industry (MCMPR and MCA, 2010).

To further advance this work and expand field capacity, MRT has sought support from the RTF committee to submit a grant application to round three of the Disaster Readiness Fund (DRF). The proposed project builds on existing assessment tools and database infrastructure, while seeking additional funding for external framework validation, stratified GIS-based prioritisation, and increased capacity to conduct comprehensive field assessments of all Tasmanian legacy mine sites over a three-year period commencing January 2026. Successful applicants will be notified in September 2025.

7.0 References

MCMPR & MCA. 2010. *Strategic framework for managing abandoned mines in the minerals industry*, Canberra, Australia: MCMPR & MCA.



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