

# Legacy Mines Annual Statement 2022-23

## Purpose

This Annual Statement outlines the activities and achievements of the Legacy Mines Unit (LMU) and Mining Remediation Fund (the Fund) for the 2022-23 financial year, as well as outlining proposed forward works. Releasing this Statement supports the Government's commitment to strong governance by providing a transparent overview of expenditure and activity under the Fund and addresses a key deliverable from the Legacy Mines Unit Strategic Plan 2021-2025.

The Department of Industry, Tourism and Trade (DITT) reports on the Fund in its Annual Report, which is available on the DITT website (<https://industry.nt.gov.au>). This Annual Statement is an expanded summary showcasing the activities undertaken this financial year through the Fund and Legacy Mines Work Program.

The Rum Jungle Project is not managed, nor financed through the Fund.

## Mining Remediation Fund

All mining operators in the Northern Territory must pay a non-refundable annual levy equivalent to 1% of the total amount of the security held on 1 July each year.

The Mining Remediation Fund is financed by the levy and is used to address environmental harm, including safety risks, caused by legacy mines. Legacy mines and legacy mine features are mining activities where no security is held or the security has been expended.

The NT Government manages the Fund, which is an 'Accountable Officer Trust Account' established under Section 46A of the *Mining Management Act 2001* and in accordance with Section 7 of the *Financial Management Act 1995 (NT)*.

Commencing in late 2022, the Fund is invested with interest earned returned to the Fund to be used for remediation purposes.

During the 2022-23 financial year, the Fund facilitated remediation projects across the Territory, with \$1.3 million (excluding GST) expended. This represents a steady upward trajectory in expenditure which is forecast to increase significantly as projects progress towards implementation. Significant contracts totalling \$2.3 million (excluding GST) were awarded during this financial year. Contracts often involve expenditure occurring over multiple years.

2022-23 Contracts awarded from the Fund (ex GST)	2022-23 Expenditure from the Fund (ex GST)	Fund balance at 30 June 2023
\$2,323,665	\$1,314,237	\$74,814,832

## 2022-23 Achievements

Key achievements during the 2022-23 financial year include:

- **Delivering against the Strategic Plan**
  - ✓ Established the Legacy Mines Advisory Panel to provide industry perspective and advice on legacy mine activities that supports government decision making.
  - ✓ Advanced legal drafting of the inaugural Legacy Mines Remediation Bill.
  - ✓ Released the Northern Territory Legacy Mines Policy.
  - ✓ Drafted and piloted the Legacy Mines Risk Assessment and Prioritisation Framework.
- **Sandy Flat Mine (former Redbank Mine)**
  - ✓ Mine waste characterisation and material assessment completed.
  - ✓ Conceptual hydrogeological model and water load balance model completed.
  - ✓ Cultural heritage survey completed.
  - ✓ Ecological baseline-monitoring program undertaken in the late wet season 2022 completed.
  - ✓ Conceptual engineering design, including conceptual designs options study, commenced.
  - ✓ Groundwater and surface water modelling to assess the potential environmental improvements from different remediation options commenced
  - ✓ Surface and groundwater sampling, including pit profiling, commenced.
- **Small Mines Safety Program**
  - ✓ Completed an audit of 71 small mines in the Tennant Creek region, which identified 344 legacy mine features.
  - ✓ Contract awarded to audit over 600 legacy mine sites across the Northern Territory over three years. Inspections have commenced around Alice Springs and Pine Creek.
  - ✓ Commenced procurement for a project supervisor to oversee the small mine safety works around Tennant Creek.
  - ✓ Secured Aboriginal Areas Protection Authority Certificate for the small mine safety works around Tennant Creek.

## 2023-24 Priorities

- **Delivering against the Strategic Plan**
  - Progress the inventory of legacy sites.
  - Finalise the Legacy Mines Risk Assessment and Prioritisation Framework.
  - Expand the Legacy Mines Unit to expedite progress on remediation projects.
  - Finalise the Legacy Mines Governance Framework to guide decision-making, transparency and accountability.
- Develop subordinate legislation to support the **Legacy Mines Remediation Bill 2023** due to commence on 1 July 2024.
- **Sandy Flat Mine (former Redbank Mine)**
  - Finalise options assessment for remediation planning.
  - Progress works to refine remediation planning - anticipated to include geotechnical assessment of the pit walls to assess if it is safe to dewater, and identification of suitable borrow material for remediation works.
  - Undertake a creek health assessment to support future remediation works, for example potential for off-site disposal of treated water.

- Continue to engage with the stakeholders, including the Native Title Holders, regarding site remediation.
- **Small Mines Safety Program**
  - Implement remediation works in Tennant Creek region to minimise risks to public safety. This is expected to involve backfilling 146 open mine voids, installing covers over 32 mine shafts, grates over 32 adit openings and fencing 14 locations.
  - Progress the 3-year audit of approximately 600 small mines across the Territory, with completion of the Alice Springs and Pine Creek inspections. Planning will commence for inspections around Katherine and the Darwin rural region in 2024.
- **Other sites**
  - Progress investigations into other regional sites including Central Australia, Pine Creek and Adelaide River.

# Legacy Mines – Project updates

## Sandy Flat Mine (former Redbank Mine)

Project	Contracts awarded to 30 June 2023 (ex GST)	Expenditure from the Fund to 30 June 2023 (ex GST)
Sandy Flat Mine	\$739,435	\$1,062,800



Aerial view - Sandy Flat

Sandy Flat is located in the Gulf region of the Northern Territory (NT) approximately 30 km west of the Queensland / NT border and 70 km inland from the Gulf of Carpentaria. Mining activities at the site have led to environmental impacts primarily caused by acid and metalliferous drainage (AMD), resulting in pollution of Hanrahan's Creek.

Remediation of this site is complex and extensive planning and consultation is required to identify the most appropriate remediation model to achieve a long term cost effective solution. A significant amount of work has been undertaken, including surface water and groundwater monitoring, mine waste characterisation, and assessments of off-site impacts and hazardous materials.

This year the focus has been on progressing the remediation planning, including completing the mine waste characterisation and material assessment, and the conceptual hydrogeological model and water load balance model.

A key objective of the remediation is to improve the quality of the waterways downstream. Work has commenced to assess the potential environmental improvements

from different remediation options. In addition, a contract has been awarded to provide engineering support and to undertake a remediation options assessment. This is required to identify risks and opportunities from various remediation options, and is critical in developing a robust remediation plan.

Other works progressed during this financial year include archaeological, cultural heritage, sediment, aquatic biota, waste and hazardous materials assessments. Cultural Managers, engaged through the Northern Land Council, provide a cultural perspective during site works.

Remediation of the site is complex and it is essential that the appropriate planning be undertaken to ensure the remediation plan will deliver long term benefits and value for the Territory. Extensive work and planning has been undertaken on this site over many years, which is expected to result in considerable expenditure in the near future.

The LMU continues to work with stakeholders, including tenure holders and the Native Title Holders. This financial year, meetings with Native Title Holders were unable to occur, due to factors outside the control of the LMU. To ensure information was still available, a newsletter was sent to stakeholders.

Further information on this site can be found at:

<https://industry.nt.gov.au/industries/mining-and-energy/legacy-mine-rehabilitation/redbank-mine>

# Legacy Mines Unit



Hanrahan's Creek, downstream from Sandy Flat

A breakdown of expenditure and remediation activity at Sandy Flat during 2022-23:

Activity	Expenditure
Assessments: cultural, sediment, aquatic biota, waste and hazardous materials, including sonic drilling and well installation	\$368,189
Ground water and surface water modelling and ongoing seasonal water and environmental monitoring	\$633,440
Engineering services	\$61,171

# Legacy Mines – Project updates

## Small Mines Safety Program

Project Area	Contracts awarded to 30 June 2023 (ex GST)	Expenditure from the Fund to 30 June 2023 (ex GST)
Tennant Creek region	-	\$65,062
Territory wide	\$1,300,999	\$170,270
<b>Total</b>	<b>\$1,300,999</b>	<b>\$235,332</b>



Junction Claim – Central Australia

Historic mining activities have left legacy mines across the Territory that present a potential risk to the environment, including public safety. The Small Mines Safety Program aims to address risks to public safety from historical mining activities such as open shafts or adits.

To expand the work program, the LMU trialled an alternative delivery model in early 2022 around Tennant Creek. The alternative delivery model expanded remediation projects so that they focused on a regional scale rather than remediating a single shaft or adit at a time. This was deemed a successful approach and a multiyear contract was awarded this year to audit over 600 sites across the Territory, including regional scale audits to assess the number and types of sites that need to be remediated. This includes assessing shafts (vertical diggings) and

adits (horizontal diggings) and undertaking a risk assessment. The outcome of the audit informs planning to identify the most appropriate type of remediation such as back-filling or installing grates or covers to prevent public access. Grates are used to provide bat accessibility as they are known to use shafts and adits as habitat.

The Tennant Creek region was initially a priority for small mines remediation work due to the proximity and density of mines near to the town. Some remediation work had previously been completed in the area.

The audit undertaken in the Tennant Creek region in early 2022 included inspecting 71 small mines and identified 344 legacy features. The report providing recommendations on remediation works to minimise risks to public safety was provided to the Department during this financial year. The recommendations for remediation works include backfilling approximately 146 open mine voids, installing covers over 32 mineshafts, grates over 32 adit openings and fencing 14 locations.

Implementing the recommendations from the audit report has commenced planning phase, including obtaining an Aboriginal Areas Protection Authority Certificate and commencing procurement for a project supervisor to oversee the remediation works on the ground.

Further information on this program can be found at: <https://industry.nt.gov.au/industries/mining-and-energy/legacy-mine-rehabilitation/small-mines-safety-program>.



Burnt Shirt Adit Grate - Tennant Creek Region

A breakdown of expenditure and remediation activity under the Small Mines Safety Program during 2022-23:

Activity	Expenditure
Finalisation of audit report in Tennant Creek region	\$23,717
Authorising certification in Tennant Creek region	\$41,345
Audit in Central Australia	\$170,270

# Legacy Mines – Project updates

## Other sites

Project	Contracts awarded to 30 June 2023 (ex GST)	Expenditure from the Fund to 30 June 2023 (ex GST)
Water sampling, monitoring and laboratory analysis	\$283,231	\$16,105

To inform the inventory, risk assessment and prioritisation process, LMU undertake site inspections to collect data on legacy mines. This may include the collection of samples to assess if there are environmental impacts. In the reporting period, LMU staff conducted inspections at:

- Goodall Mine site
- Tennant Creek including Battery Hill, Peko and various small legacy mine visits
- North Point, Iron Blow, Golden Dyke, Davies, Mount Bonnie, Princess Louise and Woolwonga
- Toms Gully, Rustlers Roost and Quest 29
- Inspection of open shafts at the Great Western and Joker mines located in the Arltunga Historical Reserve with Park Rangers to assess potential safety issues.

Results from these site visits and water monitoring data are used in the risk assessment and prioritisation process to understand the impacts from legacy mines and contributes to the formulation of remediation planning.



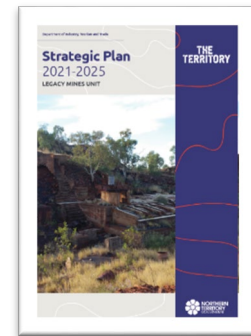
# Legacy Mines Strategic Plan

The Legacy Mines Strategic Plan was released in February 2022 and outlines the priorities to 2025 with the vision:

*Territory legacy mine features are managed to minimise safety risks and environmental impacts.*

The Strategic Plan can be found at:

<https://industry.nt.gov.au/industries/mining-and-energy/legacy-mine-rehabilitation/legacy-mines/legacy-mines-unit>



Strategic Plan

## Progress against the Strategic Plan during the 2022-23 financial year

<p><b>Goal 1</b> <b>Strong governance</b></p>	<p>The Northern Territory Legacy Mines Policy was published in May 2023 and is available on the DITT website<sup>1</sup>. It drives appropriate governance, integrity and accountability by ensuring that all decisions about project prioritisation and expenditure from the Mining Remediation Fund are undertaken in accordance with the Principles set out in the Policy and section 46D of the <i>Mining Management Act 2001</i>.</p> <p>The Risk Assessment and Prioritisation Framework commenced a piloting phase to ensure the process can be operationalised and meet the needs of the team.</p>
<p><b>Goal 2</b> <b>Effective stakeholder management</b></p>	<p>The Legacy Mines Advisory Panel was established in 2022 to provide industry perspective and advice on legacy mine activities that supports government decision making.</p> <p>The Panel is chaired by the Senior Executive Director, Mines Branch DITT and includes two representatives from:</p> <ul style="list-style-type: none"> <li>○ Minerals Council Australia – Northern Australia (MCA NT);</li> <li>○ Association of Mining and Exploration Companies (AMEC); and</li> <li>○ Extractive Industry Association (EIA).</li> </ul> <p>During the 2022-23 financial year the Panel met three times and provided input in to the Legacy Mines Policy, the Risk Assessment and Prioritisation Framework and specific project work.</p>
<p><b>Goal 3</b> <b>Published inventory of unsecured mining features</b></p>	<p>A Risk Assessment and Prioritisation framework is currently being piloted. During the 2022-23 financial year, focus has primarily been on developing the tools and procedures.</p> <p>The audit of authorisations to identify ‘<i>unsecured mining features</i>’ or legacies is on-going, along with the Small Mine Safety Works to identify features across the NT.</p>
<p><b>Goal 4</b> <b>Ongoing program of remediation activity</b></p>	<p>The Risk Assessment and Prioritisation framework has been drafted and is currently being piloted. For each site identified as ‘legacy’ a further assessment includes:</p> <ul style="list-style-type: none"> <li>○ Risk Assessment – to quantify the level of risk associated with legacy features; and</li> </ul>

<sup>1</sup> Legacy Mines Policy can be found: [https://industry.nt.gov.au/\\_data/assets/pdf\\_file/0006/1235778/nt-legacy-mines-policy-2023.pdf](https://industry.nt.gov.au/_data/assets/pdf_file/0006/1235778/nt-legacy-mines-policy-2023.pdf)

- Prioritisation Assessment – the prioritisation will be used to inform the forward works program.

The risk and prioritisation work is on-going and is being undertaken in parallel with the implementation of remediation works. Remediation planning at the Sandy Flat mine has significantly progressed. In addition, an alternative delivery model for the Small Mines Safety Works has been implemented, including expanding the program geographically.

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#### Goal 5 Recognise environmental priorities

The Northern Territory Government’s environmental reform process involves repealing the existing *Mining Management Act 2001* (MMA), as it transfers environmental regulatory responsibilities for mining activities to the *Environment Protection Act 2019* (EP Act).

With the expected repeal of the MMA, the draft Legacy Mines Remediation Bill 2023 was created to continue with the regulation and remediation of legacy mines and legacy mine features; provide for the ongoing requirement for a mining remediation levy to be paid by mining operators; and for the continuation of the MRF. All of these activities will continue to be regulated and administered by DITT. The new legislation, including subordinate legislation, will be introduced in the 2023-24 financial year.

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## Stakeholder engagement

Stakeholder engagement and ensuring information is available to the public about the legacy mines program is a key commitment under the Strategic Plan. The following key engagement activities occurred during the reporting period:

- Participated in partner meetings with Cooperative Research Centre for Transformations in Mining Economies and exploring the development of a project that will provide tangible outcomes for the Territory.
- Delivered presentations at the Australasian Land and Groundwater Association Conference in May 2023 on the Sandy Flat project and the LMU.
- Delivered a presentation at GABFEST which is an annual event organised by Northern Territory Geological Survey Branch to share knowledge and provide project updates relating to geology, exploration and government policy direction.
- Meetings with the Land Councils regarding Sandy Flat and legacy mines more broadly.
- All information relating to legacy mines migrated to the [nt.gov.au](https://nt.gov.au/industry/mining/legacy-mines-remediation/legacy-mines) website.
- Interview on the ABC’s Country Hour and an NT News article about the contract awarded to a local firm to audit over 600 legacy mines across the Territory under the Small Mines Safety Program over a 3 year period.