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# Environmental Management



0  
Number of materially adverse environmental incidents reported in FY24

0  
Number of major or catastrophic environmental incidents reported in FY24

383  
Land cleared in FY24 (Ha)

42.4  
Land rehabilitated in FY24 (Ha)

## Our Approach

Northern Star values the diverse environments we operate in. We work to ensure we have robust systems in place to identify and manage potential environmental impacts from our activities and regularly review whether these systems are achieving their purpose.

Northern Star aligns our Environmental Management System (EMS) with ISO14001:2015. This International Standard provides guidance on the systems and processes that are required for good environmental management. It also provides guidance for ensuring the system is regularly reviewed for effectiveness and opportunities for improvement.

100%  
Percentage of sites with approved closure plans in FY24

\$3.77M  
Calculated DEMIRS MRF Levy for Western Australian Operations for FY24

All our activities require regulatory approval, and we work to ensure compliance with all our legal obligations. In FY24 Northern Star developed a Land Access and Approvals automated workflow system that allows for a simultaneous assessment by various subject matter experts of proposals within the operations which require or impact on land access. By involving the environmental, geology,

0  
Number of regulatory infringements received in FY24

\$0  
Cost of regulatory infringements received in FY24

technical services, land management, legal and social performance teams in all projects which impact on our land access, this coordinated and comprehensive review provides a clear pathway for operational success, in mitigating the risk of any approvals, consents, consultation and other necessary steps being overlooked and in understanding the necessary timeframes to facilitate accurate project management.

## Environmental Management Governance

Northern Star's Board has oversight of environmental risks and opportunities within Northern Star assisted by the Environmental, Social & Safety (ESS) Committee's oversight of operational risks and the Audit & Risk Committee's oversight of the Company-wide risk management framework.

The Company's environmental management governance structure is shown in Figure 1. Environmental related matters are considered quarterly by the Board with particular focus being applied in the ESS Committee meetings.

The function of the Committee is to assist the Board in implementing the Company's, environmental, social and safety strategies and ensuring responsible and sustainable business practices. In particular, the Committee will assist the Board in its oversight, monitoring and review of the Company's practices in the following key areas:

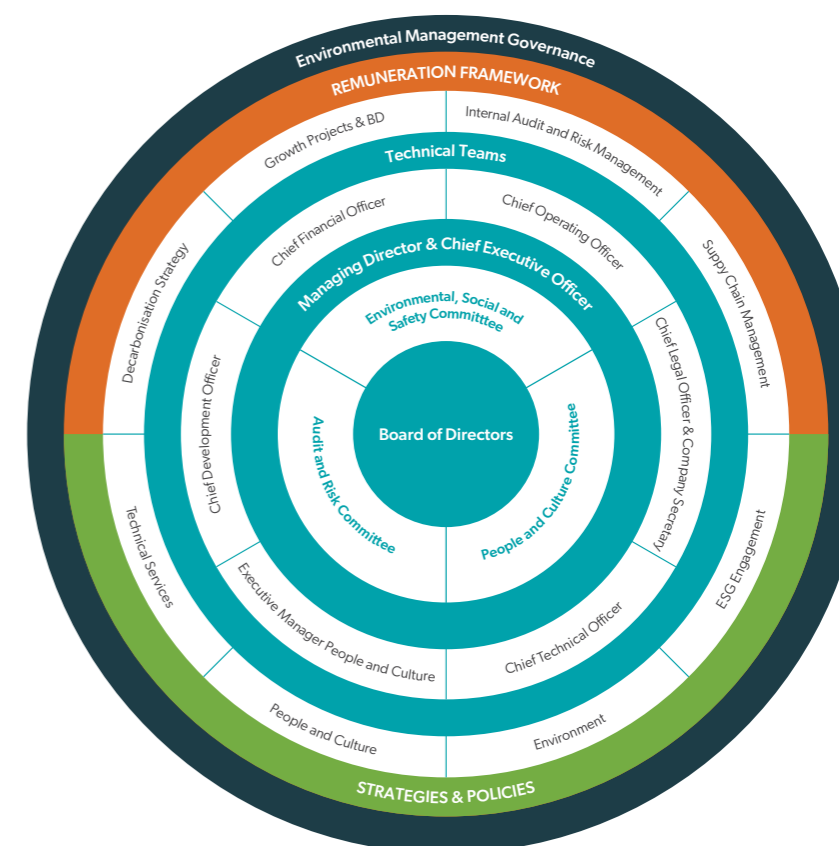
- environmental management
- community and social responsibility
- land access
- sound business ethics and fair and ethical dealings with stakeholders, and
- long term environmental, social and safety strategic goals.

In addition, the Committee will refer any material environmental, social and safety related risk exposures or potential risks identified to the Audit & Risk Committee, for review and perform such other functions as assigned by the Board.

Development and delivery of Northern Star's environmental management function is overseen by the ESS Committee and the Chief Operating Officer to whom all the site General Managers report, the Chief Legal

Officer & Company Secretary to whom the Environment Manager in the corporate office reports, (reporting to the Managing Director and to the Board). Northern Star employs technical expertise that support the implementation of our Environmental Policy, Global Standards and all environmental systems and procedures. This expertise includes a team in our corporate office that supports our site-based teams in the on-ground implementation of environmental management.

Figure 1 Environmental Management Governance



## Restatements of Information

- Nil restatements from our FY23 Sustainability Report.

## Environmental Management System

Northern Star has aligned our Environmental Management System (EMS) with ISO14001:2015 and applies the principles of continuous improvement which includes:

- Establishing objectives and processes as required;
- Implementing the processes;
- Measuring and monitoring the processes and reporting results; and
- Taking action to improve performance of our EMS based on results.

During FY22, Northern Star commissioned external consultants to undertake a review of our Environmental Management System (EMS) to assess our alignment with ISO14001:2015. This review included a gap analysis and subsequent action plan that Northern Star implemented over the following two years.

The Northern Star EMS is aimed at ensuring the Company has a set of robust processes and practices that enable Northern Star to systematically manage and minimise any environmental impacts resulting from its operations.

The Northern Star EMS follows the Plan-Do-Check-Act Model:

- **Plan:** Assess risks, establish objective & targets and develop plans to achieve them.
- **Do:** Implement and set out to do what was planned.
- **Check:** Measure and monitor progress against planned objectives.
- **Act:** Correct and improve plans based on lessons learned.

This model allows for a cycle of continuous review and improvement.

Northern Star has elected not to be externally certified against ISO 14001 at this stage. Alignment with ISO 14001 provides the framework and on-ground benefits in Environmental Management without the need for certification.

We will periodically review our EMS to understand our progress and identify where further improvements can be made.

This may also incorporate a structured internal management review of the EMS to ensure it is meeting its purpose and objectives.

Figure 2 Northern Star EMS Initiatives in Progress



Northern Star’s EMS is applicable to all stages of mine life from project feasibility through to closure and relinquishment. Following on from our FY23 disclosures, work has progressed around the ongoing development and continuous improvement of our EMS in the following key areas.

### Leadership & Awareness

In FY24 Northern Star developed and implemented an EMS Awareness Program aimed towards increasing knowledge and understanding of environmental management amongst site leaders focussing on what their responsibilities are when it comes to implementing the EMS.

This training program involves both in-person and online learning modules which will be included as a competency for all site leaders ensuring environmental management is driven from the highest level. To further guide relevant teams, a Company-wide Environmental Management System Manual was developed to document the scope, objectives and requirements of the EMS to guide implementation across the business.

### Risk Management & Compliance

Risk management and compliance is a key focus for effective environmental management across the business. In line with ISO14001 requirements, all sites participated in a review of their Environmental Aspects and Impacts Register with information feeding into the identification of Significant Environmental Aspects and Formal Risk Assessments to ensure these risks are managed appropriately. Environmental risks have been captured in the CGR platform, an enterprise risk and assurance system implemented in FY24.

During FY24 a standardised Environmental Obligations and Compliance Management Procedure was developed and implemented to ensure a consistent and streamlined approach to environmental compliance across the business.

Northern Star uses online databases to manage environmental obligations and compliance. INX InForm is used to record all environmental obligations and associated conditions to proactively manage and track compliance related tasks. INX InControl is used to record any environmental hazards and incidents ensuring appropriate investigations where required and assigned corrective actions.

### Performance Evaluation & Continuous Improvement

Internal Global Standards Audits are scheduled and conducted for each operational site and are a high-level check of overall conformance with the EMS. The implementation of internal legal obligations audits will continue into FY25 and provide detailed insight into improvements in compliance management and associated processes.

### TNFD Alignment

The Taskforce on Nature-related Financial Disclosures (TNFD) is a taskforce of 40 Individual members consisting of financial institutions, corporate organisations, and market service providers with the aim of developing and delivering a risk management framework, the TNFD Recommendations, for organisations to manage and disclose their nature-related risks and opportunities. The nature aspect of the TNFD Recommendations includes land, ocean, fresh water and atmosphere (air emissions excluding greenhouse gases).

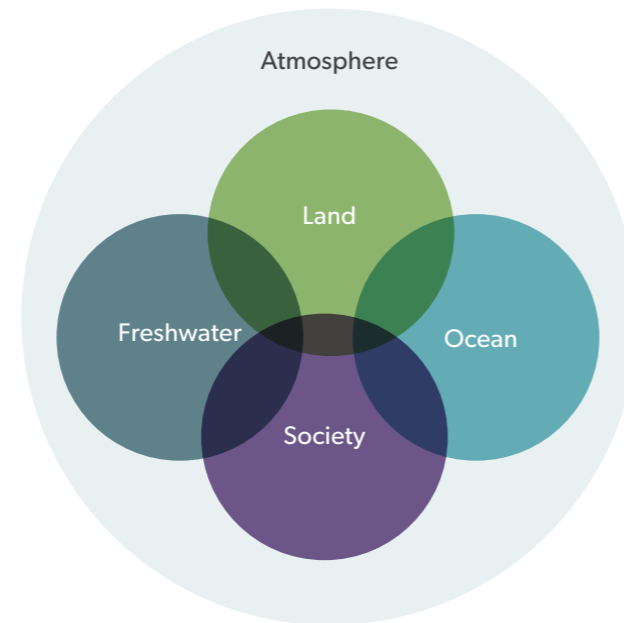
The TNFD Recommendations aim to provide guidance to organisations, enabling them to assess, understand and disclose their nature-related dependencies, impacts, risks and opportunities in relation to their business operations. This knowledge will assist businesses and their external stakeholders, such as financial investors, to integrate nature considerations into business decision making.

Since the TNFD release in September 2023, Northern Star has begun to work towards adopting the recommendations in the management and disclosure of our nature-related risks and opportunities. Figure 4 provides the recommended disclosures.

We believe adapting our disclosures to meet the TNFD Recommendations will assist in accurately and appropriately disclosing our nature-related information, for use by our investors and other stakeholders in understanding our approach to nature and assessing our performance.

We plan to meet the recommended disclosures in a staged approach, similar to our adoption of the Taskforce on Climate-related Financial Disclosure (TCFD) recommendations, which we commenced in 2018 and continue to enhance today.

**Figure 3** Nature’s four realms – Land, ocean, freshwater and atmosphere (TNFD 2023)



In FY24 we took our first steps towards adopting the TNFD Recommendations by:

- undertaking benchmarking against our peers;
- conducting a gap analysis against the TNFD required governance disclosures; and
- commencing an analysis of our nature related dependencies, impacts, risks and opportunities at our Yandal Production Centre.

**Figure 4** TNFD 2023 Recommended Disclosures

TNFD recommended disclosures			
Governance	Strategy	Risk & impact management	Metrics & targets
Disclose the organisation’s governance of nature-related dependencies, impacts, risks and opportunities.	Disclose the effects of nature-related dependencies, impacts, risks and opportunities on the organisation’s business model, strategy and financial planning where such information is material.	Describe the processes used by the organisation to identify, assess, prioritise and monitor nature-related dependencies, impacts, risks and opportunities.	Disclose the metrics and targets used to assess and manage material nature-related dependencies, impacts, risks and opportunities.

The benchmarking examined a number of Northern Star’s peers and the public commitments or disclosures they have made in regard to the TNFD Recommendations. Northern Star’s commitment to align with the TNFD recommendations through a staged approach and the work we commenced this year is aligned with most of our peers.

**Figure 5** Northern Star’s TNFD Analysis Plan



The gap analysis conducted between the TNFD governance disclosure recommendations and existing Northern Star governance and risk management processes indicates that the work we have previously completed to align governance and risk management processes to the TCFD disclosure recommendations, creates good alignment between our processes and the TNFD recommendations.

As part of our ongoing TNFD work, we will strengthen nature related governance and risk management disclosures to better meet the recommendations.

Our analysis of our Yandal Production Centre is ongoing and will be expanded to our Kalgoorlie and Pogo Production Centres in future years. It aims to identify appropriate first steps that Northern Star can take to align with the TNFD Recommendations and develop a comprehensive multi-year staged action plan with clear short, mid, and long-term goals for our three Production Centres to build on TNFD alignment. Northern Star has engaged a specialist consultant to assist with this process.

We intend to disclose our alignment with the recommendations, commencing in our FY25 reporting with:

- detailed information on our nature-related risk and governance policies and processes;
- progress of our Yandal Production Centre analysis; and
- any identified short- and medium-term goals.

## Biodiversity, Conservation & Land Management

Northern Star works within a variety of natural environments that must be understood and protected. Our Biodiversity Management Global Standard<sup>1</sup> guides our high-level approach to managing biodiversity across all our sites, and site risk assessments guide specific actions to protect biodiversity in and around each site.

Northern Star understands the significance of biodiversity and land management to the Native Title holders of the lands we operate on. We work to ensure that sufficient consultation with Traditional Owners is undertaken and are continuously working to improve and strengthen our engagement with them.

Northern Star applies the 'mitigation hierarchy' to ensure we minimise the impact on biodiversity as much as possible. This hierarchy means we aim to:

**Avoid** clearing and disturbing vegetation as much as possible – this means finding existing disturbed land to place facilities instead of clearing new areas. We did this at Jundee Operations in the Yandal Production Centre, for example, where our solar farm has been placed on a waste rock dump rather than undisturbed areas and at Porphyry where the solar farm was placed on an area previously used as a laydown area.

**Minimise** clearing that is required. We do this by optimising clearing footprints.

**Rehabilitate** all areas disturbed by our operations where possible at mine closure; however, we progressively rehabilitate areas where possible.

**Offset** where significant impact cannot be avoided, Northern Star provides biodiversity offsets to compensate for the impacts. Our offset site south of Coolgardie in the Kalgoorlie Production Centre provides conservation and protection for malleefowl habitat to offset the impact of our tailings facility at Carosue Dam Operations. Northern Star is protecting and monitoring an active malleefowl population at this site which contains 800 ha of critical breeding habitat and is being managed in accordance with the approved Offset Management Plan<sup>2</sup>. Key components of this plan include securing a conservation covenant over the offsite location, excluding grazing, controlling feral predators and weeds, and installing bushfire protection measures such as firebreaks. Annual monitoring of the active malleefowl population at the offset location occurs with the results reported on annually under regulatory requirements.

Northern Star has continued to monitor significant butterfly populations in the Kalgoorlie region to contribute to the understanding of their distribution and breeding patterns. We have also continued our malleefowl monitoring program at Carosue Dam Operations and our offset site.

Baseline studies such as vegetation, flora and fauna surveys help us understand the biodiversity values in and around our operations and planned disturbance areas. These are undertaken utilising external expertise, but we also seek input from appropriate internal and external stakeholders. In Australia, we are increasingly consulting with Traditional Owners to understand the cultural values associated with biodiversity by conducting ethnobotanical and in some cases ethnozoological surveys. Traditional Owners are given the opportunity, if desired, to harvest plants and other material prior to clearing.

The understanding of biodiversity values gained from baseline studies ensures we can undertake an appropriate level of environmental impact assessment (EIA) to understand the potential impacts on biodiversity from our operations. Where specific risks are identified, targeted measures are implemented to effectively apply the mitigation hierarchy described above.

At a project level, once regulatory approval is granted to disturb land, Northern Star's internal land disturbance procedures are followed. These processes are different for our Australian and Alaskan Operations but ensure that all land disturbance is conducted in line with relevant statutory and regulatory requirements and that the impact of clearing on the environment is minimised in line with our Environmental Policy<sup>3</sup>.



<sup>1</sup> Northern Star Biodiversity Management Global Standard (NSR-ENV-005-STA)

<sup>2</sup> Carosue Dam TSF Cell 4 Exempt East Location 55 (EEL55) Offset Management Plan (CDO-ENV-001-PLA)

<sup>3</sup> Northern Star Environmental Policy (NSR-COR-003-POL)

### Highlight – Land Conservation at Northern Star

In FY24, Northern Star's Offset Management Plan was approved by the Federal Department of Climate Change, Energy, the Environment and Water (DCCEEW). The offset site has been placed under a Conservation Covenant under the Soil and Land Conservation Act 1945 which provides protection from clearing and disturbance in perpetuity for the site.



This site offsets impacts to Malleefowl habitat at our Carosue Dam Operations which resulted from clearing land for an expansion to the tailings storage facility. The Offset Management Plan outlines the land management actions, completion criteria, monitoring and reporting that will be undertaken over the next 30 years as we protect and

enhance the quality of malleefowl habitat at the site.

Northern Star is working with local groups such as the Goldfields Nullarbor Rangelands Biosecurity Association (GNRBA) to measure, monitor and control feral animals at the site.

We will also implement other actions in FY25 outlined in the Offset Management Plan, such as installing fencing to exclude stock and a firebreak. The annual monitoring of the malleefowl population will occur so we can determine if our management measures are effective in protecting and enhancing the habitat.



Sunrise streaming through winter fog at Carosue Dam Operations  
 Photo Credit: Robert Mills, Projects Superintendent, Carosue Dam Operations, Kalgoorlie Production Centre, Western Australia

## Reclamation & Closure Preparedness

Northern Star prepares closure and reclamation plans for all its sites in accordance with our Reclamation and Closure Preparedness Global Standard<sup>1</sup>. These plans are approved by the relevant regulators and are updated every three years or when new projects are implemented on site. They contain more detail as sites progress toward final closure.

Planning for closure commences at the very beginning of a mine's life. As a new mine undergoes planning and design, attention is given to how it will be rehabilitated and closed at the end of its life. Consideration is given to final landform design, topsoil requirements, reuse, removal or demolition of buildings and other infrastructure, as well as ensuring the long-term stability of pits and waste rock dumps.

Each closure and reclamation plan establishes closure objectives and criteria, along with strategies to achieve these. These are informed by site-specific risk assessments that identify the risks to safety or the environment closure. If plans change at a site, the closure risks and

requirements of the new plans must be considered and provided to the regulator for approval.

Opportunities for progressive rehabilitation are identified where practicable. Northern Star looks to streamline rehabilitation costs by scheduling them alongside other projects that also use the same required equipment.

Although there are regulatory requirements associated with closure planning, an important component is engaging with relevant stakeholders to understand their requirements and expectations for the final land use around our operations. Northern Star undertakes a stakeholder mapping exercise to ensure we identify who needs to be consulted with regards to our closure objectives. This includes ensuring that not only regulators, but Traditional Owners and neighbouring pastoralists have input into our closure planning, for example. Northern Star has the opportunity, if feasible, to leave infrastructure such as bores or tracks that would benefit these stakeholders.

Northern Star ensures there is adequate financial provisions for implementing closure requirements and regularly undertakes a detailed analysis to update our closure provisioning across our operations. This involves identifying costs associated with the following and can include items such as:

- infrastructure demolition;
- making mine pits and underground mines and shafts safe;
- ensuring surface water flows are appropriate;
- ensuring remaining landforms such as tailings facilities and waste landforms are safe, stable and non-polluting;
- rehabilitating disturbed land;
- undertaking relevant studies to inform closure activities (e.g. contaminated sites assessments);
- monitoring and reporting of closure activities and rehabilitation; and
- project management.

## Highlight – Closure Preparedness

The emphasis on closure starts early in the planning stages for new mines.

Regulatory requirements stipulate that all mining proposals must include closure plans. These plans assess potential environmental risks associated with mine closure and outline strategies to mitigate these risks before mining operations commence.

Northern Star operates multiple sites at various stages of development, including:

- Mines in the planning phase
- Active operational sites
- Sites under care and maintenance, where mining activities have been suspended.

Closure plans initially cover broad aspects and become more detailed over time. As a site approaches final closure, we engage with key stakeholders to explore potential post-mining land uses that could benefit them. For instance, we might leave certain infrastructure, such as groundwater bores or access tracks, that pastoralists could utilise. Each site must establish closure completion criteria-specific, measurable targets that must be met before regulatory approval is granted for closure.

Closure plans are reviewed every three years or whenever new activities are planned at a site. For example, if new renewable projects are installed or waste rock dumps are expanded, the closure plan must be updated to reflect these changes.

In FY25, Northern Star plans to conduct a comprehensive review of closure practices across Australia to enhance consistency in closure planning and completion criteria across all our sites.



<sup>1</sup> Northern Star Reclamation and Closure Preparedness Global Standard (NSR-ENV-003-STA)

## Rehabilitation Levy

In Western Australia (WA), the Mining Rehabilitation Fund (MRF) is managed by the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS).

The MRF is a pooled fund that all mining operators in WA contribute into to ensure the State government has the funds necessary to undertake rehabilitation at abandoned mines sites.

The levy payable is based on the type and extent of disturbance at each site, as well as the amount of rehabilitation already undertaken.

Mines are required to review their disturbance each year and report this to DEMIRS with an estimate of the levy payable. DEMIRS reviews this information and issues each mine with an invoice to be paid into the MRF.

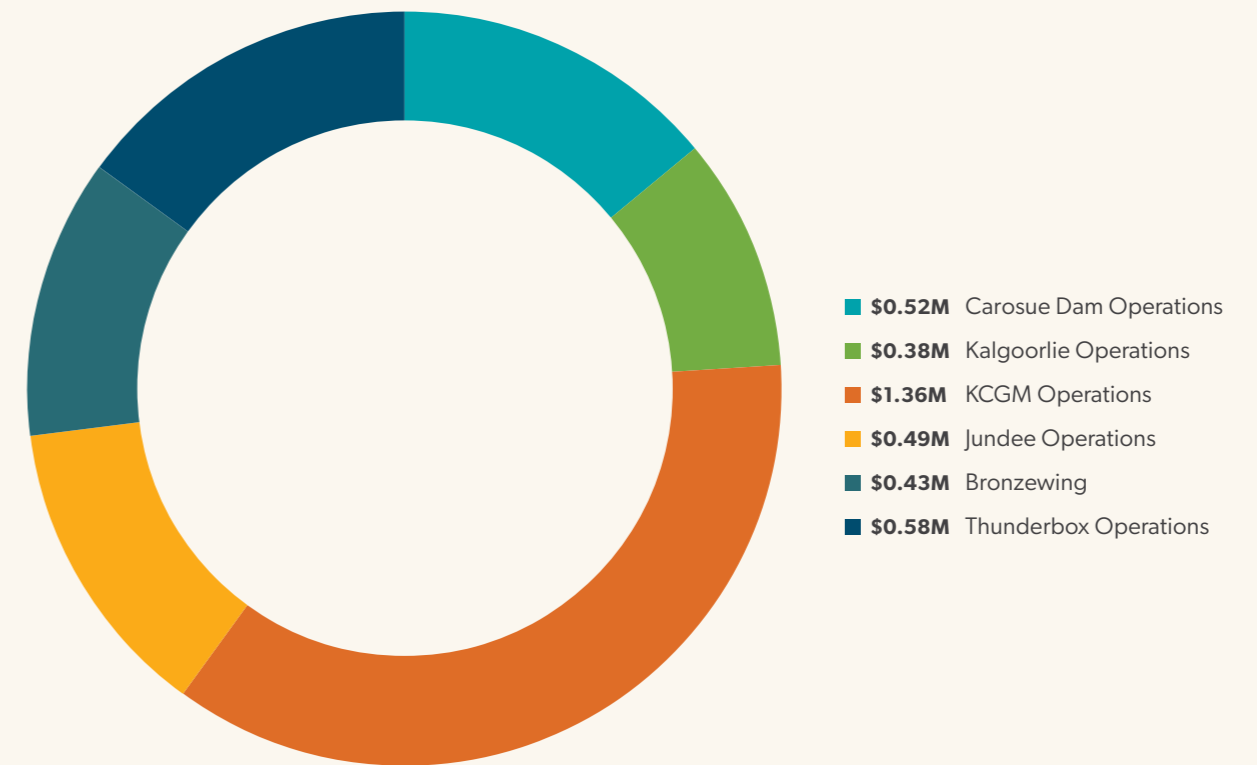
In FY24, Northern Star's total rehabilitation liability for our Western Australian Operations was calculated to be \$380,306,741. This is expected to result in a payable levy of \$3,772,991.

In addition to our Western Australian rehabilitation levy, our Pogo Operations in Alaska have a bond in place to cover rehabilitation liabilities. The current bond placed directly with the ADNR is US\$94.3M.

Separate to the MRF levy, every year Northern Star estimates its closure liability<sup>2</sup> in accordance with our Reclamation and Closure Preparedness Standard. It does this by assessing all areas disturbed and existing infrastructure and estimates how much it will cost to undertake the closure requirements.

This includes calculating demolition costs, removal costs, earthworks and rehabilitation costs. It also includes estimating the cost of ongoing monitoring of rehabilitation and compliance reporting associated with sites undergoing closure activities.

**Figure 6** MRF Levy in Western Australia by Operations FY24 (\$M)



<sup>2</sup> Recorded in our audited Financial Statements as a liability.



## Air Emissions

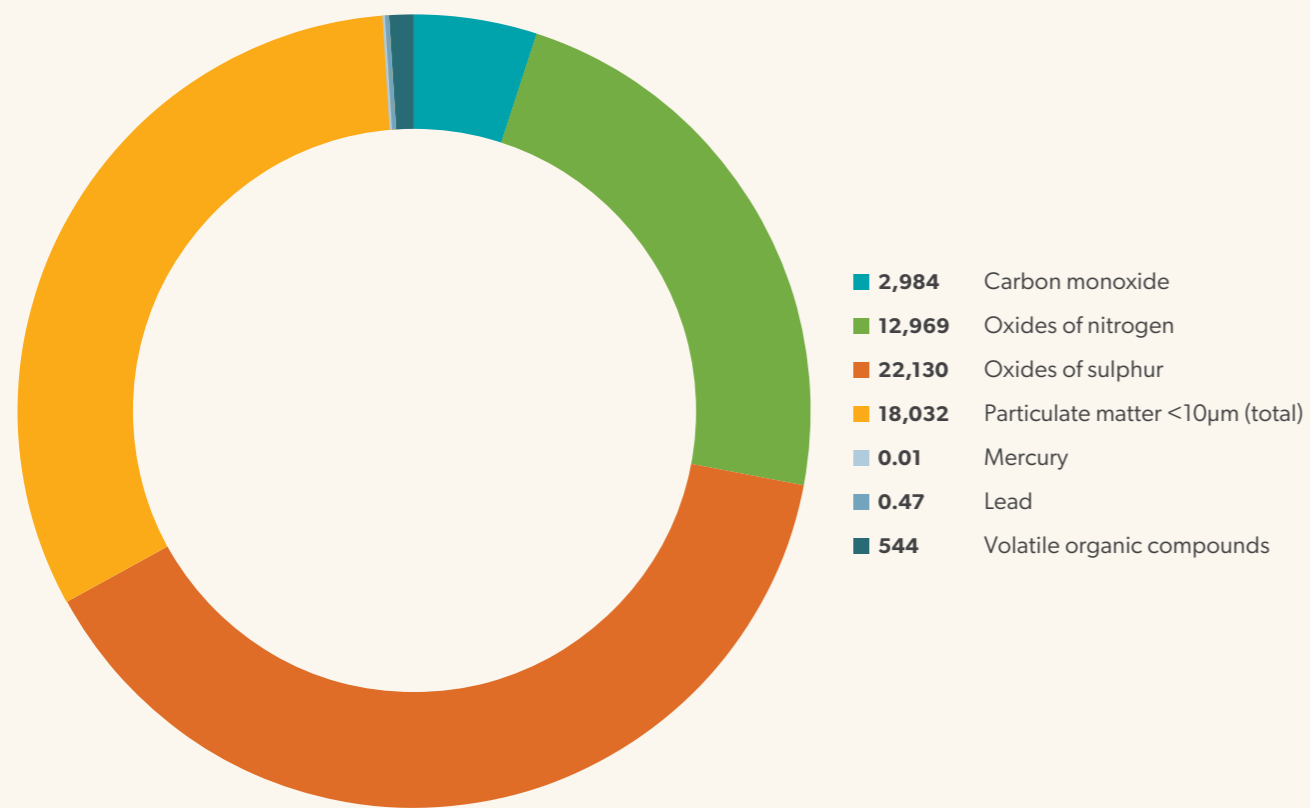
Northern Star monitors and manages air emissions across our sites with a particular focus on local communities located close to our operations. Whilst air quality can be affected by a variety of sources, our focus is on ensuring we minimise any negative impact of our Operations on these communities.

Northern Star has obligations in both Australia and the United States to report on our air emissions via the following frameworks:

- Our Australian sites report data through the National Pollutant Inventory<sup>5</sup>
- Our Alaskan site reports data through the Toxics Release Inventory<sup>6</sup>

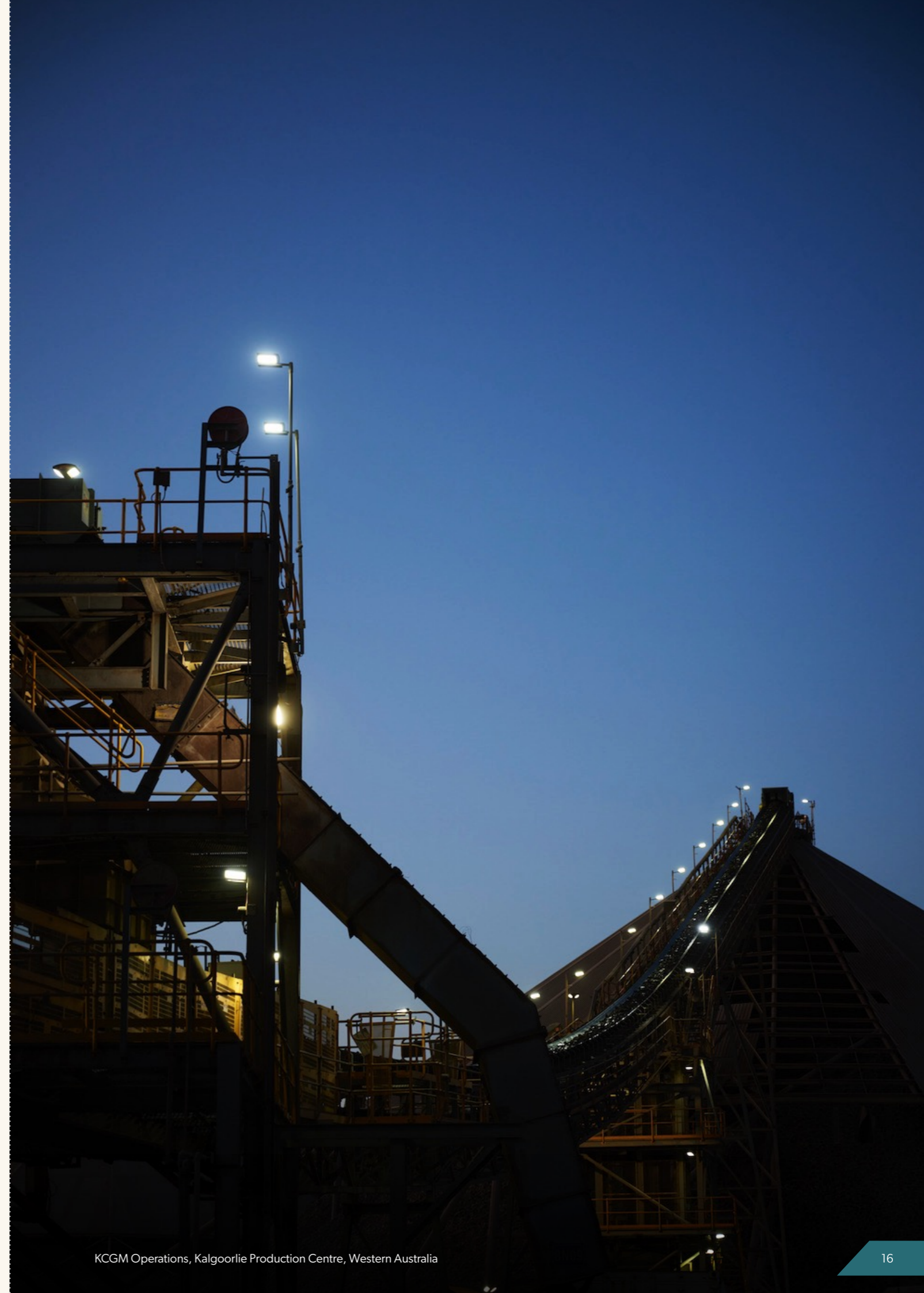
The air quality metrics disclosed are calculated in accordance with the Australian Government’s National Pollutant Inventory methodology to ensure consistency in calculation methods across regions.

**Figure 7** FY24 Measured Air Emissions (T)



<sup>5</sup> [www.npi.gov.au](http://www.npi.gov.au)

<sup>6</sup> [www.epa.gov/trinationalanalysis](http://www.epa.gov/trinationalanalysis)





## Environmental Compliance

Before work of any sort can occur on ground, there is always at least one, if not more, environmental approval required. The work required to obtain these approvals can take months and years to complete as the following needs to occur:

- Exploration drilling finds the gold deposits and maps their location to a level of accuracy that identifies a viable project;
- Engineers design the project – where pits, waste rock dumps, laydown areas, roads, etc are going to go;
- A diverse team of environmental specialists, engineers and planners identify the potential environmental impacts from what is planned and the associated management strategies to avoid or minimise any impacts;
- Project information including the designs and environmental assessment and management plans are provided to the regulators, seeking an assessment and approval of the project;
- The regulator assesses the information and approves the project. There is usually a public consultation process that occurs as part of the assessment.

Once the project is assessed and approved we are notified and so long as we comply with all other land access requirements, can proceed with the project. All environmental approvals are granted with conditions which are designed to ensure that environmental harm is avoided and minimised.

Northern Star maintains an environmental obligations register, which holds copies of all our approvals and permits, and the conditions associated with each of these approvals and permits. Tasks are created within the system, allocated to a responsible person with reminders set to ensure tasks are completed within required timeframes. This system is key to us maintaining compliance with our obligations across our multiple sites.

Annual compliance reports to regulators outline our performance against our approvals with any incidents or non-compliances identified and rectified.

Northern Star has a system of tracking all environmental incidents. This system logs the key details around the incident and identifies corrective actions with timeframes for completion. Some incidents require external reporting to the regulators within certain timeframes post the incident; others require notification in annual compliance reports.

Key information captured includes the type of incident and the 'consequence rating', which is an indication of the environmental impact caused by the incident. All our incidents for FY24 were classed as either having an 'insignificant' or 'minor' consequence rating. Our Risk Management Standard<sup>7</sup> defines the incident categories as:

- **Insignificant:** Negligible or localised low-level environmental impact, with no regulatory reporting requirement. Most of these incidents are minor spills on already disturbed land;
- **Minor:** Measurable environmental impact, immediate clean-up or remediation with minimal resources required, recoverable or expected to show signs of recovery within 12 months, reportable to regulators;

These incidents include any non-conformance to approval conditions or larger spills that require reporting to regulators, or where temporary impacts to vegetation have occurred;

- **Moderate:** Measurable environmental impacts that are recoverable or expected to show signs of recovery within 1-2 years, reportable to regulators;

- **Major:** Measurable environmental impacts that are recoverable or expected to show signs of recovery within 3-10 years, reportable to regulators; and
- **Catastrophic:** Severe, long term (>10 years) and possibly irreversible impacts to species, habitats or ecosystems, reportable to regulators.

Figure 9 Environmental Incidents by Consequence FY24

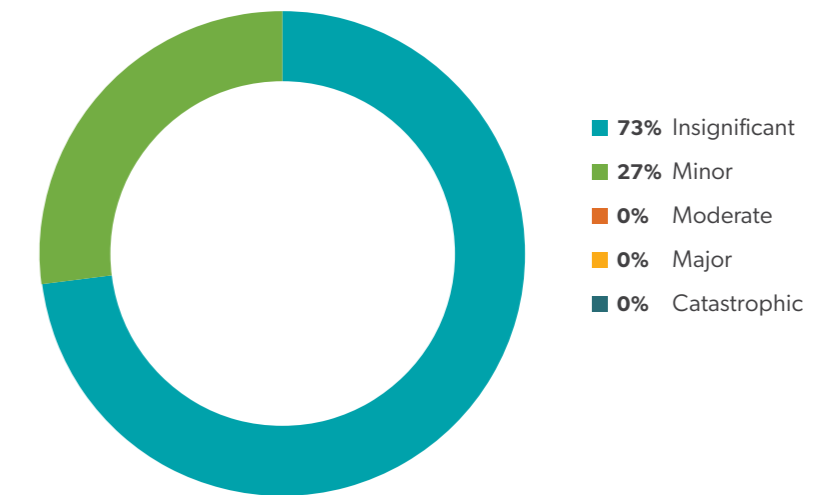
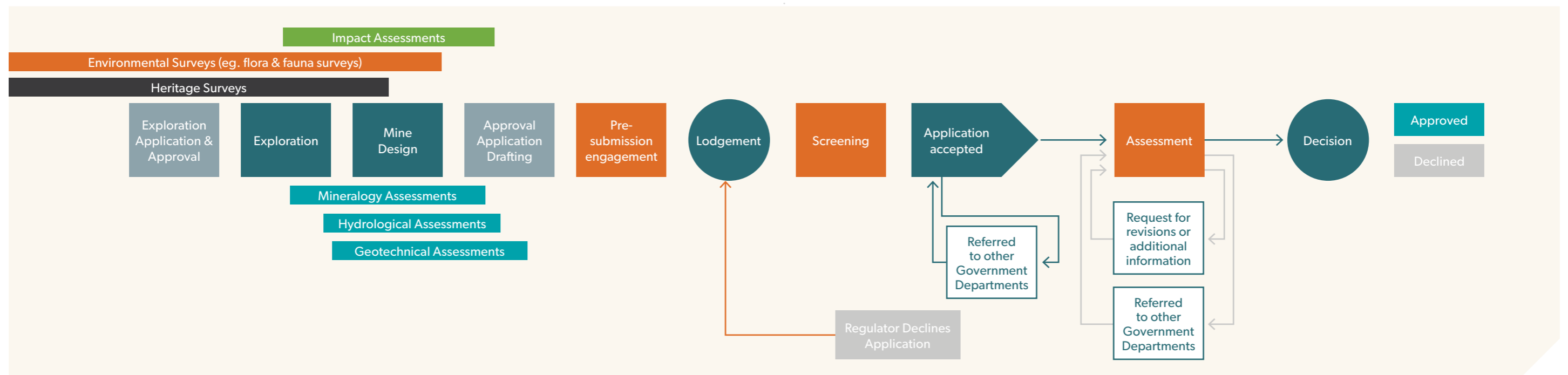


Figure 8 Example of a type of regulatory approval process that must be completed before project commencement



<sup>7</sup> NSR-COR-019A-STA - Risk Management Standard.

## Environmental Performance Metrics

		FY24	FY23	FY22
<b>Environmental Incidents</b>				
<b>Material Incidents</b>	Number materially adverse reported	-	-	-
<b>Incidents reported by consequence</b>	Insignificant (%)	73	79	75
	Minor (%)	27	21	24
	Moderate (%)	-	-	1
	Major (%)	-	-	-
	Catastrophic (%)	-	-	-
<b>Regulatory Infringements</b>				
<b>Fines and Penalties</b>	Number of regulatory infringements received	-	1	-
	Cost of regulatory infringements received (\$USD)	-	600,000	-
<b>Conservation &amp; Land Management</b>				
<b>Land Cleared</b>	Carosue Dam Operations (ha)	99.8	205.2	102
	Kalgoorlie Operations (ha)	49.2	29.5	9
	KCGM Operations (ha)	22.3	380.5	49
	Jundee Operations (ha)	88.9	-	147
	Bronzewing Operations (ha)	-	95.6	45
	Thunderbox Operations (ha)	109	-	219
	Pogo Operations (ha)	3.5	5.6	8
	Tanami (ha)	10.8	0.2	-
	<b>Total (ha)</b>	<b>383</b>	<b>716.6*</b>	<b>580*</b>
<b>Land Rehabilitated</b>	Carosue Dam Operations (ha)	-	25.3	8
	Kalgoorlie Operations (ha)	28.1	27.2	29
	KCGM Operations (ha)	4.49	-	-
	Jundee Operations (ha)	-	-	3
	Bronzewing Operations (ha)	-	-	57
	Thunderbox Operations (ha)	4.6	-	10
	Pogo Operations (ha)	-	0.2	-
	Tanami (ha)	5.2	13.8	34
	<b>Total (ha)</b>	<b>42.4</b>	<b>66.6*</b>	<b>140*</b>
<b>Rehabilitation &amp; Closure Planning</b>				
<b>Closure Plans</b>	Percentage of sites with approved closure plans (%)	100	100	100
<b>Rehabilitation Liability</b>	Carosue Dam Operations (\$)	53,694,974	47,619,929	45,470,058
	Kalgoorlie Operations (\$)	38,808,433	38,702,463	38,602,625
	KCGM Operations (\$)	136,850,832	129,000,450	125,009,258
	Jundee Operations (\$)	49,009,759	31,508,069	41,330,366
	Bronzewing Operations (\$)	43,386,539	30,642,839	28,939,488
	Thunderbox Operations (\$)	58,182,239	47,111,560	47,907,245
	Pogo Operations (\$)	N/A	N/A	N/A
	Tanami (\$)	7,012,490	7,012,490	6,769,463
	<b>Total \$</b>	<b>386,948,022*</b>	<b>331,600,556*</b>	<b>336,519,449*^</b>
<b>Air Emissions</b>				
<b>Air Emissions (T)</b>	Carbon Monoxide (CO)	2,984	3,731	3,436
	Oxides of Nitrogen (NOx)	12,969	13,575	11,456
	Oxides of Sulphur (SOx)	22,130	20,929	26,162
	Particulate matter <10µm	18,032	15,442	12,976
	Mercury (Hg)	0.0149	0.0146	0.0214
	Lead (Pb)	0.472	0.380	0.248
	Volatile Organic Compounds (VOCs)	544	545	433

\* Totalised data includes Operations that are no longer part of Northern Star's assets and therefore not listed separately in the table

^ Northern Star divested Western Tanami in June 2022, resulting in the reduction in rehabilitation liability in FY23.



Carosue Dam Operations processing plant at night,  
**Photo Credit:** Robert Mills, Projects Superintendent,  
 Carosue Dam Operations, Kalgoorlie Production Centre, Western Australia

### About This Disclosure

Northern Star has reported in accordance with the GRI Standards for the period 1 July 2023 to 30 June 2024. This disclosure supports the Northern Star Annual Report FY24 in relation to environment and social responsibility.

Management has sought independent, third-party assurance by Bureau Veritas of all data relating to GRI core and material disclosures in this disclosure. These disclosures are identified in our GRI, SASB and UN SDG Alignment Index. Where partial assurance is received, or a topic note assured, that information has been included in the Index.

A copy of the assurance statement is provided on Northern Star’s website at: [Environment & Social Responsibility \(ESR\) Reporting](#)

This disclosure was reviewed and approved by Northern Star’s Board of Directors and published on 22 August 2024. Monetary amounts in this Report are reported in Australian dollars unless otherwise stated.

### Feedback

We welcome feedback and invite readers to send any comments or enquiries about this disclosure to us at [esgperformance@nsltd.com](mailto:esgperformance@nsltd.com)

### Disclaimer

This disclosure contains forward-looking statements, including statements of current intention and expectation. These forward-looking statements are based on information available at the date of this disclosure.

While these forward-looking statements discuss Northern Star’s expectations at the date of this disclosure, they are not guarantees or predictions of future performance, and by their nature, are subject to significant uncertainties, many of which are beyond Northern Star’s control. Actual results and developments may differ materially from those expressed in this disclosure

and Northern Star cautions readers against reliance on any forward-looking statements or guidance. There are also limitations with respect to scenario analysis, and it is difficult to predict which, if any, of the scenarios might eventuate. Scenario analysis is not an indication of probable outcomes and relies on assumptions that may or may not prove to be correct or eventuate. Except as required by applicable laws or regulations, Northern Star does not undertake to publicly update or review any forward-looking statements, whether as a result of new information or future events.

### Assumptions

Nil

### FY24 ESR Disclosure Suite

This disclosure, and our supplementary website disclosures, form part of a suite of documents that provide information and updates on Northern Star’s FY24 environment and social responsibility disclosures and should be read as a supporting accompaniment to the Northern Star Resources Ltd FY24 Annual Report, FY24 Modern Slavery Statement and FY24 Corporate Governance Statement.

Throughout the ESR Disclosure Suite there are references to supporting information on our website which the reader is encouraged to view. The Northern Star website contains significant additional supporting information including our annual ESR Performance Data Tables, GRI Index and references to our previous disclosures.

# Glossary

## ABN

Australian Business Number

## ADNR

State of Alaska Department of Natural Resources

## ASX

Australian Securities Exchange, trading as ASX

## ASX Corporate Governance Council Principles and Recommendations

Principles and Recommendations (4th edition) of the ASX Corporate Governance Council on the corporate governance practices to be adopted by ASX listed entities and which are designed to promote investor confidence and to assist listed entities to meet shareholder expectations

## Au

The chemical symbol for gold

## Audit & Risk Committee (ARC)

Audit and Risk Sub-Committee of the Board

## Biodiversity

The variety of all life forms on Earth

## Board

Board of Directors

## Company

Northern Star Resources Ltd  
ABN 43 092 832 892

## Contractor(s)

Externally employed contracted workers engaged by the Company to support Operations

## Corporations Act

*Corporations Act 2001* (Cth)

## Director

A director of the Company duly appointed under the Corporations Act

## employees

Total number of employees of the Group including permanent, fixed term and part-time. Does not include contractors

## EMS

An Environmental Management System (EMS) is a structured system which helps an organisation to identify the environmental impacts resulting from its business activities and to improve its environmental performance. The system aims to provide a methodical approach to planning, implementing and reviewing an organisation's environmental management.

## ESG

Environment, Social & Governance

## ESR

Environment and Social Responsibility

## ESR Disclosure Suite

Refers to the nine separate disclosures related to environment and social responsibility information available on the Northern Star Company website. These comprise: ESR Approach at Northern Star, People & Culture at Northern Star, Safety & Critical Risk Control at Northern Star, Community Engagement & Support at Northern Star, Supply Chain Management at Northern Star, Environmental Management at Northern Star, Climate Change at Northern Star, Water Security at Northern Star, and Waste & Tailings Management at Northern Star

## ESR Performance Data Tables

Detailed spreadsheets containing key environment and social responsibility metrics for Northern Star for FY24 and relevant preceding years available from the Company website.

## ESS Committee

Environmental, Social & Safety sub-Committee of the Board

## FY

Financial Year ending 30 June

## GNBRA

Goldfields Nullarbor Rangelands Biosecurity Association is the largest biosecurity region in Western Australia.

## GRI

Global Reporting Initiative

## Group

Northern Star Resources Ltd and all of its wholly owned subsidiaries

## INX

A software system made up of a number of modules which can be used for tracking events, actions, incidents, compliance requirements, flights, training and other related activities

## ISO14001

The internationally recognised standard for environmental management systems

## KCGM

KCGM means Kalgoorlie Consolidated Gold Mines Pty Ltd, a wholly owned subsidiary of the Company, which operates the Super Pit and Mt Charlotte Underground in Kalgoorlie, Western Australia

## Limited Assurance

Audit and assurance undertaken by an external auditor on whether the data or statements made in this or related disclosure(s) have been prepared in accordance with GRI

## Malleefowl

an Australian bird (*Leipoa ocellata*) of variegated gray, brown, white, and black plumage, that lays up to 35 eggs in an incubating mound

## MRF

Mining Rehabilitation Fund is a pooled fund that all mining operators in WA contribute into to ensure the State government has the funds necessary to undertake rehabilitation at abandoned mines sites

## Officer

An officer of the Company defined under the Corporations Act

## Operations

mining and mineral processing activities conducted by Northern Star Resources

## Reasonable Assurance

Audit and assurance undertaken to a higher level on whether the data or statements in this or related disclosure(s) have been prepared in accordance with GRI

## SASB

Sustainability Accounting Standards Board

## shareholder

A shareholder of Northern Star Resources Ltd

## stakeholders

An individual, group or organisation that is impacted by the Company, or has an impact on the Company. Examples of stakeholders are investors, employees, suppliers and local communities

## T

tonne; 1000 kilograms

## TCFD

The Financial Stability Board's Task Force on Climate-related

## Financial Disclosures

### TNFD

Taskforce on Nature-related Financial Disclosures

## UN

United Nations

## UN SDG(s)

The United Nations Sustainable Development Goals

## US or USA

United States of America

## WA

Western Australia

## \$

Australian dollars, unless the context states otherwise. All A\$ to \$US currency conversions used in this ESR Disclosure Suite are at \$0.6556

# Contact Information

## Northern Star Resources Ltd

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### Corporate office

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### Telephone

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**Compliance** [compliance@nsr ltd.com](mailto:compliance@nsr ltd.com)

**ASX Code** NST

**Share Registry** MUFG Corporate Markets  
(formerly known as Link Market Services)

### Additional Website ESR Disclosures:

Environment & Social Responsibility Approach

People & Culture at Northern Star

Safety & Critical Risk Control at Northern Star

Community Engagement & Support at Northern Star

Supply Chain Management at Northern Star

Environmental Management at Northern Star

Climate Change at Northern Star

Water Security at Northern Star

Waste & Tailings Management at Northern Star

FY24 Performance Data Tables

FY24 GRI, SASB and UN SDG Alignment Index

FY24 Tailings Disclosure Report

FY24 Biodiversity Values

**Cover Image:** Fall Foliage at Pogo

**Photo Credit:** Arkadiusz Turolski, Geologist - Exploration  
Pogo Operations, Pogo Production Centre, Alaska