



**NORTHERN STAR**  
RESOURCES LIMITED

**Sustainability  
Report 2022**



## Acknowledgement of Country

Northern Star would like to acknowledge and pay our respects to Traditional Owner groups, upon whose land our operations in Australia are situated.

- Whadjuk Noongar
- Marlinyu Ghoorlie
- Maduwongga
- The Wiluna Martu
- Darlot
- Nyalpa Pirniku
- Kakarra
- Kultju
- Tjiwarl
- Wajarri Yamatji
- Warlpiri, Gurindji and Jaru

Northern Star would like to acknowledge and pay our respects to the Athabascan people, upon whose ancestral lands our Pogo Operation in Alaska, is situated.

We seek and value the guidance and input of these indigenous groups in the operation of our business. We acknowledge their strong and special physical and cultural connections to their ancestral lands on which we are privileged to operate.

## Our Purpose and STARR Core Values

To generate superior returns for our shareholders, while providing positive benefits for our stakeholders, through operational effectiveness, exploration and active portfolio management.

### STARR Core Values

Our Core Values are integral to the working lives of all our workers and operations.





Tobi Freeman, Senior Metallurgist at Thunderbox, Yandal Production Centre, Western Australia

# In this Report

Acknowledgement of Country	2
Our Purpose and STARR Core Values	3
About This Report	4
Sustainability Snapshot	6
A Message from our ESS Chair	8
A Message from our Managing Director and CEO	10
Overview	13
Climate Change	29
Environmental Performance	45
Safety Performance	69
People Performance	85
Social Performance & Economic Contribution	107
Governance, Ethics & Transparency	131
Appendix A: Assurance Statement	141
Appendix B: Stakeholder Engagement Summary	145
Appendix C: Climate Change Policy	152
Appendix D: Assumptions Used To Support Net Zero Ambition And Emissions Reduction	153
Additional Information	155
Glossary	156
Corporate Directory	159
Contact Information	159

## About This Report

This Report has been prepared by Northern Star Resources Limited (ABN 43 092 832 892) (Northern Star) for informational purposes only. This Report should be read in conjunction with Northern Star's Annual Report and other periodic and continuous disclosure announcements lodged with the ASX, which are available on Northern Star's website at <https://www.nsrld.com/>.

Northern Star has reported in accordance with the GRI Standards for the period 1 July 2021 to 30 June 2022.

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

This Report was reviewed and approved by Northern Star's Board of Directors, and published on 29 August 2022. 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 Report to us at [esgperformance@nsrld.com](mailto:esgperformance@nsrld.com)

## Disclaimer

This Report contains forward-looking statements, including statements of current intention and expectation. This includes statements regarding climate change and other environmental and energy transition scenarios. These forward-looking statements are based on information available at the date of this Report. While these forward-looking statements discuss Northern Star's expectations at the date of this Report, 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 report 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

Refer to Appendix D for more information on the assumptions relied on in relation to our Net Zero Ambition and Emissions Reduction.

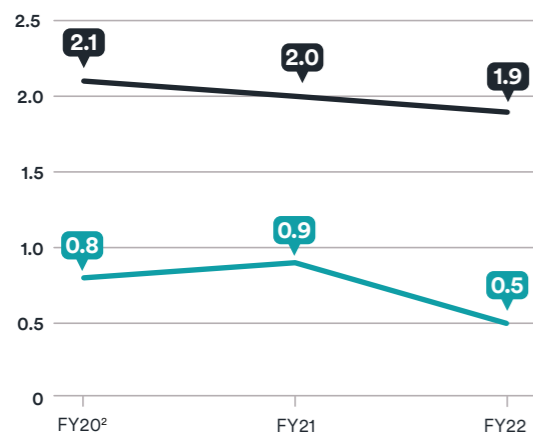


# Sustainability Snapshot

## Safety – LTIs

**LTIFR 0.5**

Approximately ¼ of Industry average

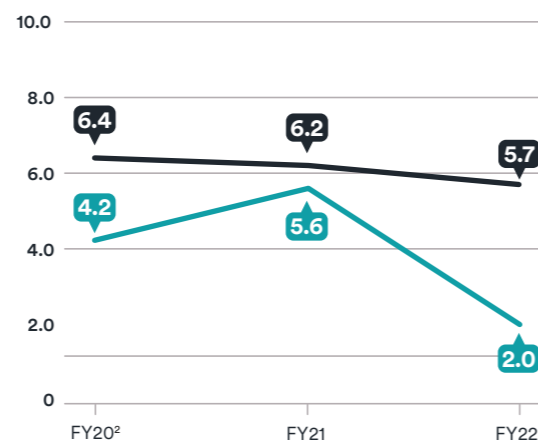


Key — Northern Star — Industry average

## Safety – LTIs + RWIs

**TRIFR<sup>1</sup> 2.0**

Approximately ⅓ of Industry average



## Gold Sold

**1.56Moz**

## Modern Slavery Supplier Risk Assessment

**1,183**

suppliers included in inherent risk assessment

## Governance

**100%**

Alignment with ASX Corporate Governance Council Principles & Recommendations

## Net Zero Ambition

**Net Zero**

for Scope 1 and 2 Emissions by 2050 relative to 1 July 2020 baseline of 931ktCO<sub>2</sub>-e

## Materially Adverse Incidents

**0 incidents**

Nil environmental<sup>5</sup>, community or heritage incidents; nil fatalities

## Revenue

**\$3.7<sup>B</sup>**

up 35% from FY21

## Economic Value Add

**\$3.35<sup>B</sup>**

direct and indirect economic value add

## Community Investment

**\$5.5<sup>M</sup>**

Financial and In-Kind Commitments made in FY22

## Emissions Reduction Target

**↓35% by 2030**

Scope 1 and 2 absolute Emissions relative to 1 July 2020 baseline of 931ktCO<sub>2</sub>-e

## Our Workforce

**6,011**

employees and contractors<sup>3</sup>

## Female Employment

**23%**

4% above Industry average<sup>4</sup>

## Culture Survey Participation

**85%**

1. Number of reportable injuries (Lost Time Injuries and Restricted Work Injuries) per million hours worked. Calculated on a 12-month rolling average.  
 2. Inclusion of historical legacy data from Saracen assets prior to the Merger has resulted in a restatement of data prior to February 2021.  
 3. At 30 June 2022.  
 4. Comparison Group is WGEA Gold Ore Mining Companies with 1000+ employees as at last published WGEA data 31 March 2020.  
 - FY22 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2020-21 Metalliferous total.  
 - FY21 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2019-20 Metalliferous total.  
 - FY20 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2018-19 Metalliferous total.

5. In 2019 the US EPA inspection at Pogo resulted in notification in FY22 of a breach of technical requirements. Whilst not causing any environmental harm, this will result in financial penalties during FY23; refer to page 67 for more details.



# A Message from our ESS Chair

## Dear shareholders, employees and stakeholders

I am delighted to share this FY22 Sustainability Report with you.

We foreshadowed in the 2021 Sustainability Report released on 15 February 2022 that Northern Star had made the decision to revert to Sustainability reporting as at 30 June, at the same time as the annual financial information is released in the Annual Report. This allows us to harmonise our reporting against a common timeline aligned with strategy and financial planning. This also provides investors with material information across financial and non-financial dimensions as at financial year end.

This report therefore updates the February 2022 Report and includes historical data which is now expressed in financial year terms, to enable investors to compare financial year performance year on year. Our previous Reports were prepared on a calendar year basis. This year we have also benefitted from a limited assurance statement by Bureau Veritas, relating to the GRI Standards: core option demonstrating that our proficiency continues to develop in relation to the integrity of the data

collected in our operations.

This year more than ever, ESG has become central to how Northern Star thinks and takes action. This is as a consequence of our clear view that with strong social stewardship coupled with strong risk management comes powerful business results, whether that be consideration of our environmental footprint; protection of Indigenous people's rights; the COVID-19 pandemic placing a greater focus on our human capital development, mental health and human rights particularly in supply chains; and the increased diversification of supply chains considering recent geopolitical events.

We are committed to continuing the focus of ESG across all our operations, and we prioritise how we can improve our performance for the benefit of our shareholders, employees, stakeholders and the communities in which we operate. The change in carbon responsibility that we are seeing throughout the industry in governments, countries and companies is positive for a company such as ours, which strives for enhanced outcomes for all.

8



Geology team at Carosue Dam, Kalgoorlie Production Centre, Western Australia

## We are committed to continuing the focus of ESG across all our operations, and we prioritise how we can improve our performance for the benefit of our shareholders, employees, stakeholders and the communities in which we operate.

However, much work remains to be done as we develop our roadmap for the optimal transition to Net Zero<sup>6</sup>.

We believe in the authenticity of our environmental, social and safety aspirations and recognise that companies demonstrating superior performance in these areas outperform others in traditional business measures, through a more motivated workforce, efficient operations, aligned and supportive stakeholders and hence a more predictable and profitable organisation.

### Highlights for Northern Star in FY22 sustainability include:

- An outstanding step change in safety performance with an LTIFR of 0.5 and TRIFR of 2.0, (LTIFR = 44% improvement, TRIFR = 64% improvement) both well below industry averages;
- Embedding STARR Core Value of Respect and reinforcing a zero tolerance policy in the workplace at every level in relation to sexual harassment, bullying and psychosocial risks;
- In February 2022, the release of robust and credible 2030 Emissions Reduction planned pathways to achieve a 35% reduction in absolute scope 1 and scope 2 emissions by 2030, on the way to achieving Net Zero operational emissions by 2050;
- The success of the Williamstown voluntary relocation program in Kalgoorlie where respectful and collaborative engagement with residents and landowners has seen many lives changed significantly for the better, and
- Improved water stewardship; KCGM was awarded a Highly Commended Award in FY22 by Water Corporation as part of their Waterwise Business Program. This was achieved for a reported 10.73% reduction in potable water use during the previous year.

During FY23 our decarbonisation team, led by an experienced member of the Northern Star management team, will be advancing our Emissions Reduction pathways. We will also be focussing on:

- improving our technology solutions for data collection and analysis for responsible sourcing and modern slavery audits;
- preparing for ISSB reporting, and
- considering the future implications for Northern Star of the Taskforce on Nature-related Financial Disclosures in ensuring that nature-related impacts, risks and opportunities are effectively assessed and communicated by Northern Star in the future.

On behalf of the Board, we'd like to thank you, our investment community, for supporting our sustainability journey.

Yours sincerely



*Sally Langer*

**Sally Langer**  
Chair of the Environmental,  
Social and Safety Committee<sup>7</sup>  
Northern Star Resources Limited

9

6. For definitions of what we mean by Net Zero Ambition and Emissions Reduction throughout this Report, please refer to the Glossary on pages 156 to 158. We have also included a summary of the assumptions we have relied on in relation to stating our Emissions Reduction targets and pathways, and how we will measure our progress in achieving those targets, in Appendix D of this Report.

7. Mary Hackett chaired the ESS Committee during FY22. Upon Ms Hackett's retirement from the Board on 22 August 2022, the Board appointed Sally Langer to chair the ESS Committee.



# A Message from our Managing Director and CEO

## Dear employees, shareholders and stakeholders

On behalf of the Board of Directors of Northern Star Resources Ltd, I am pleased to present to you the Sustainability Report for the financial year ending 30 June 2022.

We are extremely proud of our efforts, achievements and results this year.

Our purpose is to generate superior returns for our shareholders, delivered through our 6,000+ strong workforce operating our underground and open pit mines, processing plants and exploration activities. Being a responsible gold producer is extremely important to our employees, our stakeholders and the communities in which we operate. We are advancing our strategy of profitable organic growth, generating significant cashflows which funds all our operations and exploration efforts in Tier 1 locations, and grows our dividends paid to you, our shareholders.

The health, safety and wellbeing of our people is integral to our success. Our outstanding safety performance with a TRIFR of 2.0 is clear evidence of continual safety improvement, consistent with the STARR Core Values of Safety, Teamwork, Accountability, Respect and Results. This exceptional result was achieved in the first full financial year

in which we operated as a combined Group, with significant project expansion and shutdown work, COVID-19 impacts continuing, labour market pressures leading to a larger than normal percentage of new starters, and despite the sheer number of worker hours involved in our underground, open pit and processing operations.

We are passionate about training and developing our people, and providing respectful and inclusive safe working environments where mental health and wellbeing are just as important as physical safety. A zero-tolerance approach to poor behaviours is just one demonstration of how we live our STARR Core Values. The 85% result for participation in the November 2021 culture survey is an impressive baseline for the combined Group and we will continue in FY23 to focus on and reinforce each of the STARR Core Values, addressing feedback we received during the culture survey and in response to societal concerns about psychological safety and wellbeing in all workplaces.

We saw extraordinary efforts applied to manage a very challenging year for our workforce in Australia and the US. We experienced costs pressures across the operations (notably in relation to labour, steel, fuel and energy) and continuing skill shortages. The COVID-19 disruption continues to impact workforce numbers and we adjust our plans accordingly.



Visible gold in core at Jundee, Yandal Production Centre, Western Australia

Notwithstanding that our share price has been impacted by global economic factors in common with many other companies throughout the industry, our outlook remains positive with significant progress made to continue our strategic profitable growth plans.

Northern Star is rapidly earning its place as a constructive and long-lasting member of the communities in which we operate, with the \$3.35B economic add we contributed in FY22 alone through employment, procurement of goods and services, taxes, royalties and sponsorships. We are proactively engaging with Indigenous Peoples in revisiting and creating new native title compensation agreements, and growing our support in Indigenous procurement and employment opportunities.

In FY22 we announced the pathways that we intend to follow to achieve an absolute reduction of 35% in scope 1 and 2 greenhouse gas emissions by 2030, on our way to Net Zero by 2050. We know that 70% of our scope 1 and 2 emissions are from the purchase of

or generation of energy and power which is feeding our mines and mills. This knowledge and long mine life at the KCGM operations enables us to focus in the Goldfields on large scale multi-decade renewable projects to replace reliance on carbon intensive energy sources, using known, existing technology and applying the learnings from our recent small-scale pilot renewable projects. This Report provides more information about this critical work, and other aspects of our journey in sustainable gold production.

On behalf of the Board, thank you for your continued support as a shareholder.

Yours sincerely



**Stuart Tonkin**  
Managing Director & CEO  
Northern Star Resources Limited



The Northern Star shirt worn with pride at Kanowna Belle, Kalgoorlie Production Centre





# Overview



# Overview



## Our Business & Where We Operate

Northern Star Resources is a global Australian gold producer with projects located in Western Australia and Alaska, both highly prospective and low sovereign risk regions.

Since 2010 the Company has significantly grown production, earnings and cash flows, and Resources and Reserves through operational excellence and active investment in exploration.

### Scale of organisation

**3,409**  
employees<sup>8</sup>

**\$3.7B**  
Total revenue<sup>9</sup>

**2,602**  
contractors<sup>8</sup>

**1.56M**  
Ounces of gold sold<sup>10</sup>

**3**  
Number of production centres

**60%**  
Local employees

**\$90M**  
gold royalties

**\$3.35B**  
Total Economic Value Add

8. At 30 June 2022.  
9. Please refer to the Northern Star FY22 Annual Report for GRI 1 and GRI 2 disclosures around operating costs, and financial performance data.  
10. Refer to note 4(i) to the FY22 Financial Statements in the FY22 Annual Report in relation to downstream sales.



Crystal Rudd, Geology Technician at Carosue Dam, Kagoorlie Production Centre, Western Australia



# Where We Operate

Our portfolio of high-quality, mining operations are located in world class jurisdictions.

Figure 1 North American Operations

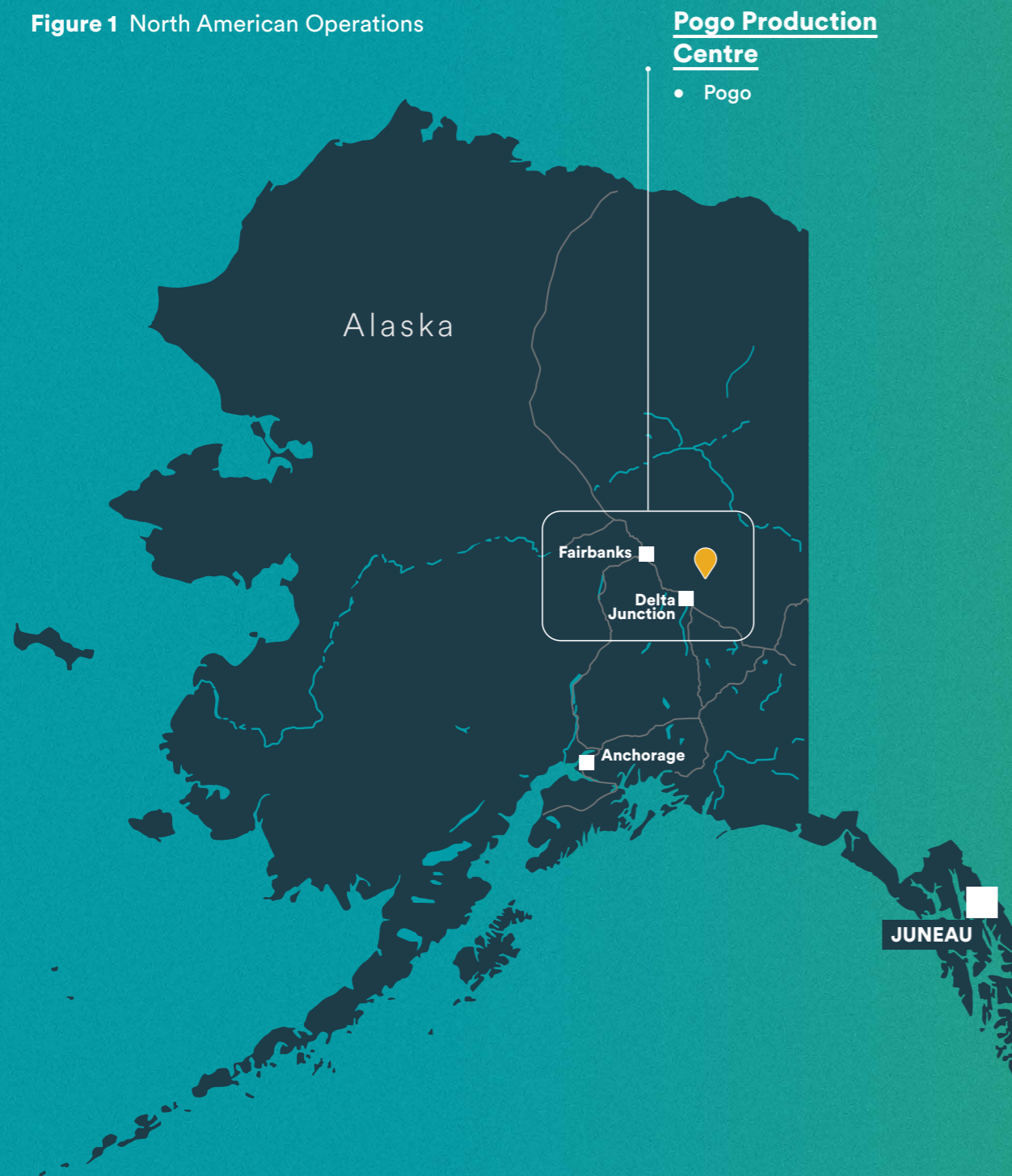
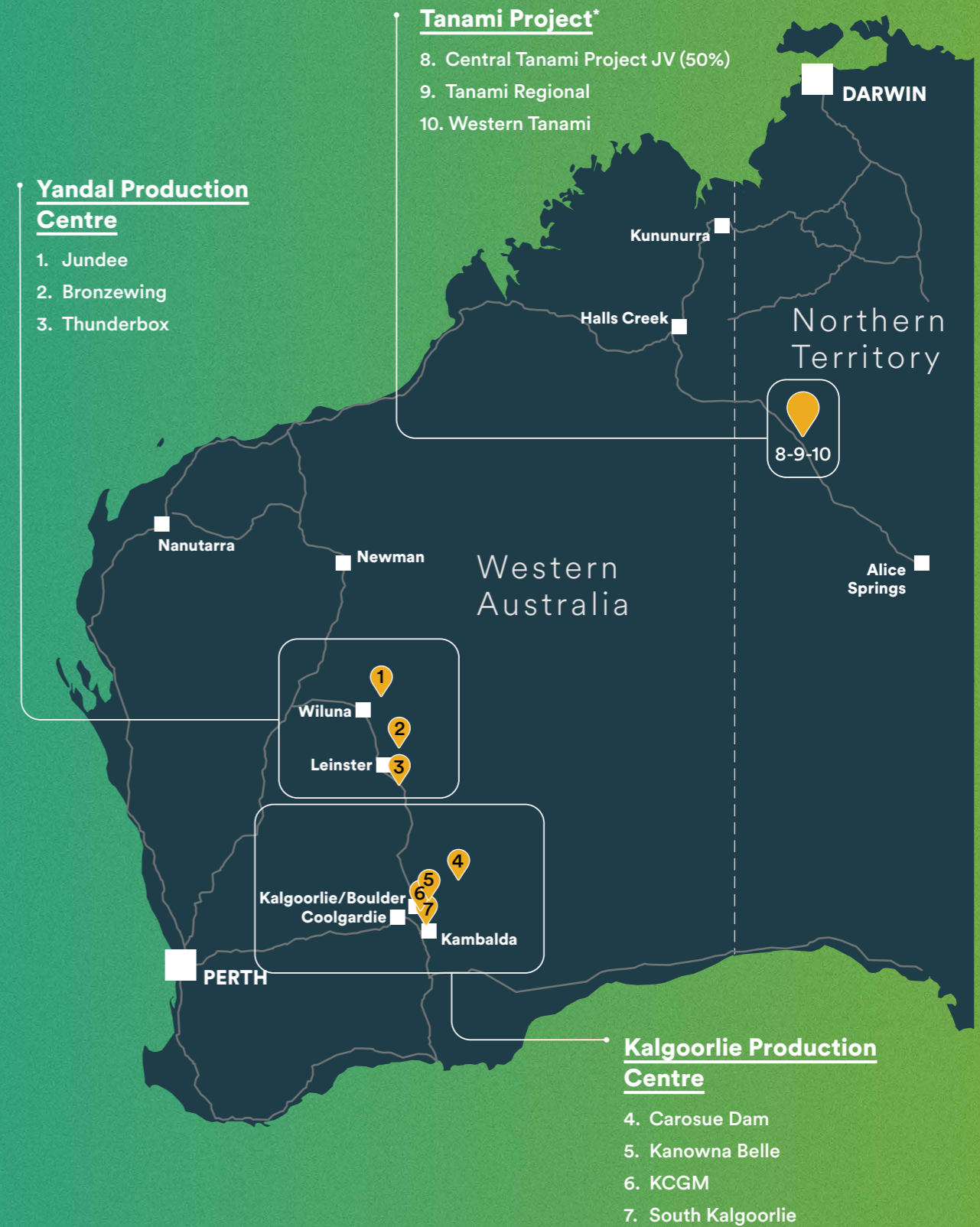


Figure 2 Australian Operations



\* Paulsens and Western Tanami assets were divested in June 2022, see ASX Announcement: <https://www.nsrld.com/investor-and-media/asx-announcements/2022/june/northern-star-completes-paulsens-and-western-tanam>



# Our Sustainability Journey

## Our Achievements FY18 – FY22

### Climate change actions:

- Commenced our phased alignment with TCFD recommendations<sup>11</sup>
- Establishment & expansion of Carosue Dam solar farm
- Announced Net Zero Ambition for Scope 1 & 2 Emissions by 2050
- Planned decarbonisation pathways to achieve 35% reduction in operational Scope 1 & 2 Emissions by 2030
- Disclosure of climate change related risks & opportunities
- Inclusion of Scope 3 Emissions reporting

### Water & biodiversity stewardship actions:

- Identified two butterfly species thought to be previously extinct in the Goldfields
- Completed detailed environmental offset studies for Malleefowl
- Potable water conservation program at KCGM, and thickener installations across several sites

### Internal & External Disclosures:

- Annual Sustainability Reporting with reference to GRI and SASB
- Improved Donations and Sponsorship programme and annual budget increase
- ESG metrics included in the STI, LTI and KPIs
- Annual Modern Slavery Statement
- Annual Workplace Gender and Equality Report
- Annual Corporate Governance Statement
- Performance Data Tables
- Integrated GRI, SASB, UNSDG index

### Strengthened ESG related policies, standards and performance including the release of:

- Climate Change Policy
- Human Rights Policy
- Supplier Code of Conduct

### Board Committees increased focus on sustainability:

- Environment, Social & Safety Committee
- Audit & Risk Committee
- People & Culture Committee

### Benchmarking and alignment activities:

- Alignment with the UNSDGs
- Benchmarking of our ESG activities

### Focus on ESG in our supply chain through:

- Supply chain risk analysis project commenced
- Ongoing modern slavery surveys
- External audits of designated suppliers' facilities
- Release of our Modern Slavery Response Protocol

### Strengthened our internal ESG resources and capabilities through the:

- Recruitment of a Chief Technical Officer to increase sustainable operational efficiencies
- Dedicated renewable energy appointment, General Manager - ESG & Growth
- Recruitment of a Group Manager - Audit & Risk
- Establishment of a dedicated ESG Engagement team
- Expansion of our internal environmental team
- Rollout of new Modern Slavery Awareness Training, Safety Leadership Training, new Cultural Awareness Training

### Increasing our engagement with key stakeholder groups:

- Stakeholder materiality assessment
- Performance data tables
- Participation in CDP, DJSI (S&P Global), Sustainalytics, VE Connect, MSCI, and ISS
- Employee ESG focus groups
- ESG included our employee culture survey
- Priority focus on physical and mental wellbeing throughout the COVID-19 pandemic

11. Refer to Figure 15 on page 41 for a detailed explanation of our TCFD activities.

## Our Plans for FY23 - FY30+

### Climate change planned actions:

- Q1 of FY23 we are forecasting an increase in power consumption demand at our Thunderbox Operations as a result of an expansion project. Consideration for this additional demand has formed part of our 35% Scope 1 and 2 Emissions Reduction target by 2030
- Q3 of FY24 we anticipate commissioning approximately 20 MW of renewables behind the meter (BTM) at Jundee Operations
- Q2 of FY25 we anticipate commissioning approximately 20 MW of renewables at Pogo Operations, either via grid or grid renewable energy
- Q4 of FY25 we anticipate commissioning approximately 20 MW of renewables BTM at our Thunderbox Operations
- Q2 of FY26 we anticipate commissioning approximately 35-70 MW of wind renewables at KCGM Operations via the grid
- Q3 of FY27 we anticipate commissioning approximately 65-100 MW renewables project BTM at our KCGM Operations
- TCFD alignment continues
- Financial qualification of our climate change-related risks
- Investigations into mobile fleet Emission Reductions
- Establishment of high-quality carbon offsets

### Water & biodiversity stewardship actions:

- Additional water conservation programs across sites
- Establishment of environmental offsets (malleefowl)
- Funding research on biodiversity initiatives

### Continue internal & external disclosures through:

- Sustainability Reporting aligned with ISSB recommendations
- Continued community investment Programs
- Ongoing use of ESG KPIs in STI and LTI remuneration
- Annual Modern Slavery Statement
- Annual Workplace Gender and Equality Report
- Annual Corporate Governance Statement

### Focus on ESG in our supply chain through:

- Responsible sourcing & improve ESG supplier screening
- Ongoing modern slavery risk analysis and audits of suppliers
- Increasing Indigenous procurement in our supply chain

### Benchmarking and alignment activities:

- Preparation for ISSB proposed consolidation of the SASB, GRI and TCFD reporting requirements
- Ongoing benchmarking & improvements of our ESG performance

### Strengthening our internal ESG resources capabilities through:

- Implementing additional systems around HR, ESG engagement and risk management

### Increasing our ESG communication internally and externally through:

- New website and intranet ESG information
- STARR Core Actions program
- Ongoing focus on employee health and wellbeing
- Continued focus on safety, critical risk controls, hazard identification and control, and safety leadership

## Our future plans beyond FY30

- Transition program of mobile fleets to low carbon options as it becomes commercially available, such as alternate fuels or battery technology
- Emissions Reduction planning continues for grid connected sites as grid greening progresses
- Refer to Net Zero Ambition for Scope 1 & 2 GHG Emissions by 2050 [Figure 8 on page 31]
- Refer to 2030 Pathway Emissions Reduction Planned Projects [Figure 10 on page 34]



# Our Sustainability Approach

Northern Star's approach is to create sustainable and profitable value for our shareholders and other stakeholders through ongoing review and improvement of our environmental, social and governance performance. We aim to achieve this by identifying, managing and mitigating risks and impacts from our operations while delivering superior outcomes for our shareholders, our people, our communities, and our natural environment.

Our approach to sustainability is underpinned by our STARR Core Values and framed by our governance structures and systems. Our STARR Core Values, together with our Code of Conduct and our Group policies, are fundamental to the sustainability of our operations. They are integral to the working lives of all our employees and operations, and they define what it means to work at Northern Star. They are at the heart of our culture and the way we do business.

Our commitment to improving our Environment, Social and Governance (ESG) performance is clearly demonstrated through the business wide ESG targets and KPIs that we set ourselves and through our ESG performance targets forming significant proportions of our leadership team's remuneration.

By monitoring and tracking local to global ESG developments and priorities, we ensure that we remain informed and able to proactively respond to our stakeholders and the ESG issues important to them. We do this using a range of approaches including sector, industry and peer benchmarking and gap analyses, stakeholder and investor surveys, and employee ESG focus groups.

We have in the past engaged a leading strategic communications firm to benchmark our ESG performance against that of our peers and provide us with guidance for improving our performance and ESG disclosures. We also completed gap analyses of our sustainability reporting against the SASB and GRI Standards, and against the Climate Action 100+ disclosure indicators. As a result, we have significantly increased the performance metrics in this Report.

We are committed to transparently reporting our ESG performance and to act on areas identified for improvement.



Katie Schumacher and Russell Gossett in our environment team at Pogo Operations, Alaska

## Boundary & Scope

This Sustainability Report provides information on Northern Star's sustainability performance across its operations during the period 1 July 2021 to 30 June 2022. This Report represents a transition to Financial Year reporting periods for our sustainability data.

Northern Star's assets included in this Report are listed in Figure 3 below. Refer to the Material subsidiaries Note (Note 16a) to the FY22 Financial Statements in the FY22 Annual Report for a list of entities included in Northern Star's financial reporting.

## Restatement of Information

Inclusion of historical legacy data from Saracen assets prior to the merger has resulted in a restatement of data prior to 12 February 2021.

Figure 3 Corporate Structure



12. Kundana and East Kundana assets were divested in August 2021. Performance data reported for these assets is not included.

13. Paulsens and Western Tanami assets were divested in June 2022, see ASX Announcement: <https://www.nsrld.com/investor-and-media/asx-announcements/2022/june/northern-star-completes-paulsens-and-western-tanam>



## Materiality & Disclosure

Northern Star regularly considers and reviews future disclosure opportunities, including reporting frameworks and standards for Company alignment. This ensures that the priorities of our stakeholders are taken into account when we define our material topics and update our approach.

To ensure that we continue to strengthen the quality and breadth of our disclosures, we regularly assess our voluntary reporting against the disclosure topics and gold industry material topics defined by key

voluntary reporting standard and frameworks. This provides an understanding of our stakeholders' primary focus areas.

We then transparently disclose information which allow our stakeholders to assess and compare our sustainability performance.

In this Report we demonstrate our voluntary alignment with the following:

Figure 4 Voluntary Alignments



### Global Reporting Initiative (GRI) Standards

The GRI Standards enable an organisation to report on their impacts on people, the environment, and the economy in a standardised manner. The aim is to increase an organisation's transparency in reporting and demonstrate its contribution to organisational sustainability. Northern Star has prepared the reported information in accordance with the GRI Standards: Core Option. GRI Index available on Northern Star's website at <https://www.nsrld.com/sustainability>.



### Sustainability Accounting Standards Board (SASB)

The SASB Standards are aimed at connecting businesses and investors on the financial impacts of sustainability. Northern Star uses the Mining and Metals Sustainability Accounting Standard, updated in December 2021 to guide its sustainability disclosures.



### Task Force on Climate-Related Financial Disclosures (TCFD)

The Financial Stability Board created the TCFD to improve and increase reporting of climate-related financial information. The reports produced satisfy stakeholders' requirements for clear, detailed, and quality financial information on the impacts of climate change including potential risks and opportunities. Northern Star has disclosed in alignment with TCFD recommendations since 2019.



### United Nations Sustainable Development Goals (UN SDGs)

The United Nations members developed 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries in partnership to achieve a more sustainable future. Northern Star has identified which of the UN SDGs align with each area of our business throughout this Report. A complete assessment of our alignment with the goals is provided on our website at <https://www.nsrld.com/sustainability>

We also participate in, or are included in, the following external ESG performance benchmarking initiatives and assessments conducted by third-party rating agencies:

- CDP (climate change and water)
- S&P Global
- Sustainalytics
- V.E Connect
- MSCI
- ISS (environmental, social and governance)
- FTSE4Good

In conjunction with these ratings we have continued to focus on the quality and availability of our own ESG metrics to allow transparency in the information we provide to our stakeholders in the most up to date format.

We use the outcomes of these assessments to change or improve how we disclose our performance in ESG and consider what further steps we can take which will benefit the business and improve our ESG performance. For example, in FY22 we maintained our ISS Governance Score at 1 (the best possible outcome demonstrating lowest governance risk) and we improved our ISS Environment and Social Scores from 4 to 2 and from 4 to 3 respectively. These scores are out of 10, with lower scores demonstrating improved disclosure and lower risk.



Being aligned to and reporting against the SASB, TCFD, CDP and GRI Standards, Northern Star is well placed to report against the International Sustainability Standards Board (ISSB) Standards when they are adopted through the ISSB's consolidation of the SASB, GRI and TCFD reporting requirements.



Underground operations at Carosue Dam, Kalgoorlie Production Centre, Western Australia



The Company's material topics for inclusion in this Report are provided in Figure 5 below.

**Figure 5** Material Topics

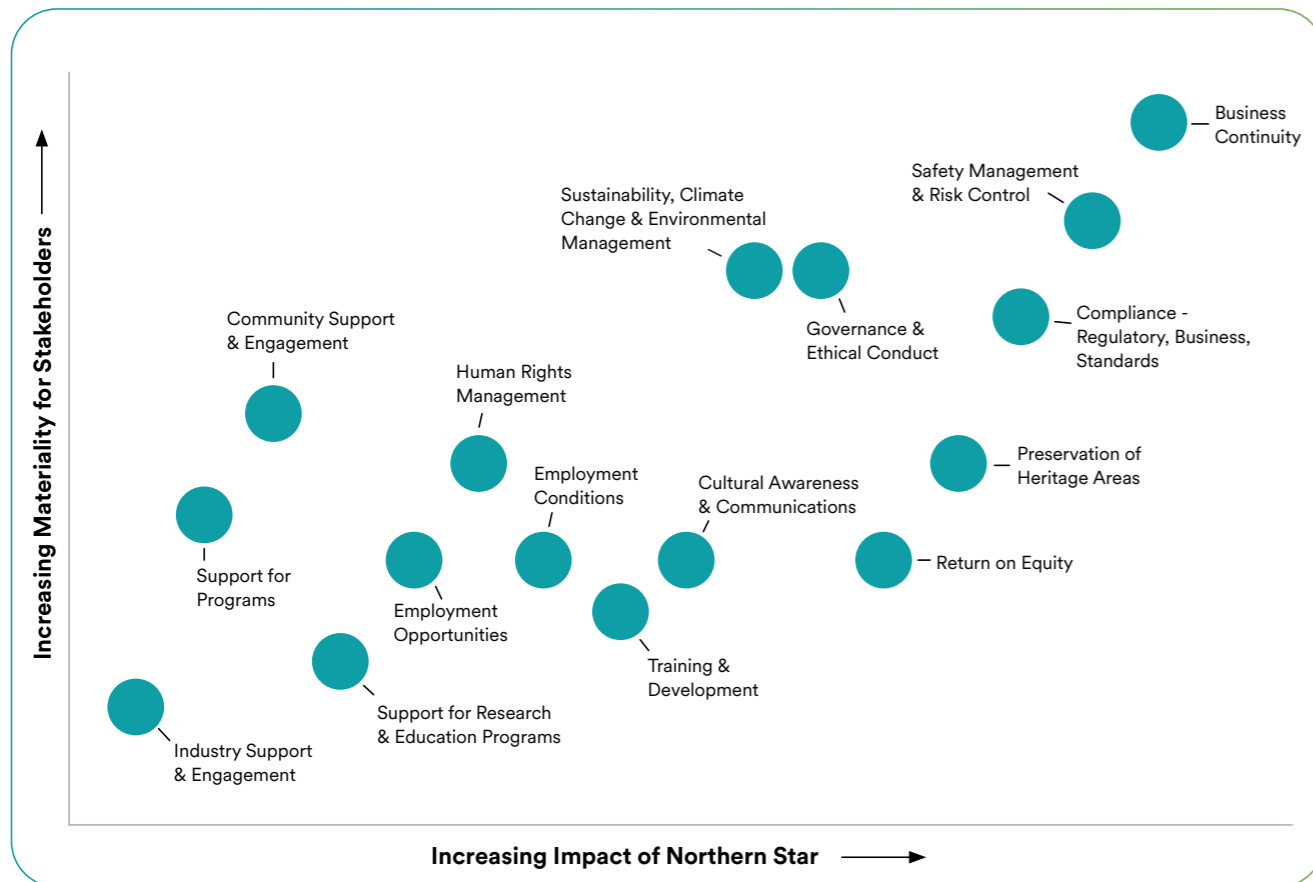


These material topics were derived from our inaugural materiality assessment that was undertaken in CY21 and reported in our CY21 Sustainability Report. The materiality assessment incorporated consideration of impacts that are potentially material to our industry according to GRI and SASB; changing regulatory and socio-economic influences; input from employee surveys and ESG engagement sessions; results from social

impact assessments and community feedback, and commentary from anonymous investor interviews conducted by an independent third party.

The Company's baseline Materiality Matrix was also developed and forms the basis for an ongoing biannual review process that will be used to continuously improve our disclosures, strategic action plans, and stakeholder engagement programs.

**Figure 6** Materiality Matrix



**Our Stakeholders**

Northern Star is committed to ongoing positive stakeholder collaboration and engagement.

Our corporate governance framework adopted by the Board of Directors includes key policy documents which set out Northern Star's standards for stakeholder engagement. Some of these are included in the Northern Star inductions completed by all employees and contractors, to guide all decisions on our sites.

Engaging with our stakeholders provides an opportunity to share information about our current and proposed operations, and to develop a deeper

understanding and awareness of their needs and aspirations. Making informed and shared business decisions ensures that we continue to pursue mutually beneficial outcomes that increase the long-term sustainability of both Northern Star and the communities and regions in which we operate.

Stakeholder engagement happens simultaneously at many levels within the Company, and at corporate, regional and site level. An overview of our approach to engaging with our core stakeholder groups is provided in Appendix B, and further information is provided throughout the Report.



Kellie Carter conducting water sampling at Thunderbox, Yandal Production Centre, Western Australia



### Sustainability Performance Metrics

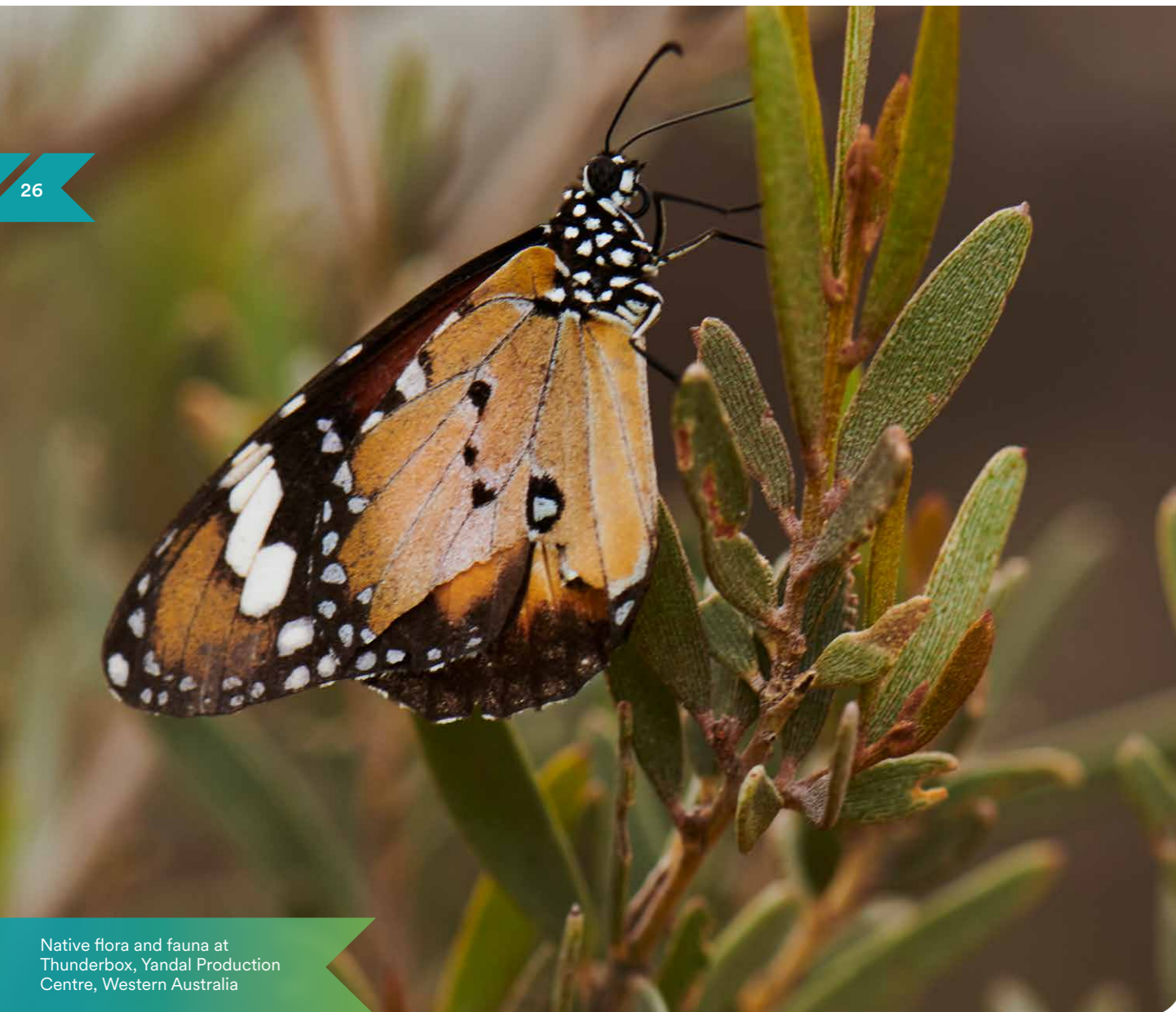
Northern Star regularly monitors its sustainability performance using a suite of internal metrics. Where appropriate, Northern Star has included intensity data per ounce of gold sold<sup>14</sup> to enable comparisons, identify trends in the data over time and realise the true impact on our data as asset acquisitions, mergers and divestments are made.

The integrity of our sustainability performance information and data is checked through a combination of internal and external verification and assurance processes. Our operational and functional leaders are responsible for ensuring the accuracy, completeness and consistency of all information and data they report. Our environmental data is collated, analysed, verified

and reported by environmental accounting firm, Greenbase. Greenbase also compiles the Performance Data Tables published on the Northern Star website. All material information and data that is publicly released by Northern Star is verified by our legal team prior to publication. For the first time, Northern Star has sought third party limited assurance by Bureau Veritas of select information and data disclosures against the GRI Standards in this Report. Bureau Veritas' Assurance Statement is provided in Appendix A.

Additional data can be sourced from the FY22 Performance Data Tables published on the Northern Star website (<https://www.nsrld.com/sustainability>).

14. Gold sold is used because it is objectively verifiable.



Native flora and fauna at Thunderbox, Yandal Production Centre, Western Australia

Table 1 Sustainability Performance Metrics<sup>15</sup>(also refer to FY22 Performance Data Tables)

Category	Material Risk	Sustainability Metric	FY22	FY21	FY20	
Environment	Sustainability, Climate Change & Environmental Management	<b>Achieving Net Zero Operational Emissions by 2050</b>				
		Total Scope 1 & 2 GHG emissions (t CO <sub>2</sub> -e)	1,190,053	1,133,906	851,743	
		Scope 1 & 2 GHG emissions intensity (t CO <sub>2</sub> -e/oz gold sold)	0.8	0.7	0.6	
		Scope 3 GHG emissions (partial assessment) (t CO <sub>2</sub> -e)	378,203	-	-	
		Electricity consumed from renewable sources (GJ) <sup>16</sup>	29,463	-	-	
		2030 Emissions Reduction target	35% reduction on FY20 baseline	-	-	
		<b>Responsible Environmental Stewardship</b>				
		Total regulator fines for environmental (AUD\$)	-	-	-	
		Rehabilitation completed per annum (ha)	140	126	83	
		Proportion of waste recycled/reused - excluding tailings or waste rock (t)	5,152	5,254	2,953	
		Total volume of fresh and other water withdrawn (ML)	46,574	45,748	38,979	
		Total volume of water recycled/reused (ML)	15,970	13,406	8,351	
		Total volume of water discharges (ML)	27,535	27,991	24,347	
		Net volume of fresh and other water consumed (ML)	19,039	17,757	14,632	
Net water consumption efficiency (ML/oz gold sold)	0.012	0.011	0.010			
Social	Employment Opportunities	<b>Fostering Diversity &amp; Inclusion</b>				
		Our employee workforce	3,409	3,383	2,639	
		Indigenous employment (%) <sup>17</sup>	2.61	-	-	
	Training & Development	<b>Talent Management, Skills Development</b>				
		Female employment (%)	23.12	24	21.3	
		Number of Grads, Undergrads, Trainees, Vac Students & Interns	326	138	-	
	Community Support, Engagement, & Support for Programs	<b>Managing Community Expectations and Demonstrating Contribution</b>				
		Number of Apprentices (including trade upgrades)	73	92	-	
		Number of employees participated in leadership development training	159	-	-	
		Total funds committed to community investment, and sponsorships (AUD \$ M)	5.5	4.0	4.0	
		Procurement spend (AUD \$ M):	2,643	-	-	
		- Western Australia	1,972	-	-	
		- Other Australia	298	-	-	
	- Alaska	156	-	-		
	- Other	217	-	-		
	% Local employment Pogo	60	-	-		
	% Kalgoorlie workforce residential (exc Carosue Dam)	90	-	-		
	Safety Management & Risk Control	<b>Managing Community Expectations and Demonstrating Contribution</b>				
		Lost Time Injury Frequency Rate: Contractors	0.6	1.0	0.7	
		Lost Time Injury Frequency Rate: Employees	0.5	0.8	1.0	
		Total Reportable Injury Frequency Rate: Contractors	2.5	6.6	3.7	
Total Reportable Injury Frequency Rate: Employees		1.5	4.7	4.5		
% close out of hazard identification events reported	94	100	99.8			
Compliance - Regulatory, Business, Standards	<b>Respecting Communities &amp; Traditional Owners</b>					
	Total grievances and complaints received	1	-	-		
	Proportion of grievances and complaints resolved	-	-	-		
Number of sites with current Social Impact Assessment Reports	2	2	2			
Governance	Governance & Ethical Conduct	<b>Respecting Human Rights</b>				
		Number of material Whistleblower complaints received	1	1	-	
	Number of material Whistleblower complaints investigated	1	1	-		
	Business Continuity & Return on Equity	<b>Economic Contribution</b>				
		Dividends Paid (AUD \$ M) <sup>18</sup>	227	353	49	
Gold sold (Moz) <sup>18</sup>		1.56	1.60	1.43		
Total revenue (AUD \$ M)	3,735	2,761	1,972			
Royalties paid <sup>18</sup> (AUD \$ M)	90	91	82			

15. Not assurance checked.

16. Relates specifically to the CDO solar farm, excludes grid generated power from renewable energy sources.

17. % of employees who responded to our internal survey and identified as Aboriginal or both Aboriginal and Torres Strait Islander.

18. Data includes Saracen contribution pre-merger.





# Climate Change



# Climate Change



## FY22 Achievements

Acquired 50% interest in Goldfields Power (Parkeston Power Station) enabling 52 MW continuous capacity and improved access to renewables

Completed Stage 3 of Carosue Dam Solar Farm expansion to achieve 6.3 MW installed renewable capacity

Tendered for our first hybrid solar / battery / diesel generator at our Porphyry Operations

## Climate Targets Snapshot

**35%**

Target Reduction in absolute Scope 1 and Scope 2 Emissions by 2030 (1 July 2020 baseline: 931ktCO<sub>2</sub>-e).

Demonstrate tangible, sustainable Scope 1 and Scope 2 carbon Emissions Reductions of

**50 kt CO<sub>2</sub>-e**

between 1 July 2021 and 30 June 2024, where 1 July 2021 represents business as usual baseline levels.

Demonstrate tangible, sustainable Scope 1 and Scope 2 carbon Emissions Reductions of

**100 kt CO<sub>2</sub>-e**

between 1 July 2021 and 30 June 2025, where 1 July 2021 represents business as usual baseline levels (includes 50 kt CO<sub>2</sub>-e by 30 June 2024).

Demonstrate tangible, sustainable Scope 1 and Scope 2 carbon Emissions Reductions of

**150 kt CO<sub>2</sub>-e**

between 1 July 2021 and 30 June 2026, where 1 July 2021 represents business as usual baseline levels (includes 50 kt CO<sub>2</sub>-e by 30 June 2024 and 50 kt CO<sub>2</sub>-e by 30 June 2025).

## Climate Change - Related Targets

Northern Star remains committed to the Paris Agreement and a Net Zero carbon future, on a 1.5°C pathway.

Since announcing our Net Zero Ambition on 22 July 2021, in February 2022 we outlined our decarbonisation pathway for achieving our 2030 Emissions Reduction Targets of 35% reduction in Scope 1 and Scope 2 Emissions on the way to achieving Net Zero operational Emissions by 2050. We have made steady progress: we have formulated and engaged with investors on our decarbonisation strategy; committed to aligning with the Task Force on Climate-related Financial Disclosures (TCFD); commenced work on Emissions Reduction projects; improved our Scope 3 accounting; considered climate change risks and opportunities in our operations' risk registers; and deepened

our understanding and assessment of the financial quantitative analysis of material physical and transition risks and opportunities identified in our TCFD reporting.

Figure 8 depicts our Net Zero Ambition. Northern Star's planned pathways to achieve 35% Emissions Reduction by 2030 are shown in Figure 10.

Our FY22 remuneration framework reflected our commitment to reducing our absolute Scope 1 and Scope 2 carbon Emissions by focusing on the introduction of projects which will have the effect of sustained annualised absolute Emissions Reductions year on year. This objective has continued to be reflected in our FY23 remuneration framework, as discussed in our FY22 Annual Report, and is depicted in Figure 7 below.

Figure 7 Scope 1 & 2 Emissions Reduction targets

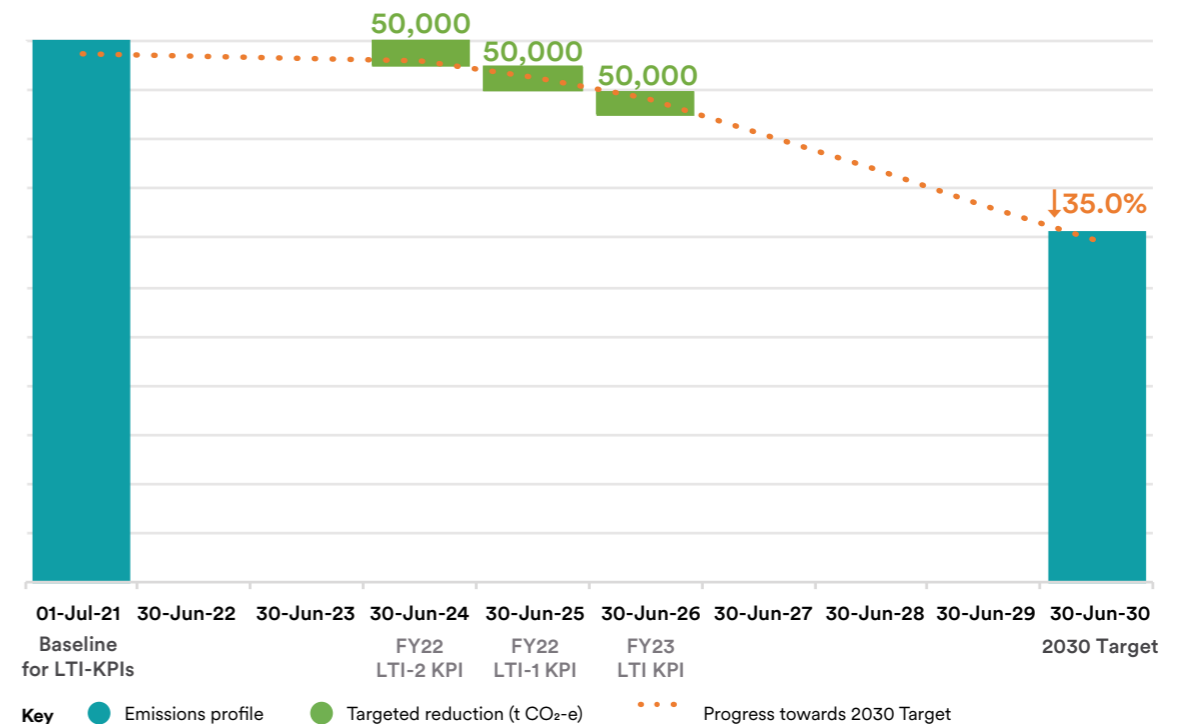
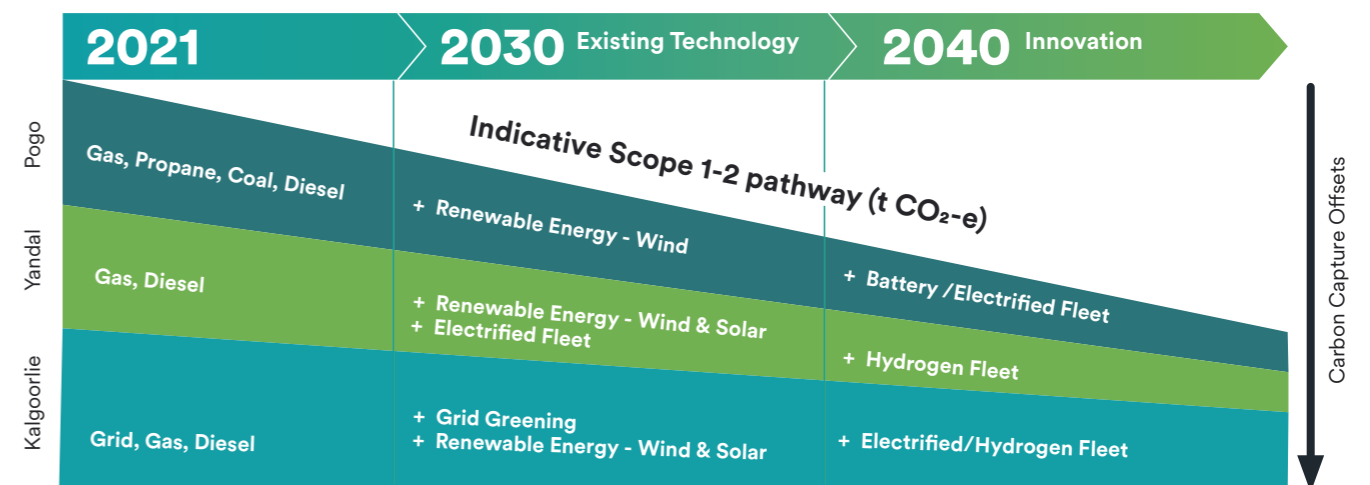


Figure 8 Net Zero Ambition for Scope 1-2 GHG Emissions by 2050





## Progressing our Decarbonisation Strategy

Northern Star is committed to reducing its Scope 1 and 2 Emissions by 35% (from a 1 July 2020 baseline of 931ktCO<sub>2</sub>-e) by 2030, on the way to Net Zero operational emissions by 2050. This target is central to all business and strategic planning, with increased efficiencies and Emissions Reduction incorporated into decision making integral to all current operations, future projects and business development.

As generated and purchased electricity accounts for 72% of Northern Star's greenhouse gas emissions (FY20 Baseline), this is a key focus area for reducing our Scope 1 and Scope 2 Emissions. Measures to reduce Northern Star's reliance on fossil fuels used for electricity generation include increasing control over use of renewables, including wind and solar. Energy storage options form part of this solution from both a maximisation of the renewable input and system integration aspect.

Northern Star has a strategic requirement to have direct control of power contracts to enable a clear decarbonisation pathway for the business. During FY22, Northern Star made the decision not to renew our thermal fuel contracts for KCGM with the aim of purchasing electricity via the Balancing Market to enhance volume for competition in the wholesale electricity market to encourage renewables.

On 1 December 2021, Northern Star completed the acquisition of Newmont's Kalgoorlie power business, comprising a 50% interest in the 110 MW Parkeston Power Station and associated infrastructure which provides electricity to KCGM and the Kalgoorlie area through its connection to the South West Interconnected System (SWIS). Our 50% interest in Parkeston Power Station provides us with security of electricity supply, helps ensure the robustness of the Goldfields network and provides a potential source of future firming capacity of renewables.

Since acquisition, the power station's daily self-generation of power via gas/diesel has ceased, with electricity supply instead being sourced from the grid via the Balancing Market. This strategy has substituted on-site generation with generation sourced from a market mix of renewable and non-renewable sources from the SWIS.

It is crucial for Northern Star that the commercial grid power continues to increase its renewable energy content and reduce the amount of carbon intensive fossil fuels used for generation. This trend is evident in Figure 9 with the Australian Energy Market Operator Wholesale Electricity Market (AEMO WEM) for the SWIS showing a steady increase in penetration of renewable energy sources over time.

**Figure 9** Australian Energy Market Operator Wholesale Electricity Market Fuel Mix Trend



On 1 March 2022, Northern Star completed the installation and energisation of an additional 1.94 MW solar farm expansion at Carosue Dam, resulting in a total solar farm installed capacity of 6.3 MW

and a maximum potential Emissions Reduction capacity of 6.7 kt CO<sub>2</sub>-e per annum. Northern Star are investigating opportunities to integrate the Carosue Dam power station and solar farm

to enable the Company to realise this Emissions Reduction opportunity. Technology to enable the integration of the power station and the solar farm is currently available. Updates on the completion date for integration will be provided as this project progresses.

The Carosue Dam solar farm expansion has been our pilot project for building, learning and optimising solar farm performance, integration and balancing. The learnings and knowledge gained will be applied to the planned installation of solar farms at Jundee, Thunderbox and KCGM.

We have tendered and intend to enter into a supply agreement for the provision of a solar/battery/diesel

generator hybrid power station at our Porphyry operations. We are also installing new generators at our Thunderbox site, which are being built with future potential to incorporate the feed-in of renewables.

While multiple decarbonisation studies are underway targeting the electricity generation that underpins our 2030 goals, mobility related emissions are our next key focus area. Northern Star is investing in enabling development projects, such as the BluVein<sup>19</sup> initiative to develop solutions that deliver reductions in mobility emissions.

19. For more information about the BluVein initiative see <https://bluevein.com/>.

## Highlight: New Open Pit Fleet Delivers Fuel, Energy and Operational Efficiencies at KCGM

During FY22, KCGM completed its open pit fleet replacement program with full commissioning of 39 new Caterpillar 793F haul trucks and upgrade of six existing 793F haul trucks.

Compared to Northern Star's 20-year-old Caterpillar 793C trucks, the new 793F trucks are delivering a range of benefits, including:

- approximately 5% improved fuel burn per hour based on the haul profile at KCGM Fimiston operations;
- enhanced speeds on grade of between 15% - 20%;

- light weight trays delivering higher payloads and reduced fuel burn per tonne moved;
- extended engine and transmission component life;
- reduced engine oil consumption; and
- superior braking and retarding control.

Collectively these benefits are contributing to KCGM's fleet fuel and energy efficiencies, reduced maintenance costs, improved cycle times and higher overall fleet productivity.

## Highlight: Investing in Dynamic Charging Technology for Electric Fleets

In August 2021, Northern Star joined a consortium of six other mining companies to collectively accelerate BluVein's dynamic charging technology for heavy duty battery electric mining vehicles in underground and surface mining applications.

The BluVein project allows grid power to be supplied directly to a vehicle's traction drive motors and simultaneously charging of onboard batteries. This feature eliminates all battery swapping and static vehicle charging requirements, enables smaller and lower cost batteries and increased haulage speeds. The project has made significant progress with proof-of-concept experimentation completed and

system integration and testing underway. Northern Star has since invested in the next phase of the project through to FY23.

This phase includes the design and testing of a second prototype, integration works with mining partners and OEMs, and doing development works at a local test site to complete a vehicle demonstration trial.

These investments and collaborations will improve our knowledge and understanding of current and future technologies for enabling underground and above ground haulage.



### Our Planned Pathway to 2030

A continued shift to renewables is critical to achieving our 2030 targets and will remain an ongoing focus beyond 2030, as we turn to electrification in replacing our mobile fleet and also using renewable energy to achieve our 2050 Net Zero Ambition. Further replacement of purchased and self-generated power supplies with renewables must be done in a way that reduces costs and maintains security of supply. In turn, lower power costs will result in lower operational expenditure, longer asset life and more sustainable operations.

Integrating current and future renewables and storage technology will be essential to maintain momentum in reduction of Scope 1 and Scope 2 Emissions, and greater efficiencies in our operations.

Our current carbon footprint and Scope 1 and 2 Emissions are detailed on page 36. Northern Star is pursuing the planned strategic pathway shown below to reduce Scope 1 and Scope 2 Emissions by 35% by 2030. This would achieve a reduction in

greenhouse gas emissions from our baseline (1 July 2020) of 931ktCO<sub>2</sub>-e down to approximately 590 kt CO<sub>2</sub>-e.

The largest consumer of electricity within Northern Star's operations is KCGM, currently making up 50% of Northern Star's electricity emissions. The viability of expanding KCGM's Fimiston Processing Facility is currently progressing through a Feasibility Study.

Our ASX release of 28 June 2022 explains the three options for optimisation of processing at KCGM in addition to a steady state<sup>20</sup>. If this expansion is approved there will be significant further electricity requirements including renewable energy. Source of electricity supply to KCGM is therefore a priority in our future focus and thus the most advanced.

In a renewable energy market where long tenure is critical to financial approval and cost-effective outcomes, KCGM's life of mine is a competitive advantage.

### Quality Offsets

Northern Star's intent is to strive towards zero emissions and improve efficiencies wherever practicable, however there will likely remain a requirement to utilise offsets to achieve Net Zero operational emissions by 2050.

Where offsets are required, Northern Star's preferred approach will be to generate the offsets such as carbon sequestration projects from within local communities and with stakeholder involvement, to benefit our stakeholders. To this end Northern Star has earmarked three pastoral leases in the Goldfields with potential for such projects.

Studies to confirm the eligibility of these pastoral leases for Human Induced Regeneration (HIR) Carbon Projects have been completed with two of the pastoral leases identified as being immediately suitable for registering as Emissions Reduction Fund projects with the Australian Government.

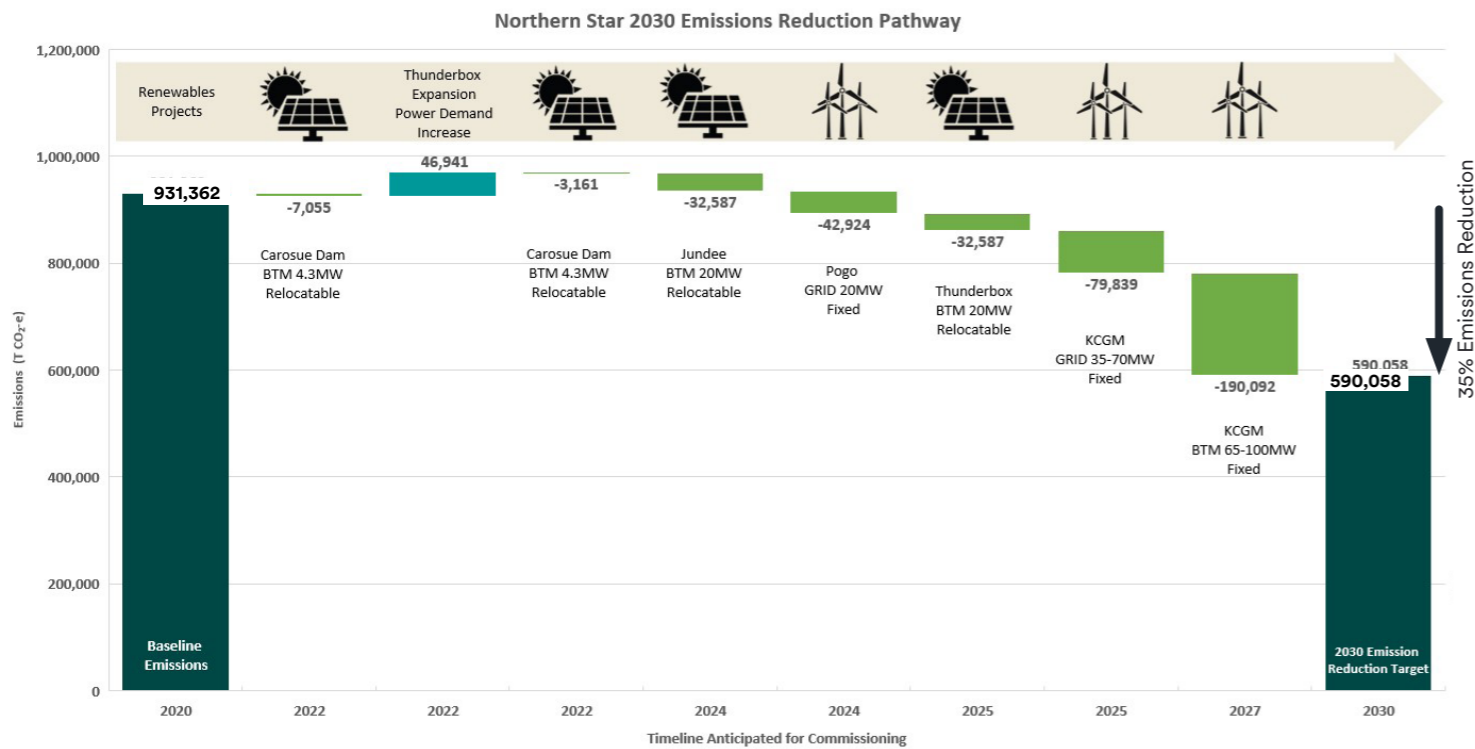
The third pastoral lease will be eligible for registration pending the proposed amendments to WA's *Land Administration Act 1997*.

Northern Star is progressing the requirements for registering HIR projects to partially meet the Company's future offset needs.



Yvonne Hynes, Environmental and Social Responsibility Superintendent, Kanowna Belle, Kalgoorlie Production Centre

Figure 10 Northern Star's planned pathways to achieve 35% Emissions Reduction by 2030



20. For more information see <https://www.nsrtd.com/investor-and-media/asx-announcements/2022/june/kcgm-mill-optimisation-pfs-presentation>

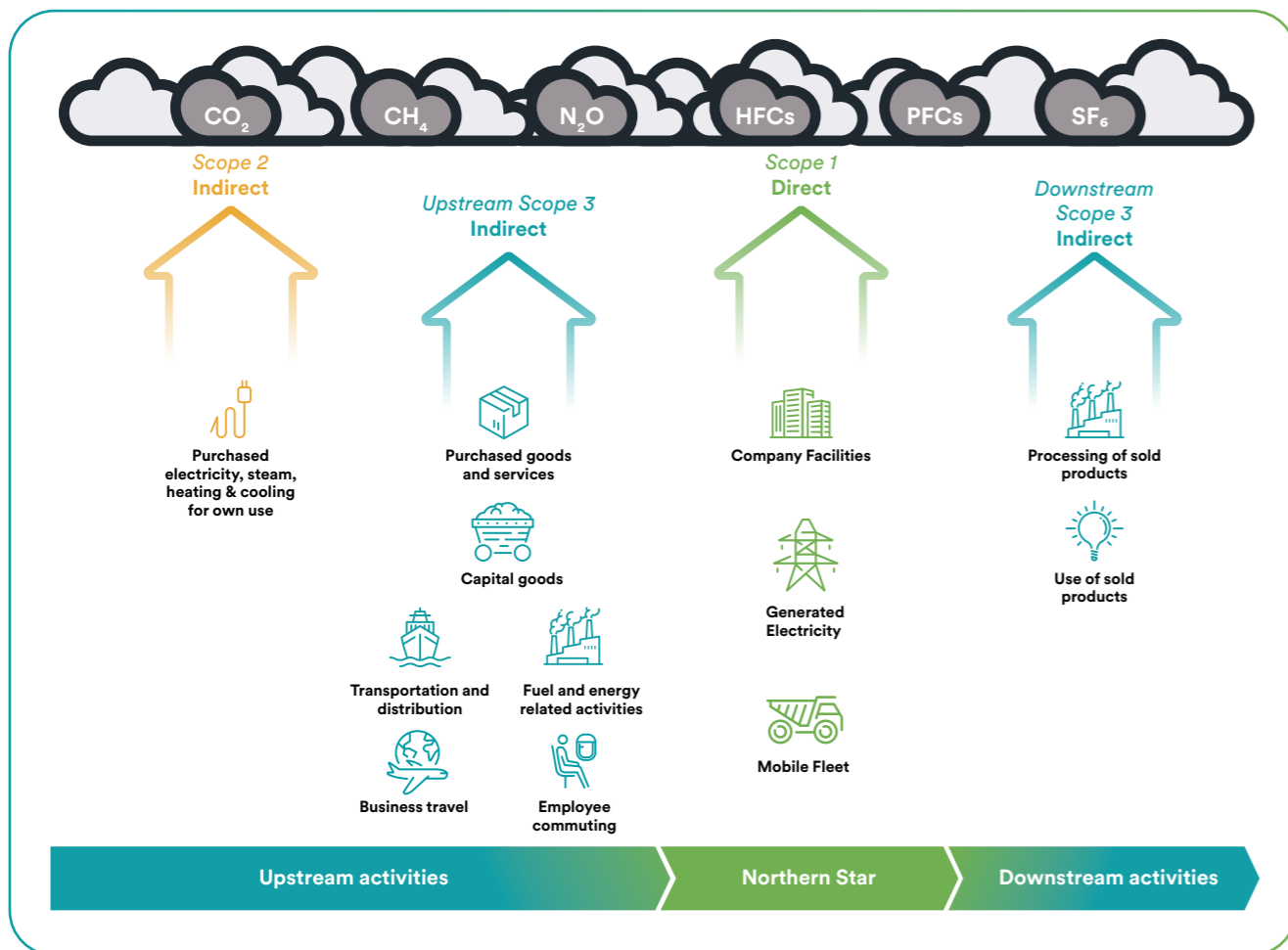


## Carbon Footprint

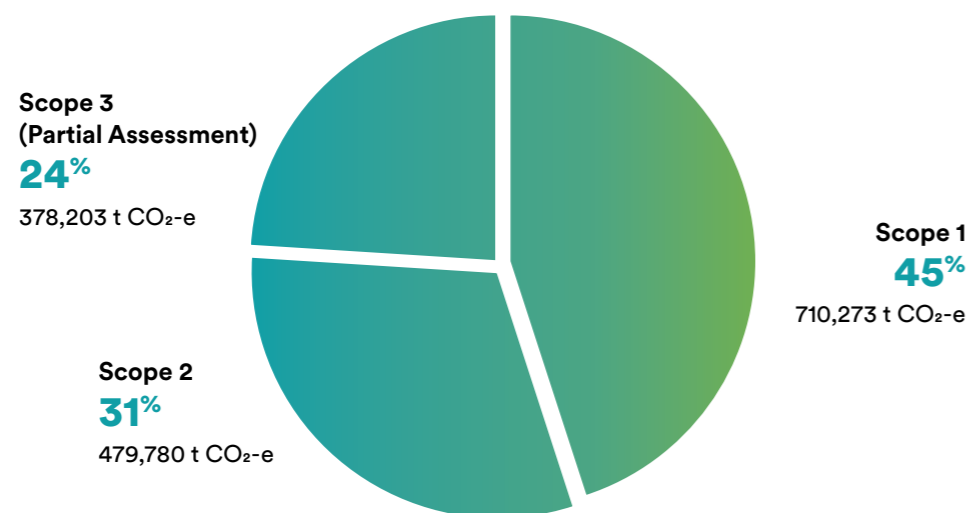
Northern Star's carbon footprint for FY22 combines our Scope 1, Scope 2 and measured selected upstream Scope 3 Emissions totalling 1.57Mt CO<sub>2</sub>-e as depicted in Figure 12 below.

The proportional contribution of our regional production centres to our total emissions is provided in Table 3 over leaf.

**Figure 11** Overview of Northern Star's GHG Emissions Footprint



**Figure 12** Northern Star's FY22 GHG Emissions Profile



## Scope 1 and 2 Emissions

In FY22, our total Scope 1 and Scope 2 GHG Emissions increased from 1,133,906 t CO<sub>2</sub>-e in FY21 to 1,190,053 t CO<sub>2</sub>-e. This increase was due to an increase in Scope 1 Emissions. These were mostly attributed to an increase in diesel consumption associated with increased production, often from deeper sources, and a smaller portion to on-site electricity production.

During the same period, emissions intensity (total emissions generated per ounce of gold sold) has increased from 0.7 t CO<sub>2</sub>-e/oz to 0.8 t CO<sub>2</sub>-e/oz due to the increased depth at which we are recovering material.

Scope 1 and 2 GHG Emissions are calculated in accordance with the Australian Government methodology required by the *National Greenhouse and Energy Reporting (NGER) Act (2007)*. Emissions

associated with our Pogo Operations in Alaska are calculated using the same method to ensure consistency in our emissions reporting.

The following figures and tables provide a breakdown of our Scope 1 and 2 GHG Emissions quantities by production centre and site.

Our Fimiston, Carosue Dam, Jundee and Thunderbox Operations emit more than 100,000 tonnes of CO<sub>2</sub>-e each year. This means that 80% of our Scope 1 GHG Emissions, are reportable under the Australian Government's Safeguard Mechanism. The Safeguard Mechanism provides a framework for Australia's largest emitters to measure, report and manage their emissions and encourages them to keep emissions at or below the emissions baselines set by the Clean Energy Regulator.

**Table 2** Northern Star's FY22 GHG Emissions Profile<sup>21</sup>

	FY22	FY21	FY20
Scope 1 GHG Emissions (t CO <sub>2</sub> -e)	710,273	642,225	476,161
Scope 2 GHG Emissions (t CO <sub>2</sub> -e)	479,780	491,681	375,581
Total Scope 1 & 2 Emissions intensity (t CO <sub>2</sub> -e/oz gold sold)	0.8	0.7	0.6

**Table 3** Scope 1 & 2 GHG Emissions by Site & Region (t CO<sub>2</sub>-e)<sup>21</sup>

Operation	Site	FY22 t CO <sub>2</sub> -e	FY21 t CO <sub>2</sub> -e	FY20 t CO <sub>2</sub> -e
Kalgoorlie	Carosue Dam	151,520	137,004	103,589
	Kalgoorlie Operations	135,343	208,558	216,024
	KCGM Operations	480,161	403,186	190,001
Yandal	Jundee	141,048	127,944	116,037
	Bronzewing	2,784	3,722	-
	Thunderbox	108,459	97,306	75,598
Pogo	Pogo	167,939	153,203	146,145
Exploration	Paulsens	1,363	1,728	1,784
	Tanami	1,315	1,147	2,412
	Exploration	-	-	-
Other	Corporate	121	110	152
		<b>1,190,053</b>	<b>1,133,906</b>	<b>851,743<sup>22</sup></b>

21. These values reflect the equity share of a given facility. 100% Pogo data included from FY19 until present (from acquisition in October 2018); 100% Saracen data included from FY19 until present (legacy data incorporated from pre-merger); 100% KCGM data included from FY20 until present (from acquisition in January 2020); Kundana and East Kundana assets were divested in August 2021; Paulsens and Western Tanami assets were divested in June 2022.

22. Variance from the baseline value of 931,362 t CO<sub>2</sub>-e is due to the inclusion of 100% of FY20 data for the full year (including 6 months prior to acquisition) for KCGM in the baseline calculation, to enable an accurate YOY comparison.

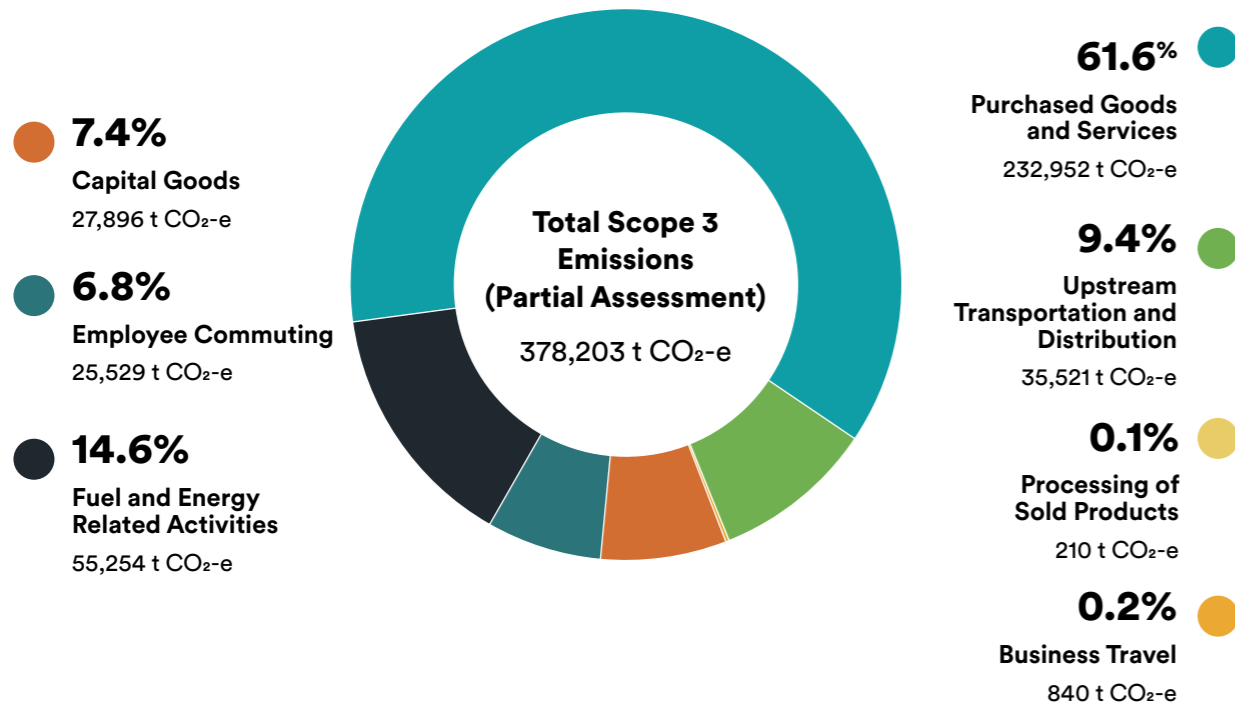


### Scope 3 Emissions - Partial Assessment

Building on from our initial partial upstream Scope 3 indirect Emissions data reported in our CY21 Sustainability Report, Northern Star has continued to measure broader Scope 3 Emissions. We are pleased to provide Scope 3 Emissions information in this report on:

- Upstream transportation and distribution
- Fuel and energy related activities
- Processing of sold products
- Employee commuting (FIFO and DIDO workforce transportation)
- Purchase goods and services
- Capital goods
- Business travel undertaken (travel outside of above-mentioned FIFO and DIDO travel)

Figure 13 FY22 Scope 3 Emissions by Source - Partial Assessment



While Northern Star does not have a Scope 3 Emissions Reduction target, we are focused on being able to fully assess and understand our Scope 3 Emissions Sources.

In FY22 we surveyed our supply chain categories of: lime and cement; corporate infrastructure; general freight; processing materials; underground mining services; tyres; light vehicles; and heavy mining equipment to ascertain:

- Updated data related to material suppliers' contribution to our emissions, including existing data providers, new suppliers and suppliers who previously were non-responsive.
- Data related to commercial travel across Australia, USA and throughout the industry with the assistance of our travel partners.

Approximately 30% of invited suppliers provided the required information to assist Northern Star build our understanding of the scale and nature of our Scope 3 Emissions. Standard emission factors were used to calculate the contribution of the remaining suppliers to our FY22 Scope 3 Emissions.

We also continued to calculate the Scope 3 emissions from our chartered flights and buses to and from our operations.

The highest contribution to our Scope 3 emissions, based on currently available data, is from purchased goods and services at 233 kt CO<sub>2</sub>-e, followed by fuel and energy related activities at 55 kt CO<sub>2</sub>-e.

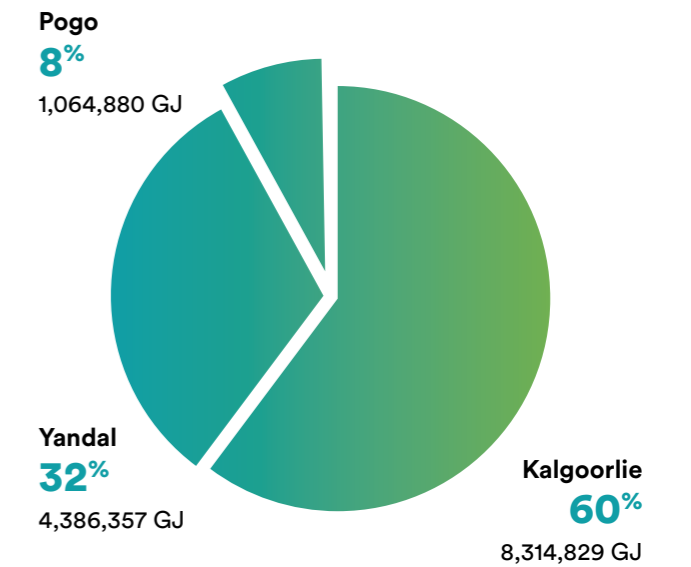
### Energy Use & Production

Energy production at our operations comprises electricity physically produced on our sites, in accordance with the definition set out in the *NGER Act 2017*. Power stations located at our Carosue Dam, Jundee and Thunderbox sites use a combination of gas and diesel to generate power through turbines and generator sets.

In FY22 our net energy consumption increased from 12.8M GJ in FY21 to 13.8M GJ. Energy consumption is reflective of our increase in production numbers.

Net energy consumed on our operations comprises all energy consumed by our facilities, including site produced, grid purchased electricity and fuels burnt, less any power generated onsite.

Figure 14 FY22 Energy Consumption by Region<sup>23</sup>



23. Exploration <1% (38,140 GJ) and Other <1% (643 GJ).



Processing plant at Carosue Dam, Kalgoorlie Production Centre, Western Australia



**Table 4** Energy Produced (GJ)<sup>24,25</sup>

Operation	Site	FY22 GJ	FY21 GJ	FY20 GJ
Kalgoorlie	Carosue Dam Operations	583,469	530,928	421,447
	Kalgoorlie Operations	73,745	153,068	157,733
	KCGM Operations	-	-	-
Yandal	Jundee	679,315	653,427	571,222
	Bronzewing	-	-	-
	Thunderbox	444,924	418,078	373,689
Pogo	Pogo (Alaska)	-	-	-
Exploration	Paulsens	7,037	8,720	8,966
	Tanami	-	-	-
	Exploration	-	-	-
Other	Corporate	-	-	-
		<b>1,788,489</b>	<b>1,764,222</b>	<b>1,533,055</b>

**Table 5** Net Energy Consumed (GJ)<sup>24,26</sup>

Operation	Site	FY22 GJ	FY21 GJ	FY20 GJ
Kalgoorlie	Carosue Dam Operations	2,425,475	2,159,155	1,650,011
	Kalgoorlie Operations	1,156,809	1,859,161	1,871,325
	KCGM Operations	4,732,544	3,685,915	1,618,897
Yandal	Jundee Operations	2,530,203	2,322,811	2,048,921
	Bronzewing	39,635	52,998	-
	Thunderbox Operations	1,816,520	1,685,453	1,247,550
Pogo	Pogo	1,064,880	1,002,757	939,111
Exploration	Paulsens	19,411	24,594	25,400
	Tanami	18,729	16,333	34,338
	Exploration	-	-	-
Other	Corporate	643	580	793
		<b>13,804,848</b>	<b>12,809,757</b>	<b>9,436,346</b>

24. These values reflect the equity share of a given facility. 100% Pogo data included from FY19 until present (from acquisition in October 2018); 100% Saracen data included from FY19 until present (legacy data incorporated from pre-merger); 100% KCGM data included from FY20 until present (from acquisition in January 2020); Kundana and East Kundana assets were divested in August 2021; Paulsens and Western Tanami assets were divested in June 2022.

25. In accordance with the NGER Act, 'energy produced' comprises of only electricity produced at Northern Star sites.

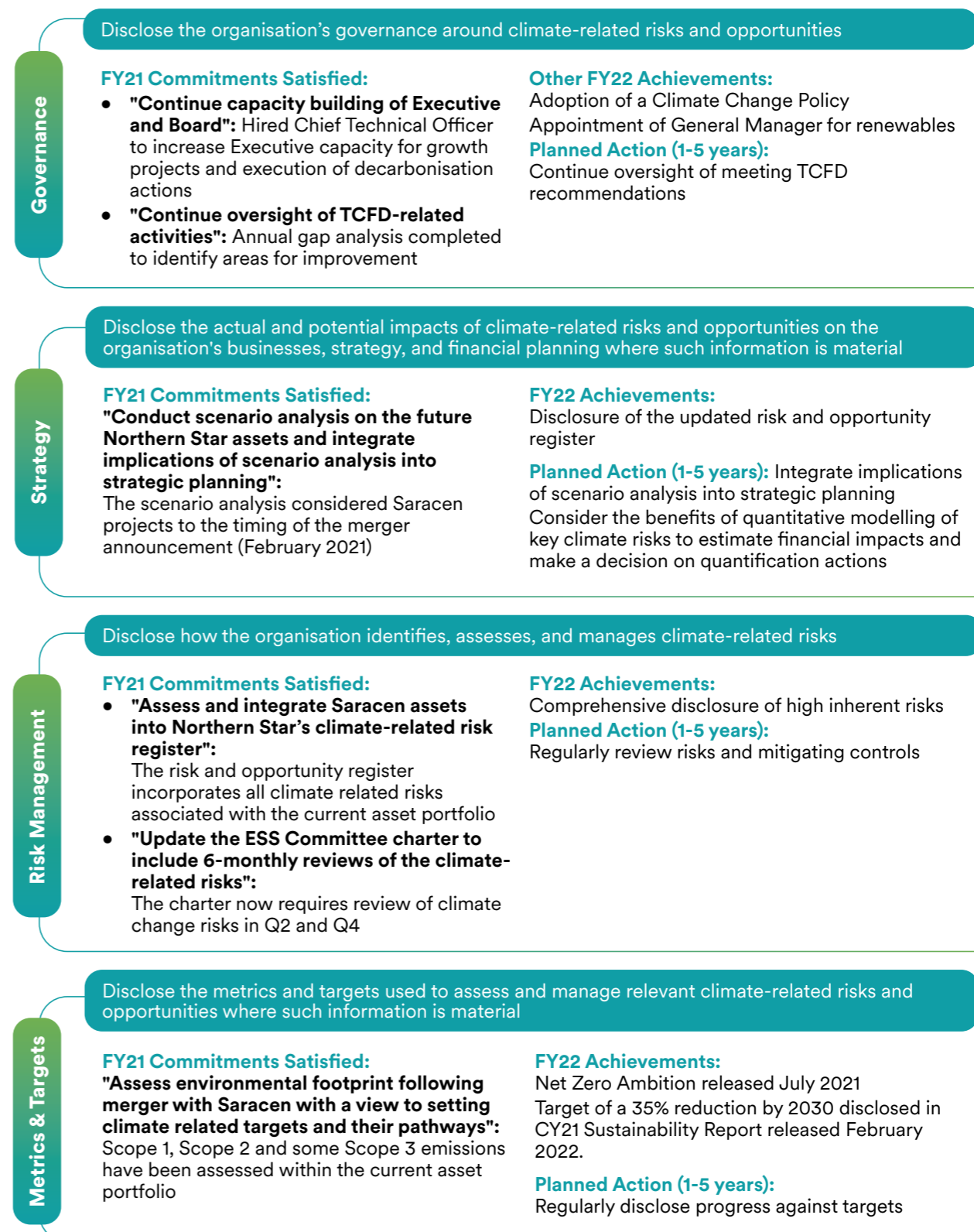
26. In accordance with the NGER Act, 'energy consumption' comprises all energies consumed by Northern Star including site produced electricity, grid purchased electricity, and fuels burnt such as diesel in vehicles and heating oil in furnaces.

**TCFD Alignment**

Northern Star is committed to understanding how both the physical impacts of climate change and the transition to low carbon operations might affect our business. In previous years we have provided details in our Sustainability Reports on our identified climate-related risks and opportunities, and detailed our scenario analysis work and our approach to

operational resilience in light of potential climate change impacts.

We understand the importance of continuing our alignment with the TCFD recommendations, and the need for Northern Star to progress its commitment to a low-carbon economy in advancing our Emissions Reduction projects.

**Figure 15** Our Phased Alignment with TCFD Recommendations - FY22 Progress



We have developed inhouse capabilities to model our sites' power and energy demand, wind efficiency and timing, and solar efficiency and timing. Through this work, we are developing a financial model for each of our five operations where we anticipate

commissioning renewables, as shown in our 2030 Emissions Reduction pathway, in Figure 10 on page 34. In line with our strategic pathway, we have completed modelling for three of the five operations.

### Climate Change Governance

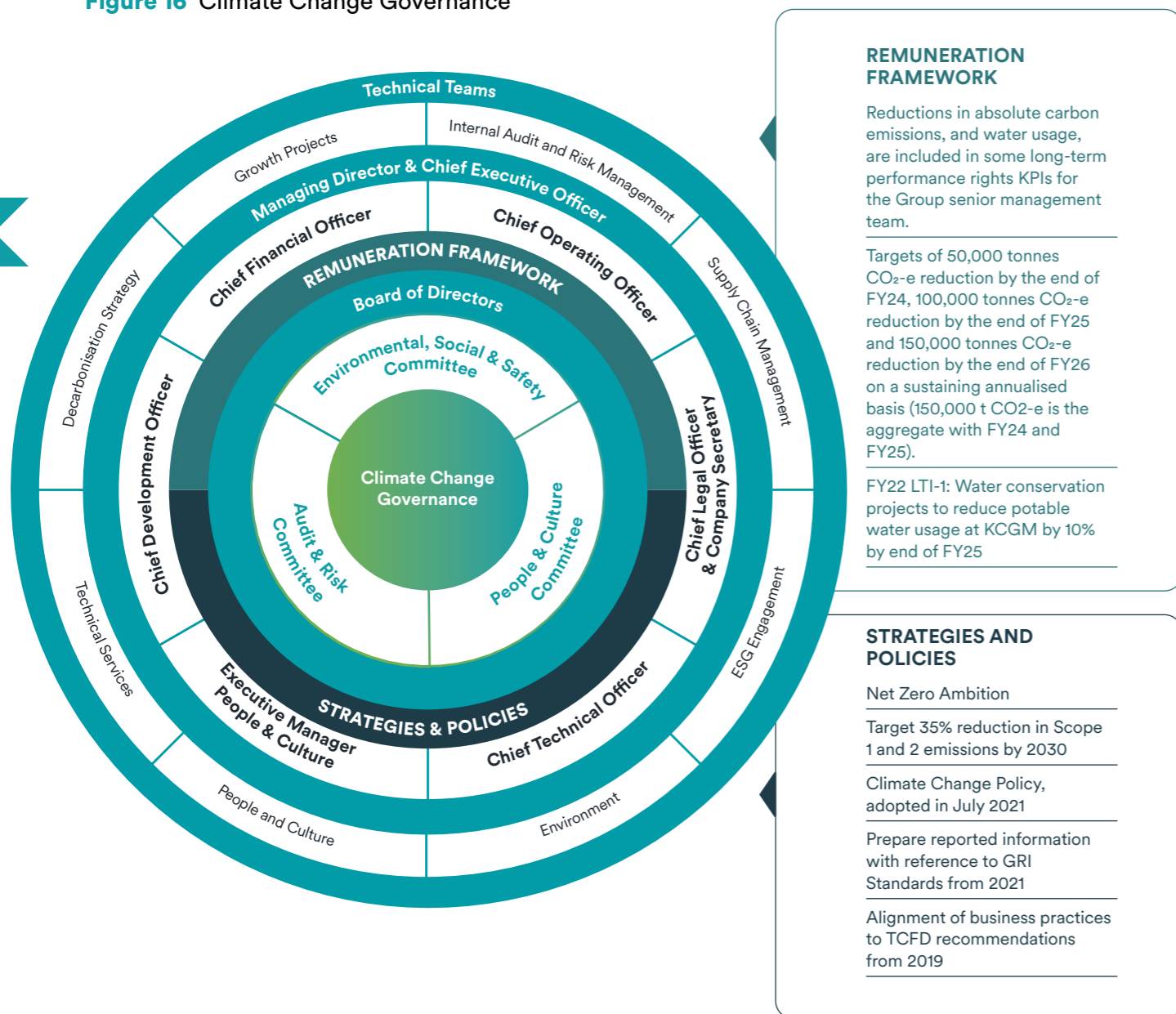
Northern Star's Board has oversight of the physical and transitional risks posed by climate change assisted by the ESS Committee's review of environmental and social performance risks, and climate change related risks and the Audit & Risk Committee's review of the Company wide risk register.

Climate change related matters are considered quarterly by the Board through its ESS Committee meetings. Northern Star's Chief Legal Officer & Company Secretary has climate-related reporting and disclosure responsibilities within her portfolio.

The Company's climate change-related governance structure is shown in Figure 16.

In FY22 Northern Star's Board adopted a Climate Change Policy (Appendix C) confirming our alignment to the Paris Agreement through our Net Zero by 2050 Ambition. The Climate Change

Figure 16 Climate Change Governance



Policy commits Northern Star to developing and implementing a climate change strategy that:

- focusses our activities in reducing Scope 1 and Scope 2 Emissions;
- aligns our operations with the 1.5°C Ambition;
- use our influencing capability to reduce Scope 3 Emissions; and
- contributes to the 1.5°C Ambition beyond our business by influencing government and funding business relevant projects to help remove or avoid emissions.

### Climate Related Risks and Opportunities

Climate related risks and opportunities are discussed regularly as part of the standing agenda of the ESS Committee meetings. During the year the ESS Committee and Audit and Risk Committee review ESS and climate related risks and opportunities as part of the standard corporate risk review processes.

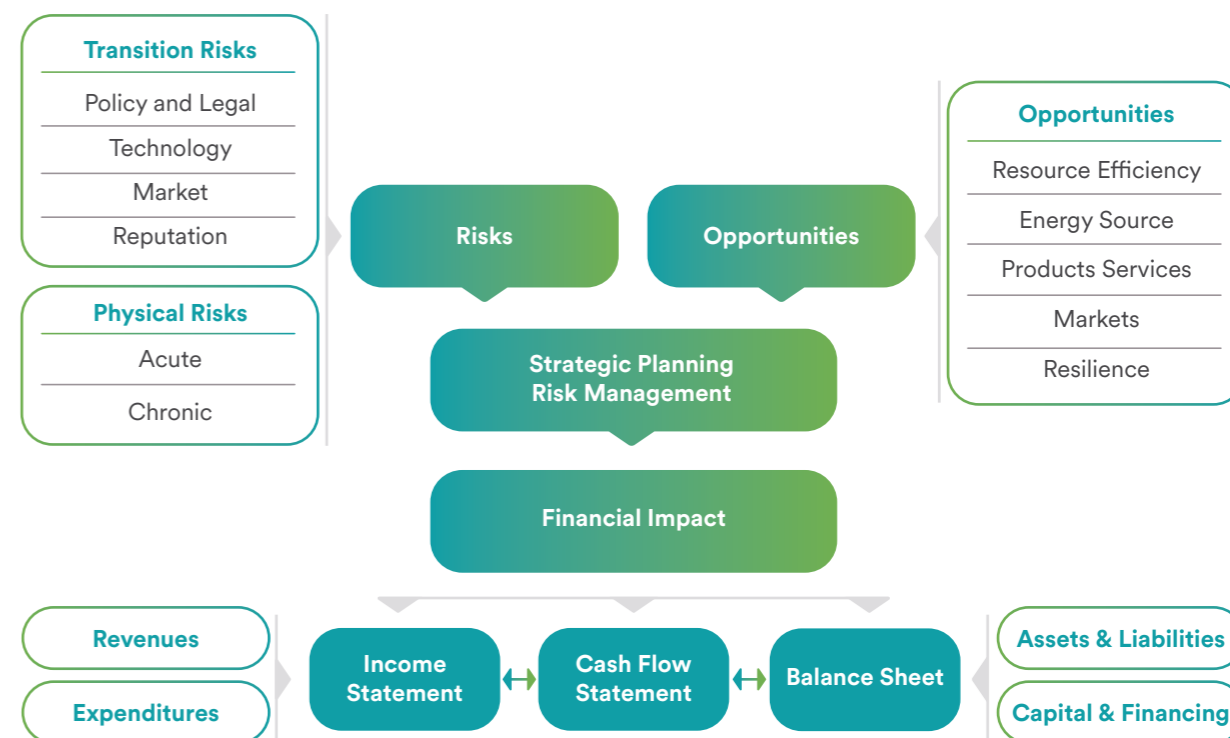
The Corporate Risk Review processes ensure consideration of climate related risks and controls at site, regional, functional and company-wide levels.

The ESS Committee also completes an annual ESS strategy review and an annual ESS benchmarking review, both include the consideration of Northern Star's responses to climate related risks and opportunities.

A dedicated Group Manager – Audit & Risk has recently joined the Company, elevating the risk assessment and mitigation strategy Groupwide, including in relation to climate related risks and controls. More information on this appointment is on page 134.

Refer to Tables 7, 8 and 9 on pages 58 and 59 of the CY21 Sustainability Report for detailed disclosure of climate change related risks and opportunities (<https://www.nsrld.com/sustainability>).

Figure 17 Climate Change Related Risks, Opportunities and Financial Impact<sup>25</sup>



Our 2030 Emissions Reduction pathways as shown in Figure 10 on page 34, combined with our commitment to transitioning to lower carbon energy

sources and renewable energy projects will help us maintain a socially and financially sustainable business.

27. Taskforce on Climate Related Financial Disclosures, 2017.





# Environmental Performance



# Environmental Performance



## FY22 Achievements

Identified two species of butterfly thought to be locally extinct in the Kalgoorlie region

Commenced a Malleefowl Monitoring Program at our Carosue Dam Operations

Achieved recertification of KCGM to the International Cyanide Management Code

## Environmental Snapshot

0

Number of materially adverse environmental incidents<sup>28</sup>

5,152

Tonnes of waste sent for recycling (excluding waste rock and tailings)

0.001

Freshwater Consumption Efficiency (ML/oz gold sold)

140

Area (ha) of land rehabilitated during FY22

<sup>28</sup>. In 2019 the US EPA inspection at Pogo resulted in notification in FY22 of a breach of technical requirements, whilst not causing any environmental harm, this will result in financial penalties. Refer to page 67 for more details.

## Environmental Performance

Northern Star values the diverse environments in which we operate, and we are committed to ongoing demonstrated performance improvements in our stewardship of these important ecosystems.

Our Environmental Policy, Global Standards and Environmental Management System (EMS) provide a framework to facilitate our management and protection of the natural resources we are proud to be given access to. Targeted management plans are developed to provide additional guidance on site and region-specific requirements. These documents and processes are regularly reviewed and updated to ensure proactive and continual improvement, and adaptation to new issues or risks that arise.

As mentioned in our CY21 Sustainability Report we engaged an independent third-party consultant to conduct a full assessment of our corporate and site EMS in terms of alignment and application against the ISO14001:2015 Environmental Management Systems standard.

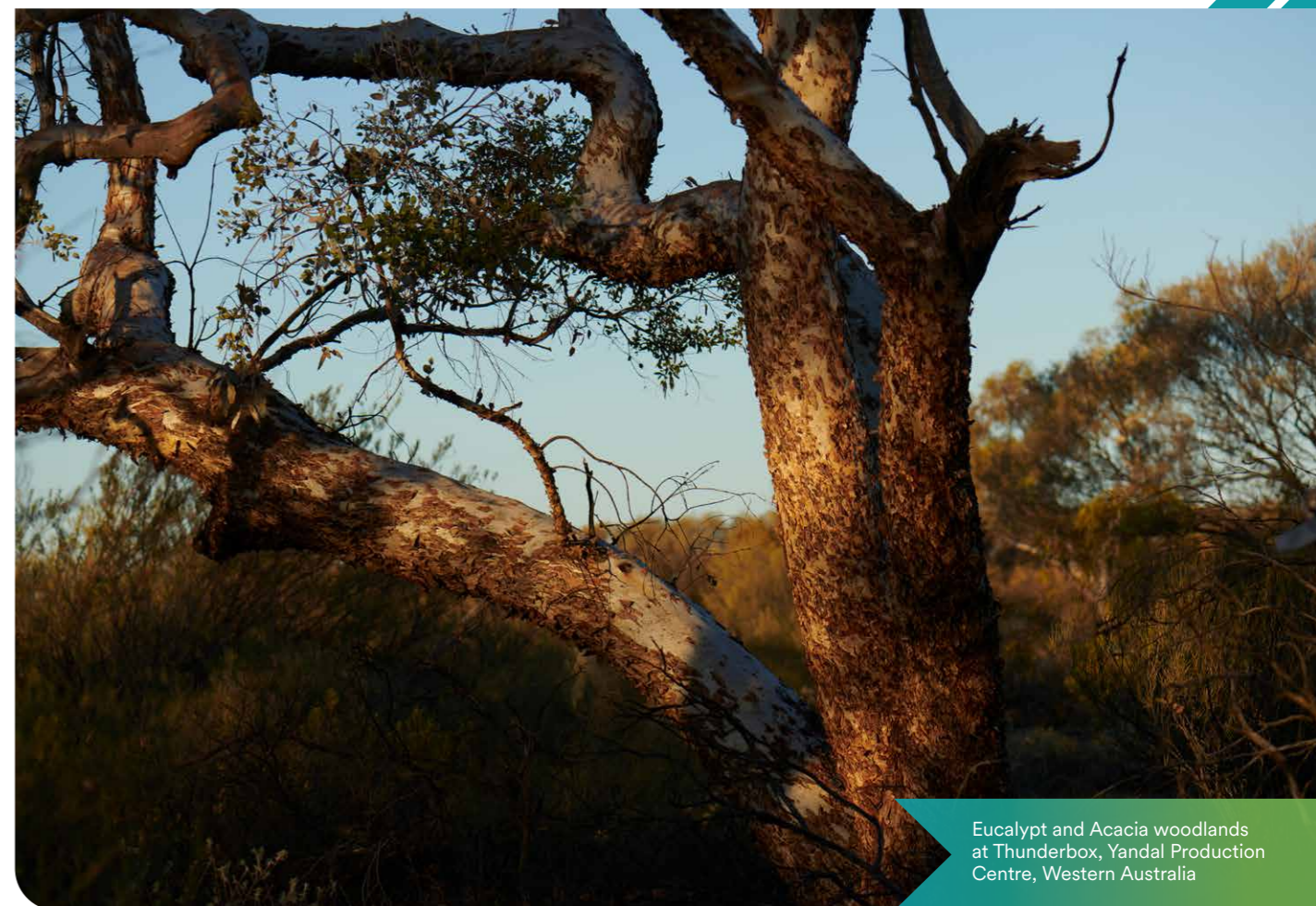
During FY22 we have continued to implement the action items that arose from this analysis. The assessment findings identify opportunities for improvement which have been prioritised for actioning and close out by June 2023. A detailed update on the alignment of our EMS to the standard will be provided in our FY23 Sustainability Report.

## Biodiversity

Northern Star's Operations are located in a variety of natural environments, each with its own unique biodiversity values.

Regional information and site-specific surveys provide guidance on the values to be protected at each of our sites. Northern Star is committed to maintaining and conserving biodiversity values and applies the 'mitigation hierarchy' (avoid, minimise,

rehabilitate, offset) when there is a potential for biodiversity impacts. All personnel, contractors and visitors are required to adhere to Northern Star's policies, standards and procedures related to protecting biodiversity values.



Eucalypt and Acacia woodlands at Thunderbox, Yandal Production Centre, Western Australia

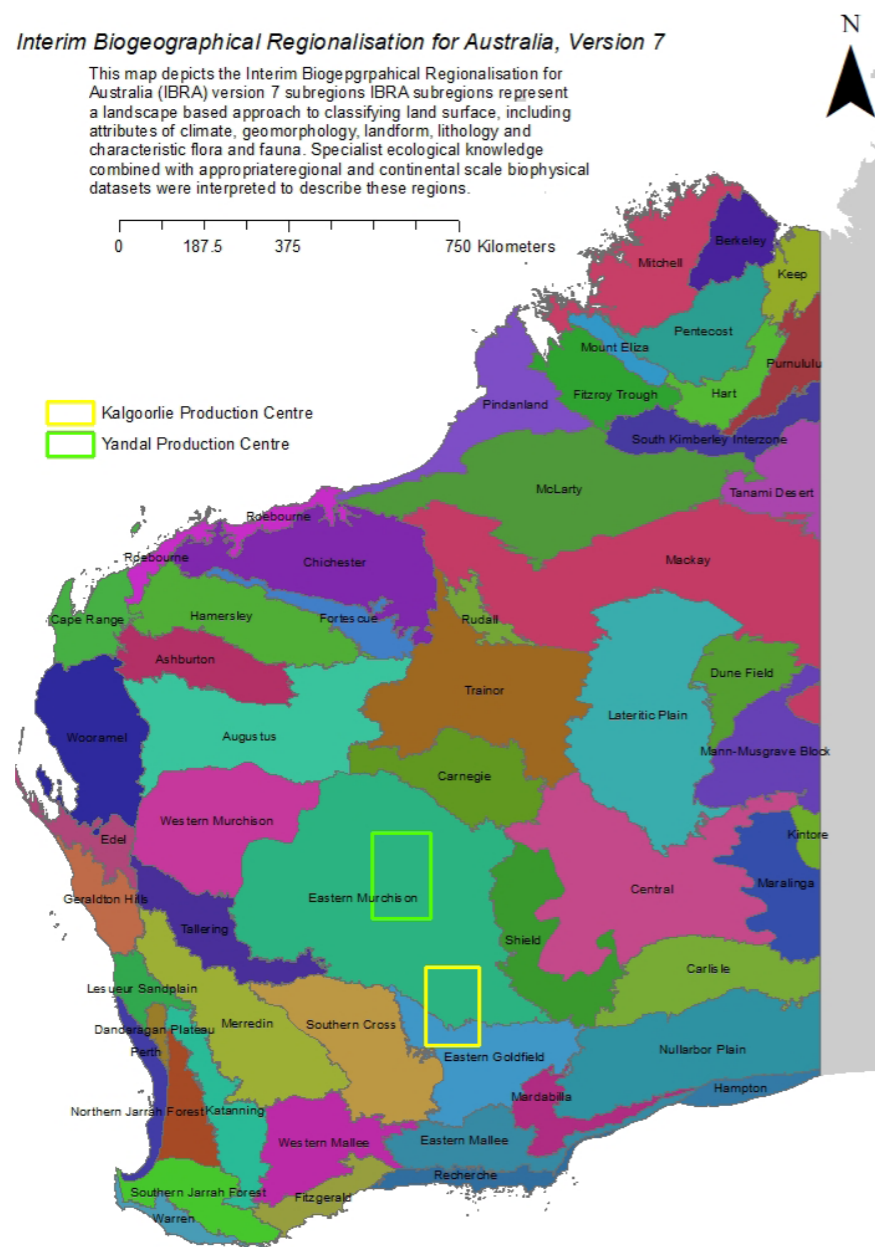


Our Western Australian Operations are located in the Goldfields region within the Eastern Murchison and Eastern Goldfields biogeographic regions (Figure 18), comprised of eucalypt and acacia woodlands and heaths, as well as expanses of desert dominated by shrubs and spinifex grasslands. Salt lakes are also a feature of the region. These landscapes hold distinctive flora and fauna values that Northern Star aims to protect through site-specific knowledge and management plans. Where possible, we also work with stakeholders to improve knowledge of particular species with the aim of promoting better species management outcomes across the region.

For example, our teams in Kalgoorlie worked with the local Goldfields Environmental Management Group (GEMG) to run an education workshop on the recently-discovered Desert Blue Butterfly (*Jalmenus aridus*) and Arid Bronze Azure Butterfly (*Ogyris subterrestris petrina*). Thought to be previously extinct, these species were found in the Kalgoorlie region in 2021 and there is a need for understanding how to identify habitat and survey for these species. The workshop aimed to increase awareness of these species ahead of the 2022 survey season.

Details of important species, habitats and ecological communities within and around our operations can be found in our Biodiversity Values<sup>29</sup> on our website.

**Figure 18** Location of Our Yandal and Kalgoorlie Production Centres Relative to Biogeographical Regions in Western Australia<sup>30</sup>

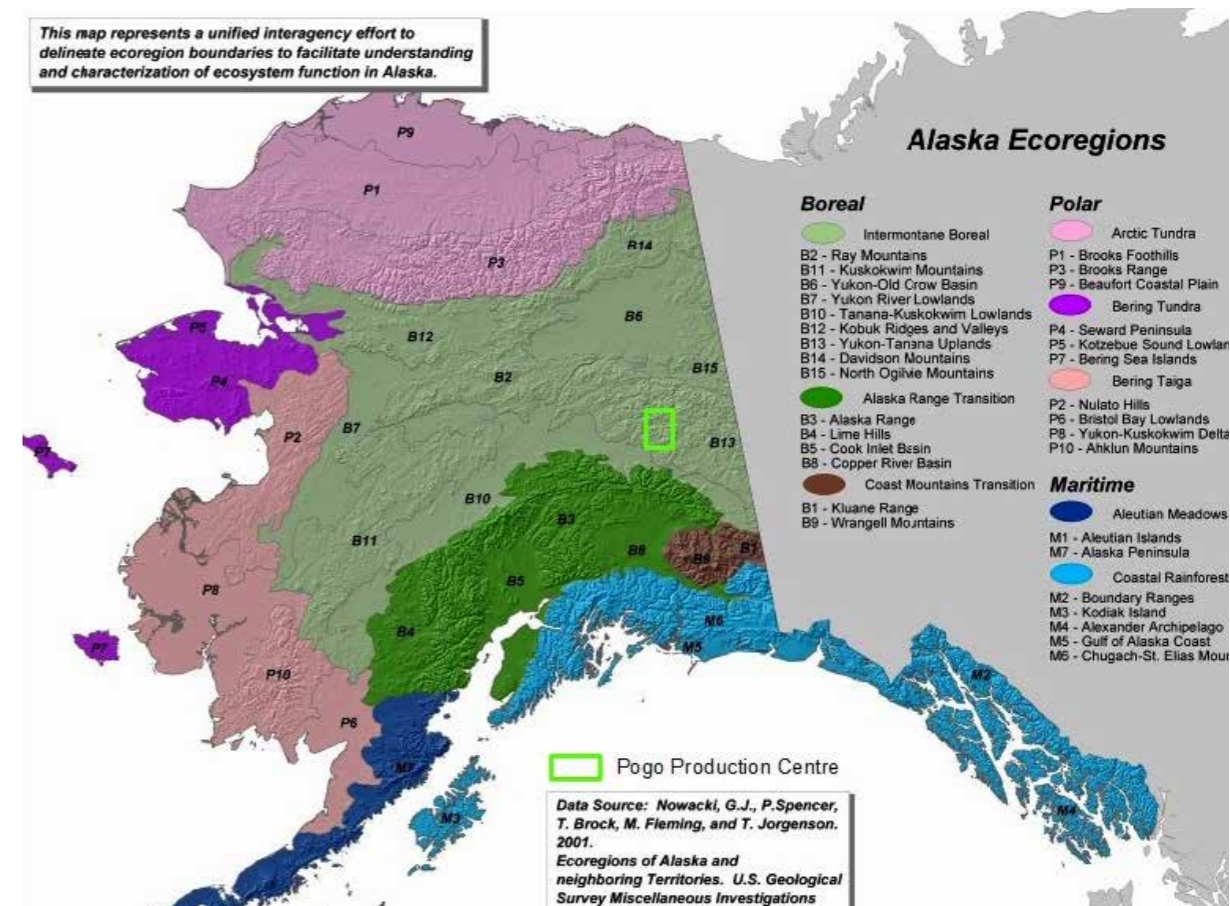


Data Source: Australian Government: Department of the Environment and Energy

29. Biodiversity Values includes a cross reference against IUCN Red List species and national conservation list species with habitats in areas affected by operations.

30. Reference source: <https://www.dcceew.gov.au/environment/land/nrs/science/ibra#:~:text=the%20bioregion%20map-,IBRA7,Wet%20Tropics%20are%20distinct%20bioregions>

**Figure 19** Location of Our Pogo Production Centre Relative to the Ecoregions of Alaska



The Pogo Mine is located in the Interior Alaska Highlands Major Land Resource Area, characterised by wetlands, boreal forests and alpine tundra with zones of discontinuous permafrost.

The mine is bordered by steep mountain slopes and the Goodpaster River, classified as an anadromous river for Chinook and Chum salmon (refer to Figure 20 overleaf). There are no threatened or endangered

State or Federally listed species within the Goodpaster watershed or Pogo Mine area.

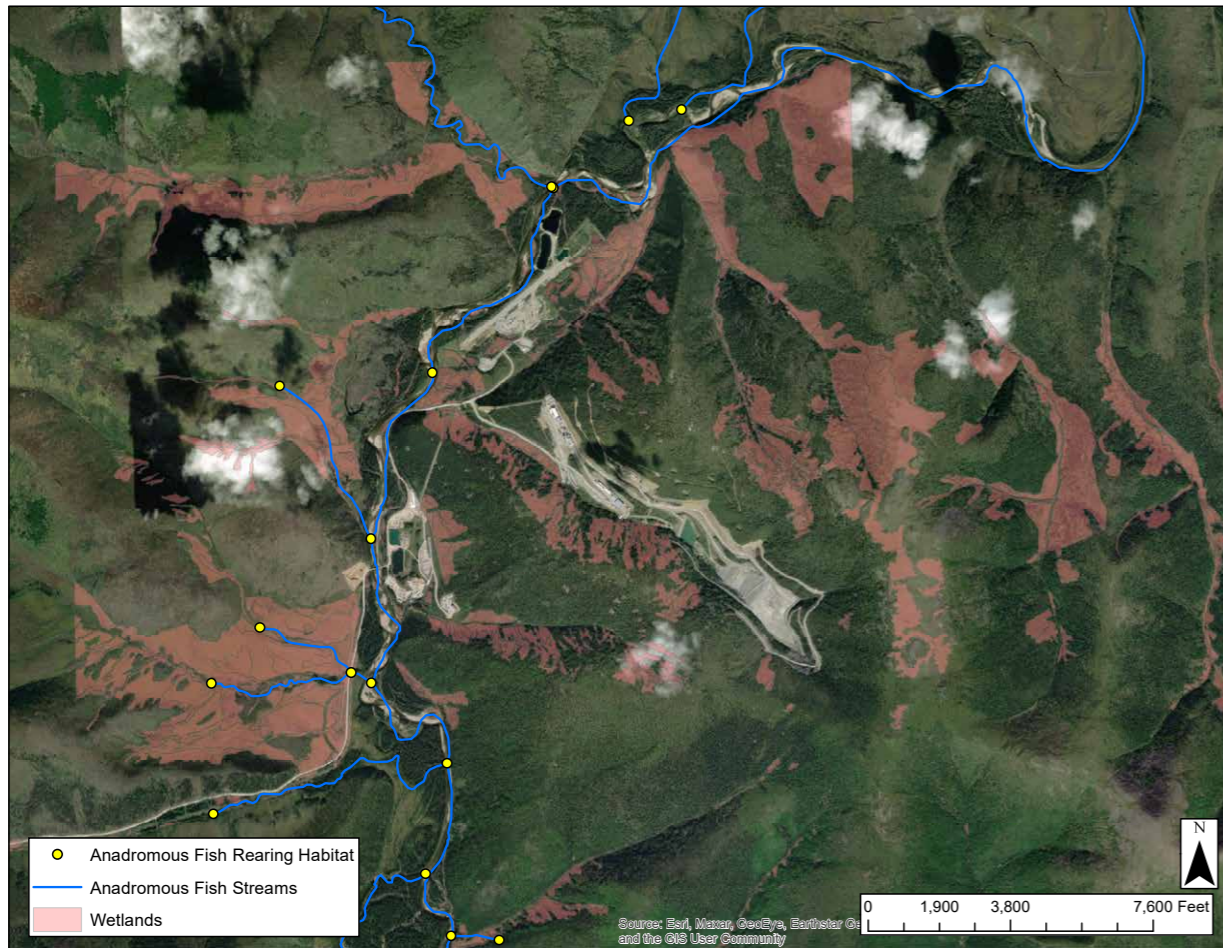
Prior to clearing or disturbance at Pogo operations, a wetlands determination must be made. If large areas of wetlands are disturbed, compensatory mitigation is required to ensure protection of wetland habitat around Alaska.



Local flora, Pogo Operations, Alaska



**Figure 20** Aerial image of Pogo overlaid with anadromus fish data and wetlands locations



To strengthen our understanding and management of potential impacts by each of our operations on biodiversity, flora and fauna surveys are undertaken in areas of proposed direct impact and surrounding areas prior to any disturbances. These surveys provide information on the biodiversity values surrounding our operations which can be included in site and project risk assessments.

All clearing works are carefully managed with both external approvals and internal disturbance permits required prior to any clearing. The internal permits

cannot be issued without environmental personnel conducting relevant checks to ensure biodiversity values are protected.

During exploration works, our teams minimise clearing of trees where possible when creating exploration tracks. Exploration works are then rehabilitated within six months of completion of works. This is a legislative requirement in WA which we have extended to the Northern Territory and Pogo.



The Goodpaster River at Pogo, Alaska

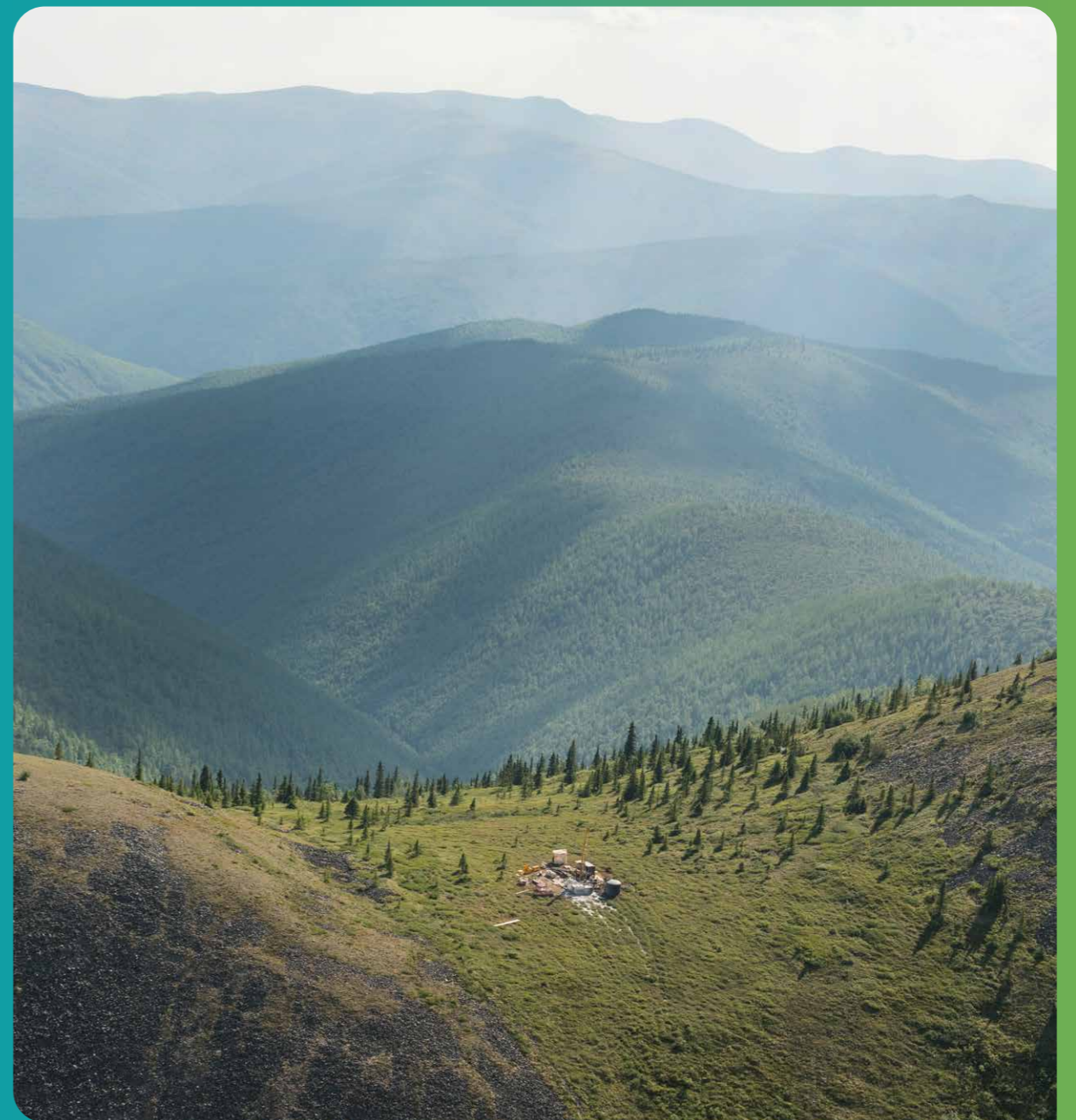
## Highlight: Reducing the Impact of Exploration in Pogo, Alaska

At our Pogo operations, heli-supported or heliportable drilling is utilised as part of our exploration programs. This allows us to significantly reduce the impact of our drilling programs on the natural environment by reducing the requirement to clear vegetation for access tracks.

Heliportable drilling involves the transportation of a disassembled drill rig, plus its supporting equipment and infrastructure, to a precise location to enable it to be set up and operational with minimal impact on the environment.

Exploration often occurs at a significant distance from existing infrastructure, such as established roadways. Due to the challenging terrain and remoteness of our operations, clearing tracks and large drill pads would be expensive and rapidly expand our disturbance footprint.

Using this specialised support from our helicopter contractors, we are able to minimise our disturbance in the region. Our rigs, supporting equipment, drill platforms and our teams are moved into and out of position with minimal disruption to the biodiversity of the region.



A heli-supported remote exploration drilling platform at Pogo, Alaska



## Highlight: Supporting Ecological Research linked to Indigenous Land Management Practices

Northern Star is supporting a three-year Western Deserts ecological study at Jundee Station by the University of Sydney in collaboration with the Wiluna Martu Rangers (First Nations people). Jundee Station is being used as the study's baseline for burning trials and fauna monitoring surveys. Additional project support provided by Northern Star includes researcher accommodation at the Jundee accommodation village and providing transport and monitoring equipment for researchers.

The research study is comparing and investigating the impacts of feral cat predation in unburnt areas with areas that have been patch burnt by the Wiluna Martu Rangers. Fire is a common feature in the Western Deserts ecosystems which have evolved and been subjected to routine cultural patch burning and natural wildfires caused by lightning strikes. Feral cats have adapted to the Australian Western Deserts and have become efficient predators of Australian native fauna species, contributing to the extinction and significant decline in numbers of many ground-dwelling birds and small to medium sized mammals.

Besides the broader ecological knowledge benefits, the research findings will also benefit and inform Northern Star in several ways, including:

- more effective approaches to on-site feral animal management;
- improving Jundee Station's ecological values;
- reducing vegetation fuel loads and the likelihood of wildfires impacting infrastructure; and
- providing meaningful employment to Wiluna people while also increasing their presence and interaction with their Country.



Kristen Anderson, Martu Ranger at Jundee, Yandal Production Centre

Northern Star's Biodiversity Management Global Standard sets the standard for protection of biodiversity. It includes engaging in partnerships with stakeholders to address scientific and practical challenges relating to biodiversity protection, especially Indigenous peoples. Northern Star currently engages the Wiluna Martu Rangers to assist with land, pastoral and waste management on the Jundee Station. This Study continues to build engagements with the Wiluna Martu Rangers and their connection to Country.

### Reclamation & Closure Preparedness

Northern Star has closure and reclamation plans at each of our operations, developed in accordance with our Reclamation and Closure Preparedness Global Standard and approved by regulators in each region. These plans are regularly reviewed in conjunction with the financial provisioning required for the eventual closure of each site.

We regularly engage an independent external consultant to undertake a detailed analysis of and

update our closure provisioning across our assets. This includes reviewing estimates for salvage and demolition works, landform design, revegetation, and ongoing monitoring to ensure that progression towards achieving closure criteria can be demonstrated.

Reclamation and closure works present an opportunity to engage our local Indigenous peoples to assist in land management practices. Utilising the

knowledge of Indigenous Peoples can assist in sites achieving the closure criteria set out in their closure and reclamation plans. Our Bronzewing Operation within the Yandal region currently engages with a rehabilitation contractor owned by members of the Kultju native title group to complete exploration rehabilitation. It is Northern Star's intention to establish similar partnerships at our other sites where possible.

During FY22 Northern Star saw an increase in our overall disturbance footprint as can be seen from Tables 6 and 7 below. This increase is attributed to expansion projects including new haul roads, laydown areas and service corridors. Progressive rehabilitation of waste rock dumps has contributed most to our rehabilitation efforts in FY22.

### Western Australia Mining Rehabilitation Fund

Western Australia's Mining Rehabilitation Fund (MRF) commenced in 2013 as part of the WA Department of Mines, Industry Regulation and Safety's (DMIRS) strategy to encourage responsible development of resources and a commitment by the Mining Industry to environmental and community safety.

Northern Star collects and reports its mining-related disturbance and rehabilitation data to DMIRS annually, and pays the required levy in to the MRF Fund. In FY22, Northern Star reported a total of 10,598 ha of land disturbed and 2,911 ha of land under

rehabilitation, with \$3,345,208 paid in to the MRF fund for FY22.

When planning projects, Northern Star tries to use existing disturbed areas as much as possible as part of the land disturbance mitigation hierarchy. This ensures we limit our clearing of new areas as much as possible. Whilst most of Northern Star's land rehabilitation will occur when sites are at final closure, we look for opportunities along the way to rehabilitate areas that are not required for future use.

**Table 6** Rehabilitation and land disturbance across our operations<sup>31</sup>

Rehabilitation and Land Disturbance (ha)	FY22	FY21	FY20
Land cleared	580	-	-
Rehabilitation completed	140	126	83

**Table 7** Rehabilitation and land disturbance details for FY22 by site.

Operation	Site	Land Cleared (ha)	Land Rehabilitated (ha)
Kalgoorlie	Carosue Dam Operations	102	8
	Kalgoorlie Operations	9	29
	KCGM Operations	49	-
Yandal	Jundee	147	3
	Bronzewing	45	57
	Thunderbox	219	10
Pogo	Pogo	8	-
Exploration	Paulsens	-	-
	Tanami	-	34
<b>TOTAL</b>		<b>580</b>	<b>140</b>

31. These values reflect the updated Northern Star data in accordance with our Restatement of Information as provided on page 21.



## Highlight: Using Laser Scanning Technology to Locate Malleefowl Nests as Indicators of Land Conservation Values

Ground surveys for locating Malleefowl nests typically require multiple personnel to walk transects 20m apart on foot, making them slow-paced, time consuming, expensive due to needing several people on a survey, and also increasing their exposure to environmental risks while walking the transects.

By comparison, remote sensing and other aerial survey techniques can do similar surveys over much larger areas in a significantly shorter timeframe and with a similar level of accuracy but without exposing survey personnel to on-ground risks.

Northern Star's Carosue Dam Operations recently used Light Detection and Ranging (LiDAR) technology fitted to a fixed wing aircraft to assess 100 km<sup>2</sup> of terrain across three mine sites for evidence of and to locate individual Malleefowl mounds and active nests. The survey included ground truthing the findings to validate them.

The LiDAR survey process involved collecting and then classifying the data into ground, vegetation, and non-ground classifications to create an accurate Digital Terrain Model that included potential mound-like features. The data was then analysed to identify Malleefowl mounds using the contractor's patented detection algorithms. The LiDAR survey identified 22 new mounds that had not been identified by previous ground surveys, demonstrating that the

technology is useful for finding active and recently used mounds.

The technology was not as good at identifying mounds found during previous ground surveys. However, comparing the two data sets found that many of the missed mounds were long inactive and had eroded down with others being dug into the ground making them hard to identify, even with the naked eye.

The LiDAR survey proved to be less time consuming and more cost effective than doing traditional surveys, and also provided Northern Star with a range of additional benefits, including: quick identification of mounds in non-surveyed areas; adding newly found mounds to the mound database; providing survey data for a large area for other future uses; contributing towards a better local and state level understanding of Malleefowl locations; and the potential to share information with other sites, interest/preservation Groups and other stakeholders.

Northern Star currently verifies all LiDAR surveys with ground surveys. The information from this verification is fed back to the analysts which they, in turn, use to improve the algorithms for identifying mounds.



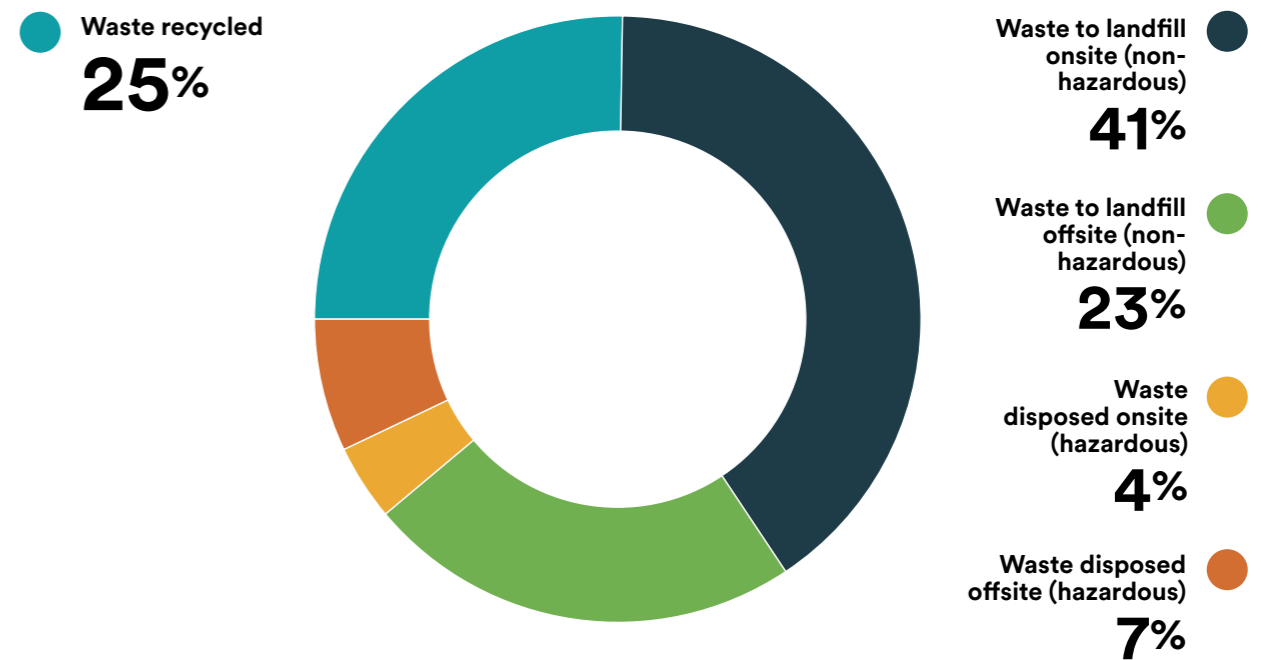
Images of active Malleefowl nest construction from remote monitoring systems at Carosue Dam, Kalgoorlie Production Centre, Western Australia

## Waste Management

Our efforts to minimise and manage waste across our operations are guided by our Waste Management Global Standard, which places a focus on reducing, reusing and recycling as priorities for waste management. Treatment and disposal of waste products into landfill should be a final option considered.

During FY22 Northern Star saw scrap metal and waste oil in our key recyclables.

Figure 21 Distribution of Waste (Excluding Waste Rock and Tailings)



Processing operations at Carosue Dam, Kalgoorlie Production Centre, Western Australia



**Table 8** Key Recyclables<sup>32</sup>

Key recyclables (tonnes)	FY22	FY21	FY20
Batteries	37	35	22
Co-mingled waste	257	275	190
General waste	80	38	-
Scrap metal	2,949	3,389	1,518
Toner cartridges	-	4	-
Tyres	160	150	462
Waste oil <sup>33</sup>	1,669	1,363	762
<b>Total</b>	<b>5,152</b>	<b>5,254</b>	<b>2,953</b>

Wastes that cannot be reused or recycled are disposed of in onsite landfill facilities or sent to offsite landfill and incineration facilities, dependent on the type of waste. For example, hydrocarbon contaminated materials such as oily rags are sent offsite for incineration as they are unable to be placed in landfill due to contamination risks. Wastes are transported from our sites to licenced facilities and waste management service providers via approved freight companies with controlled waste licences as required.

Onsite landfill facilities are managed in accordance with the relevant licence and permit conditions in each region to ensure risks to the surrounding environments are mitigated.

Onsite landfill facilities are present at our Bronzewing, Jundee, Thunderbox, Carosue Dam and KCGM operations. We do not operate any onsite incineration facilities.

32. These values reflect the updated Northern Star data in accordance with our Restatement of Information as provided on page 21.

33. Waste oil data has been restated from the CY21 Sustainability Report as there was an error where the volume also included water entrained within the waste.



**Waste Rock**

Waste rock is material mined from our operations that does not contain gold at economic levels. This material must be disposed of to waste rock landforms or backfilled into open pit or underground voids.

Backfilling waste rock is Northern Star's first preference as it eliminates the need to create

permanent landforms in the environment, while decreasing safety risks associated with open voids. However, backfilling relies on availability and distance to barren voids and is not always practical.

FY22 saw a decrease in the total amount of waste rock produced as a result of lower waste strip to ore ratios.

**Table 9** Waste Rock Production<sup>34</sup>

Operation	FY22	FY21	FY20
Kalgoorlie	70,816,917	74,470,505	8,275,400
Yandal	19,803,016	23,297,362	12,643,695
Pogo	769,686	834,972	805,805
<b>Waste Rock sent to waste dumps (t)</b>	<b>91,389,619</b>	<b>98,602,839</b>	<b>21,724,900</b>
Kalgoorlie	3,895,509	4,475,126	1,119,219
Yandal	881,295	2,074,889	1,065,622
Pogo	-	-	-
<b>Waste rock recycled for backfill (t)</b>	<b>4,776,804</b>	<b>6,550,015</b>	<b>2,184,841</b>
Kalgoorlie	74,712,426	78,945,630	9,394,619
Yandal	20,684,311	25,372,251	13,709,317
Pogo	769,686	834,972	805,805
<b>Total waste rock generated (t)</b>	<b>96,166,423</b>	<b>105,152,853</b>	<b>23,909,741</b>

34. These values reflect the equity share of a given facility. 100% Pogo data included from FY19 until present (from acquisition in October 2018); 100% Saracen data included from FY19 until present (legacy data incorporated from pre-merger); 100% KCGM data included from FY20 until present (from acquisition in January 2020); Kundana and East Kundana assets were divested in August 2021; Pulsens and Western Tanami assets were divested in June 2022.





### Hazardous Materials

Mineral processing and mining practices can result in hazardous materials being produced at our Operations. Site-specific management plans and procedures outline how each material is to be managed to ensure compliance with relevant regulations and to reduce the risk of causing environmental harm. Training is conducted to ensure staff involved in hazardous material management are competent to undertake the required tasks.

Hazardous materials are generated through our mining and mineral processing practices. For the

purposes of this Report, the following waste streams are included:

- Naturally occurring arsenic trioxide
- Mercury
- Batteries
- Waste Hydrocarbons
- Greases
- Hydrocarbon contaminated waste

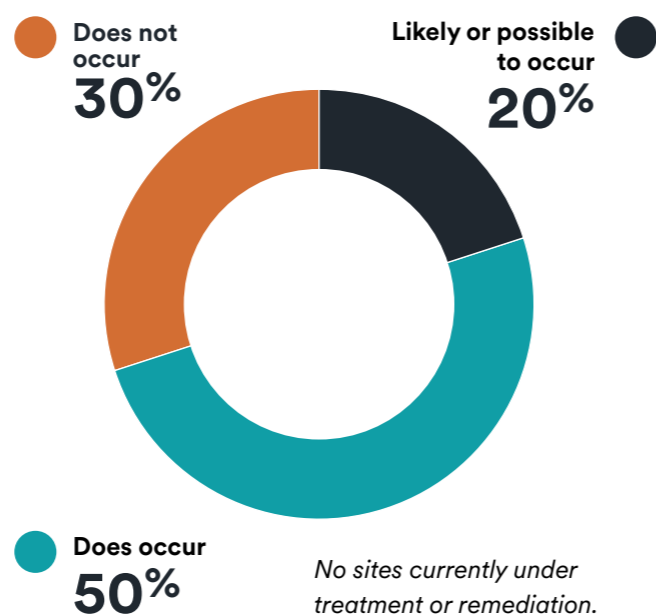
### Potential Acid Forming Material

Acid mine drainage (AMD) is the formation of acidic water rich in metals which forms through the oxidation of sulphur-bearing rocks in the presence of water and oxygen. Pyrite (FeS<sub>2</sub>) is commonly found in metal ore deposits and can form AMD if exposed to the right conditions.

Northern Star conducts detailed assessments on our mine waste materials to determine if there is any risk of AMD being able to form and to enable early mitigation measures to be undertaken. We classify our wastes as being either Non-Acid Forming (NAF) or Potentially Acid Forming (PAF). This assessment provides an understanding of the material and the risk it poses to the environment and allows for specialised materials handling and disposal plans to be created for each waste and each location.

Where PAF material is encountered at our sites, a site-specific manage plan is developed. In most cases, PAF material is usually encapsulated within waste rock dumps. These encapsulation cells are designed to ensure the most effective location and method for encapsulation and are covered with a

Figure 22 Instances of PAF across our sites



minimum depth of two metres suitable compacted oxide or five metres of fresh rock. At Pogo, PAF is encapsulated within the dry stack tailings facility.

program focused on the safe and environmentally responsible management of cyanide. KCGM has since recertified its compliance with the Cyanide Code in 2012, 2105, 2019 and 2022. As a signatory to the Cyanide Code, KCGM demonstrates that all activities associated with the use of sodium cyanide comply with the Cyanide Code and are managed in accordance with industry best practice.

Sites without nearby or adjoining communities are not signatories to the Cyanide Code but are regularly assessed to ensure they are compliant with the Northern Star Cyanide Management Standard and are aligned with the principles and standards of the Cyanide Code.

### Cyanide Management

Northern Star uses sodium cyanide in gold processing to dissolve gold and silver from the ore, enabling them to be extracted and recovered. Focused on protecting our workforce, surrounding communities and the environment from potential impacts associated with our use of sodium cyanide, Northern Star's Cyanide Management Standard provides guidance for our sites on how to manage the risks associated with the supply, handling, transport and storage of sodium cyanide.

Due to its proximity to the City of Kalgoorlie-Boulder, Kalgoorlie Consolidated Gold Mines (KCGM) became a signatory to the International Cyanide Management Code (Cyanide Code) in 2008. The Cyanide Code is a voluntary industry

Northern Star requires all suppliers and transporters of sodium cyanide to our operations to be signatories to the Cyanide Code, providing

confidence that they are adequately managing the risks associated with their activities relevant to communities and the environment.

### Tailings

Tailings are a combination of the fine-grained (typically silt-sized) solid materials remaining after the recoverable gold has been extracted from mined ore, together with the water used in the recovery process.

Northern Star deposits tailings material into four different types of tailings facilities across its operations: paddock, in-pit, drystack and paste fill. Details of our active and inactive tailings storage facilities can be found on our website at <https://www.nsrld.com/awcontent/web/documents/cy2021-northern-star-tailing-storage-summary-information.pdf>.

FY22 saw an increase in the total amount of tailings produced, resulting from our increased production outlined. The new paste plant at Thunderbox has driven the large increase in tailings recycled for pastefill in the Yandal region.

Northern Star actively reviews its management of tailings facilities against both internal and external standards and meets the local regulatory requirements. Annual third-party inspections occur across all sites.

Table 10 Tailings Production and Recycling<sup>35</sup>

Operation	FY22	FY21	FY20
Kalgoorlie	19,158,977	24,532,649	8,242,676
Yandal	5,458,936	8,380,467	5,190,297
Pogo	719,362	846,751	1,054,576
<b>Tailings sent to TSF's (t)</b>	<b>25,337,275</b>	<b>33,759,867</b>	<b>14,487,549</b>
Kalgoorlie	634,544	602,369	511,801
Yandal	311,818	20,396	-
Pogo	314,640	107,729	-
<b>Tailings recycled for pastefill (t)</b>	<b>1,261,002</b>	<b>730,494</b>	<b>511,801</b>
Kalgoorlie	19,793,521	25,135,018	8,754,478
Yandal	5,770,754	8,400,863	5,190,297
Pogo	1,034,002	954,480	1,054,576
<b>Total tailings generated (t)</b>	<b>26,598,277</b>	<b>34,490,361</b>	<b>14,999,351</b>

Table 11 Tailings Composition (t)

Tailings Composition (t)	FY22	FY21	FY20
Non-Cyanide containing tailings (t)	1,034,002	954,480	1,054,576
Cyanide containing tailings (t)	25,564,275	33,535,881	13,944,774

35. These values reflect the equity share of a given facility. 100% Pogo data included from FY19 until present (from acquisition in October 2018); 100% Saracen data included from FY19 until present (legacy data incorporated from pre-merger); 100% KCGM data included from FY20 until present (from acquisition in January 2020); Kundana and East Kundana assets were divested in August 2021; Paulsens and Western Tanami assets were divested in June 2022.



**Table 12** Active TSFs as at 30 June 2022

Active TSFs as at 30 June 2022	FY22
Paddock-style	14
In-pit	2
Dry stack	1

In July 2022, Northern Star completed a gap analysis against the Global Industry Standard on Tailings Management (GISTM) at all non-operating and operating TSF assets, including Pogo, KCGM, Jundee, Carosue Dam, Thunderbox, Kanowna Belle and South Kalgoorlie.

The results of the analysis identified the requirements for each site to conform with the Northern Star Tailings Management Standards and the requirements for meeting the GISTM.

## Highlight: Pogo Tailings Storage Facility Expansion Studies

Pogo Operations is in the process of designing and permitting an expansion of the Dry Stack Tailings Facility (DSTF) from 20M tonnes to 32M tonnes. To prepare for the expansion design, a series of pre-design studies were completed.

Geotechnical investigations were conducted in 2019 and 2020 using cone penetration test soundings, standard penetration tests and soil borings to collect data for liquefaction and stability analyses of the expanded load. New piezometers and thermistors were installed for continued monitoring of pore pressures, water table and temperatures in the tailings to supplement the existing instrumentation. Other studies included hydrology, geochemistry and freezing characteristics of the tailings.

Water management is a critical element for the DSTF operation and stability as precipitation and runoff around the DSTF affect the stability of the materials, the geochemistry of the waste rock and tailings, and the water chemistry downstream of the facility. These pre-design studies will form the basis and assumptions of the expansion design and provide critical input for long-term management of the DSTF.

In 2020, a wetlands delineation study was conducted for the potential DSTF expansion footprint. The purpose was to evaluate how the wetlands have changed over time and involved field work to identify soil, vegetation and water content

at each test site. The information gathered was used to apply for a clearing permit required by the US Army Corps of Engineers.

The expansion design will include construction of new diversion ditches and associated water management features, haul roads, filling plans, erosion control recommendations and a final cover system for eventual closure. Completion of the design is expected by the end of 2022 and construction of diversion ditches will occur in 2023.



Dry stack tailings facility at Pogo, Alaska

## Water Stewardship

Access to water is a fundamental human right and is critical to our operations. The majority of our sites exist in areas with high baseline water stress, and we are committed to using and managing this valuable resource in a sustainable way to ensure shared users and the environment are not adversely impacted.

Our Water Management Global Standard and site-specific Water Management Plans further strengthen this commitment by detailing key practices and processes for managing water use. Comprehensive water balances are also utilised across our operations to manage site specific water resources and ensure our site Environmental and Operational teams have clear oversight of water abstraction, recycling, discharge and consumption.

Total water withdrawals have slightly increased in FY22 from FY21 due to increased production. Water intensity has remained steady, however, across the business. Nevertheless, we consistently look for

strategies to improve efficiencies and reduce water consumption across our operations, in consultation with our stakeholders and other shared water users.

Key water uses across our operations are processing and beneficiation purposes, as well as dust suppression. The expanded Thunderbox mill, which is due to be commissioned in Q2 FY23, includes an additional 18m diameter tailings thickener. The additional thickener will greatly increase water efficiency within the mill, allowing for up to 80% of water within the tailings slurry to be recovered and recycled in the mill. Additional thickening capacity greatly increases water efficiencies. The potential for additional thickening capacity will be considered for all prospective mill expansions across the business.

We understand that water is a shared asset and are diligent in ensuring our activities do not negatively impact our neighbours, stakeholders and peers. In the early planning stages of any significant borefield

## Highlight: Interacting with Surrounding Land Users through Water as a Shared Resource

Water is a critical resource, particularly in the arid landscapes of the Yandal region in Western Australia. Due to the extreme local evaporation rates, groundwater is often the only reliable water source that can provide sustained water supply to land and water users in the region, which include pastoralists, Traditional Owners and mining companies.

Northern Star continues to maintain and build relationships with our surrounding land users through sharing knowledge and information on local water resources and hydrogeology, and by making groundwater available to nearby water users. Prior to and during their exploration activities in the Yandal region, Northern Star's exploration team notify the surrounding land users of their activities and they also inform them of any locations where their drilling activities intersect relatively high yield water that would, for example, be suitable to local pastoralists for livestock consumption. Where interest is shown, the Exploration Team will establish the bores as pastoral bores for the land users to supply water to their livestock.

Additional benefits to the pastoralists include reducing the distances between their livestock watering points, which contributes to reducing the

intensity of grazing and the associated impact on native vegetation surrounding the existing water points.

All other bores are decommissioned and rehabilitated on completion of exploration.



Rainfall collected in rock formations at Thunderbox, Yandal Production Centre, Western Australia



expansion, a detailed hydrological assessment is completed to ensure that a targeted borefield is fit for purpose and any potential impacts to neighbouring stakeholders are avoided where possible.

The expanded Marshall Creek Borefield, 40 km south of the Thunderbox mill, is due to be fully operational in Q2 FY23. While planning the expansion we intentionally targeted a deep, high

salinity paleochannel that was not suitable for pastoral use. Further, we have given the local pastoralist access to several of our freshwater bores to be used by livestock.

All of Northern Star's borefields are operated in accordance with Department of Water and Environmental Regulation (DWER) endorsed Groundwater Operating Strategies.

## Highlight: KCGM Taking Action to Reduce its Use of Potable Scheme Water

Northern Star's FY22 long term incentive performance rights KPIs require Northern Star to reduce its baseline usage of potable scheme water sources (KCGM) by 10% by 30 June 2025. This performance target is aligned with Northern Star's commitment to demonstrating good environmental management and social responsibility through identifying and implementing water use efficiencies in its operations.

KCGM uses water balance models and systems to identify water efficiency and management opportunities, and is well underway to achieving its long term target, having reported an 10.73% reduction in potable water use in FY21, down from 1,829,990 kl in FY20 to 1,633,704 kl in FY21.

This achievement was recognised by the Water Corporation's Waterwise Business Program, which presented a Gold Waterwise Business - Highly Commended Award<sup>36</sup> to KCGM in June 2022. The award recognises the broad range of actions taken and initiatives implemented by KCGM, including:

- replacing potable water with saline water used in diamond drill rigs at Mt Charlotte Underground

and the installation of automatic vaporiser change-over equipment for de-icing liquid oxygen plant vaporisers;

- locking potable water standpipes in the processing plants to ensure that saline water is used for certain dust suppression and washdown activities;
- doing water leak detection audits in the processing plants prior to maintenance shutdowns so that repairs can be scheduled during the shutdowns;
- regular flow meter and data logger monitoring of water use patterns to identify and respond to unusual or excessive water use;
- installing minimum 3 Star WELS rated water efficient fixtures and fittings in change rooms and bathrooms; and
- encouraging waterwise behaviour through displaying water saving posters and stickers in these facilities.



Water cart conducting dust suppression activities at KCGM, Kalgoorlie Production Centre, Western Australia





36. <https://www.watercorporation.com.au/Help-and-advice/Waterwise-business-programs/Waterwise-Business-Program/2022-Waterwise-Businesses>






Standing groundwater in previously mined pits around the Deep South area, part of the Carosue Dam, Kalgoorlie Production Centre, Western Australia



**Table 13** Water Stress<sup>37</sup>

Operational Centre Water Data (ML)	Baseline water stress level <sup>38</sup>	Water recycled or reused	Total freshwater withdrawal	Total other water withdrawal	Total discharge	Net total consumption
Kalgoorlie		13,463	1,578	10,303	281	11,600
Yandal		1,885	252	6,297	-	6,549
Pogo		621	27,168	901	27,254	815
Exploration		-	10	65	-	75
<b>Total</b>		<b>15,970</b>	<b>29,008</b>	<b>17,566</b>	<b>27,535</b>	<b>19,039</b>

Key  High  Medium  Low

**Table 14** Net Total Water Consumption<sup>37</sup>

Net Total Water Consumption (ML)	FY22	FY21	FY20
Kalgoorlie	11,600	10,729	6,670
Yandal	6,549	6,523	6,995
Pogo	814	447	859
Exploration	75	58	109
<b>Total:</b>	<b>19,039</b>	<b>17,757</b>	<b>14,632</b>
<b>Net Total Water Consumption Efficiency (ML/oz gold sold)</b>	<b>0.012</b>	<b>0.011</b>	<b>0.010</b>

**Table 15** Freshwater Consumption<sup>37</sup>

Freshwater Consumption (ML)	FY22	FY21	FY20
Kalgoorlie	1,578	1,406	648
Yandal	252	227	212
Pogo	-	-	-
Exploration	10	34	103
<b>Total:</b>	<b>1,840</b>	<b>1,666</b>	<b>964</b>
<b>Freshwater Consumption Efficiency (ML/oz gold sold)</b>	<b>0.001</b>	<b>0.001</b>	<b>0.0007</b>

37. These values reflect the equity share of a given facility. 100% Pogo data included from FY19 until present (from acquisition in October 2018); 100% Saracen data included from FY19 until present (legacy data incorporated from pre-merger); 100% KCGM data included from FY20 until present (from acquisition in January 2020); Kundana and East Kundana assets were divested in August 2021; Paulsens and Western Tanami assets were divested in June 2022.

38. Baseline water stress measures the ratio of total water withdrawals to available renewable surface and groundwater supplies. Water withdrawals include domestic, industrial, irrigation, and livestock consumptive and non-consumptive uses. Available renewable water supplies include the impact of upstream consumptive water users and large dams on downstream water availability. Higher stress level values indicate more competition among users. Information on baseline water stress levels are available from the World Resources Institute – Aqueduct Water Risk Atlas: <https://www.wri.org/applications/aqueduct/water-risk-atlas>

## Air Quality

Northern Star monitors and manages key air quality metrics across our operations and local communities located adjacent to our operations.

Air quality is typically influenced by industrial emissions, cars, planes, household emissions including wood fired heaters, bushfires and controlled burnoffs, dust from unsealed roads and construction development, degraded lands and many other sources.

The City of Kalgoorlie-Boulder has had a long history of air quality issues due to historical practices on the Golden Mile, but new and improved management practices have resulted in substantial improvements in air quality. These include:

- The establishment of a “green belt” between the mine and the City to improve the visual appearance and reduce dust generation from degraded bare land.
- A phased reduction of in-town roasting and the establishment of a roaster at a location that minimised the impacts of sulphur dioxide on residential areas.

Coupled with these, improved management practices have resulted in significant improvement in air quality in the City of Kalgoorlie-Boulder since the 1990’s. The Fimiston Air Quality Management Plan (FAQMP) was initially developed by KCGM in 2007 as part of the Fimiston Gold Mine Operations Extension (Stage 3) and Mine Closure Planning Public Environmental Review (PER) to integrate a number of management plans that cover various air quality aspects of the Fimiston Operations.

Air quality results are reported to the Australian and United States Governments via several mechanisms:

- Australian data is reported via the National Pollutant Inventory<sup>39</sup>
- Alaskan data is reported via the Toxics Release Inventory<sup>40</sup>

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

**Table 16** Measured Air Emissions<sup>41</sup>

Air Total Emissions (tonne)	FY22	FY21	FY20
Carbon monoxide	3,525	2,767	1,851
Oxides of nitrogen	11,415	9,859	6,948
Oxides of sulphur	26,162	21,197	15,578
Particulate matter <10um (total)	13,299	10,892	8,921
Mercury	0.02	0.009	0.03
Lead	0.3	0.2	0.2
Volatile organic compounds	449	360	293

## Sulphur Dioxide

Our Kanowna Belle processing plant incorporates a roaster to allow processing of sulphidic ore. The sulphidic ore prevents gold from being extracted efficiently during the normal process. Kanowna Belle has implemented an Air Quality Control system (AQC).

The system consists of a network of monitoring instruments dedicated to measuring sulphur dioxide concentrations and atmospheric conditions within the region (Kalgoorlie-Boulder, Kurrawang, Coolgardie and Kambalda), to ensure roasting is conducted in a controlled manner.

39. [www.npi.gov.au](http://www.npi.gov.au)

40. [www.epa.gov/trinationalanalysis](http://www.epa.gov/trinationalanalysis)

41. These values reflect the updated Northern Star data in accordance with our Restatement of Information as provided on page 21.



The AQC system combines dynamic SO<sub>2</sub> network and meteorological monitoring data with predictive logic to calculate a recommended roaster status i.e. ON or OFF. This is supported by a roaster auto-

shutdown sequence with a 5-minute delay in the event that roaster personnel do not act on an 'OFF' recommendation immediately.

## Highlight: Air Quality Control (AQC) Systems in the Kalgoorlie-Boulder Area

Kanowna Belle uses a SODAR (Sonic Detection and Ranging) wind profiler to measure the wind speed and direction at 25 metre intervals to 250 metres above ground level as part of its Air Quality Control (AQC) system.

SODARs operate similarly to the SONAR systems used by submarines only they operate in the atmosphere instead of underwater. The SODARs emit a sound pulse in the N-S and then E-W directions and correlate the 'Doppler Shift' of the sound pulses to wind speed and direction. The technology can be described as mature and is very reliable.

There are two SODARs in operation across Northern Stars Goldfield's assets, one located at Kanowna Belle and the other at the Gidji Processing Plant. This affords a representative measurement of atmospheric conditions north and north-east of Kalgoorlie-Boulder and the other residential areas in the immediate region.

In December 2021, to complement the SODARs, an additional wind source comprised of two sets of wind speed and direction sensors (cup & vane) were installed at 90m on the KB roaster stack.

The stack sensors provide greater resolution at low winds speeds (<2 metres per second).

The SODAR and Kanowna Belle Stack sensor wind speed and direction measurements are averaged over 2 minute and 10 minute periods for use by the System. Meteorological data from the two stations located at Kanowna Belle is fed into the system and averaged over 2 minute and 10 minute periods. The SO<sub>2</sub> concentration data from each of the ten regional SO<sub>2</sub> Monitoring Stations is also uploaded to the AQC System every 5 minutes (the data averaging period).

All of the abovementioned data is processed and used by the AQC System continually and is displayed on a system overview page for close observation by Processing and Environmental personnel. This information is used to determine if the roaster should be shut down, where there is a risk of unacceptable processing and environmental SO<sub>2</sub> levels being present, or if it is permissible to continue roaster operations.



Kanowna Belle SODAR, Kalgoorlie Production Centre, Western Australia

## Environmental Incidents Summary

Northern Star has an internal system for recording environmental incidents, including documenting incident details and corrective actions to be undertaken. The system enables automatic reminders to be sent to personnel responsible for implementing the corrective actions.

Most incidents relate to spills either within containment structures or outside them; together, these account for 72% of incidents. Of these, most are considered insignificant and include things such as hydraulic hoses bursting or small pipe leaks. These incidents usually occur on cleared land or compacted soil; they do not cause harm to the environment and are easily cleaned up.

Northern Star's reporting standards require all incidents to be reported, whether they cause actual harm to the environment or not. In this way, we are able to identify trends that could point to a potential for larger incidents. Where trends appear in our data, actions are taken to explore more closely what is leading to these.

Once causes have been identified, relevant environmental personnel are involved in developing an appropriate response. These could include increased inspections, additional training, particular awareness campaigns or specific actions aimed at remedying specific issues such as updating old equipment, for example.

Following an inspection during 2019 by the United States Environmental Protection Agency at our Pogo Operations, Northern Star has received notification that several waste streams at the assay laboratory in the Pogo processing plant were not determined, registered and managed according to *Resource Conservation and Recovery Act* (RCRA) technical requirements.

Whilst there was no harm caused to the environment, the breach of RCRA will result in financial penalties during FY23, which are currently under discussion. The Company is expanding its current training in RCRA compliance to address any gaps identified to meet RCRA requirements.

Figure 23 Environmental Incidents by Consequence







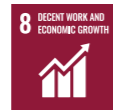
# Safety Performance

LOCK BOX  
1505

FIM SAG WITH  
CV03 & CV20  
TANK  
2741  
PERMIT #  
18752

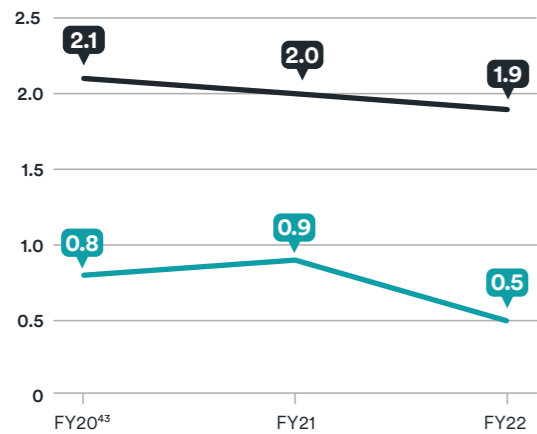


# Safety Performance

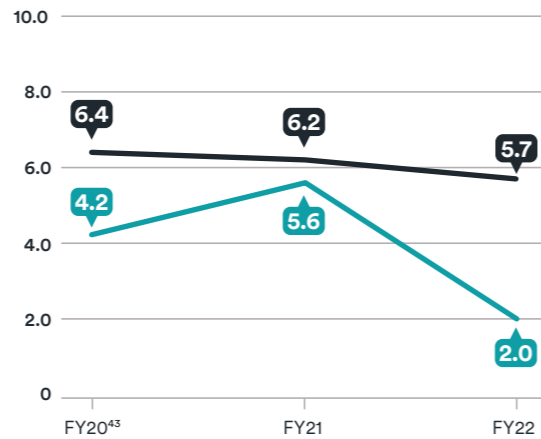


## Safety Snapshot

### LTIFR 0.5



### TRIFR<sup>42</sup> 2.0



Key — Northern Star — Industry average

## FY22 Achievements

Inaugural Safety Leadership Training Program commenced at Pogo

<b>94%</b>	<b>23,305</b>	<b>8,216</b>	<b>574</b>	<b>391</b>
Percentage of hazards rectified (12,096 Hazard Identification Reports Closed out of 12,816 Hazard Identifications Reported)	Number of Active Field Leadership Interactions Reported	Number of Inspections Reported	Number of Risk Management Events Reported (e.g. risk assessments, alerts issued, change managements issued)	People completed Work Health and Safety Act 2020 training

42. Number of reportable injuries (Lost Time Injuries and Restricted Work Injuries) per million hours worked. Calculated on a 12-month rolling average.

43. Inclusion of historical legacy data from Saracen assets prior to the merger has resulted in a restatement of data prior to February 2021.

- FY22 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2020-21 Metalliferous total  
 - FY21 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2019-20 Metalliferous total  
 - FY20 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2018-19 Metalliferous total

## Our Safety Performance Has Been Outstanding in FY22

We are incredibly proud of what has been achieved this year, taking into account the enlarged Group operations, significant project expansion and shut down work, the impact of COVID-19 continuing at all sites, the labour market pressures leading to a larger than normal percentage of new starters and the sheer number of worker hours involved in our underground, open pit and processing operations.

workforce size since FY20 and the number of operations and activities within our portfolio.

We focus on ensuring that both our employees and contractors at our operations understand and participate actively in all elements of our Safety Management System (SMS). This enables us to develop and improve our standards, procedures, inspections, audits and programs of work.

Building on our strong safety culture, FY22 has seen the business succeed in achieving lagging and leading performance improvements, notwithstanding the substantial increase in the

**We are incredibly proud of what has been achieved this year in our safety performance.**



Dulamsuren Jigjidsuren, Metallurgical Technician at KCGM, Kalgoorlie Productions Centre



## Our Approach

During the past 12 months, Northern Star has continued to focus on a range of programs and initiatives to engage our workforce, align and streamline our safety processes and bring about

increased utilisation of technological opportunities. Key highlights from our progress on our OHS strategic action plan is provided in Table 17 below:

**Table 17** OHS Strategic Plan (FY22 - FY25) Update

Category	Initiatives	FY22 Progress Update
Leadership	<ul style="list-style-type: none"> <li>Review the effectiveness of lead indicator programs across Northern Star.</li> <li>Increase the quality of the key tools used Company wide.</li> </ul>	Scheduled for commencement in Q2 FY23
	<ul style="list-style-type: none"> <li>Establish a foundation for development of safety leadership.</li> <li>Improve overall effectiveness of safety leaders across the Company.</li> </ul>	The Safety Leadership Program was developed and launched in our North American operations, Pogo, in June 2022, followed by our Australian operations in July 2022. Since the program's inception, 70 employees from various departments have participated, and the response has been overwhelmingly positive.
Innovation & Training	<ul style="list-style-type: none"> <li>Benchmark Northern Star against industry leading technology.</li> <li>Improved hazard management of hazardous operations such as working in confined spaces</li> </ul>	Scheduled for commencement in Q3 FY23
	<ul style="list-style-type: none"> <li>Enhance training capabilities via platforms such as virtual reality.</li> <li>Increase learning outcomes for all employees and contractors across Northern Star.</li> </ul>	Scheduled for completion Q4 FY23
Health & Wellbeing	<ul style="list-style-type: none"> <li>Establish a clear link across operational planning functions and support services. Decrease the number of health/hygiene exceedances reported across all sites.</li> </ul>	Scheduled for completion in Q4 FY23
	<ul style="list-style-type: none"> <li>Review equipment - people interaction across the Company</li> <li>Decrease the frequency of manual handling tasks for all employees.</li> </ul>	Scheduled for commencement in Q2 FY23
	<ul style="list-style-type: none"> <li>Establish industry leading mental health initiatives.</li> <li>Increase leadership, proactive management and workforce capability.</li> </ul>	Scheduled for commencement in Q2 FY23
Risk Management	<ul style="list-style-type: none"> <li>Finalising implementation of the SMS across all sites.</li> </ul>	<p>Senior management have committed to the SMS. Development of the 14 elements to align to legislative requirements and industry best practice. Auditing and gap analysis was completed on existing core safety procedures and practices and is continuing to ensure the elements align with the WHS harmonisation.</p> <p>An implementation plan was developed and each SMS element assigned to site owners. Familiarisation and training sessions are underway at each site and will be completed in Q1 FY23.</p> <p>Integration of the 14 SMS elements in the document control framework, processes and data has improved internal auditing structures and outputs. This integration and process re-engineering was completed in Q3 FY22.</p> <p>Phase 2 of the initiative is to align the SMS to ensure compliance to 2020 WHS legislation and code of practice and development of an auditing schedule.</p>

Category	Initiatives	FY22 Progress Update
Risk Management	<ul style="list-style-type: none"> <li>Improve from a safety perspective, contractor management across the Company.</li> </ul>	<p>Phase 1 of the initiative consisted of mapping departmental and WHS legislative requirements. This resulted in the development of a 5 tier Safety Contractor Management Framework</p> <p>A Contractor Management Intranet Page has been developed to assist the organisation as a whole to improve our contractor management and communication across the company.</p> <p>Phase 2 of the program will result in embedding the 5 tier framework across the Company with completion scheduled for Q4 FY22.</p>
	<ul style="list-style-type: none"> <li>Embed Critical Risk Standards across the Company.</li> </ul>	Scheduled for completion in Q2 FY23
OHS System	<ul style="list-style-type: none"> <li>Merger of current systems and implementation of fit for purpose safety systems across the post- merger Group.</li> </ul>	Scheduled for completion in Q2 FY23
	<ul style="list-style-type: none"> <li>Facilitation of two-tier training across the Company for mental health, hazard identification, risk management and lead indicators</li> </ul>	Scheduled for completion in Q2 FY23
	<ul style="list-style-type: none"> <li>Further enhance the OHS communication platform with applicable information including onsite specialist classes, awareness training and guest presentations</li> </ul>	Enhanced OSH Communication platforms with the development and redesign of the Health, Safety, Training and systems SharePoint page and the implementation of a WHS Act Reform SharePoint page. Engagement of external Work Health and Safety lawyer to facilitate a two-tier training sessions. An external consultant we engage for crisis management training presented sessions on risk, leadership and crisis management.
	<ul style="list-style-type: none"> <li>Harmonisation and migration of KCGM and Saracen safety operational and corporate documents post-merger into one Group document management platform</li> </ul>	Scheduled for completion in Q2 FY23

## Critical Risk Standards

The safety of our employees and contractors is our first priority always. The Northern Star risk registers, both strategic corporate and operational, are updated regularly utilising a systematic risk management approach to identify the Company's material risks. For high rated health and safety critical risks, the Company develops standards with specified performance requirements to eliminate, prevent, or mitigate the risks.

These Critical Risk Standards are regularly reviewed internally and by subject matter experts to ensure they meet regulatory requirements, and align with industry best practices and outline critical controls for each critical risk area necessary to keep our workforce safe. These controls are captured in checklists and used as guidance during in- field observations conducted by Northern Star management and supervisors to verify effectiveness and compliance by the workforce.

Compliance with these Critical Risk Standards is regularly audited and reported to identify opportunities for improvement across the Company.

**Northern Star has identified ten Critical Risk Standards which are applied across all sites. These Critical Risk Standards relate to:**

- Fall of Ground
- Lifting Operations
- Hazardous Energy
- Hazardous Substances
- Working at Height
- Explosives
- Confined Space
- Fire
- Mobile Plant, Equipment and Vehicles
- Hazardous Workplace Exposures



## Highlight: Safety Leadership Training

Northern Star's new Safety Leadership Training Program was launched at our Pogo operations in June 2022, with the program rolling out to all remaining operations throughout July. The intent of this program is to provide simple and clear direction to our leaders on the array of safety tools available to them within the business, and also provide them with a critical understanding of "why" our safety tools exist.

Providing our leaders with a clear understanding of how these tools also intricately make up our SMS, empowers them to utilise these tools to their full potential.

Areas of focus in the program include:

- Understanding the Company expectation of our leaders and their approach to safety
- Company safety direction through strategic plans and SMS
- Risk assessment and constant verification of controls – mitigating risk to acceptable levels
- Tools and resources to keep our people operating at their best
- Resilience, stress, and leadership
- Explaining the tools and how they correlate

- Visible felt leadership – the importance of conversations

Over the course of the program, 70 leaders from all areas of the business attended the program with overwhelmingly positive feedback from all attendees. The message to our leaders that they are responsible for the ongoing safety development of their people has been a powerful and thought provoking one, and we look forward to seeing the ongoing positive effects of the program across all of our operations.



Ben Chapman, Principal - Safety delivering Safety Leadership Training at Pogo, Alaska

### Safety Management System

The SMS comprises 14 elements and sets out the key features and application of the health and safety management processes through which Northern Star establishes and assesses its commitment, objectives, plans and procedures for compliance with legislation and regulations.

The SMS operates within our overarching corporate governance documents including the Board Charter, STARR Core Values, Code of Conduct, Safety and Health Policy, Risk Management Policy<sup>44</sup> and operational Cardinal Rules. The SMS applies to all sites and activities within Northern Star's operational control.

### Incident Reporting and Investigation

Northern Star has in place a set of systems and procedures to ensure that incidents can be effectively reported by all employees and contractors and communicated in a timely manner

The SMS also provides a framework for the identification, reporting and rectification of work-related hazards or hazardous situations identified by all employees and contractors using Northern Star's HAZID (Hazard ID), STARR reporting initiatives and the INX InControl reporting database.

By using this SMS framework, hazards and their rectification are documented to more effectively reduce risks to our employees. The SMS provides auditable criteria against which Northern Star's health and safety performance, risk reduction and continuous improvement can be measured.

to ensure lessons learned are captured and circulated to reduce the risk of a repeat event.

Incident investigations are undertaken in accordance with our Reporting Standard requirements and are

44. <https://www.nsr ltd.com/about/corporate-governance>

led by a trained Supervisor or Manager and include a Health and Safety Representative. Northern Star utilises a step-by-step process that follows the ICAM methodology and allows for either a basic or complex investigation depending upon the nature, actual or probable outcome of an incident or near miss.

Quality incident investigations and the implementation of SMART corrective actions with Northern Star can eliminate or reduce the chances of similar incidents re-occurring in the future by allowing us to identify deficiencies or potential improvements in our management system which can be addressed.

Table 18 Work Related Injury Frequency Rates for Employees and Non-Employees<sup>45,46</sup>

		FY22	FY21	FY20
<b>Exposure Hours</b>		13,101,903	13,648,657	12,423,232
<b>Total Workforce</b>	<b>LTIFR</b>	0.5	0.9	0.8
	<b>TRIFR<sup>47</sup></b>	2.0	5.6	4.2
<b>Employees</b>	<b>LTIFR</b>	0.5	0.8	1.0
	<b>TRIFR<sup>47</sup></b>	1.5	4.7	4.5
<b>Contractors</b>	<b>LTIFR</b>	0.6	1.0	0.7
	<b>TRIFR<sup>47</sup></b>	2.5	6.6	3.7

In FY22, over 350 safety meetings were reported across Northern Star in our INX Leading

Indicators, with 112 of these being Health & Safety Representative Committee Meetings.

45. Inclusion of historical legacy data from Saracen assets prior to the merger has resulted in a restatement of data prior to February 2021.

46. In accordance with GRI 403-9.

47. Number of reportable injuries (Lost Time Injuries and Restricted Work Injuries) per million hours worked. Calculated on a 12-month rolling average.

## Highlight: The Value of Health and Safety Representatives at Northern Star

A Health and Safety Representative (HSR) is a person elected by their fellow employees to represent them regarding health and safety issues in the workplace. HSRs are a valuable part of our operations and play a key role in the promotion of safe workplaces and work practices. They assist in improving communication and increase the effectiveness of consultation between employees and management.

The role of a HSR includes communication with employees and management, attendance and involvement in incident investigations, workplace inspections and facilitation of employee meetings focused on hazard rectification and improving safety practices. Many Northern Star HSRs deliver more than is required of their role – developing safety toolbox material for their workgroup, actively engaging with their peers and implementing safety initiatives.

We asked some of our HSRs for their thoughts on their role as a HSR with Northern Star:

"(I enjoy) when I can have an input and be a catalyst for positive change toward safety, wellbeing, efficiency and general improvements and developments." Davide Lo Brutto, Core Yard

"(On the COO (Executive) meetings) ... gives you a scope of what's happening in the future, what to focus on and seeing the Corporate team is there to support us with guidance and leadership; it was great to see the engagement with representatives from all working parties at Jundee." Glenn Keast, Underground Mining



"(I enjoy) being able to support my department; giving our workgroup a voice and inclusion into other areas."

Kayla Dawson, Administration





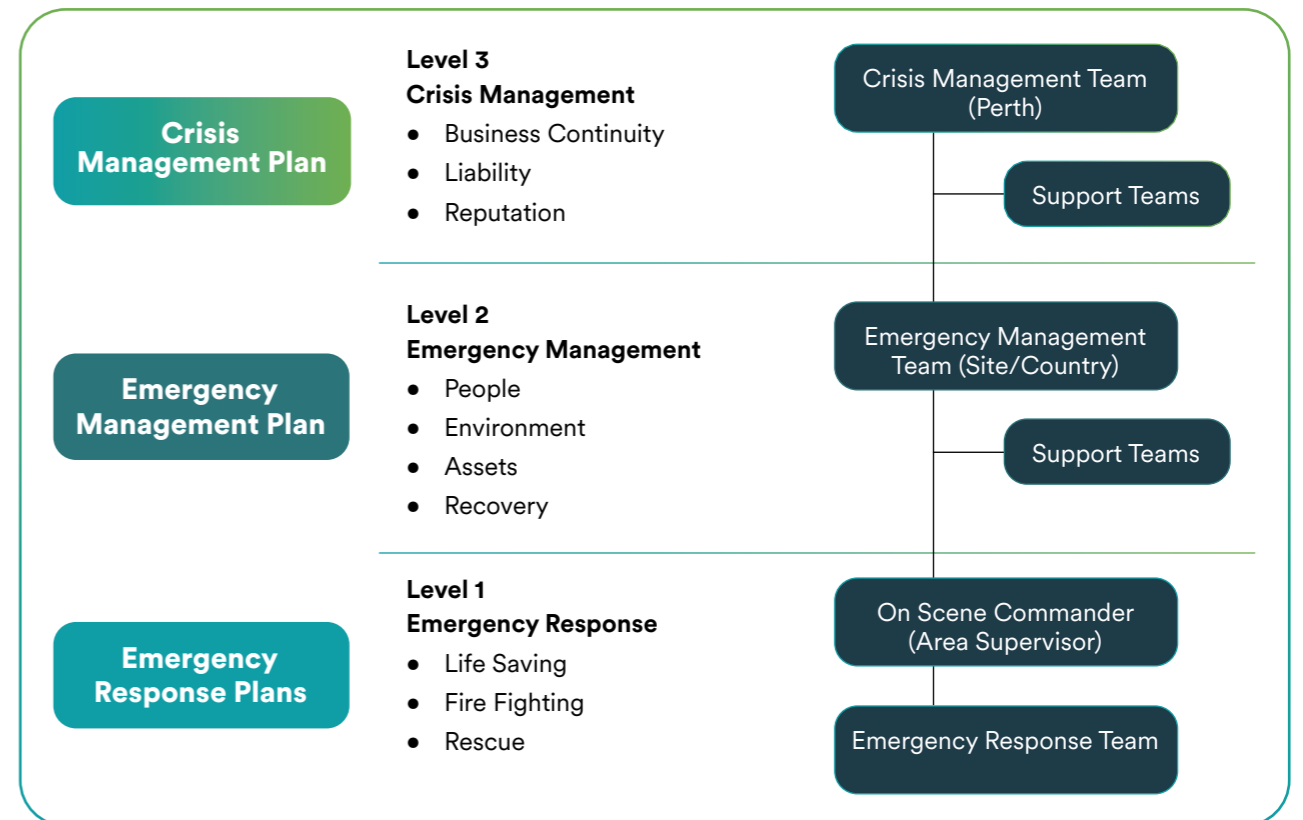
Conducting routine equipment checks in a site ambulance at Kanowna Belle, Kalgoorlie Production Centre, Western Australia

## Emergency and Crisis Management

Northern Star has in place detailed crisis and emergency management plans which aim to prepare personnel for a range of emergency situations. Understanding the likelihood of an emergency and the potential consequences and mitigation strategies needed is at the core of our plans and structure.

Plans for foreseeable scenarios are in place and regularly audited and tested by external specialists to ensure they are appropriate. Teams at site and corporate levels undertake regular emergency scenario drills to ensure that we are prepared to respond appropriately to any real event and recover quickly after.

Figure 24 Northern Star Crisis and Emergency Management Organisational Structure



## Emergency Response Teams

In conjunction with Northern Star's emergency management system, our Emergency Response Teams (ERT) play a critical role in managing significant events and alleviating threats to life, our assets, the environment and business continuity. As such, our emergency response departments across the Company are provided with ongoing support from the corporate OHS team to ensure effective competency is maintained across the business.

Providing scenario training opportunities to our emergency response teams is a critical part of their skills development, and we actively support our teams to participate in regional emergency response competitions. In FY22 Northern Star was represented at multiple inter-company and inter-site emergency response competitions held in Perth, Kalgoorlie, and Fairbanks.

- Jundee ERT represented the Company at the WA Mining Emergency Response Competition (MERC) in Perth in December 2021;
- KCGM and Kalgoorlie Operations ERT's represented the Company in Kalgoorlie at both the CME Underground Mine Emergency Response Competition (UMERC) in November 2021 and the CME Surface Mine Emergency Response Competition (SMERC) in April 2022; and
- Pogo ERT represented the Company at the Alaskan Central Mine Rescue Competition in Fairbanks in May 2022.

Northern Star was a platinum sponsor of the MERC and hosted the 2022 SMERC and intends to continue this level of support in future years.



## Highlight: Pogo's Mine Rescue Team Excels in Central Mine Rescue Competition in Alaska

Having well trained and prepared emergency response teams is important for our mining operations, as a swift and safe rescue effort can mean the difference between life and death, and rescuers need to be ready to respond at short notice.

Pogo's mine rescue team performed well at the Central Mine Rescue Competition hosted in Fairbanks, Alaska on May 11-12, placing in three of the four contests including 2nd in both rope and first aid, and 3rd place in the team technical contest.

Mine rescue competitions are simulations designed to sharpen skills and test the knowledge of team members who can be called on to respond to a mine emergency. These contests are an essential part of

the training process and ensure that teams receive hands-on exposure to a range of potential hazards and mine emergency scenarios.

The competitions require team members to solve a hypothetical problem, both above and below ground while being timed and observed by judges according to complex rules. They include a rope contest, team technical contest, first aid and field contests.

Pogo's mine rescue team is not only a critical component of our mine's operation, but they serve as mutual aid for other mines and nearby communities. These teams also serve as role models and mentors to their peers in an industry that relies on a safety focussed culture.



The Pogo team is comprised of (left to right) Evan Quarterman, Brandon Hoover (Captain), Adam Fansler, Rahel Dean-Pelikan, Dave Grapengeter, Henry Crawford, Ryan Ladegard, John Hoyt and Christina Chaney (not pictured).

## Highlight: Graduate Mining Engineer Andrew Fisher represents Northern Star in the Incident Management Scenario at the 2022 CME Surface Mine Emergency Response Competition

The CME Surface Mine Emergency Response Competition is designed to promote, encourage, and improve mine site emergency response capabilities through providing emergency response teams with realistic scenarios to test the skills they have developed in training, receive feedback from experienced personnel in each emergency response discipline, and identify opportunities on how to improve their overall capabilities and skillset.

The Incident Management Scenario part of the competition is a scenario designed to simulate the management of a major mine emergency, requiring the participant to demonstrate how a crisis is managed and responded to, deal with a changing situation as it develops, communicate with a variety of functions including a responding emergency rescue team, company management, mines regulators, emergency services, potential media, etc. The scenario incident coordinator is a very difficult and challenging role, and it was gratifying to see 2021 WASM mining engineering graduate Andrew Fisher (22) take this on, and perform at such a high level.

Andrew was by far the youngest and least experienced participant in the competition, leading a four person mine emergency response team as their scenario incident coordinator through a drill involving a hydrogen sulphide gas leak caused by a crane crashing into the hydrogen sulphide feed line in the processing plant. The drill involved an evacuation of personnel, the location and rescue of three personnel in different stages of ill effects from hydrogen sulphide gas inhalation, and planning repairs to the feed line.

Andrew started his career with Northern Star in 2019 as a 19 year old university vacation student working at our South Kalgoorlie operations (SKO), driving trucks and being trained in mining engineering office-based tasks during vacations and term time, studies permitting. In January 2022, Andrew started his full time graduate mining engineer role at SKO. This accumulated knowledge and experience as a vacation student put Andrew at an advantage over other graduates without work experience on site.

Andrew embraced the challenge when invited to represent Northern Star, and received a week of competition training beforehand, with one-on-one incident management training for two days before the competition. Andrew says "I was so overwhelmed and confused for the first day but on the second day it all started to click. Then all of a sudden it's Sunday morning and my competition is first thing at 6am. Me being fresh out of uni and having to have my brain running on all cylinders before I entered the room. It's only a scenario but it still felt so real...throughout the quickest 45 minutes of my life I was being constantly bombarded with questions and calls, and trying to figure out what our next move was for the incident. The most difficult part was trying to get the team into some form of meet-break routine that would allow for information to be collected with no holes in the details. After the 45 minutes I gave a run-down of the incident to the GM and relayed all the information to him and what was being done to get operations back up and running."

Andrew received support and feedback from his team mates and the adjudicators, praising him for always looking ahead. Andrew said "I'm really thankful for this opportunity. Northern Star has been really supportive and flexible with my study and now I'm a full time employee they are allowing me to be trained in mine rescue while working, which gives me so much additional knowledge of how to perform rescue tasks".

The Kalgoorlie Operations team were placed third overall in the competition. However the most important element of these competitions is the ability for the team to test themselves in situations they may not be fully prepared for, understanding not only their strengths but also where they can improve their skills, as well as bring those learnings back to all the other emergency response team members at site to continue improving our overall emergency response readiness.



## Health and Wellness

We understand that the health and wellbeing of our employees extends beyond the workplace, and we recognise that an integrated approach is necessary to ensure both their physical and mental health.

Northern Star's integrated approach offers a practical structure to address the needs of our personnel on an individual basis. The mental and physical health and resilience of our workforce remains a priority. In addition to the support offered by our Employee Assistance Programs and the presence of our mental health first aid training employees at all sites, in FY22 we have provided dedicated resources across our sites to support and educate our teams on health and wellbeing. At each of our operations, employees and contractors are also offered opportunities and are encouraged to engage in social activities and services.

This integrated approach increases engagement and the sense of community and connectedness our employees and contractor feel whilst at work, with



Healthy food options at Jundee camp, Yandal Production Centre, Western Australia

the overall goal of ensuring that a safe and healthy work environment is provided to all our employees, contractors and those visiting our operations.

For more information on our processes for monitoring and assisting our employee's health and wellness please refer to the People Performance section.

## Access to Non-Occupational Medical and Healthcare Services

Northern Star undertakes a range of programs across our sites to ensure our employees have access to non-occupational medical and healthcare services to supplement their own personal services and our work-related services.

Each year we offer influenza vaccination programs at our regional operational centres and our corporate office; health and fitness assessments and exercise support programs can be provided by dedicated exercise physiologists at our regional operational centres; skin check clinics are offered

regularly at our regional operational centres; and our camp services teams provide support and information on healthy eating and drinking options.

In FY22 Northern Star partnered with a private health insurance provider to offer a subsidised health plan with extensive benefits for our eligible workforce, which supplemented existing programs in place.



Providing medical and healthcare services to our workforce at our onsite medical centre at Thunderbox, Yandal Production Centre

## Occupational Health & Hygiene

Northern Star has established a monitoring program to reduce and manage hygiene risks utilising a specialised team who measure and report on potential hazardous workplace exposures.

Each year the monitoring program schedule is revised and adjusted to match the outcomes and priorities of the annual risk-based review of workplace exposure standards and regulatory

requirements for measuring and monitoring. Workplace exposure monitoring assists us to identify and reduce hygiene-based risks on our sites.

In FY22 the monitoring program team conducted 3,245 samples across our employees and contractors.

**Table 19** Number of Occupational Hygiene Samples Collected During Our FY22 Program

Contaminant	Number of Valid Samples Collected
Ammonia	18
Calcium Oxide	1
Carbon Disulphide	17
Carbon Monoxide	74
Diesel Particulate Matter	316
Fibre	11
Gold Fumes	27
Hydrogen Cyanide	41
Inhalable Dust and Metals	639
Mercury Vapour	266
Nitrogen Dioxide	154
Noise	901
Respirable Dust and Silica	748
Sulphur Dioxide	1
Volatile Organic Compounds	5
Welding Fume and Metals	26
<b>TOTAL</b>	<b>3,245</b>

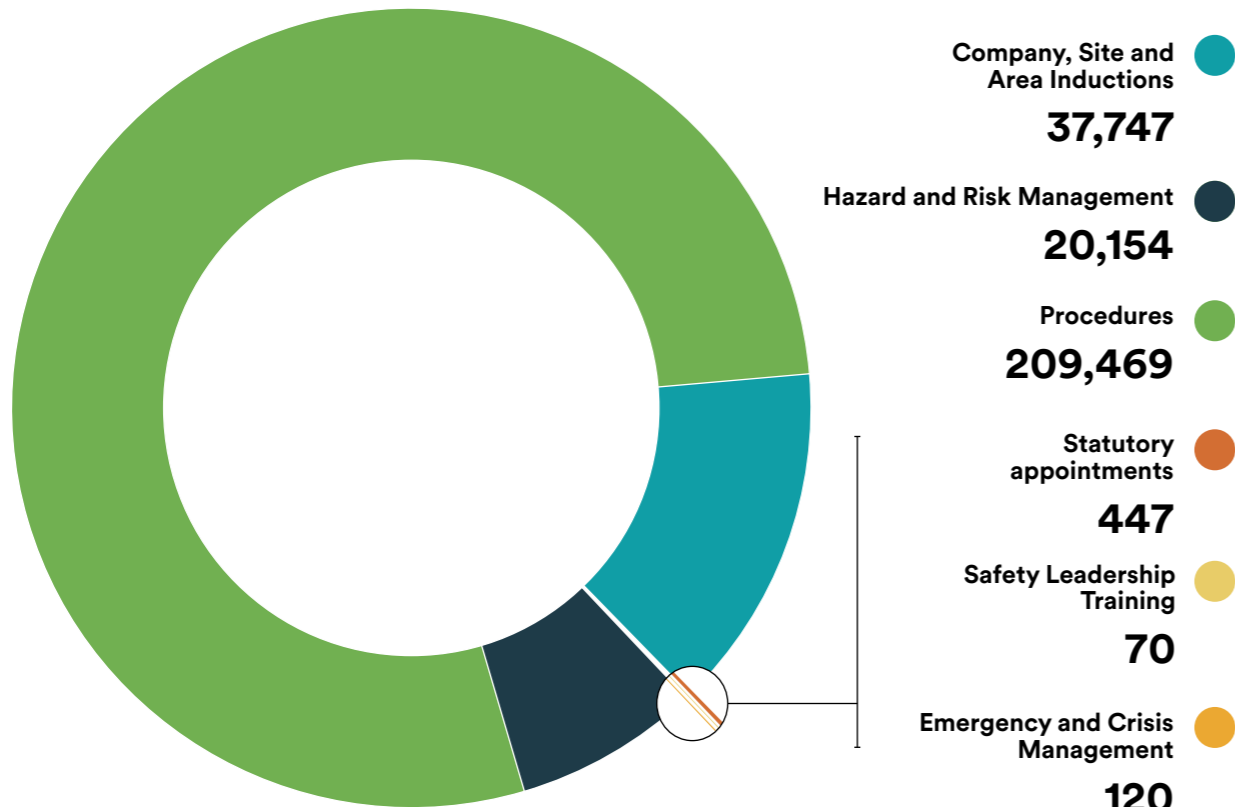


### Safety Training & Compliance Systems

Our focus in FY22 has been continued harmonisation and alignment of our Group training and compliance systems, with our primary focus on Northern Star's SMS resulting in improved visibility, accessibility and user responsiveness of our safety and training systems.

We will continue to focus on standardisation of our training programmes across operations to continuously improve the onboarding process and provide a more individualised and immersive experience specific to each new employee. We have trialled a shift from traditional based face-to-face learning to a virtual platform.

Figure 25 Safety Training Completed in FY22 by Category



Training at Jundee, Yandal Production Centre, Western Australia



Julius Drake-Brockman, Open Pit Manager at Porphyry part of our Carosue Dam, Kalgoorlie Production Centre, Western Australia





# People Performance



# People Performance



## FY22 Achievements

Paid parental leave for Australian Operations for primary and secondary carers

Companywide culture survey achieved engagement score of 68%

Provision of private health insurance to all employees

## People Snapshot

**3,409**

Employees, excluding contractors<sup>48</sup>

**6,011**

Our global workforce, including contractors<sup>48</sup>

**1,485**

Workforce residential to Kalgoorlie<sup>49</sup>

**23%**

Female employment in our workforce<sup>49</sup>

**326**

Current Graduates, Undergraduates, Vacation Students, Trainees and Interns

**73**

Current Apprentices (including Trade Upgrades)

48. At 30 June 2022.

49. Direct employees only, excludes contractors.

## Our People Performance

To deliver our strategy Northern Star has a clear plan to attract, retain and support the best talent. We are clear on our joint and individual responsibility to deliver, improve and make Northern Star a place we are all proud and excited to work for. Our culture is unique, and a part of the reason people choose to work for us is to be part of that culture, contribute to it and benefit from it. Our Purpose and STARR Core Values are well understood, and they guide our leaders and all our employees to create a consistent culture.

individualised development plans, paying for and encouraging the use of gold sector leading parental leave, and supporting our employees charitable pursuits with donation matching and volunteer leave. In addition, we know from the results of the November 2021 Culture Survey that our response to climate change, our social performance, and our environmental compliance matter a great deal to our employees, so we are focusing on informing and connecting our people more strongly to these areas.

We have continued our support for employees throughout their employment lifecycle with Northern Star. This includes flexible working arrangements,

**The future for Northern Star is exciting and we look forward to the opportunities for our people as we grow.**



Gold Room operations at Carosue Dam, Kalgoorlie Production Centre, Western Australia



### Our Workforce

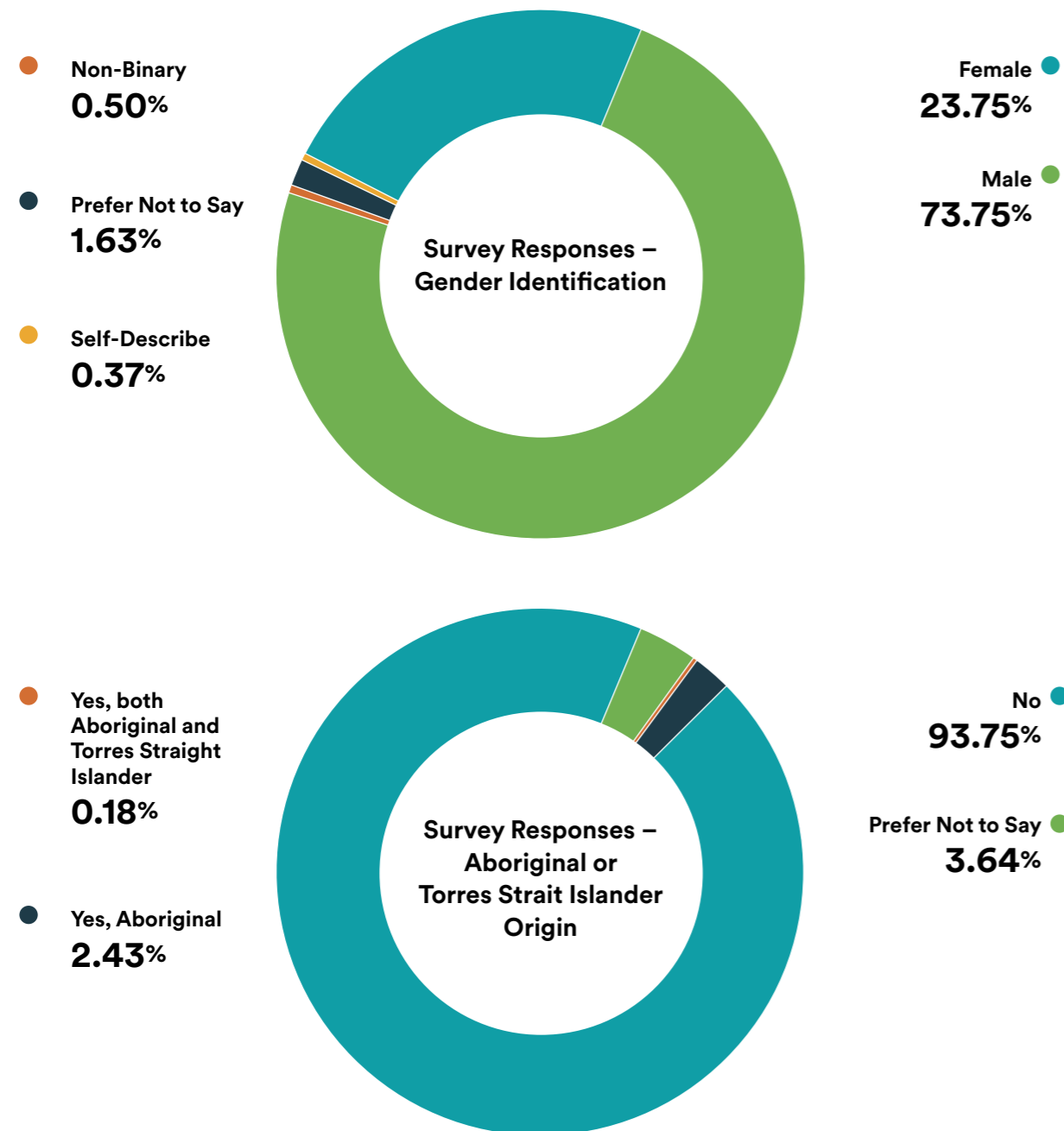
The majority of our workforce are permanent full-time workers. Across our operations 93.4% of our employees at all operations are employed on a permanent full-time basis, 2.7% on a fixed term basis and only 1.5% on casual contracts.

Our rate of female employment reached 23.12%.

Our age demographic remains similar to previous years and our rate of residential employment has been maintained with 60% in our Pogo operations in Alaska and 90% in Kalgoorlie, Western Australia.

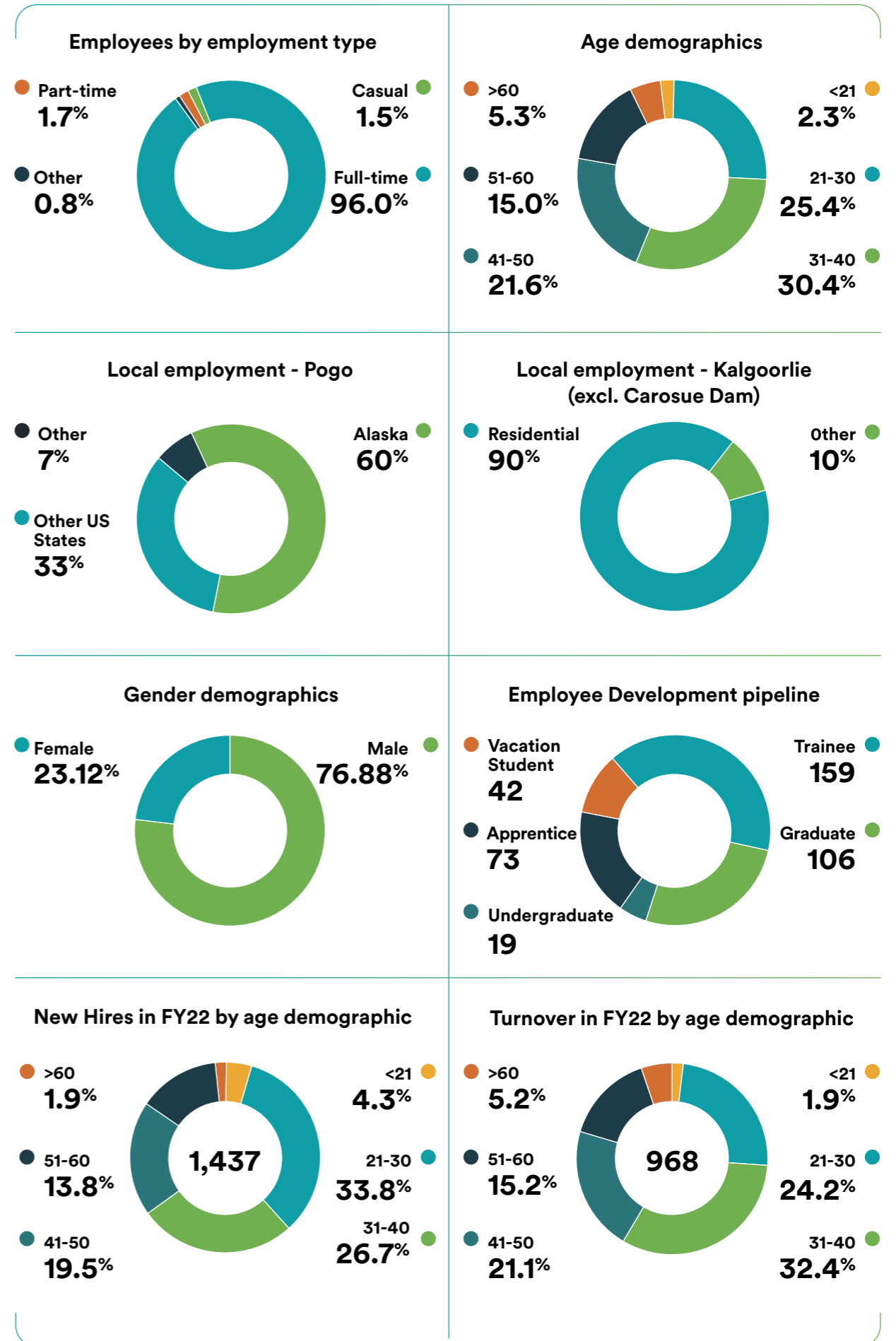
During FY22 Northern Star undertook a survey of our workforce to get a better understanding of how our employees identified in relation to gender identification, and Aboriginal or Torres Strait Islander origins. Approximately 70% of the workforce responded to the survey with the results provided in Figures 26 below:

Figure 26 Workforce Survey Results<sup>50</sup>



50. At 30 June 2022.

Figure 27 Northern Star Workforce Summary, as at 30 June 2022





**Table 20** Employment Type By Gender and Region at 30 June 2022<sup>51</sup>

	Kalgoorlie		Yandal		Pogo		Other		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Full Time Permanent	1291	402	513	94	520	51	102	78	2426	625
Part Time Permanent	2	21	0	1	0	0	1	28	3	50
Full Time Fixed Term	105	62	25	2	13	4	1	8	144	76
Part Time Fixed Term	0	2	0	0	2	0	0	0	2	2
Long Term Leave	12	16	0	0	0	0	0	0	12	16
Casual	20	27	0	0	2	0	2	2	24	29
<b>TOTAL</b>	<b>1430</b>	<b>530</b>	<b>538</b>	<b>97</b>	<b>537</b>	<b>55</b>	<b>106</b>	<b>116</b>	<b>2611</b>	<b>798</b>
	1960		635		592		222		3409	

**Table 21** New Starters By Gender and Region at 30 June 2022

	Kalgoorlie		Yandal		Pogo		Other		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
New Starters	559	255	262	55	199	35	30	42	1050	387
<b>TOTAL</b>	<b>814</b>	<b>317</b>	<b>317</b>	<b>72</b>	<b>234</b>	<b>72</b>	<b>72</b>	<b>72</b>	<b>1437</b>	<b>387</b>

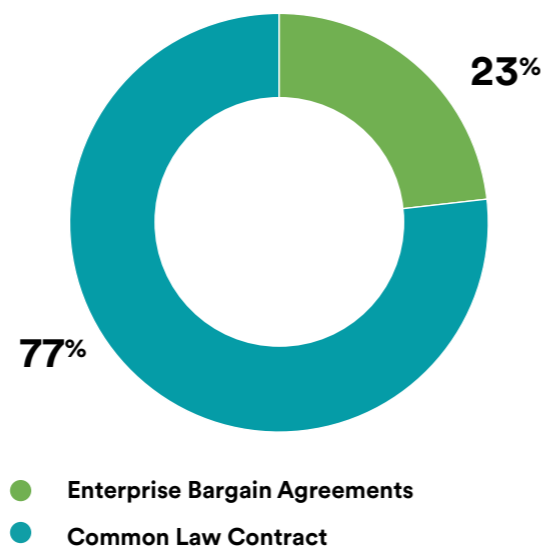
**Table 22** Turnover by Gender and Region at 30 June 2022

	Kalgoorlie		Yandal		Pogo		Other		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Turnover	428	161	134	33	133	27	39	13	734	234
<b>TOTAL</b>	<b>589</b>	<b>167</b>	<b>167</b>	<b>52</b>	<b>160</b>	<b>52</b>	<b>52</b>	<b>52</b>	<b>968</b>	<b>234</b>

791 employees (23%) of the workforce are covered by Enterprise Bargain Agreements, with the remaining 2,618 (77%) covered by Common Law Contracts. Common law contracts are individual agreements between an employer and an employee, but still with inclusion of any overriding statutory minimum requirements such as relevant awards.

Our contractor workforce comprises a majority of full-time workers, with work performed including, but not limited to, underground mining services and support, drilling services, camp services, logistics and haulage, and specialist mining and shutdown support roles.

**Figure 28** GRI 2-30: % of Employees Covered by Collective Bargaining Agreements



51. Direct employees only, data as at 30 June 2022. Please also refer to Figure 26 for employee survey results in relation to gender identification.

**Culture Survey**

Northern Star conducts annual culture surveys to better understand the experience and engagement of our workforce. Employee responses are collected anonymously by a third party. In November 2021 we conducted our 5th culture survey for Northern Star and the first one for our integrated business. This year's response rate was 85% and our overall employee engagement rate is 68%. This is the highest response in Northern Star history, especially pleasing considering that for some of our newer sites, this was the first time they had been included in the culture survey.

Our culture survey measures people's experience (what they see and hear) of the STARR Core Values, employee engagement, wellbeing, psychosocial risk factors and identifies how we can strengthen our culture. With such a strong response rate we have an excellent baseline as a foundation for assessing our ongoing effectiveness and achieving Northern Star's strategic objectives. It helps prioritise the

activities that will best support an inclusive, engaged and responsive work culture.

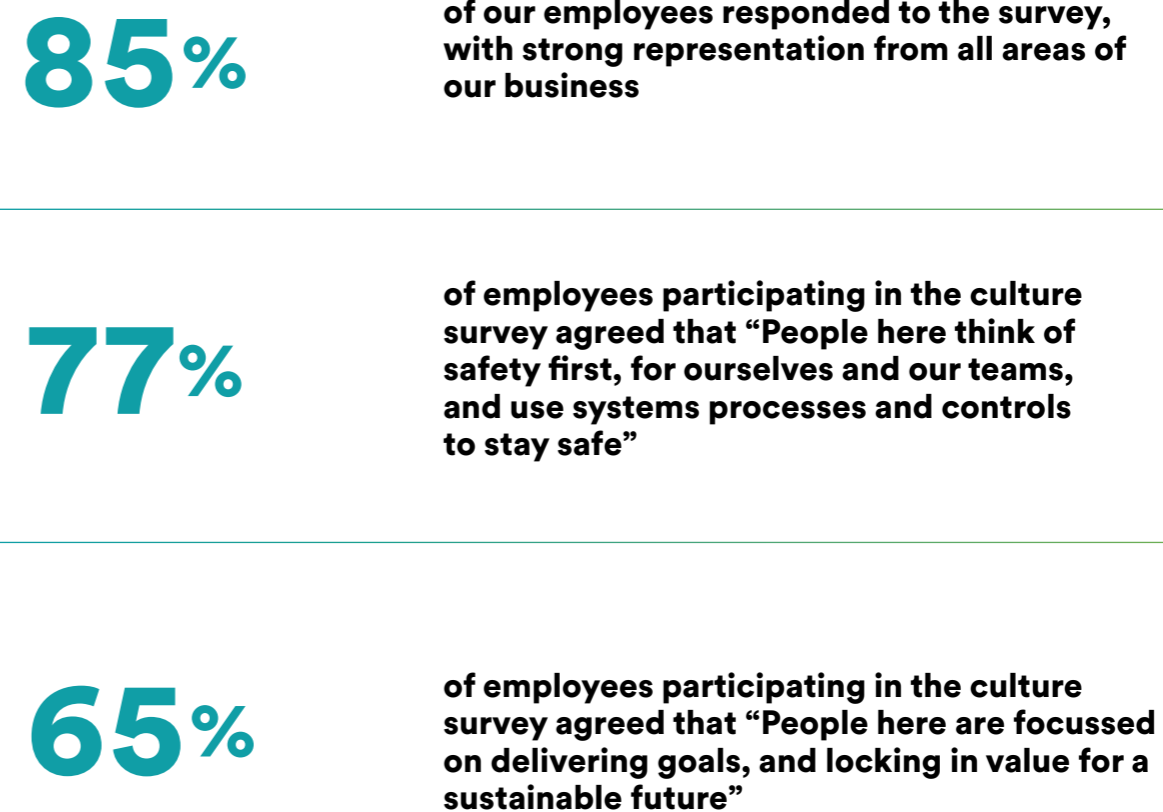
Company-wide and site-specific action plans have been developed by site. This process was led by our site General Managers with the support of their management teams to recognise and celebrate strengths, as well as address areas for improvement.

The corporate actions identified include:

- STARR Actions – engaging and embedding the STARR Core Values through fast feedback, positive reinforcement and reward and recognition.
- Continued leadership development for supervisors and frontline leaders.

Northern Star's next culture survey will be conducted in November 2022. We will be able to reassess employee sentiment and engagement, and see the effectiveness of the actions taken since the November 2021 culture survey.

**Figure 29** Strengths identified in the November 2021 culture survey





### Development of our People

Each employee at Northern Star has multiple opportunities and avenues to develop their career. Individual management and support is provided to employees by their line manager and confidential data is collected at both the individual and the Group level to fully understand how people experience our culture and their role within it.

Currently, we gather data from our employees across their employment lifecycle, in addition to key annual milestones, as shown in Figure 30. This data informs how we respond to the immediate, medium and long-term needs of individual employees and the workforce as a whole.



Cassandra Kenna, Fixed Plant Electrician (apprentice) at KCGM, Kalgoorlie Production Centre

Figure 30 Northern Star data collation points

#### Employee Experience Check-ins

We have created an employee pulse check at key milestones in their first year asking about: role satisfaction onboarding experience, support and career opportunities. Employees rated their Overall Experience at Northern Star (out of 5):

**8 weeks: 3.9**  
**6 months: 3.8**  
**12 months: 3.6**

#### Performance Evaluation Program

To evaluate and understand current performance and development needs. This data then drives our development calendar and helps us to meet emerging needs of the Company.

PEP's are used to support managers in developing their people and combined data is used to identify and develop training.

**87%**  
**of employees were involved in Performance Evaluation Programs completed in FY22**

#### Culture Survey

Measuring the lived experience of our employee in relation to the STARR Core Values.

Using the STARR Core Values as a framework, every employee feedbacks their view. This data is collated and used to design department and company interactions to enhance our culture.

### Employee Attraction, Retention & Engagement

Retaining our people is a key driver for our success. In a competitive and challenging labour market, we have expanded cultural, developmental and financial benefits to retain and attract employees through increased job satisfaction.

Actions we have taken to achieve our goal of retaining and engaging our current workforce and attracting new people include:

- Our STARR Core Values are consistent at all our sites and actively used to support decision making and set behavioural expectations.
- Maintained focus on internal and external training opportunities – 159 leaders trained were trained in FY22 in our multi-level leadership development programme. This included online and face-to-face training.
- Internally supported professional development - including internal conferences for Geology, Mining Engineering, Geotechnical and Human Resources impacting over 338 of our people across the organisation both in person and online from all of our sites.

### Highlight: Leadership Insights Program

Alexis Ramirez, Project Accountant from Pogo, shares her experience of Northern Star's Leadership Insights Program. Alexis joined Northern Star in May 2020 and moved up to Fairbanks with her husband in July 2020.

Northern Star was described to her as a fast paced, fast-growing company. She had limited mining experience, but well refined accounting experience.

“Over the first 6-8 months, it was about learning the business, and understanding how the single transactions I see, translate into a working mine. Since then, I've been growing, with the support of my mentor into being able to deliver the monthly summaries to site management to better understand how they are going.”

She reflected on her experiences of leadership since joining Northern Star:

“The challenges facing leaders are increasingly complex, between business and operational needs, changes to ways of working and expectations, and our people's increasing demand for intrinsic (and extrinsic) rewards. Leaders have to become more sophisticated in their leadership approach.”

In her role, Alexis needs to be able to support other people to remain engaged and focussed in their work, and be a coach and advocate for them to grow, without line authority. In June 2022, Alexis undertook the Leadership Insights program – Northern Star's 3 x half day online leadership program for leaders.

“I learnt at Leadership Insights how to flex my leadership style to others needs. I'm generally quite direct and outspoken, and I really valued how our trainer showed us how we could use other skills

we had to connect with people that might have different preferences for communication.” Alexis also, reflected that she got a lot out of value out of the coaching part of the program, where she now has new strategies to use that will help her to better empower and engage with others, and help them grow.





## Highlight: Developing and Supporting our Emerging Leaders



As an emerging leader, Kirstie McKay, Principal ESG, was invited to participate in Deloitte’s Pinnacle Program in late 2021. The six-month program is designed to assist supervisors identify and develop their personal leadership styles. While Kirstie is not a supervisor with direct reports, her role requires providing guidance to individuals and teams across the business in the areas of Environment, Social and Governance.

Northern Star supported Kirstie’s participation in the program during her maternity leave and parental leave following the birth of her first child, Bonnie. Kirstie was able to attend workshops virtually and then graduated.

Kirstie valued Northern Star’s support and the knowledge and practical skills gained from the program. Kirstie is excited and looks forward to returning to work to put her newfound knowledge into action, saying: “I learnt a lot about myself, my goals, and the type of leader I want to become and found that these changed throughout the program and once I became a parent. Inclusion in the program while on parental leave helped alleviate some of my fears associated with leaving the workforce for an extended period. The information and practical skills I attained will be beneficial in my transition back to work following parental leave, as I learn to navigate part-time work for the first time in my career”.

- Launching our five year strategy with our senior leadership team from all our sites in attendance at an offsite forum.
- We have also implemented:
- Paid parental leave for Australian Operations for primary and secondary carers.
  - Pay reviews against market rates, to align and adjust pay rates across the merged organisation.
  - All employees included in performance linked incentives, and an innovative salary opportunity where eligible employees receive a quarterly payment which links to the gold price.
  - Continued the \$1,000 share offers to eligible employees, inviting employees to become owners in our Company with 88% uptake by eligible employees.
  - An inaugural share match plan with 27% take up, allowing eligible employees to invest in Northern Star shares and hold them for three years, following which Northern Star will transfer the same number of shares to the employee for free.

- Providing access to a salary sacrifice scheme for all our Australian Employees.
  - Streamlining our Employee Assistance Program to make it easy for our employees and their families to getting the support they need.
- In FY23 we will complete the implementation of a modern Human Resources Information System further supporting our leaders and people.
- We are committed to filling the pipeline of mining talent via:
- Engagement with universities – through vacation and graduate programs and local involvement in university development days in Australia, including recruitment of graduates from UK and US universities.
  - In FY22, we hired 42 vacation students, 19 undergraduates and 106 graduates. This includes over 24 graduates enjoying the opportunity of being residential in Kalgoorlie. All our graduates undertake a detailed programme to ensure they have broad experience in different sites and

- leave the programme fully competent to take on their next role.
- In FY22, we had 73 apprentices and employed 159 trainees. The trainees are in a variety of front-line operational roles, providing an increased mining talent pool and an opportunity for people to build new careers in mining.
- Supporting the Gold Industry Group – Gold Facilitators program – getting our people out to schools to share their love of mining, gold and Northern Star.

- University scholarships - This includes supporting MADALAH – by funding twelve 5-year university degrees annually (including Indigenous mentoring and networks) for Aboriginal and Torres Strait Islander students in Western Australia. In FY22, we have sponsored 11 scholarship university students in a variety of disciplines, which may see these students join the mining industry in future years.

With a continued focus on culture, development and providing a working environment that lives the STARR Core Values, Northern Star continued in FY22 to build our strength as a preferred employer.

### Gender Pay Gap Review

Northern Star undertakes periodic gender pay gap reviews as part of our standard remuneration review processes.

The comparison is done on like for like roles. Like for like roles have the same scope and area of expertise, e.g. safety managers at all sites.

The review scope includes the full remuneration review process (for example at commencement, at annual salary reviews, out-of-cycle pay reviews, and performance reviews).

Timing for our Gender Pay Gap Analysis is under review.



Open pit operations at Thunderbox, Yandal Production Centre, Western Australia



## Highlight: Northern Star's commitment to supporting residential employment.

We are committed to supporting residential employment across the Kalgoorlie Production Centre region as it not only provides significant benefits to the local community and economy but contributes to increased employee productivity and wellbeing.

Almost half (46%) of Northern Star's total workforce reside in Kalgoorlie-Boulder, representing 91% of all employees across the Kalgoorlie Production Centre. Northern Star's commitment to supporting a residential workforce provides certainty to local communities and economies across the Goldfields region.

Underground Manager at Mt Charlotte, Rob Parsons, has lived and worked in Kalgoorlie-Boulder for over 16 years after graduating from the WA School of Mines as a Mining Engineer in 2007. Rob has worked for Northern Star since 2014, holding a number of roles with the Company including Underground Manager at East Kundana, Kanowna Belle and currently Underground Manager at Mt Charlotte, KCGM Operations.

Coming home to his family each night is what Rob appreciates most about Northern Star's residential roster, as well as the work-life balance and opportunities to be actively involved in the local community.

"Kalgoorlie-Boulder has a lot to offer young families and working less than 10 minutes from home definitely has its advantages," Rob said.

**"My wife also works full-time as a manager in the mining industry. Working residentially has allowed both of us to grow our careers and our family, and we enjoy sharing school pick-ups, drop-offs and after school activities."**

During his time in Kalgoorlie-Boulder, Rob has been actively involved in several local sporting clubs including rugby, triathlon, volleyball, and netball, including multiple seasons as President of the Rugby Union Association.

Through managing a team, Rob also notices the benefits of Northern Star's residential roster. "Our management team works hard to create a positive team culture, and we prioritise activities that support the wellbeing and safety of our people. Getting to go home to recharge at the end of a shift is definitely a benefit of working for Northern Star across the Kalgoorlie Production Centre."

Northern Star sites offering a residential roster include KCGM, Kanowna Belle, and mining at South Kalgoorlie Operations.



## STARR Core Values

Our Company culture is underpinned by the behaviours and decisions of our workforce, guided and supported by the Company's STARR Core Values. Our Core Values form the basis for everything we do at Northern Star.

We include reference to our STARR Core Values in all of our people processes, including our recruiting, inductions, performance development, communications, surveys and training. We encourage employees to embrace and use our STARR Core Values in every task they complete.

In FY22, we launched the STARR Actions Framework and STARR Actions Program. Built in consultation with our people who helped define how our STARR Core Values "look and sound" at work, the STARR Actions Framework provides a clear expectation and a pathway to succeed at Northern Star. The STARR Actions program is about increasing positive reinforcement from leaders and peers, through quickly and consistently giving feedback and recognition to people when they are doing the right thing. The program helps to:

- Connect with our STARR Core Values
- Create a common language.
- Increase visibility on expected standards of behaviour in a positive manner;
- Provide opportunities for fast feedback.
- Recognise our people.
- Show them how to grow their leadership skills to succeed at Northern Star.

To date 82% of our people have been engaged in developing, using or presenting the STARR Core Values with over 763 nominations registered in our internal database

We operate a zero tolerance policy on any form of harassment, bullying, discrimination or similar misconduct in the workplace. We hold our contractors and suppliers accountable to the same standard on our sites, and promptly investigate any alleged incidents in accordance with our Equal Employment Opportunity Policy and our Whistleblower Policy.

## Highlight: STARR Core Values in Action

Our people are connected to our values and use them across our business.

Some specific focusses for Values in Action in FY22 included:

Respect in Action: Across our sites, our senior leaders delivered bespoke training to our people to ensure all our employees were fully aware of the psychosocial harm cause and prevention in mining sites and camps. This training included what to look for, how to respond (whether experiencing or observing) and importantly how to report harassment that may have been experienced or observed.

This training was provided to all our workforce and contractors, both Fly-In, Fly-Out and Residential. The training was well received and resulted in better awareness and issues being identified and addressed.



**STARR Actions**  
See it | Say it | Share it

Recognising and Rewarding our STARR Core Values in Action.  
We are focusing on recognising when people see or hear our STARR Core Values in action.

---

For the next two months, the focus is on:

# RESPECT

Seek and give effective feedback.

Be inclusive. Value difference.

Respect our people, community & environment.

 **SEE IT: Have you seen or heard someone:**

Proactively and appropriately give, seek and receive feedback.

Act to support and include all. Show openness to different opinions.

Demonstrate care for others, the community and our environment.

 **SAY IT: Give them positive feedback.**

Thanks for including me in that discussion and valuing my opinion. I really appreciate it.

The respect you showed for everyone in that meeting was really well received.

It took courage to ask for feedback on your own performance. Well done - it's really going to help you.

 **SHARE IT: Let your supervisor know or call out a Job Well Done.**



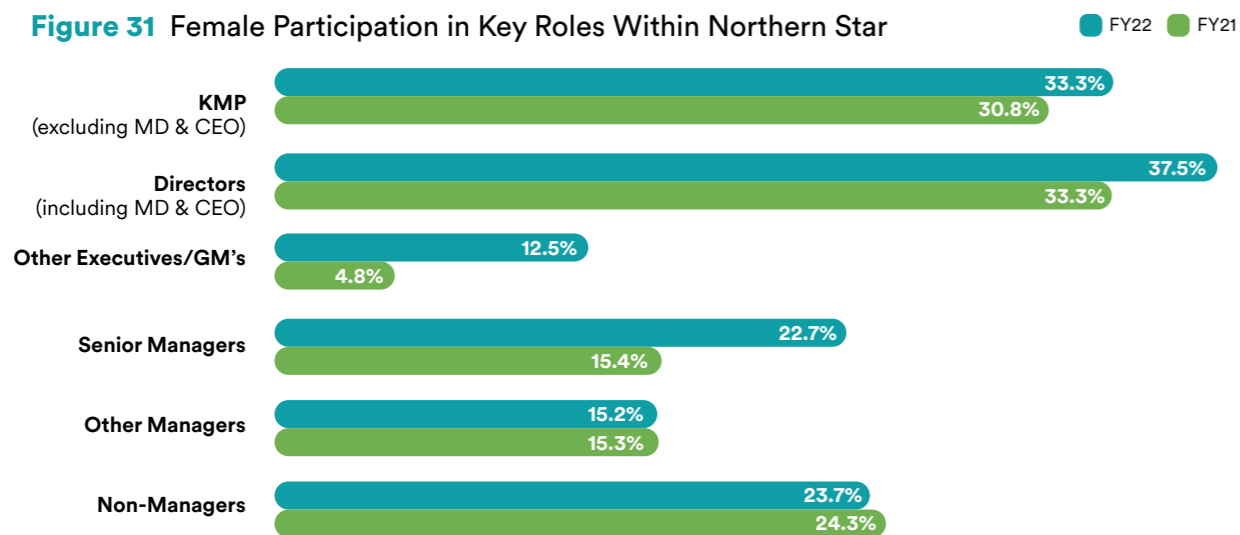


### Diversity & Inclusion

In FY22, we implemented programs to increase awareness, support minority Groups and focus on challenging the status quo. Some highlights include:

- Becoming major sponsors of AusIMM and WIMWA Women in Mining Leadership Conferences.
- Launching a customised Cultural Awareness employee training program that acknowledges the Traditional Owners of the land on which we work.
- Launching TeamINC – Our inclusive teams program with representatives from all the sites
- Sponsoring the Pride Professional Mentoring program for LGBT+ people and allies.
- Introducing paid parental leave for all Australian Sites
- Increasing female representation on the Board to 38% (as at 30 June 2022). For more information on the Northern Star Board, see our Annual Report available on our website.
- Conducted a workplace survey on gender identification, the results of which are shown in Figure 26 on page 88.

**Figure 31** Female Participation in Key Roles Within Northern Star



Employees at the Curtin University Open Day, Kalgoorlie, WA.

## Highlight: TeamINC - Ensuring workplace and employee inclusion and creating psychologically safe work environments and teams

TeamINC is one way in which we engage with our people, understand what's important to them and create solutions that will positively impact our people and our performance. With a direct line to the Managing Director, TeamINC is an employee driven program that aims to understand from an inclusion perspective: who's in our workforce (how diverse we are); what's happening currently; what's important to our people; and where we can make a difference.

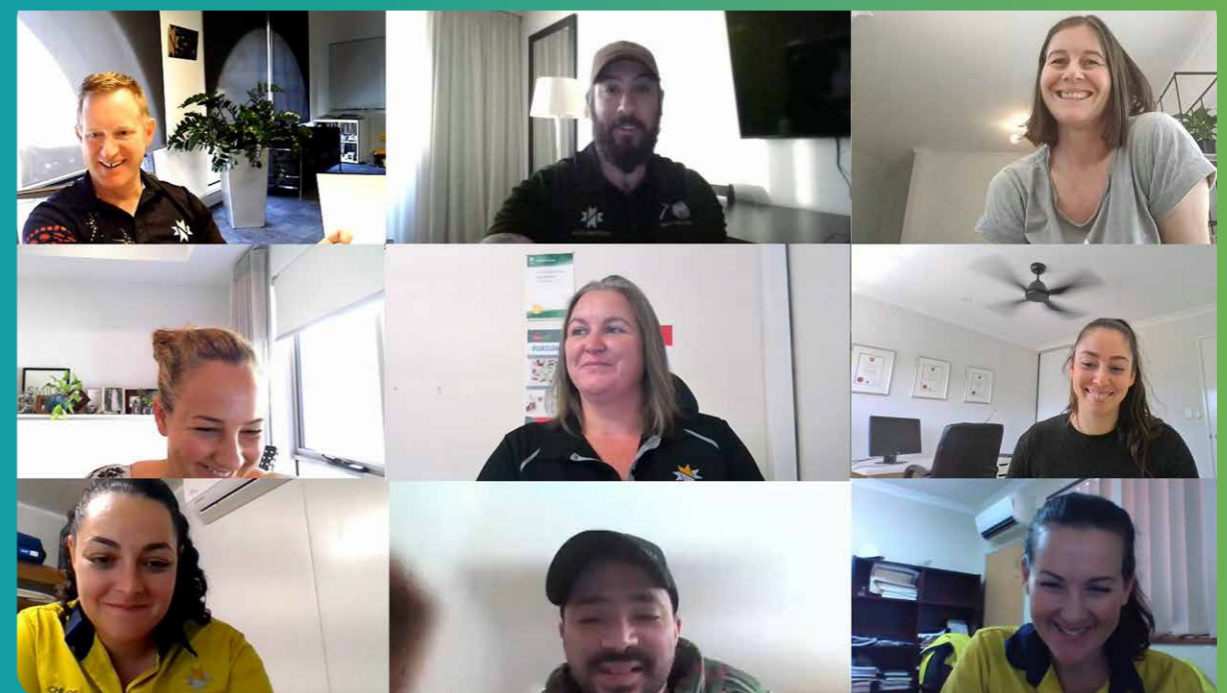
TeamINC gives our people the opportunity to respond to inclusion challenges and identify solutions and ideas that will help their site, the company, and the community we work in. Forty-eight TeamINC representatives across the business meet every three months to address new or existing inclusion challenges and discuss feasible solutions. Twelve self-nominated representatives of the larger Group then meet with the Managing Director to pass on the feedback and get input into what actions are going to have the biggest impact on the business. We use this cyclical, continuous learning approach to understand the inclusion and respect needs / opportunities of Northern Star.

Current solutions / actions that the team are focusing on include: breaking down any "us versus them" siloes by increasing inter-site and inter-

department awareness; developing an education resource for flexible working arrangements, parental leave and returning to work; and understanding the needs and requirements of an internally delivered professional mentoring program.

The program uses data to guide its approach, including an Inclusion Questionnaire to diagnose the current state of Northern Star from an inclusion and gender diversity perspective, and collected data that hasn't been gathered before (e.g., demographics around sexual orientation and identified gender, attitudes towards gender diversity and possible opportunities to create more inclusive teams).

Since its formation in September 2021, the TeamINC program has benefitted Northern Star in many ways, including: employees having a platform to share their voice and seeing the business actively support their ideas for promoting inclusion; improved outcomes in employee engagement and retention; and many of the recognised business benefits associated with diverse and inclusive teams achieving improvements in productivity, safety innovation and more agile workforces.



TeamINC representatives meeting with the MD & CEO from operations around Western Australia and Alaska.



### Supporting Our People and Their Families

Northern Star is proud to have implemented a paid parental leave policy across our Australian workforce in October 2021. The Company wants to support all of our employees in having the opportunity to take time away from work to enjoy the special time of welcoming a new child into the family. In FY22 we were very pleased that 39 women and 49 men were able to use the benefit to spend time with their families and new children, of these 99% have returned back to work.

Northern Star is currently reviewing its parental leave policy for its North American employees in FY22, in line with United States requirements and practices.

**Figure 32** Employees who took paid parental leave in FY22



**Table 23** Parental leave metrics for FY22<sup>52</sup>

	Male	Female	Total
Entitled to Paid Parental Leave in FY22	1403	450	1853
Took Paid Parental Leave in FY22	49	39	88
Returned from Paid Parental Leave in FY22	45	16	61
Still on Paid Parental Leave at 30 June 2022	3	23	26
Did not return from Paid Parental Leave	1	0	1

52. GRI 401-3

### Highlight: Northern Star's commitment to Parental Leave

Northern Star's parental leave policy provides up to 20 weeks leave for primary carers, and four weeks leave for secondary carers. This policy aims to support working parents around the time of birth or adoption of a child, and when children are young.

Andre Sullivan, Finance Superintendent at KCGM Operations, recently returned to work after taking parental leave as primary carer following the arrival of his daughter. This time away gave Andre opportunity to bond with his daughter full-time, as well as caring for his three older children aged 7, 5 and 3.

"When your children are little, they grow and develop so quickly," Andre said. "I enjoyed getting to see firsthand their many developmental milestones and spending quality time together as a family. Stepping into the primary carer role also allowed for my wife to return to work full-time as an architect, and for us to balance work and family life."

Andre would like to see more fathers take advantage of Northern Star's parental leave and appreciates the support he received from the Company, especially

his manager, which allowed him to spend quality time with his family. "There is often a hesitancy, particularly amongst men, to take extended time away from work even for major life events like the birth of a child. However, I do feel that this attitude is changing within the mining industry, particularly at Northern Star through its progressive paid parental leave policy and support from senior leaders across the Company."



### Highlight: Increasing childcare availability in the City of Kalgoorlie-Boulder

A critical shortage of childcare availability in the City of Kalgoorlie-Boulder prompted Northern Star to launch a three-year partnership with 'The Y' in late 2021, providing much needed support for families in the region. Additional benefits of this partnership to Northern Star include increased employee retention and female workforce participation.

Access to quality early childhood education and care continues to remain a challenge in regional and remote Australia. According to research conducted by the Mitchell Institute and Victoria University in 2022, about 9 million Australians, 35% of the population, live in neighbourhoods classified as childcare deserts – populated areas where there are more than three children per childcare place. In Kalgoorlie-Boulder, there is less than one childcare place for every five children.

To provide a much-needed boost to childcare places in Kalgoorlie-Boulder, in November 2021 Northern Star launched a 3-year partnership with 'The Y' WA, also known as the YMCA. The partnership provides significant investment in the early years and youth engagement, supporting a newly constructed childcare centre in the City of Kalgoorlie-Boulder. The Centre provides essential care and early childhood education for more than 100 local children, including 48 places reserved for Northern Star employees and their families.

Human Resources Superintendent Chloe Hall was able to return to work part-time in December 2021,

after her two children Macy and Abie were able to secure places at The Y. "Childcare in Kalgoorlie-Boulder can be challenging," Chloe said. "Having access to The Y allowed me to return to work, and for my husband and I to continue to grow our careers in mining knowing that our children are well cared for."

Chloe has been impressed with the Centre's facilities, caring and attentive staff, and seeing her children grow and develop through having access to education during their critical early years.

Over the next three years, all funds from the partnership will be directed back into the centre to improve service delivery and educational outcomes. In addition, Northern Star will also provide direct financial support to local youth engagement activities delivered by The Y in coming years.

Kalgoorlie Operations General Manager Corin Arcaro reflected on the importance of the partnership for the local community, as well as increasing employee retention and female workforce participation. "From our residential workforce, we know that childcare in Kalgoorlie-Boulder is often in high demand, but short supply," Mr Arcaro said. "We look forward to seeing the benefits of this partnership for all families who access YMCA services in Kalgoorlie-Boulder, including our people and the wider community."





## Growing Opportunities in Mining

Northern Star prides itself on investing in our people and the future of the mining industry. We have created a number of entry pathways into our business, on permanent contracts, which can accommodate people from a diverse range of educational and industry backgrounds.

Northern Star is committed to building and maintaining long term and mutually beneficial relationships with like-minded organisations to provide opportunities for Aboriginal people. We engage with schools, tertiary institutions and organisations that support Indigenous students, and agencies including Clontarf, MADALAH and Shooting Stars.

Our apprenticeship opportunities offer a program that is a combination of structured learning in a classroom and practical experience. Disciplines currently supported include fixed plant boilermaker, fixed plant fitter, fixed plant electrician, heavy duty fitter, light vehicle fitter, auto electrician and underground electrician. In FY22 we have 73 apprentices across all our sites.

## Reaching Potential

Northern Star recognises that each employee is driven by their own motivations, goals and aspirations and that the best outcome for them and the Company is to help develop our employees to reach their potential in a sustainable way.

There are multiple career paths inside Northern Star which employees can follow including people management roles and specialist / technical leadership roles. Our approach to people

We also provide entry-level training programs in the processing, engineering and open pit mining teams. These programs support candidates who have minimal mining experience and increases the available talent pool in these critical roles. The program provides clear pathways for a career in mining and in FY22 we welcomed 159 people to mining as trainees giving them an opportunity to have an exciting career in mining and providing Northern Star with access to a broader talent pool.

Northern Star also provides opportunities for exposure and education of high school age students of different ages and demographics by organising immersive site trips to meet our employees and experience our operations firsthand.

We will continue to explore other trainee opportunities across various disciplines to support internal and external growth of the Company and industry.

development includes: our annual performance evaluation which 100% of our employees are included in; internal and external leadership and professional development training; events and conferences; cross site and function projects; and targeted on the job experiences.

Every employee has the opportunity to develop to their best potential.



Tiffany Collins, Project Geologist at KCGM, Kalgoorlie Production Centre, Western Australia

## Highlight: Processing Trainees

At our Carosue Dam operations, we currently have four trainees successfully pursuing their Certificate III in Mineral Processing while gaining valuable on the job experience and skills. This program supports candidates with minimal experience to enter the mining industry and provides them clear pathways for an exciting future career.

Carosue Dam Processing Superintendent, Justin Beattie, said that “all of the trainees were fitting in well with their respective working groups and proving to be an asset to the processing team”.

“In my opinion the trainee program really works. Our original first two trainees have not only successfully completed their qualifications, but have moved up to 2IC roles, and one is currently seconded into a Shift Supervisor role for 6 months. This not only demonstrates the quality of the program, but the opportunities that exist in the business for a career beyond the trainee period”.

### St John Woollacott

- Started in November 2021
- Competent and has been passed out on the Crushing and CIL circuits.
- Currently on the grinding circuit learning the role of mill runner.
- Has completed all required inductions and area specific procedures and has been VOC'd on the use of Gantry Cranes, Enter & Work in Confined Spaces and Gas Test Atmospheres.

### Renee Anderson

- Started in February 2022 (Clontarf Foundation)
- Competent and has been passed out on the Crushing Circuit.
- Currently learning the role of CIL Operator and mill runner and undertaking training in skid steer loader operations.
- Has completed all required inductions, area specific procedures, and has been VOC'd on the use of Gantry Cranes, Enter & Work in Confined Spaces and Gas Test Atmospheres.

### Manuel Anderson

- Started in February 2022 (Clontarf Foundation)
- Competent and has been passed out on the Crushing Circuit.
- Currently learning the role of CIL Operator and mill runner and undertaking training in skid steer and IT loader operations.
- Has completed all required inductions, area specific procedures, and has been VOC'd on the use of Gantry Cranes, Enter & Work in Confined Spaces and Gas Test Atmospheres.

### Michael Radici

- Started in May 2022
- Currently learning the role of CIL Circuit Operator.
- Has completed all required inductions, area specific procedures, and has been VOC'd on the use of Gantry Cranes, Enter & Work in Confined Spaces and Gas Test Atmospheres.





### Employee Wellbeing

Northern Star is committed to supporting our people’s safety and wellbeing at all times.

Utilisation of an Employee Assistance Program is actively encouraged, with briefings completed at all new sites. In addition to standard counselling sessions, employees can access coaching, face to face and online psychoeducation programs and dietetics. We have also continued to grow the utilisation of GoldSTARR, our employee reward and recognition, health and wellbeing hub.

Northern Star is recognised as a Skilled Workplace in the Mental Health First Aid Workplace Recognition Program. In the last 3 years we have trained 463 people as Mental Health First Aiders, increasing our awareness and skills in supporting good mental health through Mental Health First Aid accredited training. By supporting our people to undertake this training we help them to provide timely interventions at home and at work to support good mental health with everyone they connect with. The training equips them to provide immediate assistance and

encourage their colleagues, family and friends to seek professional mental health assistance as needed.

In support of our people’s mental health and wellness, we also supported the Push Up Challenge, R u Ok Day and World Mental Health Day through challenges and communications across the business. These events are fun but with a serious message around supporting our people and reminding them of our support for their good mental and physical wellness.



Camp facilities at Jundee, Yandal Production Centre, Western Australia

### Highlight: Turning \$100K into \$1M - Push Up Challenge “Dollar Match Day”

The Push-Up Challenge is Australia’s largest mental health and fitness initiative, with over 153,000 Australians from all walks of life joining the push for better. The challenge provides the opportunity for participants to fundraise for Lifeline, Movember or the The Push For Better Foundation.

In 2022, Northern Star, took our commitment to the Push Up Challenge to the next level, and became the inaugural “Dollar Match Day” partner. The purpose of a “Dollar Match Day” is to create a momentum for donations and create greater visibility for The Push Up Challenge and the services it’s supports

The Northern Star Dollar Match Day started at 8am AWST on May 15th and by midnight, had successfully raised over \$1M. It demonstrated our people’s and the community’s passion for this program.



Employees at KCGM participating in the Push Up Challenge on top of the Mt Charlotte headframe, Kalgoorlie Production Centre



A photograph of three people walking along a dirt path in a forest. The trees have distinctive reddish-brown bark and sparse green foliage. The ground is covered with fallen leaves and twigs. The scene is brightly lit, suggesting a sunny day.

# **Social Performance & Economic Contribution**



# Social Performance & Economic Contribution



## FY22 Achievements

**\$227M**

total dividend paid in FY22

**777**

Workforce completed new cultural awareness training

**55%**

Williamstown residents accepted voluntary relocation

## Social Snapshot

**\$624.5M**

Spent on procurement within our local communities

**74.6%**

of total Group procurement spend within WA.

**\$5.5M**

Community Investment, and Sponsorships in FY22

**0**

heritage related incidents

## Our Social Performance

Northern Star's Purpose is to generate superior returns for our shareholders, while providing positive benefits for our stakeholders through operational effectiveness, exploration and active portfolio management.

This is achieved by understanding existing and emerging community and stakeholder expectations, the needs of the communities around our operations, and the impacts of our operations. This allows Northern Star to make informed decisions on the opportunities to minimise potentially adverse negative impacts and maximise positive social and economic benefits.

We value and seek long-term and trust-based relationships with all our local and broader stakeholder communities; relationships where stakeholders are respected, understood, and better off for having Northern Star operate nearby.

Development and delivery of Northern Star's social performance function is overseen by the ESS Committee and the Chief Legal Officer & Company Secretary (reporting to the Managing Director and to the Board), supported by the ESG engagement, legal, business development and social performance teams in the corporate office and on our sites.

## Social Impact Assessment

Northern Star acknowledges the recommendations of the International Council on Mining and Metals (ICMM) that requires companies to engage with stakeholders based on an analysis of the local context. We recognise that the data generated by independent, objective social impact assessments (SIAs) can be a valuable source of information on how we are achieving in social performance, and how we can improve.

The findings of these SIA reports are used to prioritise the social performance team's work, targeted to key stakeholder areas of interest and needs, and maximise the impact of our social performance.

Findings from the SIAs undertaken on our sites are used to direct social performance and stakeholder engagement efforts at our other operations.

### SIA Implementation – Pogo Operations

Pogo operations undertook an initial social impact assessment (SIA) in 2021. The assessment provided the opportunity to better understand the local and regional settings and establish mechanisms for evaluation and monitoring, enhancements, and mitigation.

Interior Alaska including the nearby communities of Delta Junction and Fairbanks. Areas for priority consideration included local employment, local procurement, environmental stewardship, legacy expectations, Alaska Native employment and procurement, and community support.

The independent assessment focused on economic and social impacts, both positive and negative, on

### SIA Implementation – KCGM Operations

KCGM Operations' proximity to the City of Kalgoorlie-Boulder has necessitated a sustained effort in stakeholder engagement. Northern Star has an established stakeholder engagement network and utilises a range of mechanisms to facilitate consultation and capture input from the Kalgoorlie-Boulder community on an ongoing basis.

August 2021. Fimiston South is a significant growth project which will extend KCGM Operations' life of mine to 2034. Both independent assessments were conducted by a specialist external human rights and social impact advisory team.

Independent SIAs are an important tool to understand priority impacts on the community of Kalgoorlie-Boulder, both positive and negative, resulting from our KCGM Operations, including the Fimiston Open Pit and Mt Charlotte Underground Mine. In 2020, KCGM Operations completed a comprehensive site-wide SIA, which was later updated for the Fimiston South mining proposal in

The SIA process resulted in the development of a broad Social Impact Management Plan to enhance positive impacts and mitigate potential negative impacts resulting from Northern Star's activities at KCGM Operations, as well as broader presence across the Kalgoorlie Production Centre region. This includes strategies to support local employment, industry, and tourism infrastructure, provision of community grants and funding, as well as Aboriginal employment and procurement.



## Highlight: Northern Star's Williamstown Voluntary Relocation Program

In 2021, Northern Star launched a voluntary relocation assistance program to financially assist residents and landowners to relocate from Williamstown. The relocation program was initiated in response to a petition and community concern about the impact of nearby mining activity, with Northern Star undertaking extensive consultation involving over 60 households from April to October 2021 to understand community sentiment and explore potential solutions.

Northern Star is exceptionally pleased with the success of the program which has seen many lives of former residents of Williamstown improve for the better. The program provides a long term resolution for Williamstown residents and addresses community concerns in a proactive way.

When the program was launched in November 2021, Williamstown comprised approximately 80 properties, located close to the Mt Charlotte underground mine that forms part of the KCGM Operations. There has been a long history of interaction between Williamstown residents and previous owners of KCGM over the impacts of mining activity on Williamstown over several decades.

Community response to the relocation program to-date has been overwhelmingly positive, and since November 2021 Northern Star has purchased approximately 55% of the houses in Williamstown from residents and landowners with many more the subject of ongoing contractual negotiations.

The program has provided residents wanting to relocate from Williamstown with the opportunity, financial capacity and non-financial support to do so, significantly improving quality of life outcomes. Northern Star has changed lives for the better at Williamstown.

Northern Star's financial assistance package includes the purchase of properties at appropriate

prices, removalist and conveyancing fees, and a contribution towards duty payable on new homes elsewhere. Other support offered by Northern Star includes long settlement dates, additional time to remove chattels (e.g. Solar panels, hot water systems, entire kitchens) after settlement, and change-in-circumstances assistance for residents and their families requiring broader assistance relocating from Williamstown.

Since January 2022, Northern Star has also implemented a management and monitoring program to oversee the respectful demolition of properties and commitment to revegetate vacant blocks in the Williamstown area. The Company has also progressed plans for a collaborative community heritage project, celebrating the rich history of Williamstown and its residents.

In line with the recommendations of an independent social impact assessment on the program as it has been conducted so far, Northern Star is pleased to continue with the program.

Northern Star is confident that many more relocations will occur throughout 2022 and 2023, based on the number of current contract negotiations. The Company has emphasised to residents that the program is entirely voluntary and will remain available for many years, should more residents decide they wish to relocate from Williamstown.

We intend to continue providing additional support to the most vulnerable members of the Williamstown community, and to regularly monitor the impact on those who have relocated, and those who have chosen to remain residents of Williamstown. Procedural fairness and respectful engagement remain important to the Company in assisting those who wish to relocate.



## Issues & Expectations Monitoring

In order to maintain a broad understanding of emerging external social expectations and issues that relate to our business, we regularly engage with our host communities, investors, Indigenous stakeholders, governments and other relevant third parties.

We are active leaders and members in industry representative bodies, including:

- The Chamber of Minerals and Energy of Western Australia (Western Australia).
- The Association of Mining and Exploration Companies (Australia).
- The Chamber of Commerce and Industry WA (Western Australia).
- The Gold Industry Group (Australia).

- The Alaska Miners Association (Alaska, United States).
- The Council of Alaska Producers (Alaska, United States).
- The National Mining Association (United States).

Within the business we also engage with our workforce on matters of importance to them and their families through:

- Employee representation at the ESS Committee Meetings.
- Employee culture surveys.
- ESG Focus Groups held annually with diverse participation from all sites, ensuring we have a cross section of skills, roles, and tenure.
- TeamINC (see page 99).

## Complaints & Grievances

Northern Star received a complaint from Williamstown residents, in the form of a petition, in relation to social performance in March 2021. The responses and solutions being implemented are in the highlight on the previous page.

Northern Star's Code of Conduct, Stakeholder Policy, Whistleblower Policy, Human Rights Policy and Equal Employment Opportunity Policy collectively describe the mechanisms for internal and external stakeholders to seek advice and raise concerns. Our Stakeholder Policy sets out our

commitments to local communities and other key stakeholders, including our commitment to providing for or cooperating in the remediation of negative impacts that the Company identifies it has caused or contributed to. External complaints, grievances and concerns are managed in accordance with our External Complaints Grievances and Concerns Procedure. Our core corporate governance policies are available on our website at [www.nsrld.com/about/corporate-governance](http://www.nsrld.com/about/corporate-governance).



Lucy Dorotich, Kalgoorlie-Boulder NAIDOC Week Parade 2021



## Highlight: Local Voices drives our social performance in Kalgoorlie

Local Voices provides Kalgoorlie-Boulder residents and stakeholders the opportunity to provide anonymous feedback about Northern Star's activities across the Kalgoorlie Production Centre, particularly KCGM Operations. This enables Northern Star to proactively respond to community concerns and sentiment.

Since 2019 KCGM Operations has engaged an external consultant to deploy the 'Local Voices' service in Kalgoorlie-Boulder. Fundamental to the effectiveness of Local Voices is the independence the consultant has in collecting social performance data and in engagement directly with the community.

Since 2019, 2165 community surveys have been collected and included in analysis of the relationship between KCGM Operations and Kalgoorlie-Boulder. A comprehensive baseline survey was conducted in September 2019, followed by seven brief quarterly Pulse surveys to track changes over time and allow Northern Star to focus on specific issues of interest as they emerge.

Northern Star has utilised Local Voices to understand community sentiment towards Fimiston South, a growth project at KCGM Operations which will extend the life of the Fimiston Open Pit (Super Pit) to 2034. Specific questions related to the Fimiston South project have been included in quarterly Pulse surveys since December 2019, providing multiple time points of data on this topic. The included questions related to awareness and acceptance of the project, perceived benefits and impacts related to the project, and responsiveness of Northern Star to community concerns.

Community sentiment data collected through Local Voices during this time indicates that:

- awareness of the project has increased, in particular from mid-2021, coinciding with Northern Star's sole ownership and ASX disclosures about KCGM generally;
- acceptance of the project has remained strong and stable over time in the community overall, but has increased sharply among near neighbours to the mine since mid-2021;

- perceived future benefits as a result of the Project (increased community investment by Northern Star, local jobs, and opportunities for local businesses) have increased over time among most community members surveyed. In the latest Pulse survey results from March 2022, participants agreed that the Fimiston South growth project will lead to:

- more community investment (60% of participants agreed);
- local employment (67% of participants agreed), and
- opportunities for local business (66% of participants agreed).;

- ratings of acceptability of dust, noise and vibration impacts from the mine have either remained stable or declined slightly among community members since April 2020 in the context of increased greater site activity.

The results of each Pulse survey are shared with senior leaders at KCGM Operations, exploring opportunities to improve operational practices and community engagement, particularly in relation to environmental impact management. Given KCGM Operations' close proximity to the Kalgoorlie-Boulder community, Northern Star employs a range of management and monitoring strategies to mitigate environmental impacts. This includes continual monitoring of dust, noise and vibration from KCGM Operations, suspending or delaying blast activities dependent on wind conditions, continual rehabilitation, and the application of hypersaline groundwater to active haul roads to mitigate dust impacts.

Northern Star will continue to use Local Voices to engage with community on growth activities and focus topics of interest, utilising program data to be responsive to Kalgoorlie-Boulder community concerns and feedback, particularly regarding KCGM Operations.

The Williamstown voluntary relocation program demonstrates effective actions we have taken in response to community feedback.



## Indigenous Peoples Statement

Northern Star recognises the traditional rights of Indigenous peoples, and their enduring right to maintain their cultures and customs, and meaningful access to their traditional lands. We acknowledge that Indigenous peoples are some of the most marginalised peoples around the world, enduring forms of social exclusion and are often under-represented in political decision-making processes. We consider Indigenous peoples to be key stakeholders and that to thrive as a business, we need to gain and maintain these enduring trust-based relationships.

This makes the engagement of Indigenous peoples critically important for Northern Star, to better understand Indigenous peoples' enduring and unique connections to their traditional lands and

waters, and how we as a business impact that connection.

Northern Star commits to the 2013 ICMM Position Statement on Indigenous Peoples and Mining.

During FY22, Northern Star invested in new overarching Cultural Awareness Training for all Manager level employees and above, as well as a making a Cultural Awareness E-Learning module available for all employees and contractors. During FY22, 777 employees and contractors completed the new modules. This training is designed to complement site-specific Cultural Awareness Training facilitated by Traditional Owners across our Australian Operations, which is a site training requirement for our employees and contractors.

## Engagement Approach

We commit to complying with all domestic, national, and international laws applicable to our relationships with Indigenous peoples. Our engagement with Indigenous peoples is aligned with the ICMM Position Statement on Indigenous Peoples and Mining, and our further commitment to uphold the principles of Free, Prior and Informed Consent (FPIC).

This commitment includes the engagement of Indigenous peoples in relation to projects situated on their traditional lands. This allows us to understand any areas of concern, and factor that into our operational planning and priorities.

Northern Star does not intend to draw on legacy approvals granted under Section 18 of the now superseded Western Australian *Heritage Act (2018)* and we are confident that strong protection for Aboriginal heritage is being provided in a clear process for project approvals and other activities.

Over the last 12 months, Northern Star has also supported reconciliation through adoption of our Human Rights Policy, making Cultural Awareness training accessible to all employees and contractors, and through social partnerships with not-for-profit Indigenous organisations including Clontarf, MADALAH and Shooting Stars.

## Indigenous Lands

In Western Australia, our operations are either subject to a Native Title determination or are subject to a Native Title claim, under the *Native Title Act 1993 (Commonwealth)*. In the Northern Territory of Australia, the Central Tanami Project, in which

we own a 50% joint venture interest, is located on freehold Indigenous land, under the *Aboriginal Land Rights Act 1976 (Northern Territory)*. The Pogo mine in Alaska US is located wholly on State land.

## Agreement Making

Northern Star commits to agreement making processes with all Indigenous peoples whose land we operate on, and who hold relevant legal Indigenous land tenure as awarded by the relevant State, Territory or federal government.

In Australia, this commitment extends to all Aboriginal first peoples who have either a determined or registered Native Title Claim under the *Native Title Act 1993 (Commonwealth)* or recognised freehold tenure under the *Aboriginal Land Rights Act 1976 (Northern Territory)*.

As part of our agreement making process, Northern Star aims to enter into land access and heritage protection agreements with Indigenous peoples on whose land we operate, to:

- Identify the process for engaging Indigenous Peoples on proposed activities.
- Seek their feedback on proposed activities.
- Reach agreement on what mining or exploration activities can occur on the land.



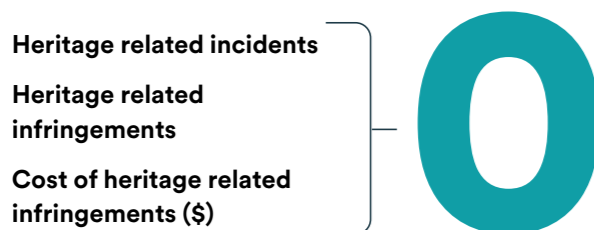
- Agree on how Northern Star will undertake those activities.
- Set parameters for benefits that will be delivered to the Indigenous peoples in return for the mining or exploration activities proceeding.

Northern Star upholds the FPIC principles within all negotiations, which are always conducted in good faith.

### Heritage Management

Northern Star understands that physical and spiritual cultural heritage is critically important to Indigenous peoples and provides a connection between their past and contemporary existence.

Figure 33 Heritage Incidents



Where parties consider existing or inherited agreements to be outdated and not in line with contemporary agreement conditions, Northern Star will consider entering into agreement modernisation discussions, and will align with the new heritage protection legislation in Western Australia.

Our overarching process for managing heritage risks:

- Northern Star’s cross-functional team consists of Legal, Social Performance, Environment, Geology and Mining who are responsible for working between project and production teams and Traditional Owners to understand where a planned activity may adversely impact a heritage site, in advance of the ground disturbance occurring.
- If this engagement process indicates that an area of heritage value may be adversely impacted, representatives of the team will further engage with the relevant Traditional Owners and the broader project team to evaluate means of avoiding the impact, acknowledging and incorporating the views of Traditional Owners.
- If the adverse impacts to the heritage site or area cannot be avoided, and the Traditional Owners do not consent to the activity proceeding, then Northern Star will not proceed with the activity in the manner proposed.

## Highlight: Partnering to Improve COVID-19 Vaccination Rates Amongst Indigenous Australians in the Goldfields-Esperance region

In 2021 the National Indigenous Australians Agency (NIAA) partnered with Northern Star in boosting COVID-19 vaccination rates amongst Indigenous Australians in the Goldfields-Esperance region through outreach and health promotion activities.

NIAA works across governments to reduce the health gap between Indigenous Australians and other Australians. From December 2021 to May 2022, NIAA played an integral role supporting the delivery of the WA Country Health Services’ (WACHS) vaccination clinics in remote communities across the Goldfields region, including Laverton, Leonora, Wiluna, Menzies, Coolgardie, Kambalda and the Ngaanyatjarra Lands.

The vaccination clinics were highly successful in contributing to first dose COVID-19 vaccination rates amongst Indigenous Australians in the Goldfields-Esperance region increasing from 68%<sup>53</sup> to 83.3%<sup>54</sup> between January and May 2022.

Critical to the success of the vaccination clinics was the multi-agency approach, involving the NIAA, WACHS, local Aboriginal Medical Services,

WA Police, Royal Flying Doctor Service and multiple Commonwealth and State Government Departments.

The partnership supported accommodation and travel expenses for critical health and ancillary workers, as well as the purchase of personal protective equipment (PPE). Funding for vouchers with local businesses and community engagement activities during delivery of the clinics also helped to boost vaccination rates.

Northern Star’s flexible approach and commitment to working in partnership with the NIAA enabled the COVID-19 community funding to be distributed quickly and effectively in response to community needs.

53. Department of Health, Indigenous Individuals in LGAs of Interest, 12 January 2022, <https://www.health.gov.au/sites/default/files/documents/2022/01/covid-19-vaccination-indigenous-vaccination-acceleration-lgas-of-interest-12-january-2022.pdf>

54. Department of Health, Indigenous Individuals in LGAs of Interest, 18 May 2022, <https://www.health.gov.au/sites/default/files/documents/2022/05/covid-19-vaccination-indigenous-vaccination-acceleration-lgas-of-interest-18-may-2022.pdf>



Kellie Carter undertaking surveys at Thunderbox, Yandal Production Centre



Sunset over the Mt Charlotte Underground Operation, Cassidy Shaft Headframe at KCGM, Kalgoorlie Production Centre, Western Australia

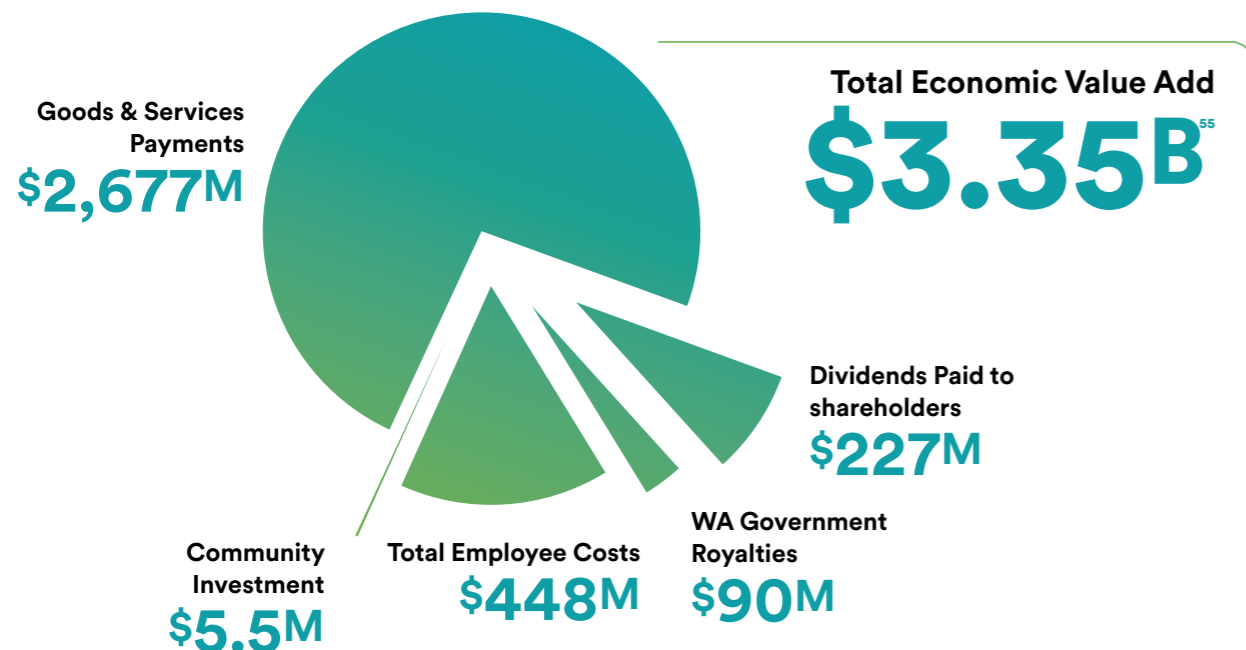


## Community Investment

Northern Star strategically invests in our communities through financial and in-kind means. Our ties to our communities are strengthened by our employees, contractors and their families who live and work in our operating areas, and through our relationships with local governments, education

bodies, NGOs and charities within these areas. Northern Star has committed to several long-term community partnerships across Australia and Alaska, which will provide the regions and communities far reaching and long-term benefits for current and future generations.

Figure 34 Economic Value Add



### Closing Report on \$10 million Community COVID-19 Fund

In April 2020, Northern Star established the \$10 million Community COVID-19 Fund to assist local health services, communities and businesses as part of Northern Star's COVID-19 Response Plan, responding to the projected health and economic impacts of the pandemic on our regional communities. The initiatives we funded included:

- the sourcing, transportation and delivery of medical personal protective equipment for frontline health workers in Alaska, at a time when supplies could not be sourced by the Alaskan health department;
- development of a world-first mobile COVID-19 laboratory capable of rapid deployment to remote and regional areas of Western Australia, at a point in time where rapid antigen testing was not yet available and delays in PCR testing results were significant outside metropolitan areas;
- Aboriginal Health Council and American Heart Association vaccination rollout campaigns to increase Indigenous and seniors vaccination protection;

- support for Foodbank WA, Lifeline WA, and the Salvation Army;
- medical research in relation to the development of other COVID-19 countermeasures; and
- grants to financially assist local businesses within the Goldfields region of Western Australia, in partnership with the Kalgoorlie-Boulder Chamber of Commerce and Industry.

These all satisfied the gateway criteria of alignment with the United Nations Sustainable Development Goals (UN SDGs).

The demand for specific COVID-19 based community financial assistance under the Community COVID-19 Fund has subsided within the communities in which we operate. Going forward, the Donations and Sponsorship Committee will consider COVID-19 related donations and sponsorship requests alongside non-COVID-19 related requests for strategic social investments aligned to the UN SDGs.

55. This value includes a corporate tax payment of \$80M offset by a corporate tax refund of \$166M resulting in a net tax refund of \$87M. NST received the \$166M refund during FY22 due to an increase in depreciation resulting from the uplift of tax bases across the acquired assets from the merger date and temporary full expensing during the period.

## Donations & Sponsorships

In FY22 Northern Star's Environmental, Social and Safety Committee reviewed and updated Northern Star's donations and sponsorship applications regime, with updated guidelines and application form to assist applicants in understanding our criteria for donations and sponsorships which is applied consistently across all operations.

Alignment with the UN SDGs is the primary gateway criteria for all donations and sponsorship applications at all operations, and where possible we seek to achieve a balance on an annual basis, taking

into account the local and regional improvements proposed by applications in the following focus areas:

- Community & Inclusion
- Health & Wellness
- Environment
- Indigenous Advancement
- Education & Development

Figure 35 Donations and Sponsorships Committed Funds



Gold nugget at Kanowna Belle, Kalgoorlie Production Centre, Western Australia



### Supporting Our Employee's Charity Fundraising

Supporting our employee's charitable fundraising initiatives is also a central part of our donations and sponsorship policy. Northern Star supports employee nominated causes or fundraising activities that are directly connected to a registered charity or approved community-based initiative through a donation matching program in line with Policy requirements. We are also proud to support our employee's charity efforts with the offering of paid Volunteering Leave under the companies leave policy.

Mark Benson, Projects Manager at our KCGM Operations was supported in FY22 for his Red Sky Ride (RSR), which is a fundraising event for Solaris Cancer Care. "This was my second year of involvement in the ride, assisting with training coordination leading up to, and as a ride leader in, the RSR. I became involved in the cause through my wife, who has co-coordinated the ride for the last two years and has participated in the last eight rides. The donation by Northern Star Resources was greatly appreciated and contributed to the \$220,000 raised this year. NSR also donated to last year's RSR, which raised around \$270,000. These funds are critical for the ongoing sustainability and growth of Solaris and is used to provide evidence-based support services (therapies, education, wellness activities, support groups and counselling) to patients, and their families, through all stages of their cancer journey – diagnosis, treatment, recovery, survivorship, and palliative care. Thank you NSR."

During March one of our Purchasing Officers, Hope Moulds, took part in the 55 Squat Challenge. This which requires participants to complete a minimum of 55 squats a day for the whole month of March, to raise money for the National Breast Cancer Foundation. Hope said that "55 Australians are diagnosed every day with Breast Cancer, and I am very proud to say my mother is a breast cancer survivor. I managed to raise \$500 and placed an application into NSR to match my donations. This was approved and Northern Star also donated \$500 towards my charity. I am very proud to work for a company that supports initiatives such as this and will continue to try to help not for profit groups where I can in the future."



Hilary Macdonald, Chief Legal Officer and Company Secretary, once again participated in Foodbank WA's Meal Makers where WA business leaders donate a day of their time cooking in the Foodbank WA kitchen and fundraise to provide meals for Western Australians experiencing food insecurity. "I want to make a difference for people who are doing it tough and need support with providing healthy food for themselves and their families" said Hilary, who raised \$53,860 with Northern Star contributing \$25,000, funding over 107,000 meals in the process.



Mark Benson cycled as part of the Red Sky Ride to raise funds for Solaris Cancer Care in FY22.



Underground operator, Yandal Production Centre, Western Australia



**Figure 36** Examples of our FY22 Corporate Donations and Sponsorship (multi-year or >\$100k)





## Highlight: WA All Abilities Football Association - Founding Partner

During FY22 Northern Star became a founding partner with the WA All Abilities Football Association (WAAFA). WAAFA exists to provide the opportunity for people with a disability to be involved and participate in Australian football like every other Australian. By being involved, people with an intellectual or physical disability can improve their independence, well-being, self-esteem and life skills by being a valued member of a local community footy club. WAAFA retains its participation and development origins but has also branched out to include wheelchair, blind, walking, schools, and regional programs as we try to make the game of football available for all Western Australians with disabilities.

WAAFA's Executive Officer, Hayden Marchetto said "Financial sustainability would not be possible without Northern Star's support. Structured programs are now being delivered, with employment and members of the community without disability now building their capacity to assist people with disabilities. The sport is secondary, that is the vehicle to bring groups of people together and centralise engagement in a friendly and safe environment. In turn the programs that WAAFA provide give many members of the disability community an opportunity to participate in team sports and become members of community clubs. NST's support is key to this".



## Highlight: Royal Flying Doctor Service (WA) Major Partner

Northern Star Resources Limited is now a Major Partner with the Royal Flying Doctor Service (WA). Our partnership will provide \$800,000 in funding to establish a new GP and allied health services facility at the Royal Flying Doctor Services base in Kalgoorlie.

The facility will deliver much-needed additional GP, Nurse and allied health clinics for people in the Goldfields; regional healthcare training for university students (medical, nursing and allied health) and strengthen healthcare capability in the Goldfields. It will be achieved through collaboration with Curtin University, the WA Country Health Service and the Australian Government.

The Royal Flying Doctor Service is an important part of and service for the communities we live and work



in and we are proud to be supporting them. More information on the RFDS (WA) and the work they do is available on their website: [www.flyingdoctor.org.au/wa](http://www.flyingdoctor.org.au/wa)

## Highlight: Indigenous Tertiary Scholarships with MADALAH

During FY22 Northern Star was pleased to establish a partnership with MADALAH to provide scholarships to Indigenous tertiary students to study at Australia's leading universities. Under this new partnership, Northern Star is providing \$250,000 per annum to directly support 11 tertiary students from all regions of WA to undertake their university degrees in various fields of study.

Chief Legal Officer and Company Secretary, Hilary Macdonald shared at the partnership launch how important it is to provide scholarships to tertiary students to help with alleviating stress and providing them with the opportunity to focus on their studies.

Tertiary scholar Brianna Ozies thanked Northern Star for the support and shared how the scholarship is helping her with studies as a Doctor of Medicine. She stated, "this scholarship has not only alleviated financial stress during my university studies but has also made me become a better student and I can feel this difference."



"Together We Grow" - This work was completed collectively by MADALAH students each incorporating individual artwork to represent themselves and their homes. The centre being them coming together from different places and walks of life to learn, grow and move through the next part of their journey together.

## Highlight: Alaskans for Litter Prevention and Recycling Partnership

NSR has committed to a three-year partnership with Alaskans for Litter Prevention and Recycling (ALPAR) bag program. Hundreds of rural communities across Alaska rely on ALPAR bags to collect and move plastic beverage bottles and aluminium cans on to recycling, as well as remove litter from roadways and beaches state-wide.

"Litter collection and recycling programs are not only essential to protect our environment but it's also an important part of creating sustainable communities;" said Wendie MacNaughton, External Affairs Manager for Northern Star Resources. "It supports tourism, local economies, and helps protect wildlife. With our direct alignment to the UN Sustainable Development Goals, that's something Northern Star is proud to be part of."

ALPAR bags are used in rural areas to collect and move empty plastic beverage bottles and aluminium cans on to recycling. Aluminium is an infinitely recyclable material. As many as 80 communities participate, keeping up to 12 tons of aluminium beverage cans out of rural landfills each year. The bags are also used across Alaska to remove litter from roadways, villages and beaches.

Environmental stewardship is a critical component to our sustainability goals, and not just at our operations. Every choice we make to live more sustainably and every piece of trash we remove contributes to healthier, more beautiful communities across Alaska.





### Supply Chain

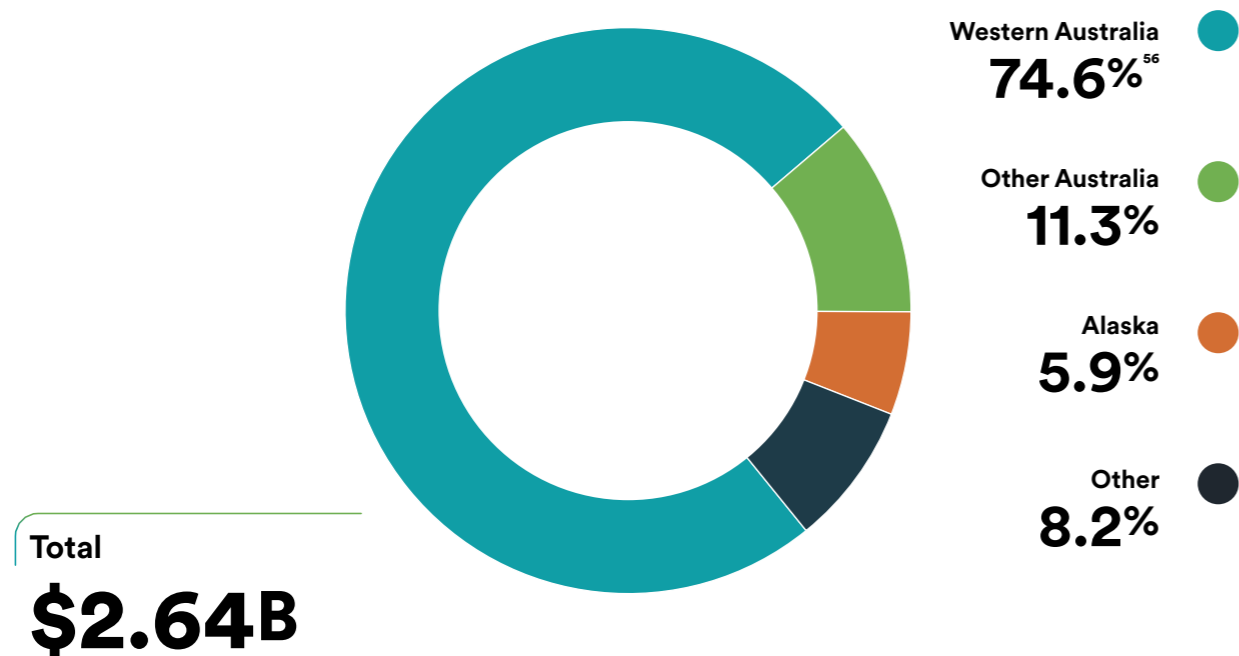
Northern Star's operations are supported by a centralised procurement function coordinating a global supply chain of over 4,000 suppliers to ensure business continuity in both Australia and North America.

We believe our supply chain is fundamental to our goal of sustainably sourcing goods and services in line with the UNSDG's and we prioritise the use of local suppliers where possible, while ensuring our supply chain risks are mitigated through strong regional relationships and ongoing analysis of our own procurement and sustainability goals.

Northern Star aims to partner with suppliers who contribute to our goals of sustainable development and the protection of human rights.

We are implementing systems to further assist in assessing the appropriateness of suppliers during prequalification and tender phases. We are also probing supplier cyber security maturity to help assess our cyber security risks via our supply chain.

Figure 37 Procurement Spend by Location of Supplier

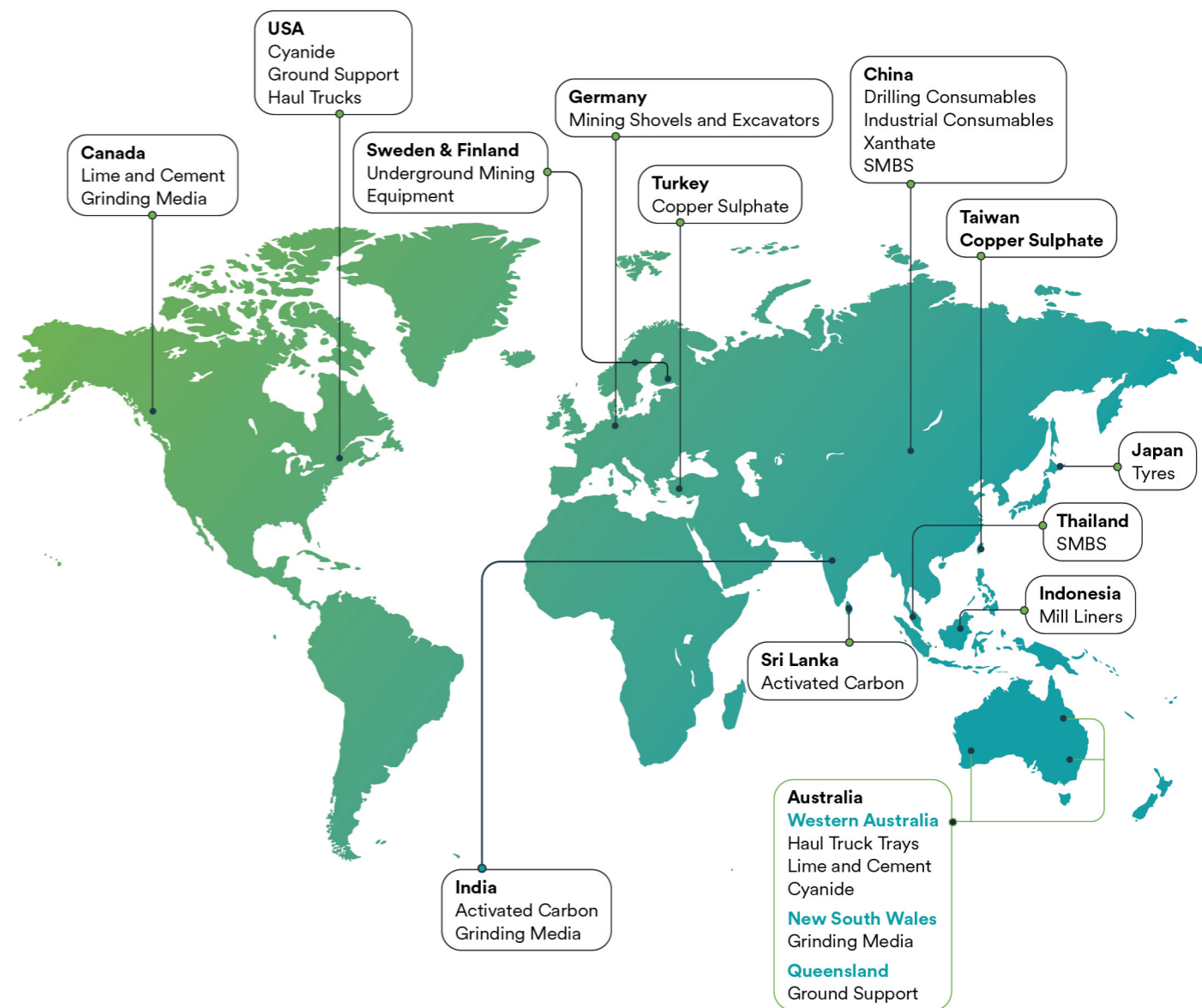


56. A reduction in spend within the Kalgoorlie region is attributed primarily to a change in supplier location data as a result of purchasing database reconciliation during FY22 (spend is allocated now to another region), and due to the divestment of Kundana assets.



Mill grinding media at Pogo, Alaska

Figure 38 Selected upstream suppliers in Northern Star's global value chain



### Indigenous Procurement

Northern Star strives to develop and maintain respectful, long-term and mutually beneficial relationships with all Indigenous Peoples who are our stakeholders, and recognises the importance of engaging Indigenous Businesses in the procurement process to promote sustained benefits for the Indigenous Peoples and their communities.

Key performance indicators (KPIs), set by the Board in the remuneration framework for the Group senior leadership team on all sites, include the development of sustainable Indigenous Business supply contracts of at least \$20M/pa spend, by the end of FY24. This KPI is intended to signal the importance the Board gives to Indigenous procurement, and assist in influencing behaviours in relation to procurement decisions.

Northern Star has developed a strategy and an Indigenous Business Engagement Plan to engage Indigenous Businesses and communities on whose land Northern Star operates with the aim of providing them with growth opportunities that:

- Support the economic participation of Indigenous Businesses, and other Indigenous commercial ventures which aspire to become Indigenous Businesses within Northern Star's supply chain.
- Encourage Indigenous entrepreneurship
- Support regional economic development.

Promoting and encouraging Indigenous business through capacity building and direct procurement is a significant means of supporting the Traditional Owners on whose land we operate.



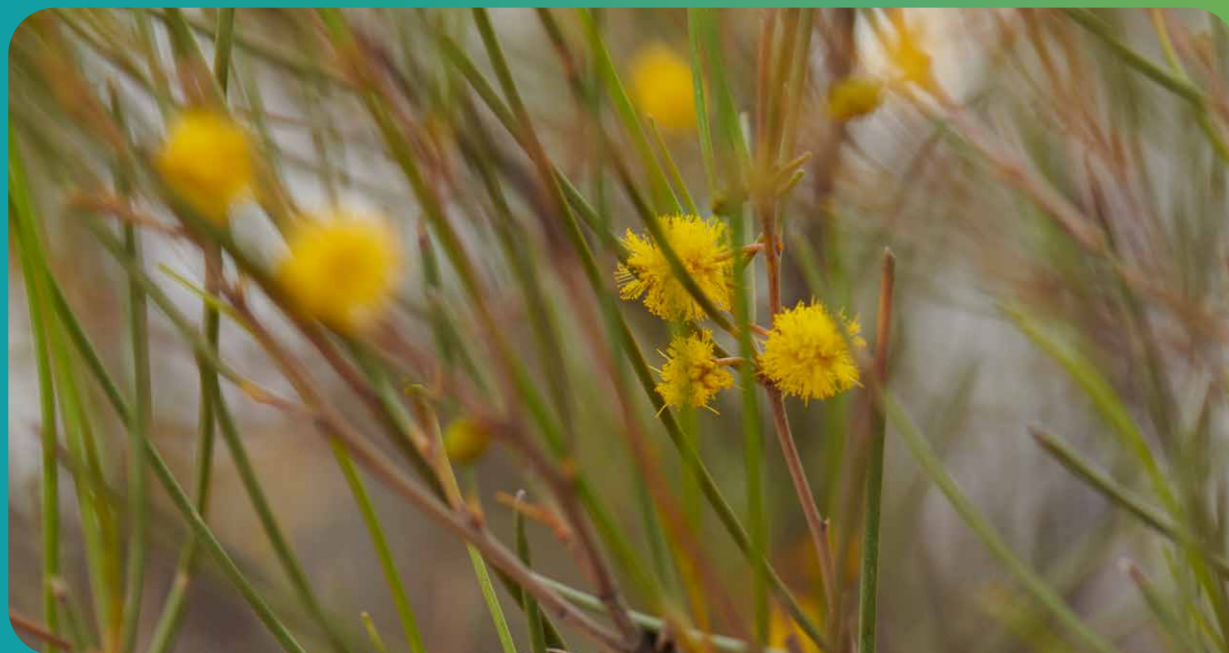
## Highlight: Supporting Local Indigenous Business and Local Indigenous Employment

Following Northern Star's acquisition of the Bronzewing tenure package in 2019 through the takeover of Echo Resources Ltd, Northern Star initiated a 12-month audit which examined the status of 140,000 drill sites to identify and scope the extent of earthworks and land remediation required to ensure that rehabilitation was at Northern Star's required standard the area.

Northern Star engaged a newly formed local Indigenous business belonging to Kultju, the Native Title holders in the Bronzewing area, to undertake the land rehabilitation works at approximately

5,000 drill sites. Besides completing the works, the contract provided a range of additional benefits to both parties, including mutual relationship building, enabling their business to become more sustainable with the ability to take on new contracts, and providing local Indigenous employment working on Country.

Further benefits of the rehabilitation works include minimising risks to fauna and livestock, increasing the return of native vegetation to the disturbed areas, and ensuring compliance with the tenement conditions.



Northern Star's Procurement and Social Performance teams work collaboratively with internal and external stakeholders to support sustainable and scalable Indigenous businesses.

Our strategy for engaging Indigenous Businesses and developing a culturally appropriate framework to increase the number and value of Indigenous supply contracts includes:

- working with Traditional Owners to identify procurement opportunities across our Australian Operations;
- restructuring our tendering process to increase the engagement of Indigenous Businesses and provide a competitive advantage for those who participate;

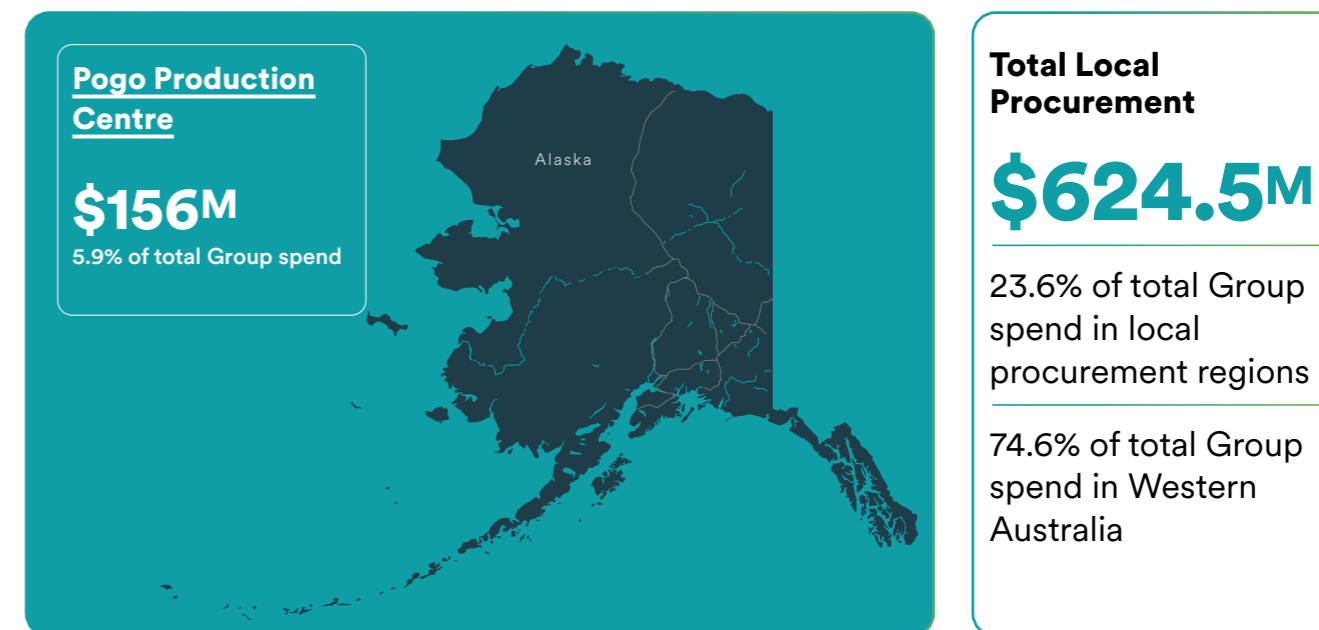
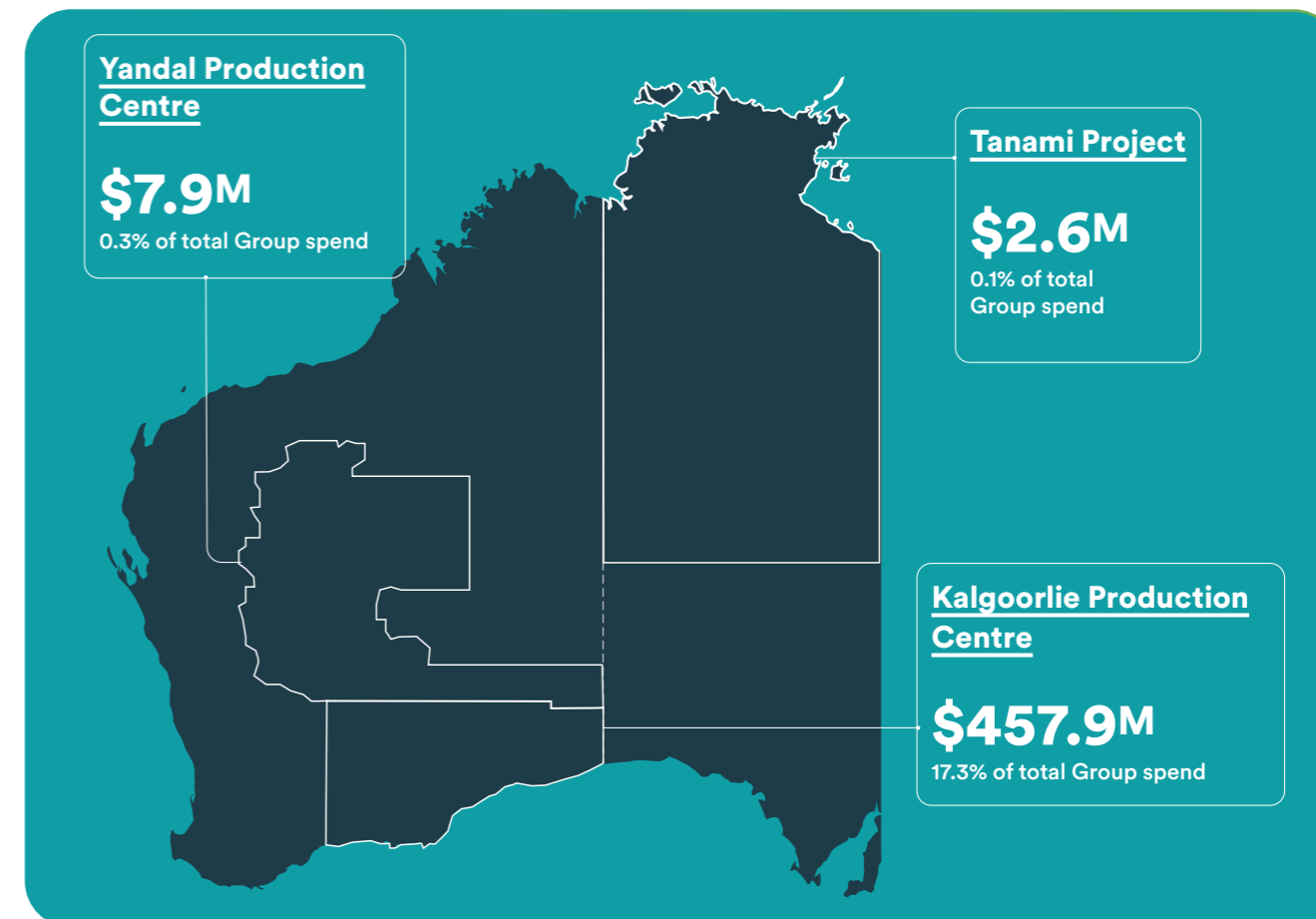
- adding a functionality in our Enterprise Resource Planning system to identify Indigenous Businesses for reporting purposes; and
- partnering with organisations like Goldfields Aboriginal Business Chamber and Waalitj Foundation to support the development of Indigenous businesses within the communities we operate, to gain further skills and governance accreditation in order to grow their businesses.

### Local Procurement

Supporting suppliers and businesses within the regions in which we operate continues to be a focus for Northern Star. We consistently consider the positive impact of supporting local businesses when assessing procurement opportunities to ensure we maximise opportunities within our local supply chains.

The local procurement areas are centred around our production centres (Kalgoorlie, Yandal, Pogo) and major Tanami exploration regions; Kalgoorlie, Yandal, Pogo and Tanami. Figure 39 illustrates the areas we consider are "local" in terms of supply chain for the Kalgoorlie, Yandal and Pogo production centres, and the Tanami exploration region.

Figure 39 Local procurement by region





## Modern Slavery

Northern Star condemns all human rights abuses, including modern slavery practices in all its forms. Modern slavery is a business risk for every industry and sector, which can have severe consequences for victims and human rights violations. We recognise our role in protecting the human rights of all people involved in, or impacted by, our business practices. We take meaningful steps to identify and address our modern slavery risks and maintain responsible and transparent supply chains.

Northern Star has published mandatory Modern Slavery Statements under the *Modern Slavery Act 2018 (Cth)* covering FY20 and FY21. Please refer to our FY22 Modern Slavery Statement released together with this Report for detailed disclosures on how we are addressing the risks of modern slavery in our supply chain.



**View our FY22 Modern Slavery Statement**  
**Visit:**  
<http://nsrltd.com/about/corporate-governance>



Artist Danielle Champion was commissioned to create Northern Star's 'Karkurla' Truck



Anny Khanthachack Underground Operator at Pogo, Alaska



A person wearing a dark cap and a high-visibility jacket is shown in silhouette, looking out over a city at night. The background is filled with out-of-focus city lights, creating a bokeh effect. The sky is a mix of orange and yellow, suggesting a sunset or sunrise.

# **Governance, Ethics & Transparency**



# Governance, Ethics & Transparency



## Corporate Governance Overview

Effective corporate governance is essential to ensuring Northern Star achieves its Purpose to generate superior returns for our shareholders, while providing positive benefits for our stakeholders, through operational effectiveness, exploration and active portfolio management.

The Board and Management are committed to the highest standards of corporate governance including compliance with the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations (Recommendations). Our principles and processes are periodically reviewed to ensure we maintain the highest standards of corporate governance.

Throughout FY22 Northern Star was fully aligned with all 35 Recommendations of the ASX Corporate Governance Council. Since the end of FY21, female Board participation has increased 5%, from 33% to 38% of all Directors (at 30 June 2022). The Board has seven non-executive directors and one executive director, being the Managing Director & CEO, Stuart Tonkin. The Board supports the view that its Directors having diversity in gender, age, skillset, background and tenure helps ensure more perspectives contribute to decision-making.

For full details of the Company's corporate governance practices and Board skill sets, see our FY22 Corporate Governance Statement released on the ASX and available at [www.nsrld.com/about/corporate-governance](http://www.nsrld.com/about/corporate-governance).

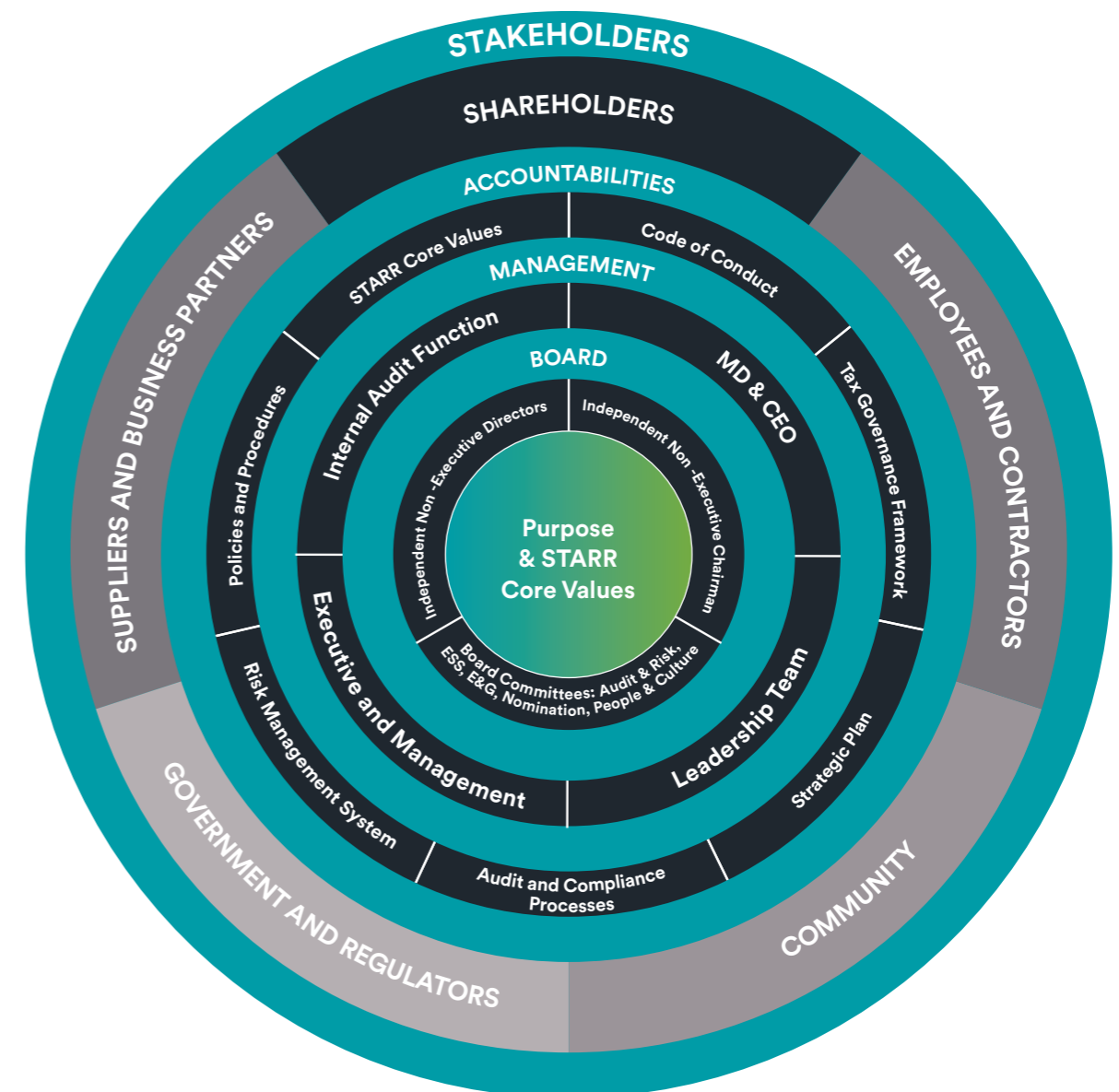
### FY22 Achievements

100% alignment with all 35 of the ASX Corporate Governance Council's Principles and Recommendations

38%<sup>57</sup> female participation rate on the Board of Directors

Capability expansion with the appointment of a Group Manager - Audit & Risk

Figure 40 Corporate Governance Framework



**The Board and Management are committed to the highest standards of corporate governance including compliance with the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations.**

57. As at 30 June 2022.



## Ethical Business Practices

Northern Star actively promotes a corporate culture committed to ethical business practices, compliance with the law and exercising integrity in decision making by our people and in our operations through our STARR Core Values (shown on page 3 of this Report), Code of Conduct and other key core corporate governance policies (available on our website at [www.nsrld.com/about/corporate-governance](http://www.nsrld.com/about/corporate-governance)). All inductions completed by our workers cover these key documents. Northern Star's policy commitments for responsible business conduct apply to all of the Company's activities and business relationships equally.

## Transparency in Disclosure

Northern Star understands that stakeholder trust and investor confidence is built and maintained on foundations of transparent disclosure. We prioritise being clear and unambiguous about our corporate structure, operations and performance, and governance practices in our disclosure practices for the benefit of, and maintaining a genuine dialogue with, our shareholders and stakeholders.

Our public disclosures are guided by Northern Star's Continuous Disclosure Policy and Shareholder Communication Policy. Northern Star regularly reviews and enhances its periodic disclosures to ensure openness, fairness and accountability in all our external communications.

## Internal Audit and Risk Management

In FY22, Northern Star took steps to enhance the Company's risk management and assurance capability and maturity. To lead this approach, Ms Minali Gamage was appointed to the role of Group Manager – Audit and Risk responsible for designing and delivering the Company's annual Internal Audit Plan, improving the Company's approach to risk management and leading the operational and corporate risk reviews.

Ms Gamage started her career as a management consultant at EY in Perth, followed by in-house audit and risk roles at Western Power and Fortescue Metals Group. Ms Gamage has 17 years of experience in risk management, internal audit, compliance, business continuity, process improvement and projects, primarily working in global mining and critical infrastructure companies.

Reporting to the Chair of the Audit and Risk Committee and to the Chief Financial Officer, Ms Gamage is focussed on supporting the Board in

Employees and other stakeholders who suspect or see unethical, illegal or improper behaviour within the Company are encouraged to report and are protected under our Whistleblower Policy which provides for a confidential, anonymous and retaliation-free process for people to report their concerns, free of fears of retaliation, with confidence the Board will be made aware of material breaches of the Code of Conduct. Whistleblower reports are standing items for discussion on all Audit & Risk Committee and Board agendas.

As part of our commitment to transparency, we regularly pursue meetings with proxy advisors and prior to the Annual General Meeting each year we invite shareholders to ask questions of our Board and Auditor either in advance or at the meeting (whether in person or virtually using hybrid meeting technology). At the 2021 AGM, over thirty questions were taken by our Chairman, with input from our Managing Director.

As part of our commitment to transparency, under the Australian Voluntary Tax Transparency Code, Northern Star continues to voluntarily publish the Company's annual Tax Corporate Governance Statements on our website ([www.nsrld.com/about/corporate-governance](http://www.nsrld.com/about/corporate-governance)).



Ms Minali Gamage was appointed to the role of Group Manager – Audit and Risk

meeting its corporate governance responsibilities and applying a risk-based approach to providing assurance over business areas and processes relevant to people, financial, operations, growth, ESG and technology.

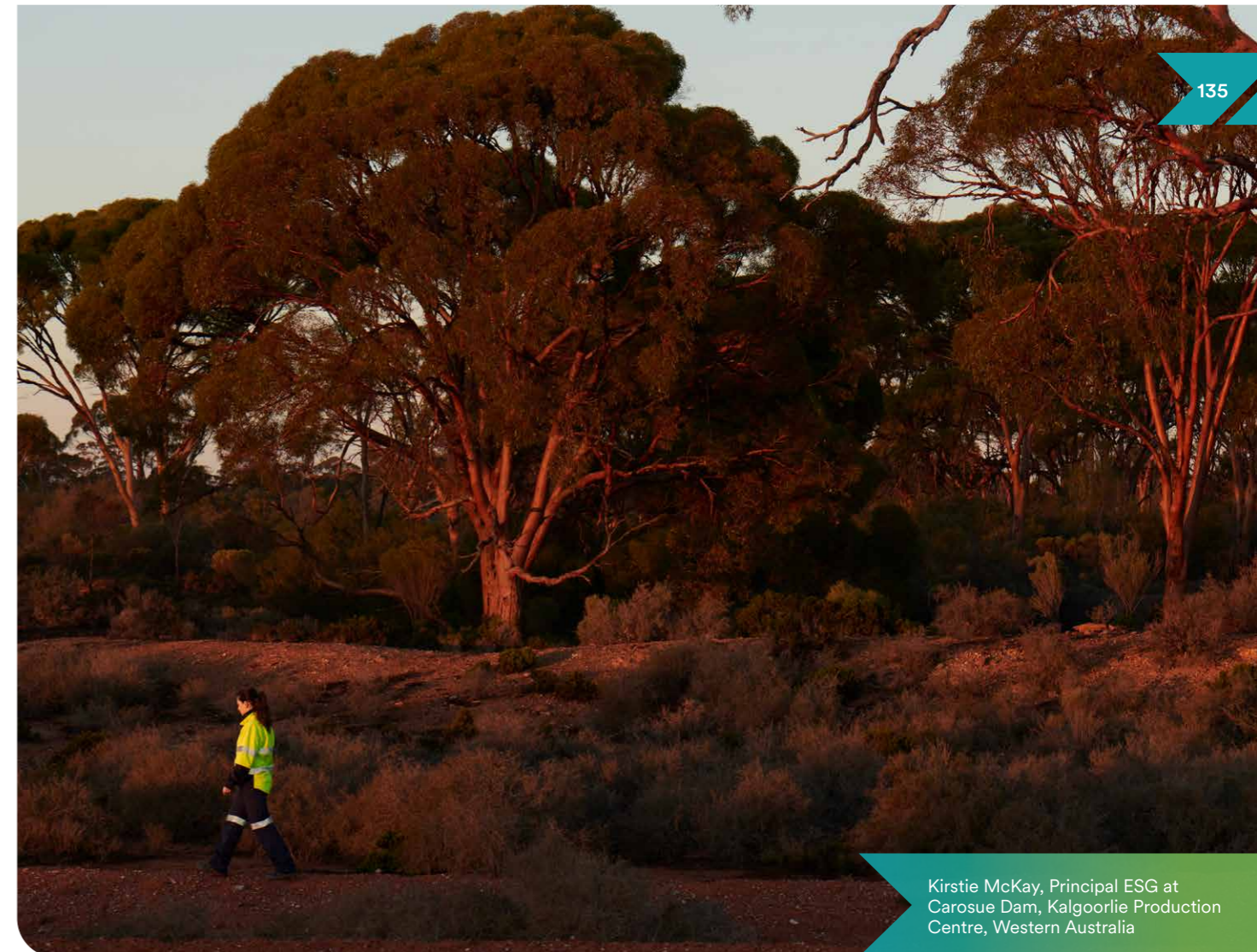
## Highlight: Externally Facilitated FY22 Board Evaluation

Effective board evaluation is an important aspect of good corporate governance practice which can assist in optimising board performance and effectiveness. The ASX Corporate Governance Council's Corporate Governance Principles and Recommendations require ASX-listed entities to have and disclose a process for periodically evaluating the performance of the board, its committees and individual directors.

In FY22, Northern Star engaged external experienced governance specialists to undertake the annual performance evaluation of the Board and deliver a report on overall Board effectiveness and individual Director feedback reports. An externally

facilitated Board review has the benefit of an impartial evaluation process, participants being more likely to contribute openly given all feedback is de-identified, and given there is unbiased reporting of findings to the Board.

The FY22 Board review focused on assessing Board drivers and dynamics, governance matters, areas of strength and opportunities for improvement, in the context of the Company's strategy and priorities. The evaluation involved review of past Board and Board Sub-Committee papers and 60+ minute interviews with the Non-Executive Directors, Executive KMP, and others in the leadership team, to gain useful insights into Board and management functionality, dynamics and relationships. The Report made practical recommendations to further optimise Board and Committee performance, behaviours and dynamics, and to maximise the Board's contribution to Northern Star's success, consistent with Northern Star's culture of continuous improvement.



Kirstie McKay, Principal ESG at Carosue Dam, Kalgoorlie Production Centre, Western Australia



## Highlight: Applying a Structured Risk Management Approach to Implementing Business Systems and Technology

Northern Star is committed to improving its business compliance performance and associated employee experience through implementing improved business systems technology.

As the business and workforce have grown, Northern Star's human resources and payroll systems are subject to the risks associated with imperfect data and using no longer fit for purpose systems.

Northern Star has initiated a project aimed at:

- improved efficiencies through process automation, less duplication of effort, reduction over time in queries relating to payroll and leave;
- improved decision-making capability for management with enhanced visibility and insights into employee data, better for forecasting and planning purposes;

- improved governance with better transparency and timely reporting to support compliance requirements;
- improved risk management through a better practice control environment and further mitigating the risk of fraud and payroll leakage;
- improving employee experiences in access to information;
- potential for global scalability to support the organisation as it continues to grow.

Given the impact and importance of this project as a core financial process, Northern Star has developed fit-for-purpose risk assessment criteria to use on the project. The risk criteria consider the impacts of risks on project objectives (schedule, cost, scope), competency of consultants as well as business benefits. The risk criteria are being used in the identification, assessment and treatment of key risks throughout the lifecycle of the project. Risks are reported to the project steering committee, project sponsors (Executive level) and, when required, escalated to the Audit & Risk Committee. This risk approach is aligned to Northern Star's corporate risk management framework.



Tim Pavlos, Environmental Specialist at our Corporate office, Perth Western Australia

## Highlight: Northern Star's Tax Risk Governance Framework

The Australian Taxation Office (ATO), and other tax authorities, have embraced an increasingly global view that tax risk management should be a part of good corporate governance. The presence and testing of an internal tax control framework are an integral part of the risk-assessment protocols used by tax authorities. The ATO publish a guide that sets-out principles for Board-level and managerial-level responsibilities, with examples of evidence that entities can provide to demonstrate the design and operational effectiveness of their control framework for tax risk. There is an expectation that Northern Star will:

- develop and improve tax governance and the internal control framework;
- test the robustness of the design of the framework against ATO best practice benchmarks; and
- demonstrate the operational effectiveness of key internal controls to stakeholders, including the ATO.

The ATO conducted a review of Northern Star's tax affairs for the 2014 to 2017 income years in 2019, and gave a "high" level of assurance that the Company had paid the right amount of Australian income tax. Receiving this endorsement from the ATO is valuable to Northern Star and its stakeholders. It also reinforces and demonstrates that the below statements, made in the Company's 2021 Tax Corporate Governance Statement are correct:

The Company is committed to:

- compliance with the spirit, as well as the letter of the laws and regulations, in the countries in which we operate;
- not transferring value to other jurisdictions and especially low tax jurisdictions;
- not using structures, without commercial substance, for tax purposes;
- undertaking transfer pricing using arm's length principles;
- not using secrecy or tax-haven jurisdictions for tax avoidance; and
- board approval for tax policy and governance.

The Tax Risk Governance Framework and Tax Policies and Procedures also place an important structure around all tax decisions. As such, there is a documented approach which is followed to ensure that employees are not taking unnecessary risk or making decisions without appropriate support from the appropriate management, executive and board levels.

In 2019 Northern Star implemented and has been improving its Tax Risk Governance Framework and all Tax Policies and Tax Procedures. During FY22 our internal tax team prepared an updated Tax Risk Governance framework and updated all Tax Policies and Procedures. These documents were then benchmarked with a gap analysis conducted against the ATO's best practices. The CFO and Audit & Risk Committee approved and adopted this updated framework in FY22. The associated tax controls Testing Plan will commence in FY23.

By demonstrating to the ATO that our governance and controls are in line with their best-practice tax compliance efficiencies are maximised.



A gold bar poured in the Gold Room at Carosue Dam, Kalgoorlie Production Centre, Western Australia



## Highlight: Cyber Security Initiatives During FY22

During FY22, Northern Star focused its cyber security initiatives on the key information security areas of people, process and technology.

As the front line of Northern Star's information security, all employees participate in ongoing cyber security awareness training that encourages a culture and habit of 'identifying and reporting' cyber threats. The program trains employees to recognise potential threats such as phishing campaign tactics and ransomware, whilst educating them on the importance of keeping data secure and providing them with the tools to report threats.

Northern Star's cyber security processes include an Information Technology Policy and Data Management Standard which govern the use of information technology and data, together with technical controls in place for reducing data breach exposure and improving cyber security. Examples of technical controls include using Data Loss Prevention (DLP) to detect, alert and take action to protect sensitive information. DLP is combined with Azure Machine Learning to automate account lockout if the user performs risky, unusual or unauthorised activities that can lead to a data breach.

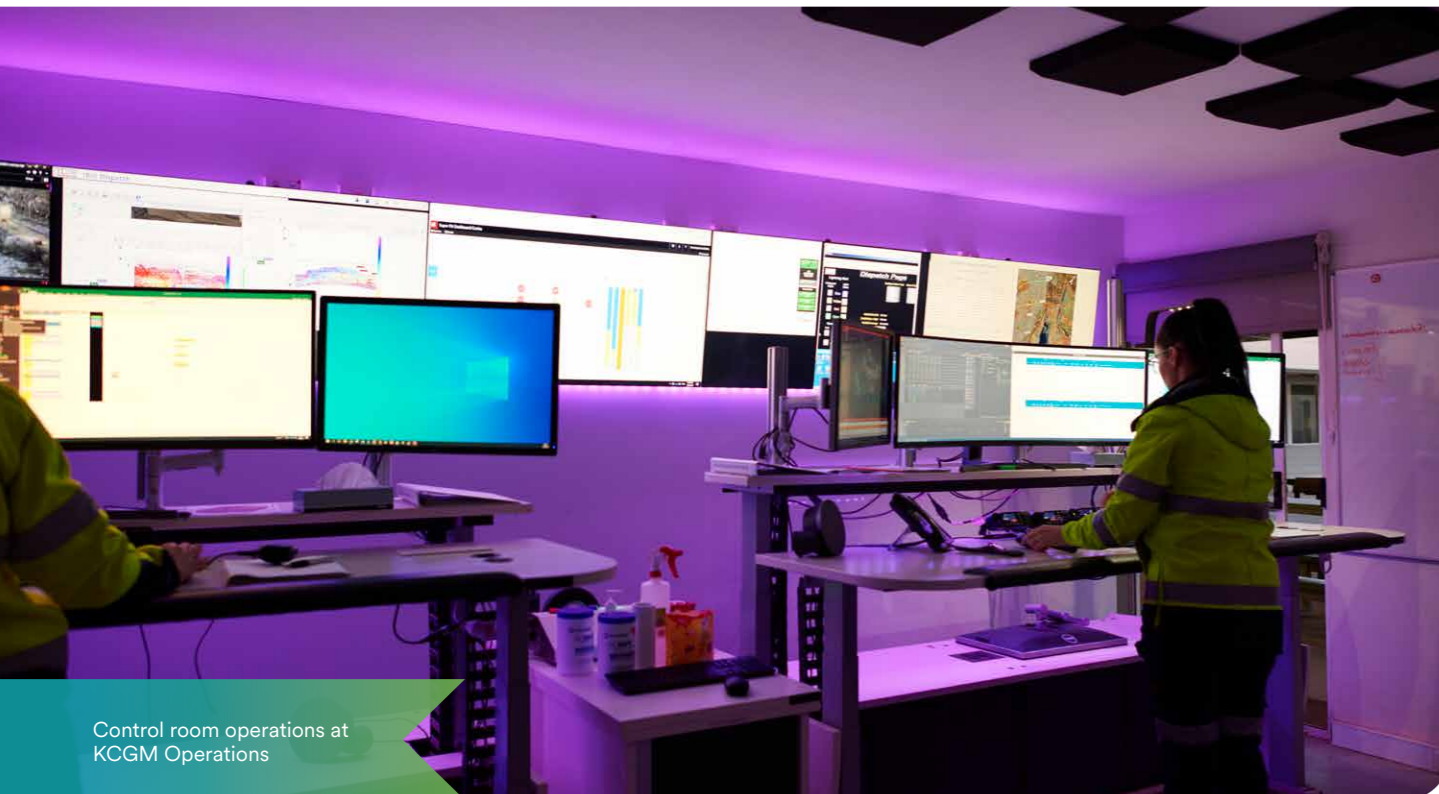
Northern Star also uses technology safeguards such as BitLocker encryption on end-user devices to protect our data from unauthorised access and

disclosure. Data is encrypted when transmitted across Northern Star's internal network and the internet. Data on IT hardware that reaches the end of life is permanently erased using an accredited secure disposal service to ensure that all Northern Star confidential and private information is protected.

Northern Star's operational technology networks control and monitor the processing plants and underground mining systems, and are protected by firewalls and other security systems. Operational technology networks are increasingly important as we implement new systems and technologies. Northern Star IT has implemented a continuous improvement program to improve cyber security, combined with regular cyber security testing to ensure that our systems are well protected.

Northern Star's cyber security testing regime includes annual cyber security audits, internal penetration testing, external penetration testing, and governance and risk reviews. Our cyber security training program is being reviewed to update content and provide targeted training for people in key roles such as finance, human resources, medical and safety roles.

Northern Star experienced no cyber security breaches or loss of data in FY22.



Control room operations at KCGM Operations



Goodpaster River in winter at Pogo, Alaska



**Appendix A:**  
Assurance Statement



## APPENDIX A: Assurance Statement from Bureau Veritas

### INDEPENDENT ASSURANCE STATEMENT



To: The Stakeholders of Northern Star Resources Limited

#### Introduction and Objectives of Work

Bureau Veritas Australia Pty Ltd ("Bureau Veritas") was engaged by Northern Star Resources Limited ("Northern Star") to undertake a limited assurance engagement on selected information and data presented in the FY22 Northern Star Sustainability Report ("the Report"). This Assurance Statement applies to the related information included within the scope of assurance described below.

#### Scope of Limited Assurance

The scope of assurance was limited to the information and data related to Northern Star's operating assets: Kalgoorlie Production Centre, Yandal Production Centre, Pogo Production Centre, Perth Corporate Office and Exploration for the period of 1<sup>st</sup> July 2021 to 30<sup>th</sup> June 2022.

The complete list of assured disclosures is referred to within the GRI Index of the Report.

Our assurance engagement does not extend to any other information included in the Report or information in respect of earlier periods.

#### Limited Assurance Conclusion

On the basis of our procedures as described under "Methodology" and the evidence we have obtained, we provide limited assurance that nothing has come to our attention:

- To indicate that the statements reviewed within the scope of our assurance engagement are inaccurate and the information included therein is not fairly stated.
- That causes us to believe that the information, within the scope of our assurance engagement, is not prepared, in all material respects, in accordance with the criteria indicated under "Understanding how Northern Star has Prepared the Information".

It is our opinion that Northern Star has established systems for the collection, aggregation and analysis of relevant information and quantitative data.

#### Understanding how Northern Star has prepared the Information

The Report was prepared in accordance with the GRI Standards including appropriate considerations of the reporting principles and additional requirements as listed in GRI 1: Foundation 2021.

#### Northern Star's Responsibilities

Management of Northern Star was responsible for:

- Selecting and establishing suitable criteria for preparing the Report and information subject to our limited assurance;
- Preparing the information in accordance with the criteria; and
- Designing, implementing and maintaining internal controls over information relevant to the preparation of the Report that is free from material misstatement, whether due to fraud or error.

#### Our Responsibilities

Bureau Veritas was responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the information included within the scope of assurance is free from material misstatement, whether due to fraud or error;
- Forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- Reporting our conclusion to the Directors of Northern Star.

Bureau Veritas was not involved in the drafting of the Report and our independence has not been compromised.



### INDEPENDENT ASSURANCE STATEMENT



#### Methodology

Our limited assurance engagement was performed in accordance with International Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements other than Audits or Reviews of Historical Financial Information* issued by the International Auditing and Assurance Standards Board, and informed by Bureau Veritas' standard procedures and guidelines for external verification of Sustainability Report.

Our work was planned and executed in a manner designed to produce a limited level of assurance and to provide a sound basis for our conclusions. We undertook the following activities:

- Review of the suitability of the criteria used as the basis for preparing the information subject to assurance;
- Interviews and follow-up communication with relevant individuals;
- Review of documentary evidence produced by Northern Star representatives;
- Audit of performance data and factual information including source verification; and
- Review of Northern Star's processes for identification, aggregation and analysis of relevant information, report content and performance data.

#### Limitations and Exclusions

Excluded from the scope of our work is any assurance of information relating to:

- Activities outside the defined reporting period;
- Statements of commitment to, or intention to undertake future actions by Northern Star;
- Statements of position, opinion, belief and/or aspiration by Northern Star;
- Financial data audited by an external third party; and
- Other sites and/or activities not included in the scope.

This independent assurance statement should not be relied upon to detect all errors, omissions or misstatements that may exist within the Report.

#### Statement of Independence, Impartiality and Competence

Bureau Veritas is a global leader in Testing, Inspection and Certification ("TIC") services. The Group's mission is to reduce its clients' risks, improve their performance and help them innovate to meet the challenges of quality, health, safety, hygiene, environmental protection and social responsibility. Leveraging its renowned expertise, as well as its impartiality, integrity and independence, Bureau Veritas has helped build trust between companies, public authorities and consumers for more than 190 years.

Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among its personnel in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest.

No member of the assurance team has a business relationship with Northern Star, its Directors or Managers beyond that required of this assignment. We have conducted this assurance engagement independently and there has been no conflict of interest.

The assurance team was selected based on its extensive Industry Sector knowledge and experience in conducting independent verification, validation and assurance of Environmental Social and Governance (ESG) information and associated systems and processes.

Jeremy Leu

General Manager – Certification and Sustainability Pacific

28<sup>th</sup> August 2022

Bureau Veritas Australia Pty Ltd





**Appendix B:**  
Stakeholder  
Engagement  
Summary



**APPENDIX B: Stakeholder Engagement Summary**

Key Stakeholder Groups	Key Areas Expressed of Interest	How We Engage
<b>Analysts and Brokers</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Governance and ethical conduct</li> <li>• Return on equity</li> <li>• Safety management and risk control</li> <li>• Sustainability, climate change and environmental management</li> </ul>	Social media updates; press releases; company website updates; internal and external publications including quarterly production and exploration reports and half yearly updates, annual and sustainability reports; AGM; regulatory filings including ASX announcements; investor roadshows, investor days, briefings and conferences; credit rating agency and financial institution engagements; analyst days; regular meetings and information updates; participation in and response to analyst surveys; operational and site visits/tours; independent third party surveys of investor perceptions; independent regular correspondence via calls, mailings, emails and meetings.
<b>Board of Directors</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Community support and engagement</li> <li>• Compliance – regulatory, business and standards</li> <li>• Cultural awareness and communications</li> <li>• Employment conditions</li> <li>• Employment opportunities</li> <li>• Governance and ethical conduct</li> <li>• Human rights management</li> <li>• Preservation of heritage areas</li> <li>• Return on equity</li> <li>• Safety management and risk control</li> <li>• Sustainability</li> <li>• Support for research and education programs</li> <li>• Training and development</li> </ul>	Board Meetings and reports; Audit and Risk Committee; Environment, Social and Safety Committee; People and Culture Committee; Nomination Committee; Exploration and Growth Committee; Donations & Sponsorship Committee; Internal reporting mechanisms and action plans; external and internal audit reports; operational and site tours; company representative and engagement participation in events; regular correspondence via calls, mailings, emails and meetings.
<b>Community Investment Partners</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Community support and engagement</li> <li>• Employment opportunities</li> <li>• Support for programs</li> <li>• Support for research and education programs</li> </ul>	Social media updates; press releases; company website updates; internal and external publications including annual and sustainability reports; social impact assessments; community surveys; local voices surveys; strategic partnerships and funding; conferences, forums and workshops; community and external relations engagement resources; festivals, sports and community events; open days; policies, guidelines and forms; Donations and Sponsorship Committee; company representative and employee engagement and participation in events; regular correspondence via calls, mailings, emails and meetings.
<b>Contractors and Suppliers</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Community support and engagement</li> <li>• Safety management and risk control</li> <li>• Governance and ethical conduct</li> <li>• Human rights management</li> </ul>	Social media updates; company website updates; internal and external publications including quarterly and half yearly updates, annual and sustainability reports; AGM; procurement systems, contract negotiations, terms and conditions, payment terms, contract owners, Supplier Code of Conduct, policies, standards and guidelines, procedures; supplier prequalification; paid contracts; participation in continuous improvement opportunities including meetings, partnerships, training, KPIs and contract performance metrics.
<b>Employees</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Community support and engagement</li> <li>• Compliance – regulatory, business and standards</li> <li>• Employment conditions</li> <li>• Employment opportunities</li> <li>• Human rights management</li> <li>• Safety management and risk control</li> <li>• Sustainability, Climate change and environmental management</li> <li>• Training and development</li> </ul>	Social media updates and membership; press releases; intranet and company website updates; internal and external publications including quarterly and half yearly updates, annual and sustainability reports; AGM participation; TeamINC; Representation on ESS Committee; Employee ESG Focus Groups; Culture Survey; Enboarder surveys and feedback; family open days; training and development plans, performance reviews and feedback; line and peer coaching and mentoring; employment negotiations; online and face-to-face training; social and entertainment opportunities; support for employees charitable and volunteer efforts through the company D&S process; GoldSTARR; Employee Assistance Programs; STARR Values; STARR Actions; reward and recognition programs; Mental Health First Aid champions; Health and Safety Representatives; safety leadership development training; health and safety committees; event and hazard reporting tools; internal and external alerts and notices; Code of Conduct, policies, standards and guidelines, procedures; complaints and grievance mechanisms; employee share plans.
<b>Financiers</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Compliance – regulatory, business and standards</li> <li>• Governance and ethical conduct</li> <li>• Human rights management</li> <li>• Preservation of heritage areas</li> <li>• Return on equity</li> <li>• Safety management and risk control</li> <li>• Sustainability, Climate change and environmental management</li> </ul>	Social media updates; press releases; company website updates; internal and external publications including quarterly and half yearly updates, annual and sustainability reports; regulatory filings including ASX announcements; credit rating agency and financial institution engagements; regular meetings and information updates; operational and site tours; independent regular correspondence via calls, mailings, emails and meetings.
<b>Industry Associations</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Industry support and engagement</li> <li>• Safety management and risk control</li> <li>• Sustainability, Climate change and environmental management</li> </ul>	Social media updates; press releases; company website updates; strategic partnerships and funding; participation in industry wide and multi stakeholder initiatives; collaboration on lessons learned and best practice opportunities; conferences, forums and workshops; company representative and employee engagement and participation in events; participation in committees and Boards; regular correspondence via calls, mailings, emails and general meetings.



**APPENDIX B: Stakeholder Engagement Summary**

Key Stakeholder Groups	Key Areas Expressed of Interest	How We Engage
<b>JV Partners and Other Tenement Holders</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Community support and engagement</li> <li>• Compliance – regulatory, business and standards</li> <li>• Cultural awareness and communications</li> <li>• Governance and ethical conduct</li> <li>• Industry support and engagement</li> <li>• Preservation of heritage areas</li> <li>• Return on equity</li> <li>• Safety management and risk control</li> <li>• Sustainability, Climate change and environmental management</li> </ul>	<p>Social media updates; company website updates; internal and external publications including quarterly and half yearly updates, technical reports, annual and sustainability reports; regulatory filings including ASX announcements; paid contracts, terms of agreements, policies, standards and guidelines, procedures, regular JV reports and meetings; site visits; regular correspondence via calls, mailings, emails and meetings.</p>
<b>Local communities</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Community support and engagement</li> <li>• Compliance – regulatory, business and standards</li> <li>• Cultural awareness and communications</li> <li>• Employment opportunities</li> <li>• Human rights management</li> <li>• Industry support and engagement</li> <li>• Preservation of heritage areas</li> <li>• Safety management and risk control</li> <li>• Sustainability, Climate change and environmental management</li> <li>• Support for programs</li> <li>• Support for research and education programs</li> </ul>	<p>Social media updates; press releases; company website updates; internal and external publications including newsletters, fact sheets, annual and sustainability reports; social impact assessments; complaints and grievance mechanisms; stakeholder interviews; community surveys; Local Voices surveys; strategic partnerships and funding; conferences, feedback forums and workshops; community and external relations engagement resources; resident and community meetings; festivals, sports and community events; open days; policies, guidelines and forms; Donations and Sponsorship Committee; company representative and employee engagement and participation in events; site visits/tours; regular correspondence via calls, mailings, emails and meetings.</p>
<b>Pastoralists</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Community support and engagement</li> <li>• Compliance – regulatory, business and standards</li> <li>• Governance and ethical conduct</li> <li>• Safety management and risk control</li> <li>• Sustainability, Climate change and environmental management</li> </ul>	<p>Consultation and communication on exploration and mining plans and proposals and rehabilitation programs; resident and community meetings; regular correspondence in person, calls, mailings, and emails; company website updates; internal and external publications including annual and sustainability reports; terms of agreements, policies, standards and guidelines, procedures,; complaints and grievance mechanisms.</p>
<b>Regulatory Agencies</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Compliance – regulatory, business and standards</li> <li>• Employment conditions</li> <li>• Governance and ethical conduct</li> <li>• Human rights management</li> <li>• Preservation of heritage areas</li> <li>• Safety management and risk control</li> <li>• Sustainability, Climate change and environmental management</li> </ul>	<p>Submissions for exploration and mining plans and proposals; rehabilitation and closure plans and funding; regular correspondence in person, calls, mailings, and emails; company website updates; internal and external publications including annual and sustainability reports; terms of agreements, policies, standards and guidelines, procedures; statutory reporting; responses to requests for information; collaboration on regulatory campaigns; feedback to regulatory changes; participation in consultation forums; public advisory processes; operational and site visits/tours.</p>
<b>Research &amp; Educational Institutions</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Industry support and engagement</li> <li>• Support for programs</li> <li>• Support for research and education</li> <li>• Programs Training and development</li> </ul>	<p>Social media updates; company website updates; internal and external publications including annual and sustainability reports; strategic partnerships and funding; conferences, forums and workshops; Donations and Sponsorship Committee; company representative and employee engagement and participation in events; regular correspondence via calls, mailings, emails and meetings; operational and site visits/tours.</p>
<b>Shareholders and Shareholder organisations</b>	<ul style="list-style-type: none"> <li>• Business continuity</li> <li>• Community support and engagement</li> <li>• Compliance – regulatory, business and standards</li> <li>• Cultural awareness and communications</li> <li>• Employment conditions</li> <li>• Governance and ethical conduct</li> <li>• Human rights management</li> <li>• Preservation of heritage areas</li> <li>• Return on equity</li> <li>• Safety management and risk control</li> <li>• Sustainability, Climate change and environmental management</li> </ul>	<p>Social media updates; press releases; company website updates; internal and external publications including quarterly production and exploration reports and half yearly updates, annual and sustainability reports; AGM; regulatory filings including ASX announcements; investor briefings; investor days, meetings, conference calls; market announcements; conferences; employee share offers.</p>
<b>Traditional Owners</b>	<ul style="list-style-type: none"> <li>• Community support and engagement</li> <li>• Compliance – regulatory, business and standards</li> <li>• Cultural awareness and communications</li> <li>• Employment opportunities</li> <li>• Governance and ethical conduct</li> <li>• Human rights management</li> <li>• Preservation of heritage areas</li> <li>• Safety management and risk control</li> <li>• Sustainability, Climate change and environmental management</li> <li>• Support for programs</li> </ul>	<p>Consultation and communication on exploration and mining plans and proposals; participation in cultural events; participation in heritage surveys; regular correspondence in person, calls, mailings, and emails; company website updates; internal and external publications including annual and sustainability reports; terms of agreements, policies, standards and guidelines, procedures.</p>



**Appendix C:**  
Climate Change  
Policy

**Appendix D:**  
Assumptions Used  
To Support Net  
Zero Ambition And  
Emissions Reduction



**APPENDIX C: Climate Change Policy**



**CLIMATE CHANGE POLICY**

Northern Star Resources Limited (Northern Star) is committed to the Paris Agreement<sup>1</sup> and the journey towards a net-zero carbon future by limiting global warming to well below 2°C, preferably 1.5°C above pre-industrial levels by 2050.

Northern Star acknowledges the invitation made to the private sector by the United Nations at the Framework Convention on Climate Change when adopting the Paris Agreement, to scale up efforts and support actions to reduce emissions and/or to build resilience and decrease vulnerability to the adverse effects of climate change.

Northern Star has set a Net Zero ambition for Scope 1-3 greenhouse gas emissions by 2050.

Through our broad alignment to the Paris Agreement, Northern Star is committed to:

1. transparent assessment and management of current and emerging climate risks;
2. ongoing emission assessment and reduction across operations, including driving opportunities for decarbonisation, and assessing non-fossil fuel energy sources for mining fleet, mobile plant and powering mine infrastructure;
3. assessing and implementing abatement projects adjacent to our business;
4. emissions analysis in procurement and capital allocation/projects decisions;
5. raising awareness and educating our people on this Climate Change Policy, risks and the imperative for decarbonisation in energy sources, and abatement plans;
6. adapting to potential physical impacts of climate change by enhancing the resilience of our operations e.g. water security and consumption, and
7. engaging where appropriate with government to reduce global emissions, improve ecosystem resilience and water conservation.

Northern Star commits to developing and implementing a climate change strategy that will:

- Focus our activities to reduce scope 1 and 2<sup>2</sup> emissions aligned with a 1.5°C pathway;
- Focus our influencing capability to reduce scope 3 emissions;
- Align our operations with the 1.5°C ambition to enable reduction of emissions in energy consumption and minimise solutions with an adverse climate impact, and
- Contribute to the 1.5°C ambition beyond our business – influence government, and fund business relevant projects outside Northern Star that help remove or avoid emissions.

This Policy is subject to periodic review by the Board.

<sup>1</sup> The Paris Agreement states specifically:

- a) "Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;
- b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and
- c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

aiming to undertake rapid reductions in greenhouse gas emissions in accordance with best available science, to achieve net zero emissions by 2050."

<sup>2</sup> Refer to Greenhouse Gas protocol for definitions of scope 1, 2 and 3 emissions

Prepared by:	Hilary Macdonald	Document Status:	Controlled	Document No:	NSR-COR-034-POL
Approved by:	Board of Directors	Review Date:	22/07/2023	Revision No:	1
		Approver's Signature:	Hilary Macdonald	Issue Date:	22/07/2021
				Page No:	1 of 1

The latest version of this controlled document is available on the Document Control Server as a "PDF" file recorded by the Document No. This document is uncontrolled in hard copy and may only be edited or amended with permission of the document approver.

**APPENDIX D: Assumptions used in Net Zero Ambition and Emissions Reduction**

- Renewable energy technology cost assumptions utilise:
  - reports commissioned by the Australian Energy Market Operator (Aurecon - 2021 Costs and Technical Parameter Review);
  - specialist industry advisors; and
  - commercial offerings from technology providers.
- Renewable energy projects installed on Northern Star sites are to be registered for the purpose of generating green products, for the benefit of or use by Northern Star.
- Grid emission intensity factors published by the Australian Clean Energy Regulator for grid supplied sites.
- Northern Star GKL Properties have been assessed for eligibility for Human Induced Regeneration projects.
- Renewable energy resources modelling uses a combination of publicly available data (weather satellites) and site-specific measurements.
- Scope 1 Emissions reductions based on modelled reduction in fossil fuel requirements as a result of renewable energy projects (Wind, Solar and Battery Energy Storage Systems) installed at Northern Star operations using original equipment manufacturer (OEM) performance curves.
- Scope 2 Emissions will be reduced through a combination of grid greening and contracting for electricity from renewable generators.



# **Additional Information**



# Glossary

## AEMO WEM

Australian Energy Market Operator Limited's Wholesale Electricity Market

## ALPAR

Alaskans for Litter Prevention and Recycling

## AMD

Acid mine drainage

## AMMA

Australian Mines and Metals Association

## AQC

Air Quality Control

## ASX

Australian Securities Exchange Ltd

## ASX Corporate Governance Council Principles and Recommendations

Principles and Recommendations (4th edition) of the ASX 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

## ATAGI

Australian Technical Advisory Group on Immunisation

## ATO

Australian Taxation Office

## Au

The chemical symbol for gold

## AusIMM

Australasian Institute of Mining and Metallurgy

## B or bn

Billion

## Board

Board of Directors

## BTM

Behind the meter

## CME

The Chamber of Minerals and Energy of Western Australia

## CO<sub>2</sub>

Carbon dioxide

## CO<sub>2</sub>-e

Carbon dioxide equivalent

## Company

Northern Star Resources Limited  
ABN 43 092 832 892

## contractors

Externally employed contracted workers engaged by the Company to support operations

## Corporations Act

Corporations Act 2001 (Cth)

## CY

Calendar year ending 31 December

## Director

A director of the Company duly appointed under the Corporations Act

## DIDO

Drive-in drive-out

## DLP

Data Loss Prevention

## DMIRS

Department of Mines, Industry Regulation and Safety

## DSTF

Dry Stack Tailings Facility

## DWER

Department of Water and Environmental Regulation

## EAP

Employee assistance providers(s)

## Emissions Reduction

The mitigation or abatement of greenhouse gas or airborne contaminant emissions

## employees

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

## EMS

Environmental Management System

## ERT

Emergency Response Team

## ESG

Environment, Social & Governance

## ESS

Environmental, Social & Safety

## ESS Committee

Environmental, Social & Safety sub-Committee

## FAQMP

Fimiston Air Quality Management Plan

## FIFO

Fly-in fly-out; those personnel who fly to our operations and stay in an accommodation village while at work

## FPIC

Free, Prior and Informed Consent, as defined by the United Nations at <https://www.fao.org/3/i6190e/i6190e.pdf>

## FY

Financial year ended 30 June

## GEMG

Goldfields Environmental Management Group

## GHG

Greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride, and nitrogen trifluoride).

## GIS

Geographic Information Systems

## GISTM

Global Industry Standard on Tailings Management

## GJ

Gigajoule; one million joules

## GP

General Practitioner

## GRI

Global Reporting Initiative

## Group

Northern Star Resources Limited and all of its wholly owned subsidiaries

## ha

Hectare

## HAZID

Hazard Identification

## HIR

Human Induced Regeneration

## HRS

Health and Safety Representative

## ICAM

Incident Cause Analysis Method

## ICMI

International Cyanide Management Institute

## ICMM

International Council on Mining and Metal

## Incident

means the partial or whole damage or destruction of an area of cultural or heritage significance without Traditional Owner consent and/or required legal or regulatory approvals

## ISO 14001

The ISO 14001 Environmental Management Systems Standard, an international standard prescribing a structured approach to environmental protection

## ISS

Institutional Shareholder Services Inc

## ISSB

International Sustainability Standards Board

## IT

Information Technology

## K or k

Thousand

## KCGM

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

## Kg or kg

Kilogram

## kl

kilolitre; one thousand litres

## KPI

Key Performance Indicator

## LGBT

Lesbian, gay, bisexual and transgender

## LiDAR

Light Detection and Ranging

## LTIFR

Lost Time Injury Frequency Rate; calculated based on the number of lost time injuries occurring in a workplace per 1 million hours worked

## M or m

Million

## MERC

Mine Emergency Response Competition

## Merger

The merger of Saracen Mineral Holdings Limited ABN 52 009 215 347 and all of its wholly owned subsidiaries with Northern Star by way of Scheme of Arrangement implemented on 12 February 2021

## ML

Mega-litre; one million litres

## MRF

Mining Rehabilitation Fund

## NAF

Non-Acid Forming

## Net Zero

Net Zero refers to achieving a balance between the amount of operational Scope 1 and Scope 2 greenhouse gas Emissions produced and those removed.

## Net Zero Ambition

Net Zero Ambition is our ambition to achieve Net Zero by 2050, as expressed in our Climate Change Policy in Appendix C

## NIAA

National Indigenous Australians Agency

## NGO

Non-Governmental Organisation

## OHS

Occupational Health and Safety

## Officer

An officer of the Company defined under the Corporations Act

## Oz

Ounce

## PAF

Potentially Acid Forming

## Paris Agreement

Paris Agreement refers to the legally binding international treaty on climate change which was adopted by 196 Parties at the 21st session of the United Nations Conference of the Parties, in Paris on 12 December 2015, and entered into force on 4 November 2016

## PER

Public Environmental Review

## PPE

Personal protective equipment

## RCP

Representative Concentration Pathway. Greenhouse gas concentration trajectories which provide Emissions constraints and physical outcomes in Climate Change Scenario Analysis

## Report

This Sustainability Report

## RFDS

Royal Flying Doctor Service

## SAR

Saracen Mineral Holdings Limited  
ABN 52 009 215 347

## Saracen

Saracen Mineral Holdings Limited ABN 52 009 215 347 and all of its wholly owned subsidiaries, as acquired by Northern Star by way of Scheme of Arrangement implemented on 12 February 2021

## SASB

Sustainability Accounting Standards Board

## Scope 1 Emissions

Emissions released to the atmosphere as a direct result of an activity, or series of activities at a facility level

## Scope 2 Emissions

Emissions released to the atmosphere from the indirect consumption of an energy commodity

## Scope 3 Emissions

Indirect greenhouse gas Emissions other than Scope 2 Emissions that are generated in the wider economy. They occur as a consequence of the activities of a facility, but from sources not owned or controlled by that facility's business

## shareholder

A shareholder of Northern Star Resources Limited

## SIA

Social Impact Assessments

## SMART

Specific, Measurable, Attainable, Relevant and Time-Bound

## SMERC

Surface Mine Emergency Response Competition

## SMS

Safety Management Systems

## SODAR

Sonic Detection and Ranging

## 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

## STARR

Our Core Values of Safety, Teamwork, Accountability, Respect and Results

## SWIS

South West Interconnected System

## suppliers

External companies engaged by Northern Star to supply goods to the operations

## t

Tonnes; one thousand kilograms

## TCFD

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

## TSF

Tailings storage facility

## TRIFR

Total Reportable Injury Frequency Rate; calculated according to the number of reportable work-related injuries or illness for each one million hours worked

## UMERC

Underground Mine Emergency Response Competition

## UN

United Nations

## UN COP26

2021 UN Climate Change Conference

## UN SDGs

The United Nations Sustainable Development Goals

## Underlying EBITDA

Net profit after tax, before interest, tax depreciation and amortisation adjusted for specific items.



**US or USA**

United States of America

**WA**

Western Australia

**WAAFA**

Western Australian All Abilities Football Association

**WACHS**

Western Australia Country Health Services

**WASM**

Western Australian School of Mines (Curtin University of Technology)

**WHS**

Work, Health and Safety

**WIMWA**

Women in Mining Western Australia

**YMCA**

Young Men's Christian Association

**YOY**

Year on year

**\$**

Australian dollars, unless the context states otherwise. All A\$ to \$US currency conversions used in this Sustainability Report are at \$0.70

**ASX Listing Rules Disclosures**

The information in this Report that relates to the Ore Reserves and Mineral Resources, and production targets of Northern Star has been extracted from the ASX release by Northern Star entitled "Resources, Reserves and Exploration Update" dated 3 May 2022 available at [www.nsrld.com](http://www.nsrld.com) and [www.asx.com](http://www.asx.com) (Northern Star Announcement).

Northern Star confirms that it is not aware of any new information or data that materially affects the information included in the Northern Star Announcement other than changes due to normal mining depletion during the three month period ended 30 June 2022 and divestment of the Paulsens and Western Tanami projects during June 2022 and, in relation to the estimates of Northern Star's Ore Reserves and Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the Northern Star Announcement continue to apply and have not materially changed. Northern Star confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from that announcement.

Assumptions made in relation to the Ore Reserves and Mineral Resources underpinning the production targets in that announcement are (in summary):

- Current operational capital and operating cost structures,
- Current mining and metallurgical performance,
- The gold price, exchange rate, dilution allowance and mining recovery rates are as set out in each prior public report referred to in ASX Listing Rule 5.19 disclosures, and
- 5 year gold production profiles are based on 100% current JORC compliant Ore Reserves.

Rounding is applied in this presentation for the percentage comparisons and for the 31 March 2022 Ore Reserves and Mineral Resources figures.

# Corporate Directory

**Directors (as at 30 June 2022)**

Michael Chaney AO	Chairman
Stuart Tonkin	Managing Director and CEO
John Fitzgerald	Non-Executive Director
Mary Hackett*	Non-Executive Director
Nick Cernotta	Non-Executive Director
Sally Langer	Non-Executive Director
John Richards	Non-Executive Director
Sharon Warburton	Non-Executive Director

**Executive KMP**

Chief Operating Officer	Simon Jessop
Chief Financial Officer	Ryan Gurner
Chief Legal Officer and Company Secretary	Hilary Macdonald

**Other Leadership Team**

Chief Development Officer	Michael Mulroneo
Chief Technical Officer	Steven McClare
Chief Geological Officer	Dan Howe
Executive Manager People and Culture	Marianne Dravnieks
General Manager Investor Relations	Sophie Spartalis

\*Retired from the Board on 22 August 2022

# Contact Information

**Northern Star Resources Limited** (ABN 43 092 832 892)

<b>Corporate office</b>	Level 1, 388 Hay Street Subiaco WA 6008 Australia
<b>Telephone</b>	+61 8 6188 2100
<b>Website</b>	<a href="http://www.nsrld.com">www.nsrld.com</a>
<b>Email</b>	
ESG enquiries	<a href="mailto:esgperformance@nsrld.com">esgperformance@nsrld.com</a>
Investor Relations	<a href="mailto:investorrelations@nsrld.com">investorrelations@nsrld.com</a>
General Enquiries	<a href="mailto:info@nsrld.com">info@nsrld.com</a>
Compliance	<a href="mailto:compliance@nsrld.com">compliance@nsrld.com</a>
<b>ASX Code</b>	NST
<b>Share Registry</b>	Link Market Services Ltd

**Website Supporting Information:**

GRI/SASB/UNSDG Index, Performance Data Tables, CoE Tailings Information, Biodiversity Tables Values





[nsrltd.com/sustainability](https://nsrltd.com/sustainability)