



**NORTHERN STAR**  
RESOURCES LIMITED



**Sustainability  
Report 2020**





## **Sustainability Vision**

**Delivering responsible environmental and social business practices that lead to both the creation of strong economic returns for our Shareholders, and shared value for our Stakeholders.**

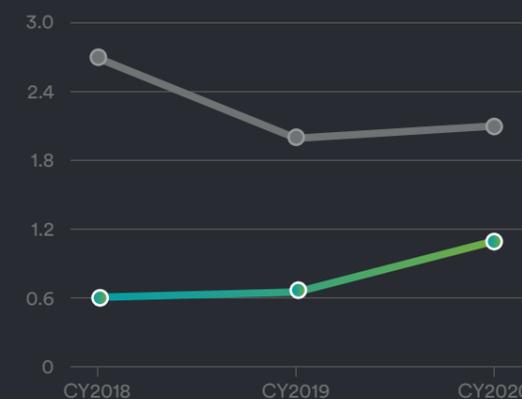
# CY2020 Sustainability Snapshot

## Safety Performance

Outperformed the Industry safety statistics three years running.

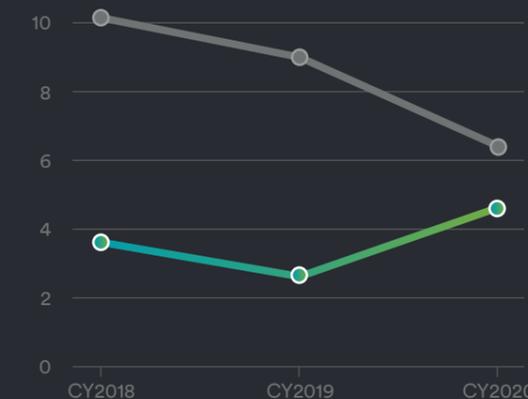
### CY2020 LTIFR<sup>1</sup>

# 1.13



### CY2020 TRIFR<sup>1</sup>

# 4.71



Key ● Northern Star ● Industry average

## Environmental Snapshot

**7%**  
Total water use intensity:  
(Per ounce)

# 0

Number of materially adverse environmental and community incidents

Number of regulator fines for environmental or heritage incidents/non-compliances<sup>2</sup>

Value of regulator fines for environmental or heritage incidents/non-compliances<sup>2</sup>

<sup>1</sup> Number of recordable injuries per million hours worked. Calculated on a 12 month rolling average

CY2020 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2018-19 Metalliferous total

CY2019 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2017-18 Underground Metalliferous

CY2018 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2016-17 Underground Metalliferous

<sup>2</sup> Northern Star inherited one minor regulator fine of A\$8,543 from previous ownership. This fine related to a breach of tenement conditions in conducting exploration drilling without approved permits at our Yandal Operations.

## Our Business

Gold sold up

# 20%

from CY2019 to 982,180oz



Continued increases to our Reserves and Resources.

# 34 / 35

Our corporate governance aligns to 34/35 of the ASX Corporate Governance Council Principles and Recommendations.



Increased dividends paid to Shareholders as our Business grows

## Climate Change



## Our People

# 4,181

Our workforce: employees and contractors (2,892 excl KCGM)

# 21.6%

Female participation in our workforce

# >30%

Female participation on our Board: Above global best practice guidelines

## Culture Survey

Completion of our 3rd Culture Survey in two years – with increased participation to 82%

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## Rehabilitation is a key focus

Owen Oakley oversees the placement of topsoil during rehabilitation works at Jundee, Yandal Operations.

# A Message from our ESS Chair and Executive Chair

## Dear Shareholders and Stakeholders,

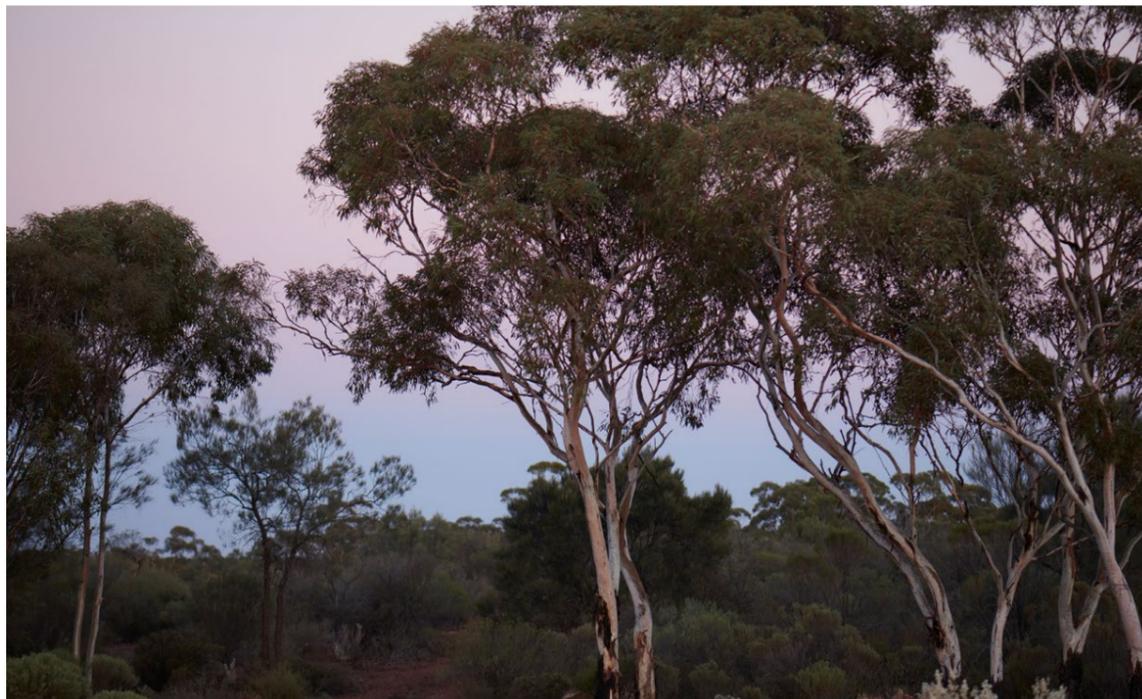
We are pleased to provide our Sustainability Report for CY2020.

With a reporting period which has been, as we well know, unique in the scale of challenges and disruptions it presented, it is preparedness and responsiveness that sets the better performers apart. Despite the highly fluid nature of the last 12 months, Northern Star's response to the situation was exemplary and something every employee, Shareholder and Stakeholder should be immensely proud of. As each challenge emerged Northern Star not only demonstrated outstanding responsiveness but, in many instances led the industry both in Australia and in the US. While this situation tested our people, it is a testament to them and our ingrained culture that despite the many challenges, the resolve to uphold both our values and sustainability vision did not wane.

The health, safety, and wellbeing of our people and those in the communities within which we operate will

always be our highest priority. We continued to deliver sector leading safety performance, and there were no fatalities. The increased turnover witnessed in the mining industry during CY2020 has inevitably led to a higher number of inexperienced workers on our sites. This, coupled with the addition of a significant new operation to our portfolio (50% joint venture interest in the KCGM Operations), contributed to the negative trend in our TRIFR performance, notwithstanding that we remain an industry leader in safety for three years running. We are confident that our increased focus on training, supervision, active field leadership, analysis of near-misses and additional hazard identification training will arrest the negative trend in TRIFR experienced during CY2020.

During CY2020 we implemented an extensive COVID-19 response strategy as detailed in our FY2020 Annual Report, to ensure our people and communities remained safe. It is with great respect and gratitude



Kalgoorlie Operations

that we acknowledge the efforts of our people at the Pogo mine in Alaska. Many have personally experienced the impacts of the pandemic, yet their focus and effort did not stray. On behalf of the Board, we offer our deepest thanks.

Our people ultimately determine our results. This was highlighted within our third culture survey, where 93% or respondents agreed that "when I'm at work I give it my all". It was especially pleasing to see more women enter the sector, as our female participation rate increased to 21.6% of our total workforce. While we still have more work to do, it is a positive sign that we are providing an attractive, safe and opportunity-rich platform for so many women to start and grow their careers.

We demonstrated continued high performance against our environmental commitments, with no materially adverse environmental incidents occurring under Northern Star ownership or operation of joint ventures at any of our assets. Our strategic response to the challenges of climate change continued to progress, with the completion of our second stage of alignment with the Taskforce of Climate-related Financial Disclosures completed. This work saw senior management complete scientifically validated scenario analysis on the business, and identify a target setting strategy that will ultimately lead to the setting of climate targets that can be both realistically achieved and generate a meaningful positive impact on our planet.

Given the uncertainties faced in many regional communities over the last 12 months, it was clear that extra support was going to be needed to overcome some of the challenges felt. In response, we approved an extraordinary A\$10M community COVID-19 fund to provide financial assistance to key areas of need. To date, this fund has supported a range of causes. This includes over A\$1.9M of medical personal protective equipment for frontline health workers in Alaska and A\$1M for the successful development of a mobile COVID-19 testing system that can be rapidly deployed to remote and regional areas and support for further research into the development of other COVID-19 countermeasures.

This year also highlighted the need to maintain open engagement and positive relations with Indigenous peoples and Traditional Owners. We welcome the review of the Western Australia Heritage Act (2018) and are confident stronger protection for Aboriginal heritage can be provided alongside a clear process and pathway for project approvals.

Northern Star does not intend to draw on approvals granted under Section 18 of the Act to progress any of its operations and we commit to upholding a Free, Prior and Informed Consent approach to engagement of Indigenous peoples wherever we operate. We take this opportunity to acknowledge all those Traditional Owners whose land we are privileged to work on and whose input we actively seek and value within the day-

to-day operation of our business.

Our economic contribution to society continues to grow to new levels in line with our expanding business. This year we generated over A\$2B through community investment, goods and services payments, Shareholder dividends, corporate tax, and government royalties. Local procurement, something we acknowledge as critical for regional communities also continues to rise with A\$368M and US\$49M spent on goods and services within Australian and Alaskan local communities, respectively.

The true outcome of all this work is a business that is committed to ensuring all our Stakeholders, be they financial or otherwise, realise meaningful benefits from our business activity. It is exciting to see the progress we have made over the last 12 months; despite the ongoing challenges we continue to face. The business is in brilliant health and we will continue to uphold our sustainability vision, creating shared value outcomes for our Stakeholders and superior financial returns for our Shareholders.

On February 12th, 2021 we will implement the merger of equals with Saracen Mineral Holdings Limited to create the only large-cap gold mining company with 100% production in Tier-1 locations. The merger will see significant geographical, operational and strategic synergies realised in our joint portfolio of high-quality assets. The merged entity will be a long-life global gold producer with over 19Moz of Reserves and 49Moz of Resources across the portfolio.

Four of our existing Non-Executive Directors will transition onto the Board of the merged entity, with Peter O'Connor stepping down as Non-Executive Director effective 12th February. Peter has been a fundamental part of Northern Star's success over the past eight and a half years, providing a wealth of knowledge and experience in the fund management and private equity industries through his roles as a member of the ESS Committee, Nomination Committee and Remuneration Committee. We thank Peter for his guidance and support over the years.

On behalf of our fellow directors, thank you for taking the time to read our CY2020 Sustainability Report.



**Mary Hackett**  
ESS Chair



**Bill Beament**  
Executive Chair

# Materiality & Disclosure

Northern Star is committed to our Sustainability Vision.

We understand that to gain and maintain Stakeholder trust, maintaining and improving on our past performance in responsible environmental and social business practices is important, and so too is transparent disclosure of that performance. We also recognise that expectations in relation to that disclosure change from time to time as different environmental and social business practices gain more prominence and focus amongst our Stakeholders.

CY2020 has been a year of particular significance in responsible social business practices, in addition to the increasing focus and expectations on our environmental business practices.

This Sustainability Report provides information on Northern Star's environmental and social business practices at its wholly owned operations in Western Australia, the Northern Territory of Australia and Alaska, USA to 31 December 2020.

## KCGM Disclosures

On 3 January 2020, Northern Star acquired a 50% joint venture interest in the Kalgoorlie Consolidated Gold Mines (KCGM) joint venture operations, which includes the renowned "Super Pit" in the Goldfields region of Western Australia. All KCGM metrics disclosed in this Report are scaled to Northern Star's 50% joint venture interest, unless otherwise stated. In our CY2021 Sustainability Report, as a result of the implementation of Northern Star's merger with KCGM joint venture partner Saracen Mineral Holdings Limited on 12 February 2021, Northern Star's sustainability disclosures will incorporate 100% KCGM operations as well as Saracen's operations.

## SASB

In our CY2018 Sustainability Report we made a commitment to expand our sustainability disclosures.

In this Report, we report for the first time in accordance with the Sustainability Accounting Standards Board (SASB) Metals & Mining Sustainability Accounting Standard (SASB Standard).

An assessment was completed using the SASB Standard as a guiding framework to identify sustainability issues material to our business. Our full assessment against the SASB Standard sustainability disclosure topics and accounting metrics can be found in Appendix A.

In this Report we disclose our performance in the following areas<sup>3</sup>:

- Greenhouse Gas Emissions
- Energy Management
- Water Management
- Waste & Hazardous Materials Management
- Biodiversity Impacts
- Security, Human Rights & Rights of Indigenous Peoples
- Community Relations
- Labour Relations
- Workforce Health & Safety
- Business Ethics & Transparency

Where appropriate, we report data within these material areas per ounce of gold sold to enable comparisons of trending data across time periods where acquisitions skew total figures. Gold sold is used as the most suitable production intensity metric as it represents a verified metric of the final saleable product produced by Northern Star.



**CY2020 has been a year of particular significance in responsible social business practices, in addition to the increasing focus and expectations on our environmental business practices.**

<sup>3</sup> Air quality cannot be addressed due to differences in reporting standards between Australia and Alaska. Northern Star discloses and reports on its air quality emissions via several mechanisms, including the National Pollutant Inventory in Australia and the Toxics Release Inventory in Alaska. The Company is currently investigating options for standardising the calculation and capture of air quality emissions data across our Operations to allow consolidated data to be reported in next year's Sustainability Report.

## TCFD

In this Report we continue our disclosures aligned with the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD).

Refer to the Climate Change section on pages 56-67 for more detail, with supplementary information provided in Appendices B and C.

## United Nations Sustainable Development Goals

In this Report we continue to disclose the impact of our business on the United Nations (UN) Sustainable Development Goals (SDGs). The 17 SDGs were developed by all UN Member States with an aim to achieve a more sustainable future for all by 2030, by ending poverty, protecting the planet and ensuring all people enjoy peace and prosperity.

We believe we can make the greatest impact on the SDGs by focussing our efforts on the SDGs which are most aligned to our business, namely:

**3 – Good Health & Wellbeing**

**4 – Quality Education**

**8 – Decent Work & Economic Growth**

**15 – Life on Land**

## Other Reporting Frameworks

We intend to continue building on our sustainability disclosures in future Sustainability Reports, through a focus on sustainability priorities which are relevant to the business, our investors and other Stakeholders; better quality data; comparative data, and we will disclose targets and their pathways to mitigate our



## Sustainable Development Goals



We have identified key examples of alignment with the SDGs throughout this Report, with details of the complete assessment disclosed in Appendix D.

footprint on the environment.

Additional reporting frameworks will continue to be considered, based on our operations and their impact on environments, people and communities, taking into account the priorities of our stakeholders.



Pastoral land, Jundee, Yandal Operations.

# Northern Star's Journey

## Planned for 2021

From 12 February Northern Star is implementing the proposed merger of equals with Saracen Mineral Holdings Limited. As part of this implementation, Northern Star is evaluating, updating and setting Northern Star's environmental, social responsibility and governance strategy for the merged entity. This will incorporate Northern Star's target setting action plan, disclosed in this Report.

## 2020

Purchase of 50% of KCGM joint venture Operations

SASB materiality framework applied in our disclosures in this Report

Completion of Stage 2 TCFD Project

## 2018

Purchase of the Pogo Gold Mine in Alaska

Board level ESG & Safety Committee established (now the Environmental, Social & Safety Committee)

First disclosure of climate change related risk

Alignment with the United Nations' Sustainable Development Goals (SDGs)

## 2019

First ESG Investor Roadshow

Voluntary Modern Slavery Statement released

Adoption of the TCFD recommendations

Takeover of Echo Resources Ltd, resulting in change of control of the Bronzewing Project

## 2017

Release of the Inaugural Sustainability Report

Inaugural participation in the Dow Jones / RobecoSAM sustainability survey

## 2014

Purchase of the Kanowna Belle, Kundana and Jundee Gold Mines

## 2003

East Kimberley focused exploration company targeting nickel and gold

## 2010

Purchase of the Paulsens Gold Mine

Key  
Financial event  
Sustainability event

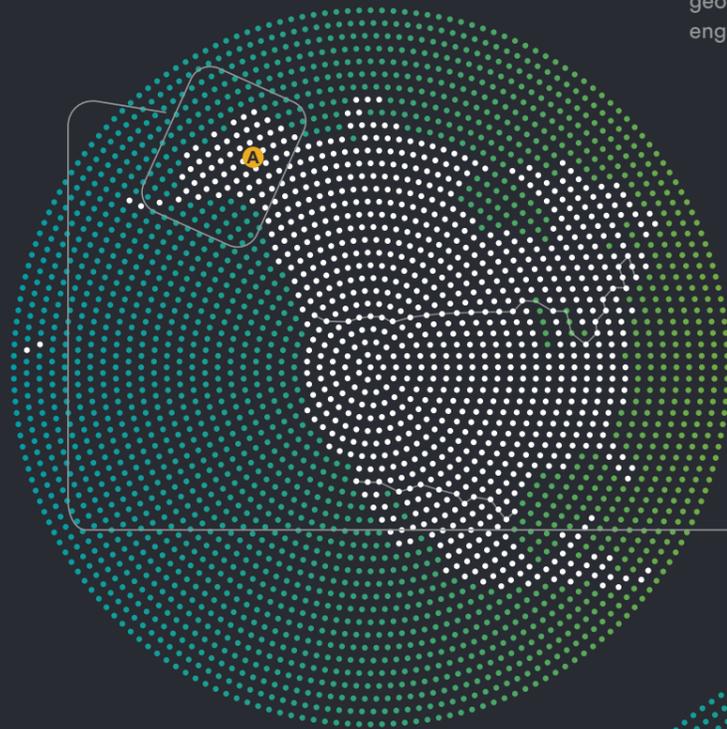
# Where We Operate

Our portfolio of mining operations includes Tier-1 mines in Tier-1 jurisdictions.

An increased focus on environment, social and governance risk and performance has guided Northern Star's business plan for inorganic growth in highly prospective and low sovereign risk regions known as Tier-1 jurisdictions.

The Fraser Institute compiles an Investment Attractiveness Index through consideration of the geological attractiveness of regions and the effects of government policy on attitudes toward exploration investment.

We operate in jurisdictions ranked top four in terms of attractiveness for mining investment, where Tier-1 geological resources are complemented by open and engaging Governments with stable policies.



### The Fraser Institute's Investment Attractiveness Index (as at February 2020)

Most attractive jurisdictions for mining investment:

1. Western Australia
2. Finland
3. Nevada
4. Alaska
5. Portugal

Fig 1 Northern Star Tier 1 mining operations in Tier 1 locations

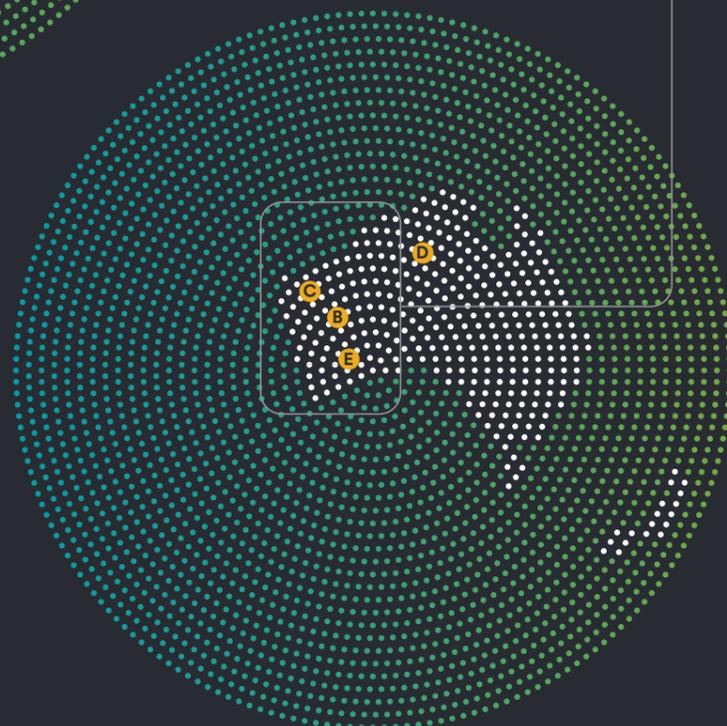
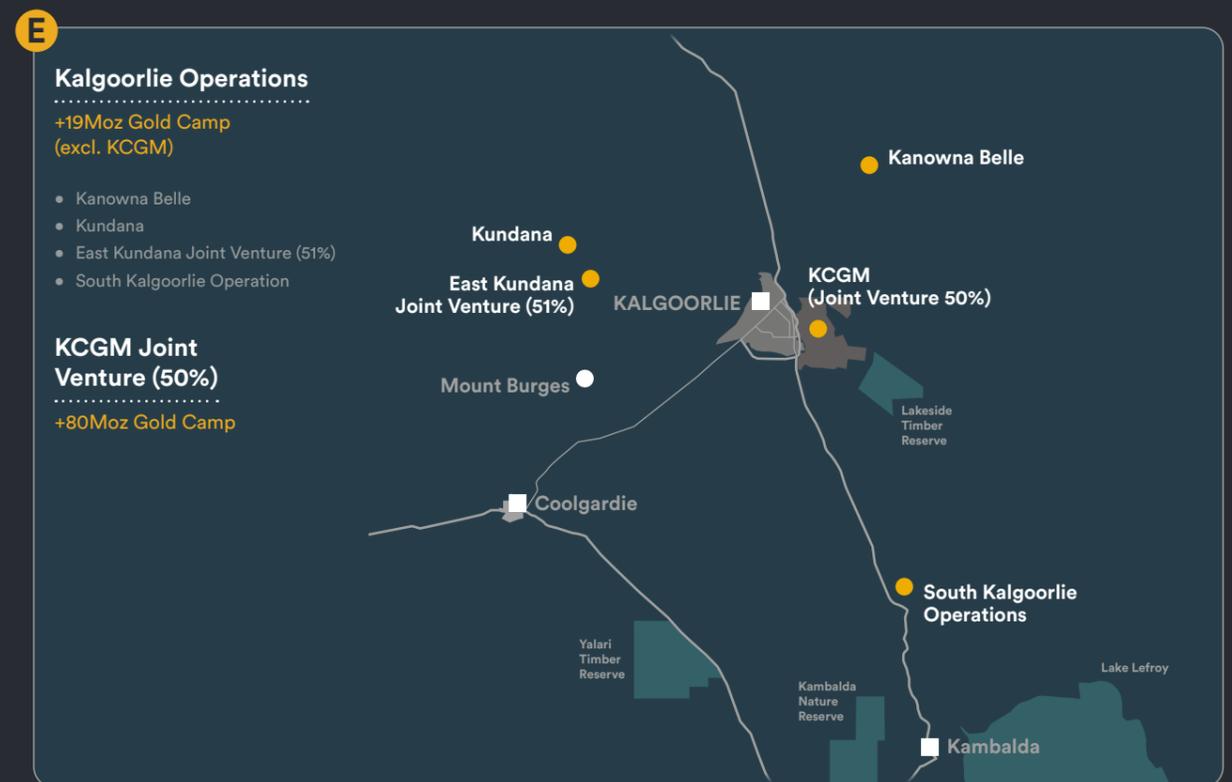
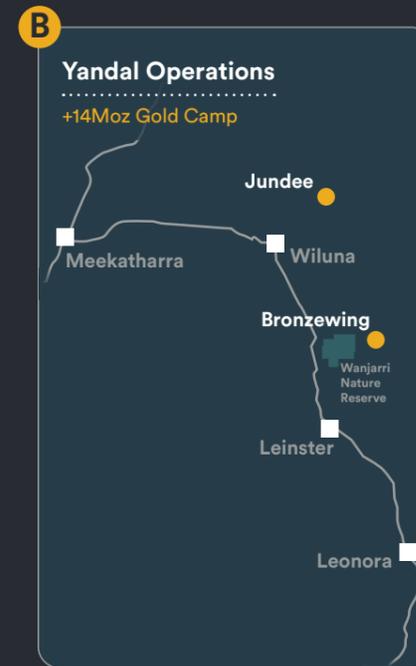


Fig 2 Northern Star mine sites and our nearest communities

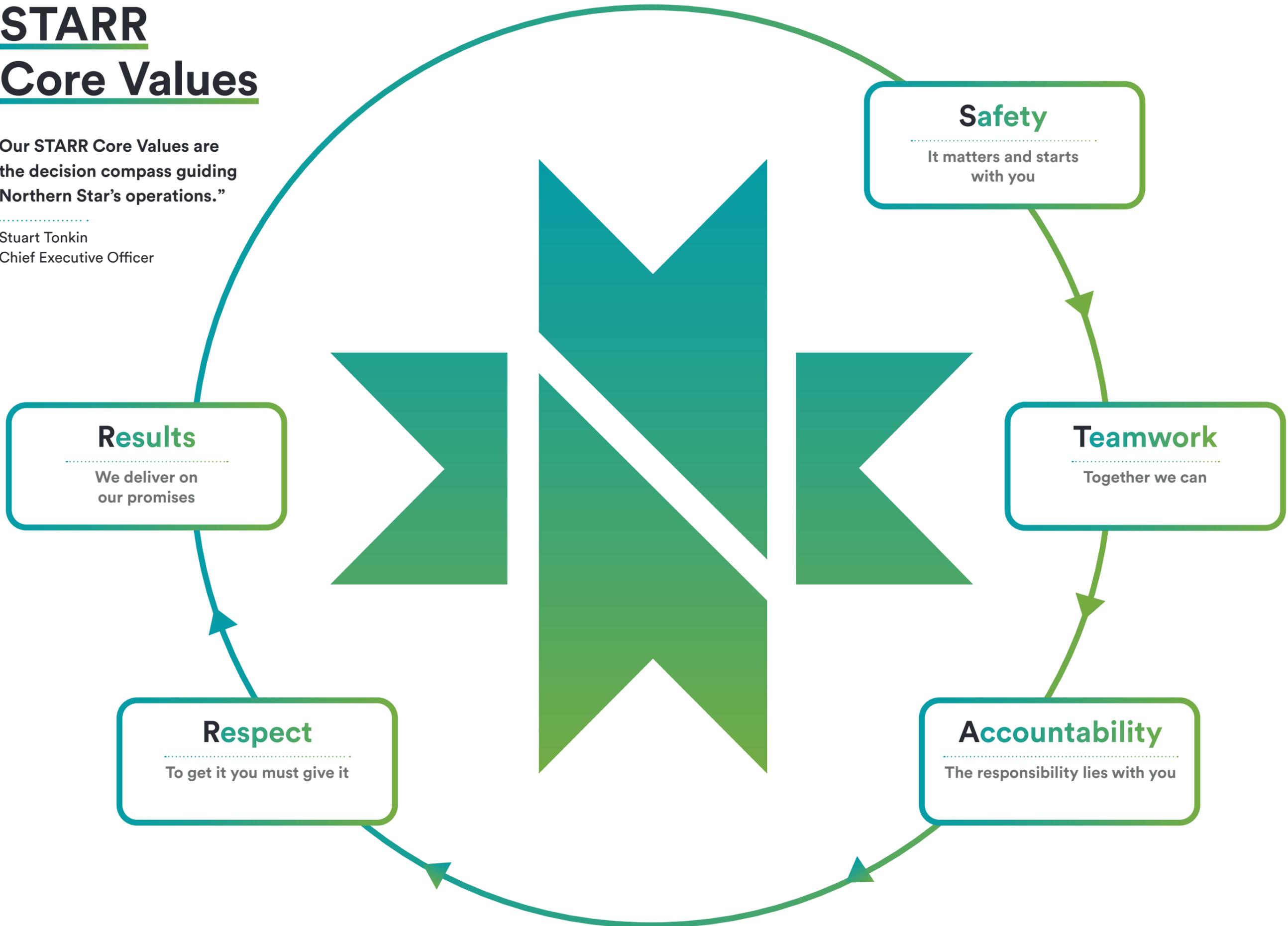
In January 2020 Northern Star completed the acquisition of a 50% interest in the KCGM Operations, gaining Saracen Mineral Holdings Limited as a joint venture partner. We also unified ~170km of continuous tenure to consolidate our Jundee and newly acquired Bronzewing Project under the now renamed Yandal Operations.



# STARR Core Values

“Our STARR Core Values are the decision compass guiding Northern Star’s operations.”

Stuart Tonkin  
Chief Executive Officer





Safety

Performance

# Continued Safety Performance

“Our investment in our people and commitment to industry leading safety performance will always be our number one priority.”

Melissa Collins, **Group Manager – Health & Safety**

Safety leadership and risk management are fundamental aspects of our operations, having a pivotal role in our decision making.

Deploying Active Field Leadership means our supervisors and leaders are actively engaged with employees throughout our operations, focussed on improvements to the safe system of work we deliver to our workers. Leading by example and safety shares at safety and pre-shift meetings maintain the constant focus on safety. “Strive for Five” meetings conducted for every shift facilitate clear discussion about safety for each shift.

Our Safety Representative programs continue to support and train our emerging safety leaders in improving our safety management system.

The annual CEO meetings with Health and Safety Representative at each site result in frank, open discussion and interaction with the highest level of management on safety issues. Continuous improvement in our risk management assessment, incident investigation training and internal reporting contributes to our quality, consistent approach to managing risk and reporting on incidents and near misses within the operations.



## Safety Snapshot

Outperformed the Industry safety statistics three years running.

Key  
● Northern Star  
● Industry average



<sup>4</sup> Number of recordable injuries per million hours worked. Calculated on a 12 month rolling average  
 CY2020 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2018-19 Metalliferous total

CY2019 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2017-18 Underground Metalliferous  
 CY2018 Industry means the DMIRS Safety Performance in the Western Australian Mineral Industry – Accident and Injury Statistics 2016-17 Underground Metalliferous



**Early, effective response is key to our safety performance**

Jordan Iese, ESSO at Emergency Response Training, Kanowna Belle

We use our INX safety management database Power BI tools to log and analyse lagging and leading indicators such as injury frequency rates, near misses, occupational illness and damage events, hazards identified, and workplace inspections. This helps our leaders identify trends and decide where to apply targeted improvements to our safety processes and training.

There were no fatalities at Northern Star in 2020 but the Company did record an increase in injury frequency rates, in particular sprains and strains. The increased turnover witnessed in the mining industry during CY2020 has inevitably led to a higher number of inexperienced workers on our sites. This, coupled with the addition of a significant new operation to our portfolio (50% joint venture interest in the KCGM Operations), contributed to the negative trend in our TRIFR performance, notwithstanding that we remain an industry leader in safety. We are confident that our increased focus on training, supervision, active field leadership, analysis of near-misses and additional hazard identification training will arrest the negative

trend in TRIFR experienced during CY2020.

Northern Star aims to continue outperforming the industry for safety and its FY21 executive remuneration framework includes targets and stretch targets to reduce the Total Recordable Injury Frequency Rate (TRIFR). The short term incentive (STI) performance measures for the Executives and senior leadership team include a stretch target of reducing TRIFR to below 3.3. A minimum target of TRIFR below 6.4 must be satisfied for any award of STI to be made under this performance measure, with 50% awarded for a TRIFR less than 6.4 and 100% awarded for a TRIFR less than 4.33.

Western Australian safety legislation is undergoing a major structural change, with the new Work Health and Safety Act 2019 expected to come into effect during mid-July 2021 replacing existing key safety legislation. The preparatory work to ensure full compliance is well underway, and training on site with legal experts will commence in early 2021 to ensure the changes are well understood at every level of the operations in Western Australia, from the Board down.

## Mutual Aid and Emergency Response

Development of our regional partnerships through mutual aid agreements has continued with the recognition and identification of synergies, an increased ability to streamline training, share resources, knowledge, facilities, and where practicable, equipment. This continued investment in resources ensured that we were positively positioned to source much needed N95 masks, ear loop disposable masks and gowns for the state of Alaska. This medical equipment was distributed throughout the region to assist the state in managing their COVID-19 response and public health challenges, including to our Pogo Operation's nearby community of Fairbanks.

Our Emergency Response programs committed to developing the capabilities of our teams across

all operations with an increased focus on building support, career opportunities and progression of our members to emergency services safety officers. A sound understanding of compliance, regulation and site emergency procedures is complemented by their completion of several external qualifications.

As part of the development and progression, members are encouraged to obtain qualifications not only in emergency rescue, but also in medical training and safety. The initiative is based on an understanding of the chain of command during emergency situations, communication, expectations of the officers during a major event, managing resource requirements and personnel, maintaining site capabilities, interactions with government agencies and plans for recovery.

## Mental Health

Throughout CY2020 Northern Star continued the wider implementation of the Mental Health First Aid program which has provided our Mental Health First Aiders with the tools and ability to recognise colleagues who may need, or benefit from, professional help and guide them towards seeking it. Northern Star recognises that for our people to be at their best and working at their safest, we need supervisors, managers and leaders to be able to respond early and quickly to mental health challenges in our workforce.

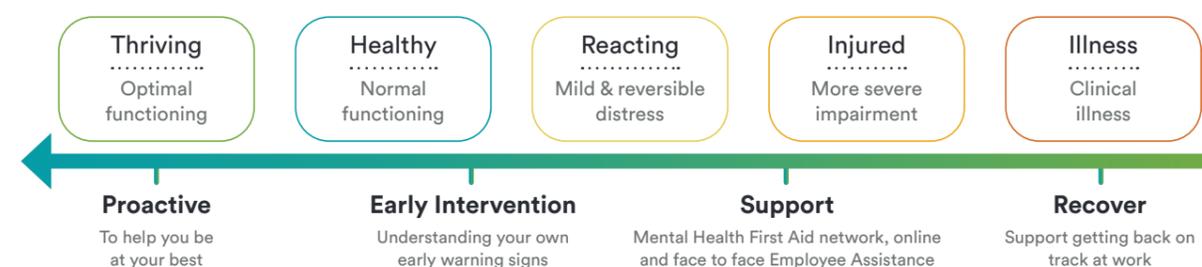


to fellow workers in the workplace who may be showing signs of mental health issues, provides a practical and important learning resource for employees.

Our Fitness for Work Standard now includes a simple decision tree to assist managers where poor mental health may present in the workplace, to address the risks presented by poor mental health in the workplace, such as fatigue, increased irritability, decreased frustration tolerance, low resilience when encountering challenges at home and at work, poor concentration, physical health impacts such as headaches and heart palpitations, changes in sleep patterns and sleep deficit, lowered motivation and decreased energy and productivity. These can all contribute to impaired safety in the workplace for the worker experiencing these symptoms and for other workers. This safety imperative is a driver within Northern Star to ensure good mental health prevails in the workforce, and where we can assist our stakeholders, in the communities in which we operate. The challenges of COVID-19 have added to the mental health risk in our workplace; in the People Performance section we explain the steps we have taken to provide additional support including online, face to face and telephone support and resources to improve workforce wellbeing levels.

As a result, Northern Star is well placed to respond to government audits designed to increase and promote the level of mental health understanding and support in the mining industry in Western Australia.

Figure 1 Mental Health continuum



## Progress report on our 3 Year Plan

In CY2018 we committed to a 3 year plan, framing continuous improvement in safety within our operations:

### Year 1 Develop

...the right guidance material so that all sites have improved tools to identify and control hazards and manage risk efficiently. (Achieved in FY2018)

### Year 2 Consolidate

...ensure the safety procedures and processes are implemented correctly and are adding value across the Company. (Achieved in FY2019)

### Year 3 Improve

...identify areas for improvement and implement those changes. (Achieved in FY2020)

Examples of improvements we implemented in our safe system of work during CY2020 include:

### Safety Leadership

- Increased supervision across our underground operations particularly at the end of shift and during night shift
- Remodelled prestart meetings to ensure clear, consistent messaging from the leaders
- Information sessions on how decision making is directly influenced by numerous factors especially human behaviour and how leaders can manage this
- Updated tools used for task planning to further engage workforce and address hazards

- Workshop conducted with teams to identify '5 Starts & 5 Stops' and the commitment to those

### Training

- Assigned 'group' trainers to specific areas to provide an increase in experience and support to the overall workforce and especially those new employees
- Increase in site trainers to decrease timeframes for overall training requirements
- Updated our green starter program to include mentoring with Health and Safety representatives on site
- ICAM mentoring to improve the outcomes following any investigations
- Modified job pathway for entry level roles such as Offsider/Nipper

### Safety

- Conduct trials of new equipment and PPE
- Focus on improving risk management tools in particular Hazard Identification and Job Hazard Analysis training
- Ensure the correct work/rest cycle is being followed to improve fatigue management and focus on fatigue management training
- Rewarding individuals for hazard identification and rectification
- Ensuring support for teammates and cross shift in the work area

# CY2020 COVID-19 Response

“Protecting lives and livelihoods was and remains our priority in the response to the pandemic, for our employees, contractors and the communities in which we operate.”

Stuart Tonkin, Chief Executive Officer

## Adapting to working and living in a global pandemic

Makesha Harris, COVID cleaner / housekeeper for ESS Worldwide, Pogo Operations

# CY2020 COVID-19 Response Highlights

## Safety

Protecting lives and livelihoods was and remains our priority in the response to the pandemic, for our employees, contractors, and the communities in which we operate. Workers were asked to change the way they worked, travelled and how they interacted professionally and socially. Workers' families were asked to adapt to changing rosters in order to reduce the risks of virus transmission during roster changeovers. Many workers spent extended times on site apart from their families, and many others spent extended times at home with their families working remotely from sites and offices to reduce the risk of virus transmission to enable Northern Star's operations to continue, and for the benefit of society generally in suppressing transmission of the virus to vulnerable groups.

## Teamwork

The COVID-19 response and business continuity team assimilated information daily about the virus from multiple sources in Australia and the USA, assessed the risks to continuity in our operations, and engaged with governments and Stakeholders to collaborate in the protection and advancement of our workers' health and job security during this unprecedented time of global uncertainty. Decision making and communication to the workforce in a compressed timeframe was rapid and effective, with regular revision as the business continuity team's understanding and knowledge about the virus, its transmission and control of transmission grew. Our workers, business partners and Stakeholders demonstrated outstanding teamwork throughout in acceptance of and implementing the changes to how we work and travel to work.



Shawn Clausen, Lead Assay Technician, Pogo Operations

## Accountability

Northern Star retained the trust of governments, including state health departments, in our response to the public health emergency at each of our sites and in the transportation of our people to and from our sites. Not one site was closed down. No Australian operations experienced a positive COVID-19 case. Pogo's effective response to positive COVID-19 cases became a blueprint for other North American mining operations, to maximise full recovery to good health and strictly controlling the risk of transmission in the workplace and local communities.

## Respect

Consistent firm messaging based on well informed decisions ensured that levels of respect and responsiveness within Northern Star and with its Stakeholders remained high.

## Results

We initiated what changes to the workplace were prudent and necessary to protect lives and livelihoods, to continue our operations to keep jobs open, but at the same time we did not lose sight of what effective recovery from the public health crisis would look like. Our prudent financial management in the end resulted in payment of a special dividend in addition to delivering on our dividend policy of 6% of revenue. We continued our year-on-year operational performance and growth in Resources and Reserves, disciplined mergers and acquisitions, and generated significant increases in mine life visibility. Northern Star has generated some of the highest returns on capital on the ASX over the past 10 years. Our increased Resources and Reserves and low capital expenditure required to deliver annual production growth will enable us to maintain these superior returns into the future, notwithstanding the potential distractions and disruptions presented by the COVID-19 global pandemic.

**Our workers, business partners and Stakeholders demonstrated outstanding teamwork throughout the pandemic, in acceptance of and implementing the changes to how we work and travel to work.**

## Health and Wellness

Northern Star's proven ability to preserve, protect, and manage the overall physical and mental safety, health, and wellbeing of our people was crucial to our response during the COVID-19 global pandemic. This year has highlighted the agility and flexibility of our people, in being able to respond quickly and effectively to the necessities of social distancing in the workplace, COVID-19 screening and testing regimes, and remote working. The resilience of our people in enduring long lasting changes to the way we live, travel, and work, and the strength in the collaboration and teamwork we have developed with our contractors and support services, are the enduring legacy of Northern Star's highly effective early response to the pandemic.

In keeping with our STARR Core Values, the teams remained focused on ensuring the health and wellness of all personnel and leveraged our existing business partnerships to:

- rapidly implement social distancing, screening, and testing protocols with the objective of ensuring that no workers contracted the virus travelling to, or while at, work on our sites;
- ensure any workers who contracted the virus received the best possible health care and their close contacts were monitored and tested; and
- protect the rest of the workforce and local communities by implementing appropriate isolation practices where required.

Some key features of these protocols used from time to time during CY2020 are:

- testing all workers prior to arrival at Australian sites and where possible, at Pogo;

- testing of all personnel that develop COVID -19 like symptoms;
- effective social distancing practiced in all areas with increased flights to facilitate reduced numbers on flights and buses;
- chartered flights replaced the use of public scheduled flights, including between Pogo and Australia;
- elevated hygiene practices maintained;
- clear, regular, and concise communications;
- modifications to rosters to reduce roster changeover numbers;
- health screening and testing on a weekly and then quarterly basis, including corporate office; and
- utilisation of Government resources for travel and contract tracing.

We would like to acknowledge the assistance we received from two key business partners in our COVID-19 response; Red Earth Health Solutions and OccuMed.

The external Red Earth Health Solutions team occupational health nurses provided an invaluable resource in health screening over extended periods for our Australian workers at various screening locations and airports prior to arrival at site.

The support and direction from the external occupational physicians at OccuMed enabled our business continuity team and the occupational health and safety team to maintain their agility and operate proactively as COVID-19 risks and responses evolved throughout the pandemic.



Socially-distanced Managers meeting as part of our COVID-19 response measures, Pogo Operations.

## Case Study: Leveraging internal values and business partnerships

Each year Northern Star hosts its annual STARR Awards, celebrating those personnel who have demonstrated our STARR Core Values of Safety, Teamwork, Accountability, Respect and Results and presenting them with an award for their ongoing commitment to our business.



One of this year's awards went to an OHS Administrator who joined the Northern Star team, and mining, for the first time in CY2020.

The employee was recognised for her efforts in the coordination of health testing and ground support processes for our fly-in fly-out workforce within Australia during the peak of COVID-19 restrictions. The support she provided to our personnel, transitioning through airports as part of their jobs, ensured they were updated and informed about changing travel processes in response to the pandemic and that required health testing was conducted with minimal disruption or concern.

This work was supported by our ongoing relationship with OccuMED, a consultancy-based risk management service provider. Developing value and strength within our business partnerships remains a key driver for Northern Star; the relationship that we have built with OccuMED is no exception. OccuMED were integral in the provision of up-to-date health briefs, short to longer term contingency plans, formulation of policies and procedures along with the review and implementation of proactive preventative plans

### The employee was recognised (with a STARR award) for her efforts in the coordination of health testing and ground support processes for our fly-in fly-out workforce within Australia during the peak of COVID-19 restrictions.

enabling our OHS teams to maintain industry leading pandemic management plans. Their 24/7 on-call support ensured we were able to implement decisions based on the most up to date and current medical advice, allowing the ongoing operation of our sites without risk to personnel.

# SUSTAINABLE DEVELOPMENT GOALS

## Safety Performance

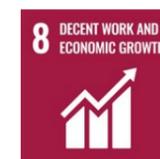
Our alignment with the UN Sustainable Development Goals through our Safety Performance.



**3.2** By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

### Supporting Children's medical research

Through our ongoing support of the Perth Children's Hospital Foundation and Telethon Kids Institute we can give back to our Western Australian community with over A\$2M invested in research programs targeting children's health since 2013. In CY2020 we assisted Perth Children's Hospital Foundation to kick-start the second phase of their SAFE-T study - a world-first interdisciplinary research program to improve the safety and care of children requiring tonsillectomies.



**8.7** Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms

### Increasing employee awareness of Modern Slavery risks

In CY2020 we continued to educate key personnel within our organisation on the risks of Modern Slavery within our supply chains. Northern Star is committed to ensuring the elimination of Modern Slavery, a key human rights risk to vulnerable people across the globe. Departments trained to date include Procurement, Social Responsibility, External Relations, Legal and Site based General Managers. We plan to expand training to other disciplines and new starters throughout CY2021.



**3.8** Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

### State of Alaska public health assistance

During the initial phases of the COVID-19 response in the United States, the State of Alaska identified a shortfall in personal protective equipment (PPE) for managing the risk to its health care workers. Northern Star was able to leverage its procurement and logistics expertise to fly 100,000 N95 masks, 400,000 ear loop disposable masks and 12,425 gowns to assist the State of Alaska public health challenges.



People

Performance

# People: key to our success

“A well and sustainable workforce and community has never been a more critical part of our success than it was in CY2020.”

Peta Slocombe, [Executive Manager Capability & Culture](#)

As a results-focused business we have significantly increased our ‘pulse checks’ of people and performance, using analytics to drive the customised strategies necessary for multiple sites in different jurisdictions. The increased capture and adoption of analytics has allowed Northern Star to make better informed decisions around our people management strategies based on measurable data.

We have developed a number of dashboards to assist Managers and Executives across the business in responding to employee concerns, managing retention, and identifying high talent employees. Our dashboards visually summarise the data, including real time tracking of employees’ onboarding experiences throughout their first year with the Company, reviewing overall job satisfaction of site and occupational groups and ensuring key leadership roles receive the support and development required for their roles.

Northern Star believe our performance is related to how quickly we can assess data points and engage in a fast-feedback framework. The information is available to senior managers within the business to ensure we are able to respond to employee concerns or topics of interest in a timely manner. These dashboards also allow the quantification of differentiating employee

needs, performance, turnover and experiences according to whether they work in mining services or elsewhere, are FIFO or Residential, or are based in North America or Australia..

## Employee Wellness

During the height of the protective measures during lockdown, we also launched GoldSTARR – a wellbeing hub where employees could continue to do exercise classes virtually, participate in mindfulness exercises, complete meditations, and get help with sleep, diet and injury. GoldSTARR also enabled co-workers to give each other recognition shout-outs with the Social Recognition wall, and book online consultations with counsellors, exercise physiologists, and leadership coaches.

A workforce of 4,181 will at times face personal challenges. Northern Star were delighted to be announced as Winners in the AMMA Australian Resources & Energy Group Mental Health Category in October this year. The award recognised our Mental Health First Aid, GoldSTARR and digital psychology services in addition to our sustainable and contemporised contribution to community mental health in the areas in which we live and work.



**Our STARR Core Values underpin our people focused culture**

Nick Poznick, Project Resource Geologist at Kanowna Belle Coreyard.

“In selecting the winner of our Excellence Awards (mental health category), the judges could not go past Northern Star’s diverse, inclusive, strategic and industry-leading approach to the wellbeing of their people.”

Executive Director, AMMA

### People Snapshot

**2,892**

Our workforce: direct employees & contractors (excluding KCGM). 4,181 (including KCGM at 100%)

**21.6%**

Female participation in our workforce

**102**

Current Graduates, Vacation Students, Trainees & Interns (across Australia and Pogo)

**62**

Current Apprentices (including Trade Upgrades)

## Our Workforce

During CY2020 Northern Star's workforce continued to grow across our Australian and North American operations, in addition to the expanded employee base resulting from the acquisition of 50% of the KCGM Operations. Our workforce is made up of 1,941 Northern Star employees and 951 contractors as of 31

December 2020, taking our total workforce (excluding KCGM) to 2,892. This represents growth of over 8% compared to this time last year. Including KCGM's workforce of 859 employees and 430 contractors, our overall workforce reached 4,181 team members as of 31 December 2020.

Table 1 Our Workforce

Workforce	Northern Star	KCGM (100%)	Total
Employees	1,941	859	2,800
Contractors	951	430	1,381
Total	2,892	1,289	4,181

The Company remains committed to local employment and the support of local communities. Employees in our Kalgoorlie Operations (including KCGM) are comprised of an 86% residential workforce (78% excluding KCGM / 96% KCGM only) with 93% of

Pogo Operations also made up of US employees from Alaska (59%) and other US States (34%).

None of our American employees are covered by collective bargaining agreements.

Figure 2 Our age demographics (exclusive of KCGM)

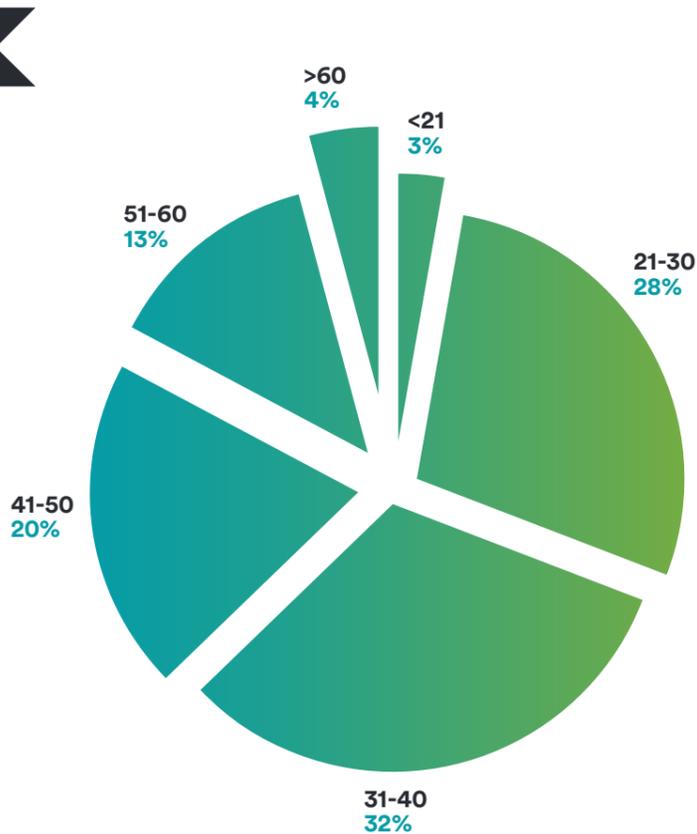
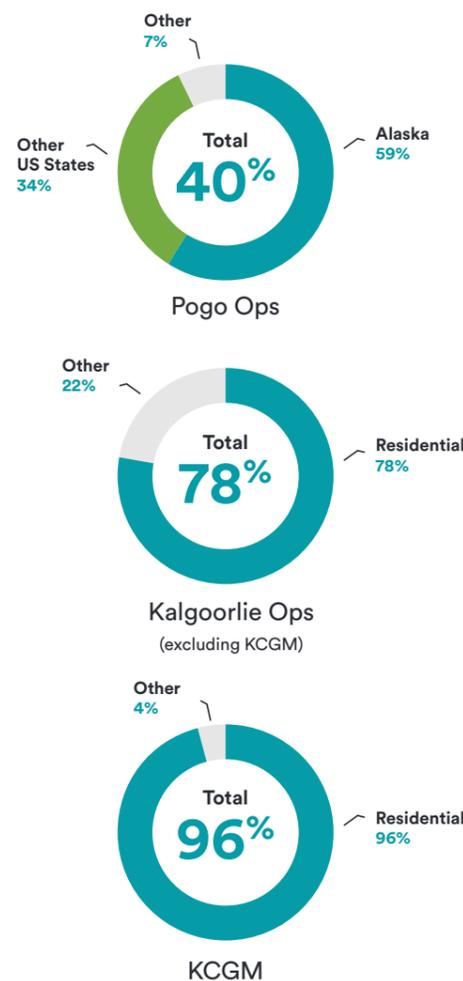


Figure 3 Local Employment



## Culture

At the heart of high performing teams, as well as being a key factor in attraction and retention, is a strong organisational culture. Northern Star measures its STARR Core Values, employee engagement levels and employee experience in an annual culture survey

which identifies strengths and key focus areas for the year ahead. Our third culture survey saw our highest participation rate with 82% of our workforce responding. We saw improved responses across Core Values and our engagement scores, including:

Figure 4 Key culture survey responses



## Diversity and Inclusion

Gender diversity remains a constant focus for Northern Star. We understand that continually developing our policies and procedures is vital to ensuring the sustainability of our business and progress of our community. Some of our diversity initiatives include:

Female participation rates at Northern Star and KCGM have increased to 21.6% of the workforce. This ratio will change following the Saracen merger, taking into account the Saracen workforce and 100% of the KCGM workforce. The CY2021 Sustainability Report will include more information about the combined group strategies to increase female participation in the workplace such as further development of flexible working practices to encourage retention.

- Reviewing and developing paid primary and secondary carer's leave policies
- Conducting pay parity reviews throughout the year
- Exploring flexible work arrangement options for employees to better support family responsibilities

Northern Star again submitted its Workplace Gender Equality Agency (WGEA) report for 2019-2020, along with 4,942 other businesses, covering over 4 million employees in Australia. The WGEA gender scorecard<sup>5</sup> reported that while the representation of women declines with seniority, the representation of women across all manager categories has grown consistently since 2013-2014.

Figure 5 Key female participation rates (excluding KCGM)

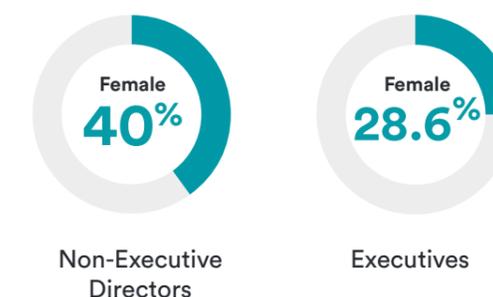


Figure 6 Diversity



## Disability Employment Program

In September our Kalgoorlie Operations devised a strategy to explore other facets of workplace diversity, to improve employee retention, and educate and build awareness around disability employment in particular. The team has established relationships with local disability service providers to co-develop a disability employment plan. From January 2021, we are further developing employment

relationships, and commencing interviewing potential candidates. It is expected that this program will help to educate and break through prejudice linked to disabilities, incite change by being recognised for our commitment to diversity internally, strengthen morale and productivity through a more committed and diverse workplace and increase community involvement.

<sup>5</sup> Australia's gender equality scorecard – Key results from the Workplace Gender Equality Agency's 2019-2020 data (November 2020)

## Developing Our People

Northern Star have identified core capabilities required across the business in order to continue to build and retain a sustainable workforce. In October we launched MyDevelopment, a customised hub encompassing e-learning, access to internal and external development opportunities, a manager approval process, and links to an employee's performance development plans. MyDevelopment makes learning more accessible to our employees than ever before at Northern Star.

Combined with a fully digital platform tracking employee performance, career development goals, role satisfaction and manager ratings, employees have been able to increase their development. This data driven approach also applies fast feedback to the business on new employee

experiences and exiting employee feedback.

Recognising that managing change, increasing collaboration required for innovation, and motivating a diverse workforce require highly developed interpersonal skills, our Emerging Leaders workshop has been completed by 91 leaders with a focus on coaching skills and heightened emotional intelligence.

**MyDevelopment makes learning more accessible to our employees than ever before at Northern Star.**



Alice Nickels, Graduate Geotechnical Engineer and member of the Kalgoorlie Operations Emergency Response Team.

## Skills of the Future

Northern Star continues to be committed to the training and development of professionals and tradespeople within our Company. We are proud to celebrate 6 years of operating our Graduate and Vacation Student programs. Across the business we have onboarded more than 300 new professionals and we plan to grow these intakes through CY2021.

### Apprentices

Our dedication to developing skilled tradespeople across our operations continued in CY2020 with a total of 62 apprentices (including Trade Upgrades) engaged in the business as of 31 December 2020. Our apprenticeship program incorporates 7 disciplines:

- Apprentice - Auto Electrician
- Apprentice - Boilermaker
- Apprentice - Communications
- Apprentice - Electrical
- Apprentice - Fitter - HD
- Apprentice - Fitter - LV
- Apprentice - Mechanical

Recruitment for our CY2021 intake is currently underway and we expect to engage an additional 13 apprentices.

### Graduates

Our two-year graduate program has been running for seven recruitment intakes across our Australian Operations, incorporating five mining related disciplines to date:

- Graduate Mine Engineer
- Graduate Geologist
- Graduate Metallurgist
- Graduate Surveyor
- Graduate Geotechnical Engineer

The program has proven effective in engaging and retaining talented young professionals within our business. As at 31 December 2020, 49 graduate students are currently placed in our Australian operations. The program was extended to our Pogo Operations in Alaska, with students completing their first year through CY2020. A total of 14 students are currently undertaking the graduate program in Alaska.

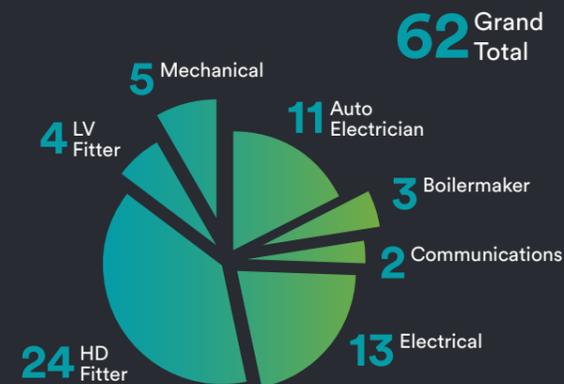
In CY2021 we are adding an Environmental discipline to the recruitment process and will see our first two Environmental Graduates join the business at our Kalgoorlie and Yandal Operations.

### Vacation Students

Our Australian vacation work experience and Alaskan intern programs are designed to provide a hands-on experience that allows students an opportunity to gain insight into employment within the mining industry and develop the skills required for their disciplines. The program also provides ongoing casual employment, opportunities for further vacation work, and early acceptance into our graduate program.

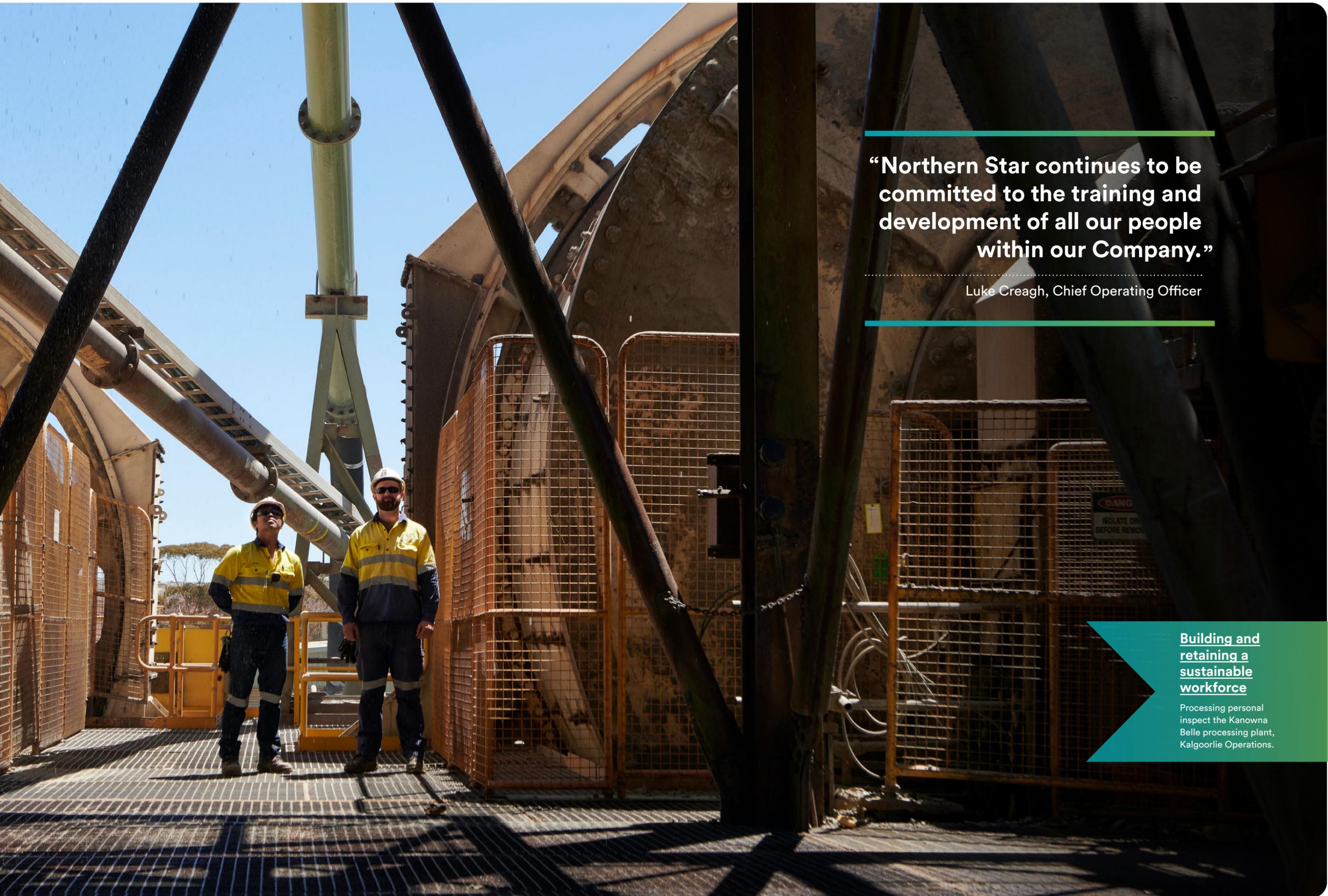
As at 31 December 2020, we have 37 students across our Australian Operations and 1 intern at our Pogo Operations.

Figure 7 Apprentices as of 31 December 2020



**“Since joining as a Graduate in 2016 I have gained experience in daily operation and project roles across 5 different operating plants, covering both free milling and refractory gold. The Graduate program offered me significant opportunities in both technical and personal development.”**

Jonathon Clare, Project Metallurgist (Graduate Metallurgist 2015/2016 intake)



“Northern Star continues to be committed to the training and development of all our people within our Company.”

.....  
Luke Creagh, Chief Operating Officer

**Building and retaining a sustainable workforce**

Processing personal inspect the Kanowna Belle processing plant, Kalgoorlie Operations.

## Case Study: Flexible Work Arrangements - Operational Roles

Northern Star is continually focused on exploring flexible working arrangements to support our workforce and increase diversity across the business.



Rebekah Smiles with her daughter Eva

Implementing flexible working arrangements for operational staff employed in shift work has generally been perceived as more challenging than those for office-based personnel. With a workforce comprising a large proportion of operationally based shift-workers, shifting this mentality within the mining industry remains a focus for Northern Star, as a vital piece in our retention of talent to support our high performing teams.

During CY2020 and in the midst of COVID-19 restrictions, Rebekah Smiles, Senior Metallurgist at our Kalgoorlie Operations, proactively developed flexible working arrangements for a site-

based leadership role, motivated by her family's change in circumstances as they welcomed their daughter to the world, motivating a desire for improved workplace flexibility. With support from Northern Star, Rebekah transitioned to a part-time leadership role which also incorporated working from home optionality, in which she is excelling - working strategically with the processing teams to maximise value across our Kalgoorlie Operations. Rebekah demonstrated valuable leadership and team skills in developing the part-time role and the flexible working arrangements. Rebekah's success is testimony to the value of flexible working arrangements to both Northern Star and its employees.

# SUSTAINABLE DEVELOPMENT GOALS

## People Performance

Our alignment with the UN Sustainable Development Goals through our People Performance.



**1.5** By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

### Supporting our community during COVID-19

With over half of our employees living locally in our areas of operation, ensuring they have access to adequate services and business within the local community is a priority for Northern Star. COVID-19 presented numerous challenges for the regions we operate in, including local businesses, not-for-profits, and government bodies. The Board approved the establishment of a \$10 million fund to assist with COVID-specific donation and sponsorships to help these communities. One example is our partnership with the Kalgoorlie-Boulder Chamber of Commerce and Industry in developing supportive grants to financially assist local businesses within the Goldfields region of Western Australia.



**5.1** End all forms of discrimination against all women and girls everywhere

### Exposure to the mining industry for young women

Supporting initiatives that enhances the skills, confidence and capabilities of young women is critical to supporting gender parity in the communities in which we operate. Three initiatives we supported in CY2020 include the Focus on Mining Camp, Shooting Stars and Goldfields Girl programs. The Focus on Mining Camp takes a group of female high school students from across Western Australia to the Goldfields for an in-depth look around the Curtin Kalgoorlie university campus and nearby mine sites. Shooting Stars is an organisation we support through the Gold Industry Group's sponsorship of Netball WA. It is an educational program centred around netball, to encourage greater school engagement amongst young Aboriginal girls and women. Goldfields Girl provides a series of workshops focused on employment, goal setting, community development, mental health and wellbeing to young Aboriginal and Torres Strait Islander women in Kalgoorlie to increase confidence, resilience, and their capacity to become young leaders within their communities.



**10.2** By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

### Supporting vendors with disability employment programs

At our Pogo Mine we source our core trays/boxes through Career Industries, an organisation devoted to enriching the lives of people with disabilities. Career Industries' integrated workforce ensures adults with disabilities are provided with the opportunity for meaningful employment alongside more abled individuals in a safe, structured setting.



# Environmental Performance

# Sustained environmental performance

“We are proud of our track record of conducting operations with zero incidents resulting in material harm to the environment.”

Karina Tedesco, [Principal Environmental Advisor](#)

Northern Star is committed to protecting the environment and continued to perform well in CY2020. No materially adverse environmental incidents occurred under Northern Star ownership at any of our assets.

Environmental management at Northern Star is governed by the Company’s Environmental Policy and associated Global Standards. All our Operations are guided by the minimum requirements set out in the Global Standards, with site specific management

plans and procedures developed where appropriate. Northern Star’s suppliers are required to adhere to the requirements of the Environmental Policy.

Continual improvement to our business’ environmental management systems begins with regularly reviewing processes and procedures at each of our Operations. Annual audits and gap analyses against our Global Standards is a key process for identifying best practice management techniques to implement across our business.



## Environmental Snapshot

Number of materially adverse environmental incidents

Number of regulator fines for environmental incident/non-compliance<sup>6</sup>

Value (A\$) of regulator fines for environmental incident/non-compliance<sup>6</sup>

0

<sup>6</sup> Northern Star inherited one minor regulator fine of A\$8,543, from previous ownership. This fine related to a breach of tenement conditions in conducting exploration drilling without approved permits at our Yandal Operations.

**Continual improvement to our business’ environmental management systems begins with regularly reviewing processes and procedures at each of our Operations.**



# Greenhouse Gas Emissions

As the Company continues to grow through acquisitions and increased throughputs, our greenhouse gas (GHG) emissions consequently increase. In CY2020 the Company formulated a target setting strategy as part of its ongoing TCFD alignment; details can be found in the Climate Change section on pages 56-67.

Scope 1 and Scope 2 GHG emissions are calculated based on the Australian Government methodology required by the National Greenhouse and Energy Reporting (NGER) Scheme. We capture our Alaskan emissions using this same process to ensure consistency across our emissions reporting.

The emissions disclosed in this report are based on CY2020 data and differ from those reported to the

Australian Government via the financial year period NGER report.

Our Scope 1 emissions are associated with electricity generation and mining fleet use across our Operations while our Scope 2 emissions are from purchased electricity for our Pogo, KCGM and Kalgoorlie Operations.

Both Scope 1 and Scope 2 emissions have increased in CY2020 due to the KCGM acquisition and expanded Yandal project. The greenhouse gas intensity also increased this year largely due to the inclusion of KCGM's open pit operation. When compared with underground mining methods, open pit operations require larger quantities of material be moved to extract ore.

**Table 2 Greenhouse Gas Emissions**

	CY2020	CY2019	CY2018
Scope 1 GHG Emissions (t CO <sub>2</sub> -e)	313,264	229,005	209,455
Scope 2 GHG Emissions (t CO <sub>2</sub> -e)	380,083	241,901	160,988

**Table 3 Greenhouse Gas Intensity (t CO<sub>2</sub>-e per ounce gold sold)**

	CY2020	CY2019	CY2018
Total Scope 1 & 2 GHG Emissions (t CO <sub>2</sub> -e / oz)	0.71	0.58	0.56

**Table 4 Scope 1 GHG emissions by project (t CO<sub>2</sub>-e)**

	CY2020	CY2019	CY2018
Kal Ops	80,576	82,578	90,552
KCGM	70,366	-	-
Paulsens	2,045	1,641	3,102
Pogo	35,178	29,520	10,432 <sup>7</sup>
Tanami	1,475	2,000	774
Yandal	124,104 <sup>8</sup>	113,260	103,882

**In CY2020 the Company completed an emissions target setting strategy as part of its ongoing TCFD alignment.**

<sup>7</sup> Due to the acquisition of Pogo late in CY2018 these figures only account for 3 months' of emissions.  
<sup>8</sup> Includes Bronzewing and Jundee.

**Figure 8 Scope 2 GHG emissions by project centre (t CO<sub>2</sub>-e)<sup>9</sup>**



The primary source of Scope 1 emissions is electricity generation at some of our mine sites, generated by reciprocating engine gas power plant or diesel generator support. Our Yandal Operations remain the largest emitter of Scope 1 emissions, as our only operating mine and processing centre to produce 100% of their required electricity onsite.

Our Jundee Operations, which accounts for 39% of our Scope 1 GHG emissions, is covered by the

Australian Government's Safeguard Mechanism. The Safeguard Mechanism sets an emissions baseline for Australian emitters who generate more than 100,000 tonnes of CO<sub>2</sub>-e each year.

Our largest contributor to Scope 2 emissions is our Kalgoorlie Operations as the processing mills and mines are powered primarily from State grid electricity.



Bushland within Kalgoorlie Operations

<sup>9</sup> Our Yandal, Paulsens and Tanami sites do not purchase electricity from state grids and therefore do not contribute Scope 2 GHG emissions.

## Energy Use and Production

Energy production and consumption at all our Operations is calculated based on the Australian Government methodology required by the National Greenhouse and Energy Reporting (NGER) Scheme.

The data disclosed in this report is based on CY2020 data and differs from that reported to the Australian

Government due to a differing reporting period.

Energy production includes electricity produced at our sites only, while energy consumption includes all energy consumed from site produced electricity, grid purchased electricity, and fuels burnt such as diesel in vehicles and heating oil in furnaces.

**Table 5 Energy Use & Production**

	CY2020	CY2019	CY2018
Energy produced per ounce (GJ/oz)	0.80	0.83	1.09
Energy consumed per ounce (GJ/oz)	7.81	6.74	7.52

**Table 6 Energy consumption by project (GJ)**

	CY2020	CY2019	CY2018
Kal Ops	2,008,165	2,039,067	2,148,481
KCGM	1,747,254	-	-
Paulsens	37,238	31,584	59,524
Pogo	1,001,777	896,872	289,457 <sup>10</sup>
Tanami	14,168	12,530	11,017
Yandal	2,861,890	2,483,673	2,419,858

The gas-fired power plant at Jundee is our primary source of energy production, producing 625,709GJ of electrical energy in CY2020. 18.92% of our electricity consumed as a business was supplied from the main electricity grids within each state.

Our Pogo Operations, KCGM and Kalgoorlie Operations are powered by State grids where electricity is generated from a mixture of natural gas, renewables, diesel and coal.



Pastoral station, Jundee, Yandal Operations.

## Water Management

If not managed appropriately, the abstraction, discharge and movement of water can have material impacts on local Stakeholders, the surrounding natural environment and our Business. Sustainable water management practices need to consider climate change-related risks and management strategies to mitigate those risks if they are to be effective. Our Australian Operations exist in areas with High baseline water stress levels while our Pogo Mine is within an area of Low to Medium baseline water stress levels, as recorded by the World Resources Institute in the Aqueduct Water Risk Atlas, generated by the World Resources Institute ([www.wri.org/resources/maps/aqueduct-water-risk-atlas](http://www.wri.org/resources/maps/aqueduct-water-risk-atlas)).

Total water consumption efficiency has improved by 7% in CY2020 in part due to our ongoing water monitoring and preventative maintenance programs, leak detection systems and focus on utilising recycled water where possible.

In CY2020, we embarked on an ambitious water efficiency analysis across our entire Kalgoorlie footprint, to redesign our approach to the utilisation of all water types to increase usage efficiencies, reduce waste and reduce costs. A subsequent proposal is currently awaiting executive review that will see a complete end-to-end remapping of our water infrastructure to greatly reduce the amount of fresh water used, and allow for the capture, storage and utilisation of recycled wastewater into our scheme at Kalgoorlie.

**Table 8 Water Consumption**

	CY2020	CY2019	CY2018
Total water consumption (ML)	34,249	30,756	17,327
Total water consumption efficiency <sup>12</sup> (ML use/ounce Au)	34.87	37.69	26.36
Fresh water consumption (ML)	25,435	24,824	7,627
Net fresh water consumption <sup>11</sup> (ML)	1,382	504.17	560
Net fresh water use efficiency <sup>12</sup> (ML use/ounce Au)	0.001407	0.000620	0.000853

**Figure 9 CY2020 Total water movement per location (ML)**

	Kalgoorlie Ops	KCGM	Paulsens	Pogo*	Tanami	Yandal	TOTAL
Baseline water stress level	High	High	High	Medium / Low	High	High	
Abstraction	2,260	3,639	64	25,830	16	2,440	34,249
Discharge	0	0	0	25,139	0	0	25,139
Net Consumption	2,260	3,639	64	691	16	2,440	9,110

Key High Medium Medium / Low Low

Total water consumption has increased from CY2019 figures due to increased production at our Pogo Operations and the addition of KCGM to our operating

portfolio. Overall, our net fresh water use efficiency<sup>12</sup> has increased due to KCGM's use of public scheme water as a key water source.

**Table 9 Net freshwater consumption<sup>11</sup> per project (ML)**

	CY2020	CY2019	CY2018
Kal Ops	171	203	205
KCGM	896	-	-
Paulsens	64	46	96
Pogo	0	0	0
Tanami	15	49	56
Yandal	201	206	203

<sup>10</sup> Due to the acquisition of Pogo late in CY2018 this figure only accounts for 3 months' of emissions.

<sup>11</sup> Net water consumption is water abstraction minus direct discharges back into the environment. Fresh water is defined as water that meets drinking water standards with minimal processing.

<sup>12</sup> Efficiency is the quantity of water used per ounce of gold sold.

## Waste Management

Our Waste Management Global Standard provides guidance on the expectations with regards to minimising and managing waste at our operations. In CY2020 we sustained our waste management processes of prioritising avoidance and recycling practises over waste disposal to landfill. Our Operations encompass broad recycling programs that we aim to continually improve through the identification of additional recycling opportunities.

Key recycling initiatives across our Operations target scrap metal, vehicle batteries, waste oils and greases, and domestic recyclables including paper, cardboard

and aluminium. In CY2020 our Jundee Operations undertook a HDPE pipe recycling program, where scrap pieces of pipe were chipped for reuse. Figure 9 outlines our key recycled materials. Increases from 2019 reflect endeavours at our Jundee site to look for opportunities to recycle materials as well as the inclusion of KCGM recycling efforts.

In some cases, waste is unable to be recycled such as putrescible or inert wastes. Disposal of these types of general wastes occur at our onsite licenced landfill facilities or they are transported offsite to the local council-managed refuse facility.

Figure 10 Key recycled materials

	CY2020	CY2019
Scrap metals <sup>13</sup>	2,635 tonnes	1,479 tonnes
Batteries (vehicular)	21.5 tonnes	21.6 tonnes
Printer ink & toner cartridges	52 kg	30 kg
Waste oil	795 kL	740 kL
Co-mingled recycling (paper, cardboard, plastics, aluminium)	85.5 tonnes	87.3 tonnes
Tyres	294	Not available

## Hazardous Materials Management

Several hazardous materials are associated with our Operations as a result of mineral processing and mining practices. Those common to all our Operations include hydrocarbons such as oil, grease, and lubricants, tailings materials containing cyanide, and recyclables such as vehicular batteries. Additional hazardous materials associated with some of our Operations include metal and gaseous wastes from processing and elution processes, including arsenic, and sulphur dioxide.

Cyanide is used in gold processing and must be managed to minimise risks to human health and the environment. Northern Star manages these risks in accordance with our Cyanide Management Standard. This Standard outlines the requirements for the supply, transportation, unloading and storage of cyanide as well as operational considerations. We use the International Cyanide Management Code (ICMC) as a benchmark upon which to manage the risks associated with the use of cyanide and all sites have conducted a gap analysis against the ICMC to identify areas where improvements can be made. Suppliers and transporters of cyanide to our operations are required to be signatories to the ICMC. We continue to keep abreast of the advancements in non-cyanide gold extraction processing.

Arsenopyrite is a common mineral associated with gold ore bodies; the arsenopyrite along with other sulphides trap gold within the mineral particle. To allow the gold to be extracted at the Kanowna Belle processing plant, the arsenic in the ore is volatilised at temperature and captured as arsenic trioxide. The average rate of arsenic trioxide generated is approximately 125kg per day with an average purity of 5-6%.

Arsenic trioxide is collected in sealed hoppers and directed by an enclosed conveyor system to an enclosed bagging station. It is then deposited in United Nations' approved bags that have been constructed in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code). Hydrated lime and a small amount of calcine is also present in the bags. Once full, the bags are cleaned, sealed and have integrity checks completed before being moved to a dedicated waste storage shed.

Historically, the arsenic trioxide was transported to a Western Australian State Government managed hazardous materials facility and more recently, our Kanowna Belle Operations were licenced to undertake on-site treatment of the arsenic trioxide via a Dolocrete micro-encapsulation treatment process. Following the encapsulation process, arsenic trioxide is safely disposed of in designated mine void areas, and then surrounded by concrete paste material. This process has been in place since 2003 without material incident. During CY2020 418 tonnes of arsenic trioxide was treated and disposed of underground.

In 2019, Northern Star entered into an agreement with an external specialist contractor to transport arsenic trioxide to their new hazardous materials disposal facility, which is an open kaolin mine and complementary near-surface geological waste repository located near Kalgoorlie. The first shipment was successfully transported in November 2020. To date, approximately 460 tonnes of arsenic trioxide has been received by the facility for safe disposal.

<sup>13</sup> Scrap metal recycling increased in CY2020 following a dedicated effort in removing steel from the recycling laydown at Jundee. These clean ups occur typically on a two-yearly basis and we anticipate less scrap metal will be recycled in CY2021.

## Tailings Management

Tailings are a waste product common to the mining and mineral processing sector, resulting from the processing of ore to retrieve valuable minerals, in Northern Star's case, gold. Tailings from the gold processing circuits consist of a mixture of very fine solids and water, known as slurry. At our Australian Operations, this tailings slurry is piped to paddock style tailing storage facilities (TSF) or in-pit TSFs. Paddock TSFs consist of constructed embankments to form a dam in which tailings are discharged, while in-pit TSFs utilise disused open pit mines for the same purpose. Our Pogo Operations manages a Dry Stack Tailings Facility (DSTF) which receives tailings material that has been filtered to remove most of the moisture content.

Tailings features currently active under Northern Star's management include:

- Paddock-style tailings storage facilities - 10
- In-pit tailings facilities - 2
- Dry stack tailings facilities - 1

We consider all our active tailings facilities to be low risk on a global scale due to the location of wet tailings facilities within arid or semi-arid regions with low annual rainfall. There are an additional 46 tailings facilities that are not currently in use across our operational centres and exploration projects, 19 of which have been rehabilitated. Details can be found in Appendix E.

In CY2020, we produced 13,285,499 tonnes of tailings material. 923,388 tonnes (7%) of total tailings did not contain cyanide. Our total tailings produced includes;

304,491 tonnes (<3%) tailings from ore processed via third party toll treatment and deposited at third party tailings facilities and 37,399 tonnes (<1%) tailings from third party ore processed at our Kalgoorlie Operations under toll treatment arrangements.

The amount of ore we processed via third-party mills decreased in CY2020.

The Tailings Management Standard ensures our tailings storage facilities are managed through all phases of their life cycle in compliance with the Company's Environmental Policy. Third party engineers audit our facilities to ensure their geotechnical stability.

We constantly assess the methods by which we are auditing our facilities to improve our tailings risk management. The Church of England's tailings disclosure request, initially completed in CY2019, has been reviewed and updated and is appended to this Report in Appendix E. The recent update incorporated tailings facilities inherited through our Yandal and KCGM acquisitions and reflects the most up to date volume and audit details.

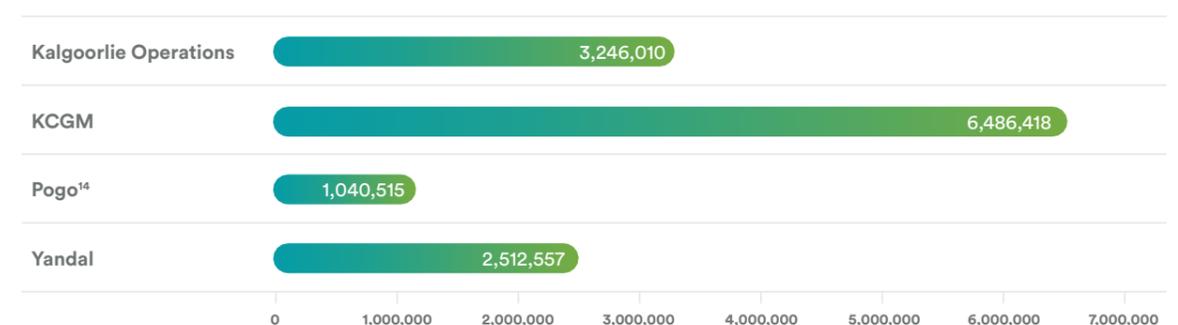
We acknowledge the Church of England's recent recommendation for companies to adopt the Global Industry Standard on Tailings Management ([https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard\\_EN.pdf](https://globaltailingsreview.org/wp-content/uploads/2020/08/global-industry-standard_EN.pdf)).

In CY2021, we will conduct a compliance analysis against this voluntary standard and disclose the key findings in our CY2021 Sustainability Report.

Table 10 Tailings production

	CY2020	CY2019	CY2018
Tailings production (Tonnes)	13,285,499	7,023,975	5,444,567

Figure 11 CY2020 Tailings Production per project area



Wherever possible, we aim to reuse tailings material as paste fill to assist our underground mining operations. The paste used in this process is a mix of tailings sourced from the mill and cement. During CY2020 12% of tailings material was reused at our

Kalgoorlie Operations and 14.4% of tailings was reused at our Pogo Operations. Due to the mining method and geological conditions at our Jundee Operations, paste is not currently required for use underground.

<sup>14</sup> Dry tailings production.

## Waste Rock Production

Waste rock is the material mined during our Operations that does not include gold-containing ore. Waste rock generated from mining activities at our Operations is stored in waste rock landforms, backfilled underground or stored in sterile pits. Backfilling waste rock is preferred, where mine planning permits, as it reduces safety risks associated with open surface and underground voids, minimises surface waste rock landform creation, and reduces the visual impact of mine landforms to the surrounding environment.

Total waste rock production this year increased on our CY2019 volumes due to the addition of KCGM data,

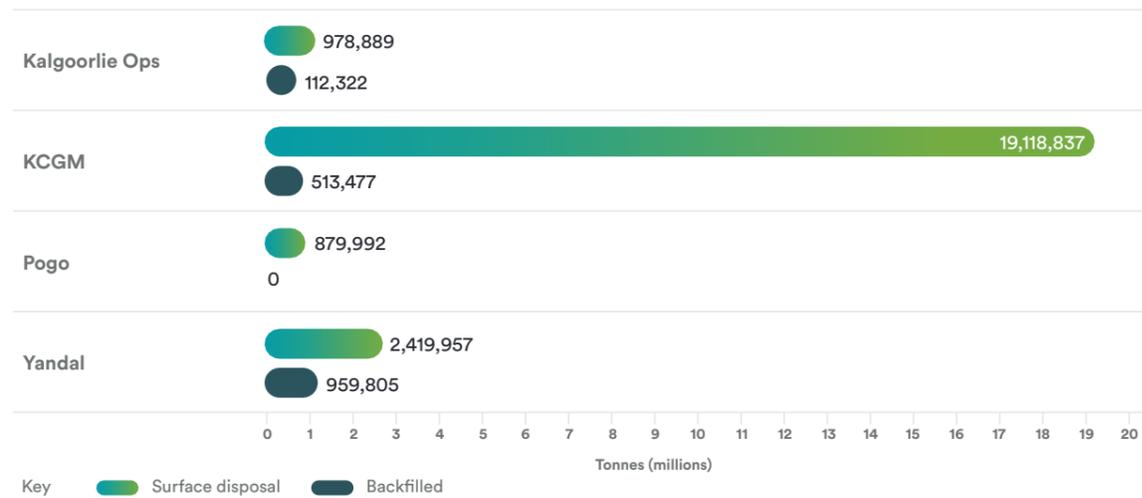
which incorporates a large open pit operation. Due to the nature of open pit mining, it generally produces larger quantities of overburden, or waste rock, than underground mining methods.

In CY2020 1,771,814 tonnes of waste rock mined was backfilled into open pits or completed stopes. This is an increase on the total amount of waste rock backfilled in CY2019, largely due to increasing ability to incorporate backfilling into the mine plan due to suitability of underground stopes for backfilling, access to sterilised disused pits or areas of pits, and the location of mining relative to suitable pits or stopes.

**Table 11** Waste rock production (tonnes)

	CY2020	CY2019	CY2018
Waste rock production (tonnes)	23,583,885	6,923,224	2,796,480

**Figure 11** CY2020 Waste rock production per project area (tonnes)



## Biodiversity Statement

Northern Star appreciates our responsibility to protect the biodiversity values at all our Operations, many of which are in remote environments. We also appreciate the opportunity presented by operating in these locations as our presence provides access for biodiversity research in areas otherwise inaccessible or very difficult to access.

We govern the management of biodiversity onsite via the Biodiversity Management Global Standard and operational level management plans and procedures. Biodiversity Plans are developed at our Operations to manage the risks associated with flora and fauna specific to the regional environments. Management Plans incorporate the requirements of State and Federal legislation in addition to our internal minimum requirements.

The success of our management practices are enhanced through partnerships and engaging with Indigenous Ranger expertise. The skill sets and knowledge that Indigenous Peoples possess assist our site-based employees in developing the necessary skills to identify and manage key flora and fauna species.

Pre-clearance flora and fauna surveys are completed at our Operations as determined by a risk assessment process. Greenfields areas generally require third-party desktop reviews and subsequent field surveys, whilst near-mine disturbance is captured under our site-based Disturbance Permit processes. None of our Operations will be materially impacted by interactions with critical species.

## Budgeting for progressive rehabilitation

Regrowth from rehabilitation works at Jundee, Yandal Operations

## Reclamation and Closure Preparedness

All of our Operations globally have regulator approved Closure and Reclamation Plans with related financial assurance. Detailed planning and responsible estimation and reporting of the cost of mine closure at our Operations has always been a priority, and we ensure adequate capital is available for these works when required.

Progressive reclamation and closure works are becoming an increasing focus for Northern Star, with the introduction of a dedicated progressive rehabilitation fund in our annual budgets. Several projects were identified for completion during CY2020 but were not completed due to the

COVID-19 pandemic, as our Environment Staff transitioned to working from home and contractors were restricted from entering sites. It is anticipated that these projects will continue in CY2021 at those sites where COVID-19 related restrictions on staff and contractor movements are no longer in place.

In CY2020 we rehabilitated over 61 hectares of land, a significant drop on previous years resulting from the COVID-19 restrictions described above. We continue to complete rehabilitation on legacy exploration disturbance inherited through our acquisitions in the Goldfields and Yandal areas.

**Table 12** Rehabilitation completed

	CY2020	CY2019	CY2018
Rehabilitation completed (ha)	>61	>130	>400

## Case Study: Waterwise Business

In CY2020 Northern Star's Kanowna Belle Operation was acknowledged as a 2020 Gold Waterwise Business by the Water Corporation, the principal supplier of water throughout Western Australia.



Kratonga Ohuma, Environmental Advisor, collecting water monitoring data at Kanowna Belle, Kalgoorlie Operations.

In CY2020 Northern Star's Kanowna Belle Operation was acknowledged as a 2020 Gold Waterwise Business by the Water Corporation, the principal supplier of water throughout Western Australia. The award recognised Kanowna Belle's 11.43% decrease in water use from 2018 to 2019. Significant water-recycling processes are incorporated into the design and operation

of the processing plant as this is where a significant proportion of the site's total water is used. Daily water use monitoring has been key to ensuring valuable freshwater is used to full capacity and recycled wherever possible. Storage dams are all equipped with floating liners/covers to prevent evaporation and leak detection systems enable real time response if required.

# SUSTAINABLE DEVELOPMENT GOALS

## Environmental Performance

Our alignment with the UN Sustainable Development Goals through our Environmental Performance.



**8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services**

### Indigenous Desert Alliance

Northern Star is proud to have extended its support for the Indigenous Desert Alliance (IDA) into its 5th consecutive year. The Australian Desert is one of the largest and most environmentally and culturally connected areas on the planet. Our support for the IDA correlates with our recognition of the vital role local Indigenous groups play in managing Australian Desert country. The IDA is committed to supporting Indigenous land managers and rangers working on desert country through various initiatives including the annual IDA Conference, the largest annual gathering of Aboriginal Rangers in Australia.



**9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending .**

### Supporting research into mining pit lakes

Jundee and Kanowna Belle partnered and participated in a pit lake study initiated by ChemCentre and involves CSIRO and Minerals Research Institute of Western Australia (MRIWA). They aim to build a database of mining pit lakes across Western Australia to assist in understanding how the water bodies behave over time. The project is expected to run for three years with the final report made available to public for use in predicting the behaviour of pit lakes during closure.



**14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics**

### Monitoring fish health in Alaskan rivers

Each year, Pogo employees collect juvenile Chinook salmon fry from the Goodpaster River, a tributary of the Yukon River Drainage in Alaska, to monitor changes in fish health over time. Eighteen years of data collection, beginning in 2002 prior to active gold production, confirm that upstream and downstream results from the fish analyses have continued together on a close trend, indicating no impact on metals accumulation due to the presence of the Pogo Mine. In addition, we have partnered with organisations such as Bering Sea Fisherman's Association and the Alaska Department of Fish and Game to perform additional research on the fish populations of the Goodpaster River.

# Climate Change



# Increasing our alignment with TCFD recommendations

“We continue to increase our understanding of the climate-related risks at Northern Star through our TCFD work with Energetics.”

Ryan Gurner, [Chief Financial Officer](#)

## Strengthening our alignment with TCFD recommendations

Climate change has the potential to transform the planet, the way we live and the way we conduct business. Northern Star is committed to understanding how both the physical impacts of climate change and the transition to a low carbon economy might affect our business, integrating these factors into our strategic planning, and ultimately reducing the impact. We are also committed to increasing our disclosure of climate relevant information to help our investors and other Stakeholders understand our approach and the potential impact of climate change on our business. We are therefore working to meet the recommendations of the Financial Stability Board’s Task Force on Climate-related Financial Disclosures (TCFD).

This reporting is informed by our analysis of the climate risk and opportunities faced by the business. These are considered quarterly by the Board through its quarterly ESS Committee meetings, the Audit & Risk Committee’s review of the Company wide risk register, and the Board’s review of the two physical climate risks on the corporate risk register.

Northern Star’s Social Responsibility & External

Relations Manager has climate-related responsibilities which include assessing and/or managing climate-related issues and reports to the Executive Chair as well as to the ESS Committee at ESS Committee meetings.

TCFD alignment is a journey we commenced in 2018 when climate-related risks first appeared on our risk registers. A total of 28 transitional and physical risks were identified in CY2019 as having the potential to impact Northern Star by 2030, using Northern Star’s corporate risk register assessment criteria and the Intergovernmental Panel on Climate Change’s (IPCC) high emissions scenario RCP8.5 model. Of those 28 inherent risks, two were considered material enough to be classified as high inherent risks (groundwater scarcity for Australian operations, and flooding for Australian and Alaskan operations).

We aspire to disclose the financial impact of climate-related change on Northern Star and its business strategy, and to disclose how resilient that strategy is, so that investors and other Stakeholders are well informed about how Northern Star is positioning itself in relation to climate-related risks and opportunities.

## Update on CY2019 commitments

Continuing our TCFD journey in assessing and mitigating climate-related risks, in the CY2019 Sustainability Report we said that in CY2020 we would:

- **Risk Management** - identify current mitigating practices and controls, and assess the residual risk rating after applying those mitigating practices, to arrive at a residual risk rating. The residual risk rating for the two high inherent risks is disclosed in Table 13. Refer to Appendix C – Climate-related risks for the full list of climate-related risks.
- **Risk Management** - identify potential next steps to further mitigate, to improve the residual risk rating over time. That information is set out in our climate change related risk register, summarised in Appendix C – Climate related risks, and will be subject to 6-monthly reviews by the Audit & Risk Committee and ESS Committee.
- **Strategy** - consider the opportunities arising from climate change to our business. That information is set out on page 67.
- **Strategy** - develop scenario analysis and disclose scenario descriptions and high-level impacts. That information is set out in on pages 62-66 with supporting information provided in Appendix B – Climate Change Scenario Analysis Details.
- **Metrics and Targets** - Establish metrics and targets used to assess and manage relevant climate-related risks and opportunities. We have developed metrics to track our performance in climate-related areas over time and identify opportunities to further improve data collection. These metrics will form the basis for setting meaningful climate-related targets. We have developed a staged action plan towards setting and disclosing climate-related targets. Information on our progress in this area is on page 67.

## Leveraging efficiencies

Solar-powered pumps for remote water bores at Jundee, Yandal Operations



**Figure 13** Our phased alignment with TCFD recommendations – progress in CY2020

The below sets out our key achievements of CY2020, our short term plans and our medium term aspirations for further progress.

Governance	Strategy	Risk Management	Metrics & Targets
<p>Disclose the organisation's governance around climate-related risks and opportunities.</p>	<p>Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.</p>	<p>Disclose how the organisation identifies, assesses, and manages climate-related risks.</p>	<p>Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.</p>
<p><b>CY2020 Achievements</b></p> <ul style="list-style-type: none"> <li>Built Board and executive expertise in climate risk</li> </ul>	<p><b>CY2020 Achievements</b></p> <ul style="list-style-type: none"> <li>Undertook qualitative scenario analysis</li> </ul>	<p><b>CY2020 Achievements</b></p> <ul style="list-style-type: none"> <li>Assessed impact of current risk mitigation actions to rate residual risk</li> <li>Identified next steps for strengthening risk mitigation</li> </ul>	<p><b>CY2020 Achievements</b></p> <ul style="list-style-type: none"> <li>Developed climate-related metrics</li> <li>Benchmarking of peer companies' climate-related targets</li> <li>Developed staged action plan for target-setting</li> </ul>
<p><b>Short Term Plans (1-3 years)</b></p> <ul style="list-style-type: none"> <li>Continue capacity building of executive and Board</li> <li>Continue oversight of TCFD-related activity</li> </ul>	<p><b>Short Term Plans (1-3 years)</b></p> <ul style="list-style-type: none"> <li>Conduct scenario analysis in relation to Saracen projects and integrate implications of scenario analysis into strategic planning</li> </ul>	<p><b>Short Term Plans (1-3 years)</b></p> <ul style="list-style-type: none"> <li>Assess and integrate Saracen assets into Northern Star's climate-related risk register</li> <li>Update the ESS Committee chapter to include 6-monthly reviews of the climate-related risks</li> </ul>	<p><b>Short Term Plans (1-3 years)</b></p> <ul style="list-style-type: none"> <li>Assess environmental footprint following merger with Saracen with a view to setting climate related targets and their pathways</li> </ul>
<p><b>Medium term aspirations (3-5 years)</b></p>	<p><b>Medium term aspirations (3-5 years)</b></p> <ul style="list-style-type: none"> <li>Consider the benefits of quantitative modelling of key climate risks to estimate financial impacts and make a decision on quantification actions</li> </ul>	<p><b>Medium term aspirations (3-5 years)</b></p> <ul style="list-style-type: none"> <li>Regularly review risks and mitigating controls<sup>15</sup></li> </ul>	<p><b>Medium term aspirations (3-5 years)</b></p> <ul style="list-style-type: none"> <li>Regularly disclose progress against targets<sup>15</sup></li> <li>Regularly review targets<sup>15</sup></li> </ul>

**A note on useful climate-related information**

Northern Star recognises that increasingly the demand for consistency and comparability in climate-related information reporting places an emphasis on the quality and effectiveness of the information.

We aim to disclose climate-related information in an effective way, so the information is:

- relevant - useful for financial decision making;
- specific and complete;
- clear, balanced and understandable;
- consistent over time;
- comparable;
- reliable, verifiable and objective; and
- timely in its release.

Northern Star ranks the following climate-related information in order of usefulness for decision making:

- how climate-related factors affect Northern Star's operations, on a geographical basis;
- key metrics using operational data for the past financial year, and observing trends over successive financial years;
- scope 1 greenhouse gas emissions for the past financial year, and understanding trends over successive financial years;
- climate-related targets related to the Scope 1 GHG emissions, and their time periods;
- Scope 2 GHG emissions for the past financial year, and understanding trends over successive financial years;

- Climate-related targets related to the Scope 2 GHG emissions, and their time periods; and
- Board consideration of climate-related issues in capital expenditure, divestments and acquisitions, and support for measurable Key Performance Indicators to achieve progress in meeting climate-related targets.

Northern Star's priority is to recognise and measure the impact of climate change on our operations, according to geographical location. This is the most useful, decision-relevant, information for our Board and management to know in assessing climate-related risks and opportunities for Northern Star. It is also threshold climate-related information for investors in Northern Star, in relation to investment decisions.

<sup>15</sup> Ongoing actions to be revisited

**Climate-related risks**

In CY2020 we completed a review of our climate-related risks to assess the residual risk ratings and identify any additional control measures to be implemented. This review did not identify any material changes to the inherent risk rating of the 28 identified

climate change-related risks. The key control measures, residual risk rating, and planned actions for the two high inherent risks are identified in Table 13. Appendix C summarises our climate-related risk register.

**Table 13** High, medium and low inherent risk ratings

Risk Rating	Priority	Description
High	1	<ul style="list-style-type: none"> <li>High inherent risks are generally considered unacceptable</li> <li>The implementation of mitigating strategies to be actively pursued</li> <li>Notification to, and approval to conduct or continue activity required from, Executive management prior to commencement or continuation when first identified or assessed as high risk</li> <li>A risk owner is appointed to ensure mitigation strategies are pursued and progress reported at least quarterly to the Audit and Risk Committee</li> </ul>
Medium	2	<ul style="list-style-type: none"> <li>Where appropriate, further risk mitigation strategies should be considered and applied as practicable.</li> <li>A risk owner is appointed to ensure that all aspects relating to the risk and its mitigation are managed</li> </ul>
Low	3	<ul style="list-style-type: none"> <li>Where appropriate, further risk mitigation strategies should be considered as part of the process of continuous improvement</li> <li>A risk owner is appointed to ensure all aspects relating to the risk and its mitigation are managed</li> </ul>

**Table 14** High inherent climate change risks to 2030, key control measures and residual risk ratings

Risk	Site affected	Description	Inherent Risk Rating	Key control measures	Residual risk rating	Planned action
Groundwater scarcity	Australia	Decreased average total annual rainfall causes drier surface conditions and underground aquifers to be replenished slowly.	High	<ul style="list-style-type: none"> <li>Third party reviews of usage and aquifer health</li> <li>Recycled water use with underground and processing.</li> <li>Decant water from tailings facilities for reuse in all our operating process plants</li> </ul>	Medium	Thickener installation at our Jundee Operations.
Flooding	Australia and Alaska	In Western Australia, rainfall is becoming more concentrated and cyclones more severe; in Alaska, total rainfall is increasing and permafrost melting off-site, both pointing to an increase in the frequency and severity of floods.	High	<ul style="list-style-type: none"> <li>Surface water management infrastructure installed at all sites (e.g. diversion ditches, bunds).</li> <li>Water level monitoring at surface water structures.</li> <li>Severe Weather and Cyclone Management Plans in place.</li> <li>Scenario analysis completed as per TCFD recommendations.</li> </ul>	High	Flood mitigation infrastructure review  Update and review current risk profile of storm events.

## Climate-related scenario analysis

Northern Star's business may be affected by both the physical impacts of climate change and the transition to a low carbon economy with the most significant effects likely to play out over the medium to long term.

Both physical and transitional risk are affected by a wide range of factors – including public policy, technology, and market change – that are hard to forecast accurately. Scenarios help Northern Star consider how these variables may plausibly impact the company's operations over time.

**Climate-related scenarios allow Northern Star to explore and develop an understanding of how the physical and transitional risks and opportunities of climate change might plausibly impact Northern Star's operations over time.**



Mt Charlotte headframe at sunset, KCGM

During CY2020, to build our capacity in relation to climate-related strategy, we conducted scenario workshops together with our consultants Energetics, requiring and enabling critical strategic thinking and the testing of business as usual assumptions underpinning Northern Star's business strategy. In this Report, our progression on the TCFD journey is evidenced by the disclosure of scenario analysis information and disclosing plausible ways in which climate-related factors could affect our operations on a geographical basis. We disclose the potential high-level impacts on these operations, and we confirm our medium term aspiration to consider the benefits of quantitative modelling of key climate risks to estimate financial impacts on our operations.

Scenario analysis is a strategic planning and risk management tool which allowed Northern Star during CY2020 to:

- assess the potential financial effect of climate-related change on Northern Star's operations;
- test whether our business strategy is flexible and adequately accommodates these climate-related risks and opportunities; and
- test how resilient that strategy is, and where necessary identify options for increasing our strategic and business resiliency to plausible climate-related risks and opportunities, by making adjustments to strategic and financial plans,

under a given set of assumptions, according to a range of plausible but challenging hypothetical future constructs.

Key is to use the scenario analysis to improve critical strategic thinking – to test whether current business as usual assumptions are the correct assumptions on which to base a business strategy which is resilient to climate-related change. By resilient, we mean whether our business strategy is able to tolerate disruptions or adapt to changes or uncertainties in the business environment that might affect Northern Star's performance, and to remain effective under most situations and conditions.

By commencing this scenario analysis work during CY2020, there is time to develop and improve on that capability, to ensure Northern Star may better identify and disclose how its strategy may need to change and develop in order to accommodate potential climate-related risks and opportunities. Our future TCFD disclosures will include how we adjust and develop our strategy in response to the climate-related scenario analysis results.

### Increasing our understanding and action

Kirstie McKay at our Corporate office, Subiaco, Western Australia

**“We are proud of what we are doing at Northern Star to make a sustainable future possible for our employees, Stakeholders and the communities in which we operate.”**

Kirstie McKay, Senior Sustainability Advisor

## Scenario selection

In line with the Paris Agreement to reduce greenhouse gas emissions and accelerate the transition to a lower carbon economy (“holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels”), consistent with the TCFD Recommendations and in order to provide comparable information, Northern Star has used a 2°C scenario (a pathway and an emissions trajectory consistent with limiting the average global temperature increase to a temperature range around 2°C above pre-industrial levels with a certain probability). The 2°C scenario was selected as it has greater data availability than the 1.5°C scenario.

Two other scenarios most relevant to Northern Star have also been used; a 2-3°C scenario and a >4°C scenario. These scenarios were selected to be included as they were commonly used by our peers,

which increases the comparability of results for our external Stakeholders. These two scenarios illuminate our future exposure to climate-related physical and transitional risks and opportunities in relation to gold production and demand for gold up to 2050.

The temperature scenarios were rounded out with the inclusion of Shared Socio-Economic Pathways (SSP) to develop three robust scenarios of the future that could be used to understand the resilience of our operations and business strategy, to 2030 and 2050. The 2°C scenario was combined with SSP1 as it has a narrative that aligns most closely to a low emissions trajectory. The >4°C scenario was combined with SSP5 as it is the only possible option for this temperature scenario. Finally, the 2-3°C scenario was combined with SSP3 as it provided divergence in economic growth and ensured we were testing our business with three distinct scenarios.

## Scenarios and their impacts

Northern Star drew on TCFD recommendations as well as internal priorities established through workshops to define criteria for the development of three scenarios concerning future likely global emissions levels and socioeconomic conditions (Table 15). More information about data sources and methodological approach is provided in Appendix B.

Executives including the CEO, CFO and COO and other senior management who were previously involved in the multi-disciplinary workshops in CY2019 to validate physical and transitional risks, reconvened twice during CY2020 in workshops facilitated by Energetics. The outcomes of the workshops and follow up meetings were consensus on the quantity and

choice of scenarios, and an agreed prediction of how Northern Star’s operations would be likely to respond to each scenario. There was discussion of how our strategy could adapt in response to each scenario. Options were grouped into ‘no regret’ options (which could be beneficial under all three scenarios) and ‘watch and wait’ options (that would be more relevant to some but not all three scenarios). This strategy development remains a work in progress.

In addition, throughout CY2020 the ESS Committee of the Board discussed climate risk outlook in Australia and trends in regulator, investor, and financier expectations, following direct engagement with our investors and proxy advisors.

**Table 15** Key scenario parameters

TCFD Criteria	Northern Star's Criteria
<ul style="list-style-type: none"> <li>Provide diversity of potential future climate states</li> <li>Explore relevant transition and physical climate-related risks and opportunities</li> <li>Represent plausible outcomes</li> <li>Include challenging futures that significantly diverge from business as usual</li> <li>Include a low emissions scenario (2°C or less)</li> </ul>	<ul style="list-style-type: none"> <li>Include a scenario that tests resilience to international trade challenges</li> <li>Be relevant to Northern Star operations and the gold sector</li> <li>Data underpinning scenarios to come from credible sources</li> <li>Align with industry best practice</li> <li>Demonstrate leadership</li> </ul>

The selected scenarios focus particularly on transition risk, to complement the results of Northern Star’s physical climate risk assessment conducted in CY2019 (see our 2019 Sustainability Report for this assessment and a full list of climate risks). Multiple

factors influencing gold mining and demand for gold were considered within each scenario. All scenarios present significant challenges and opportunities, but the sources of these differ considerably across each scenario.

## Northern Star’s alternative climate change scenarios

**Scenario 1**  
Proactive  
Effort:  
<2° Celsius  
(SSP1-RCP 2.6)



Environmental degradation and accumulating impacts from climate-related events lead to increased environmental awareness and concern. Decarbonisation requirements imposed by policy and stakeholders necessitate a rapid evolution of mining practices in relation to energy use and rehabilitation practices.

Mining sector priorities include reducing greenhouse gas emissions, minimising environmental footprints and improving rehabilitation practices. Growth in demand for gold is moderate, as are gold prices and price volatility. In this world, sustainability credentials are highly valued by key stakeholders.

**Scenario 2**  
Passive  
Response:  
2-3° Celsius  
(SSP3-RCP 4.5)



Protectionist and national security issues take precedence over climate risk management. Economic uncertainty due to protectionist and national security priorities drives demand for gold as a hedge, but regulatory barriers, particularly trade constraints, impose higher costs. These trends lead to potentially high, but volatile, gold prices.

Investment by gold producers is geared toward short-term cost minimisation. This depresses innovation and technological advancement in mining practices. In this world, regulatory constraints, cost pressures and climate impacts are increasing.

**Scenario 3**  
Regressive  
Action:  
>4° Celsius  
(SSP5-RCP 8.5)



Economic growth, innovation and human capital take priority over reduction in greenhouse gas emissions. Increasing wealth, consumption, and inflationary pressures drive high growth in demand for gold as an investment choice.

Minimal regulation and a priority towards technological innovation encourage rapid industry growth and consolidation. The burden and costs of adaptation to the physical impacts of climate change increases.

## What the scenarios each mean for Northern Star and its business strategy

In Scenario 1, the Proactive Effort scenario, Northern Star's underground mining expertise may be more valued, due to its lower environmental impacts. Our Tier 1 assets and continued work on transparent climate-related disclosure and action may enhance our reputation as a sustainable gold miner. However, as we recognise, our current lack of emissions reduction targets and plans consistent with Paris Agreement goals would detract from this. Northern Star has developed a target-setting strategy, for more details see page 63.

The Proactive Effort scenario would involve the most challenging transition period compared to the other two scenarios. However, it is the scenario which is most aligned with Northern Star's Sustainability Vision and is likely to be most advantageous for both our business and the planet.

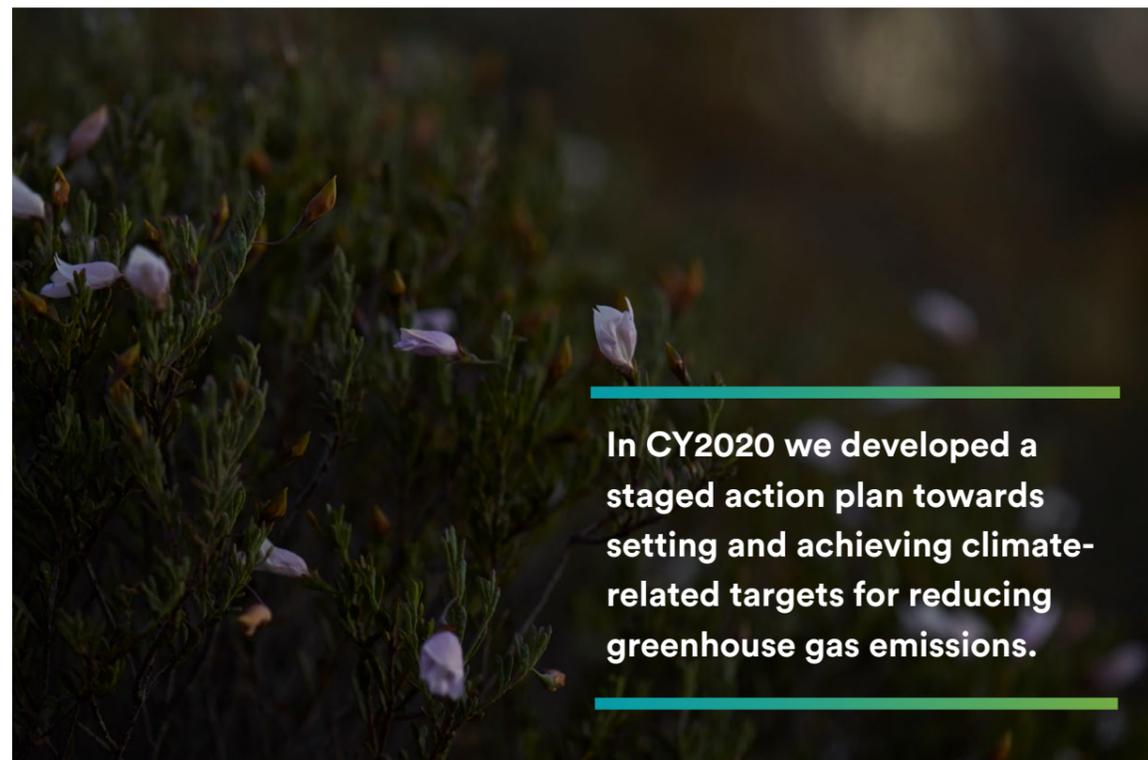
In Scenario 2, the Passive Response scenario, our existing focus on increasing and maintaining performance of the existing fleet and machinery positions us well for cost minimisation, while our gold processing plant expansion strategy places us at an advantageous position to capitalise on periods of higher gold demand and prices. However, cost and regulatory pressures could become more challenging over time and highly price volatility could make new expansions less compelling.

In Scenario 3, the Regressive Action scenario, there is potential for higher consolidation in the mining sector as demand grows, expansion is easier, and globalisation is high. Northern Star has increasing opportunity to capitalise on our distinctive expertise in underground mining.

The physical impacts of climate change are of higher concern under scenarios 2 and 3, either due to our potentially limited ability to adapt due to higher overall costs (Passive Response) or through increasing uncertainty linked with global ability to manage growing impacts and safety concerns related to operating at higher temperatures (Regressive Action).

All scenarios would require some adaptation to the physical impacts of climate change. However, the burden and cost of adaptation would be greatest in Scenario 3, the Regressive Action scenario, to 2050, and beyond.

Opportunities to enhance Northern Star's resilience were identified, including "no regrets options", representing actions that are beneficial across all scenarios, and "watch and wait options", which are actions that are advantageous under only one or two scenarios. These opportunities will be considered in greater detail during 2021 as part of assessing the outcomes of the scenario analysis with a view to adapting and developing our strategy in relation to climate change.



**In CY2020 we developed a staged action plan towards setting and achieving climate-related targets for reducing greenhouse gas emissions.**

Bushland, Kalgoorlie Operations

## Metrics and Targets

Based on the climate-related risks identified in CY2019, we developed a set of metrics which will be monitored over time to understand how climate-related risks and other operational risks are changing and how our performance is tracking. To determine the most relevant metrics to monitor, we referred to the SASB Standard's Materiality Map for Mining and Metals. Historical datasets are being collated and a range of climate-related performance metrics generated, to track Northern Star's performance in climate-related areas over time.

The metrics Northern Star are monitoring so far comprise scope 1 and scope 2 emissions (absolute emissions and per ounce of gold produced), dust, tailings recycling intensity, number of heat-related illnesses, and total costs incurred due to extreme climate related events.

Northern Star understands the imperative for all industries to contribute to global decarbonisation. In CY2020 we conducted a benchmarking exercise against industry peers with an emphasis on gold

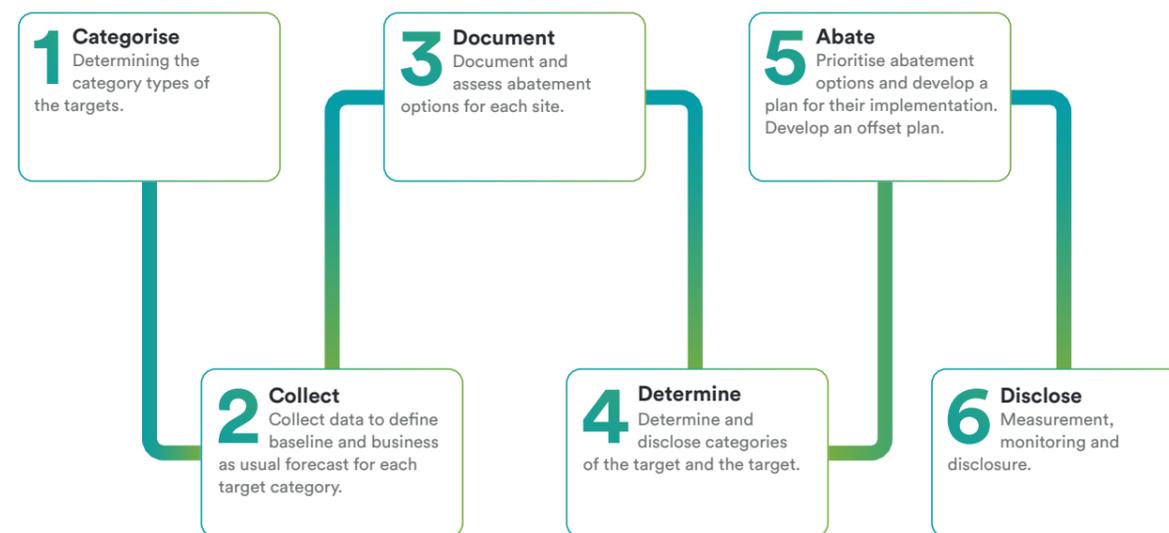
mining assets and emissions-intensive companies, to set a baseline reference point for Northern Star's actions in relation to setting climate-related targets.

This has informed the development of a staged action plan for setting and achieving emissions reduction and other appropriate climate targets.

Our staged action plan will ensure the targets set by Northern Star are well defined, credible, and achievable. It recognises that the merger with Saracen will change the company's footprint and reflects the time required to assess the merged entity's environmental footprint, taking into account mine plans and operational requirements.

As part of the process, we will consider options such as energy efficiency, renewable energy, fuel switching, supply chain engagement and offsets. Consideration will be given to appropriate frameworks, like the Science Based Targets Initiative, to build highly credible emissions reduction trajectory that includes long term goals and interim targets where appropriate.

Figure 14 Target setting strategy action plan



## Opportunities

Understanding the potential effects climate change may have on our business allows Northern Star to identify opportunities as well as potential risks. Through the scenario analysis work completed in CY2020 we were able to understand the aspects of our business that provide us with the greatest opportunity to respond to climate change in a positive and proactive way.

We are taking actions to address the risks and leverage potential opportunities in three key focus areas;

1. Understanding our energy mix and altering this mix where available. Potential options include the implementation of renewable energy opportunities like modular, transportable power hybrids for short-life operations.
2. Leveraging energy efficiencies across our Business such as the existing practice of regularly changing out operational fleet.
3. Water usage and recycling opportunities for our Australian assets, including the installation of a thickener at Jundee, Yandal Operations.

# Governance, Ethics & Transparency



# Governance is an important foundation for our business

“Good governance fosters sustainability, creates credible, authentic values and helps Northern Star achieve those values. Northern Star also realises long-term benefits from good governance, including reducing risks, attracting new investors and shareholders and increased stakeholder confidence.”

Hilary Macdonald, [General Counsel & Company Secretary](#)

## Corporate Governance

Our STARR Core Values of Safety, Teamwork, Accountability, Respect and Results are the foundation on which we conduct our business and underpin our commitment to upholding a corporate governance framework, policies and practices of the highest standard. Strategic planning, accountability, ethical business practices, effective risk management, well-managed legal and regulatory compliance, and transparency to our Stakeholders are all elements of our governance commitment.

As reported in our FY2020 Corporate Governance Statement available here: <https://www.nsrld.com/about/corporate-governance/>, Northern Star elected to achieve early alignment with the new fourth edition of the ASX Corporate Governance Council Principles and Recommendations (Recommendations). Throughout CY2020, the Company's corporate governance practices were in line with all Recommendations, except Recommendation 2.5<sup>16</sup>

The majority of the Board, being five of the six Directors, are Non-Executive Directors and considered independent in accordance with the Company's Policy on Assessing the Independence of Directors, in line with the Recommendations. Two of the six Directors (33%) are female and Board tenure ranges from 18 months to 13 years.

The performance and skillset of the Board is reviewed by the Lead Independent Director in conjunction with the Chair each year. The Non-Executive Directors formally meet at least four times a year without

management present, to promote free and frank discussion, including appraisal of the Executive Chair's performance and the effectiveness of the Chief Executive Officer and Executive Chair roles.

The Board oversees Northern Star's sustainability objectives. The Board's Audit & Risk Committee, and Environmental, Social & Safety (ESS) Committee, also have responsibility to assist with governance and risk management oversight, as follows:

- The Audit & Risk Committee oversees the internal financial control systems and risk management systems and assessments, and makes recommendations to the Board. The Committee has four members, all Non-Executive Directors, one of whom has relevant financial qualifications and experience;
- The ESS Committee assists the Board to implement our Sustainability Vision, providing deeper oversight in relation to workplace health and safety, diversity, environmental risk management, community and social responsibility, business ethics and commercial innovation. The ESS Committee has three members, two independent Non-Executive Directors and the Executive Chair, and is chaired by a Non-Executive Director with demonstrable, relevant experience - currently Mary Hackett, all of whom have considerable financial literacy, including the Lead Independent Director with a chartered accountancy background.



“Experienced governance specialists at Nasdaq evaluated Northern Star's Board to be highly functional, responsive and engaged.”

John Fitzgerald, Lead Independent Director



<sup>16</sup> That the chair of the board of a listed entity should be an independent director, and not the chief executive officer of the entity. Although Northern Star has an Executive Chair, Mr Beament does not also act as CEO. In addition, our Lead Independent Director acts as Chair of the Board in the Executive Chair's absence or where the Executive Chair is unable to act due to his lack of independence.

- In addition, the Remuneration Committee considers appropriate levers to motivate behaviours, when setting Key Performance Indicators in the remuneration framework. Risk management features in the annual short term incentive performance measures for leaders. For instance, the FY21 remuneration framework provides target and stretch targets for reduction in the Total Recordable Injury Frequency Rate, seeking to continue Northern Star's trend in outperforming the industry average for the last three years. To reinforce governance standards, the Board retains discretion to not award STI (or long term incentive) performance rights or cash incentives, regardless of KPIs being met, and has in the past exercised this discretion downwards to recognise a serious failing in safety. In addition under the terms of the Company's performance rights plans, the Board retains discretion to exercise clawback or malus (enabling cancellation of invested performance rights

or retrieval of proceeds of sale of vested, sold shares within 2 years of issue) having regard to governance concerns such as material financial misstatements, and significant legal, regulatory or policy non-compliance. To date no clawback or malus has been exercised but these Board tools are important for stakeholders to gain confidence that consequences can flow from lapses in governance.

The Board of Directors are ultimately accountable for Northern Star's positive corporate culture and governance practices, including ensuring compliance with the Company's Code of Conduct, policies and procedures, and the legislative and regulatory framework in which we operate. The Board are committed to maintaining a sound understanding of corporate governance requirements, emerging trends and stakeholder expectations, and regularly review our principles and processes to ensure we observe and maintain best practice in this space.

## Risk Mitigation and Management

The Company acknowledges that there is risk associated with all business activity and that maintaining a strong culture, backed by strong risk management processes, is essential to effective and robust management of risk. We also understand that Stakeholders value greater transparency in the disclosure of risks and how they are managed.

The Board's risk appetite is embodied in the Company's risk registers which are maintained and regularly reviewed across all Operations in the business. The regular discussion and identification of inherent risks, the rating of their possible consequences and impact on the business; and the current and planned mitigation actions is monitored on a quarterly basis through a risk register review process overseen by the Audit & Risk Committee, the results of which are regularly reported to the Board. The Audit & Risk Committee is also supported by our internal audit function which assists the Board in fulfilling its responsibilities regarding compliance and risk management.

Our vision is to continue to build a safe, quality mining and exploration company, focused on creating value for Shareholders. To achieve this, Northern Star maintains an ongoing commitment to continuous improvement in how we identify, assess and mitigate inherent risks in the business. The regular appraisal of risks and their potential impact on the business means that our Board receives the most up to date information about the business, enabling them to make strategic decisions regarding risks which affect the Company now, but also those which have potential to impact our success in the future. The addition of new Directors to the Board

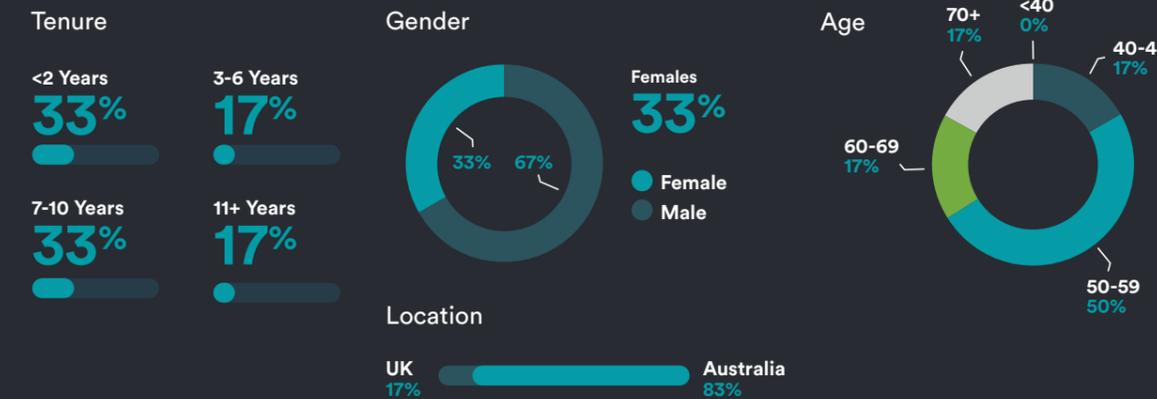
necessarily introduces more diversity of thought and perspective in risk assessments, as well as contributing fresh enquiry into the effectiveness of current and planned mitigating actions on the risk register. The addition of new projects and businesses also demands a re-appraisal of our risk matrix for the risk ratings and consequences, which will occur in CY2020.

Northern Star drives an effective risk management culture by:

- identifying that risk management is a fundamental aspect of the Company's decision-making processes;
- seeking to empower all levels of the business to assess and manage risks;
- ensuring material risks are identified, objectively assessed and where appropriate risk mitigation actions are effected to reduce residual risk;
- reviewing risk registers on a quarterly basis, which are reported to and assessed by the Audit & Risk Committee; and
- the establishment of crisis management systems across the business.

For a summary of the Company's environmental, social and safety risks to which the Company has a material exposure as at 30 June 2020, disclosed in accordance with Recommendation 7.4 of the ASX Corporate Governance Council Principles & Recommendations, see the Risk Management section of our FY2020 Annual Report published on our website: [www.nsrld.com/investor-media/reports/annual-reports/](http://www.nsrld.com/investor-media/reports/annual-reports/).

## Board Tenure and Diversity as at 31 December 2020



## Ethical Business Practices

Northern Star is committed to upholding lawful, moral and ethical practices in our business operations and in our dealings with suppliers, Stakeholders and the local communities in which we operate. We have zero production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index (CPI).

Our STARR Core Values, Code of Conduct, Anti-Bribery and Anti-Corruption Policy and associated policies hold our Directors, management and employees accountable to exercise integrity in their decisions and behaviour, act ethically in the best interests of our Shareholders, comply with all laws and company policies and provide a moral compass for the way Northern Star does business. These policies are provided to all new employees and contractors.

The Code of Conduct sets out our objectives of:

- increasing Shareholder value within an appropriate ethical framework; and
- complying with the Company's governance

## Transparency in disclosure

Being transparent in relation to governance and risk is fundamental to building and maintaining Stakeholder trust and investor confidence. This underpins the substance of our disclosures.

In addition to the rigour applied to its continuous disclosure practices, Northern Star regularly reviews and enhances its periodic disclosures to ensure openness, fairness and accountability in our external communications.

As in previous years, we invited Shareholders to submit questions to our Board and Auditors in advance of our Annual General Meeting and welcomed further questions from the floor.

framework of controls and accountability, with transparency and integrity.

Our Anti-Bribery and Anti-Corruption Policy covers all aspects of our business.

We encourage employees and other Stakeholders to report known or suspected breaches of the Code of Conduct and any other unethical, illegal or improper behaviour. Our Whistleblower Policy provides for a confidential, anonymous and retaliation-free process for people to report their concerns. Whistleblower notifications, Code of Conduct concerns and potential conflict of interest discussions are standing items on all Board agendas.

We condemn all human rights abuses, including modern slavery practices in all its forms. We recognise our role in protecting the human rights of all people involved in, or impacted by, our business practices and take meaningful steps to identify and address our modern slavery risks. For further information, see the Modern Slavery section of this Report and our FY2020 Modern Slavery Statement available on our website.

We also pursue regular meetings with proxy advisors.

These practices provide opportunities for deeper clarity, insight and transparency on our business operations and governance practices, for the benefit of all Shareholders and Stakeholders.

We continue to voluntarily publish the Company's annual Tax Corporate Governance Statements as part of our commitment to transparency. Our voluntary reporting under the Australian Voluntary Tax Transparency Code is located on the Northern Star website, under Corporate Governance ([www.nsrld.com/about/corporate-governance](http://www.nsrld.com/about/corporate-governance)).

## Case Study: External governance specialist Board evaluation

In addition to the annual performance evaluation of each individual Director, in CY2020 the Board engaged external governance specialists at Nasdaq Corporate Solutions to undertake a comprehensive evaluation of the Board.



In CY2020 the Executive Chair undertook an annual performance evaluation of each Non-Executive Director. Additionally, in CY2020, the Board undertook a comprehensive evaluation conducted by external governance specialists at Nasdaq Corporate Solutions with the objective of:

- providing the Board an unbiased and improved understanding of its functioning and performance;
- highlighting areas of strength and opportunities for improvement;
- encouraging positive relationships among Directors; and
- improve overall Board performance and effectiveness.

The evaluation delivered an actionable report of aggregated and anonymous individual responses and comments.

Notwithstanding Nasdaq concluding the Northern Star Board is highly functional responsive and engaged, we have seized on the opportunities raised in the Nasdaq report to further improve Board effectiveness. For example, in response to Director continuing professional development being identified

### In CY2020 we delivered Board training sessions facilitated by subject matter experts on topics aligned to our strategic plan and risk management framework.

as an area for improvement, in CY2020 we delivered Board training sessions facilitated by subject matter experts on topics aligned to our strategic plan and risk management framework, including:

- cybersecurity, presented by information security experts from PwC;
- succession planning, presented by the Company's Executive Manager – Capability & Culture; and
- (in early CY2021) the new Work Health & Safety (WHS) legislation in Western Australia, expected to come into operation in 2021.

# SUSTAINABLE DEVELOPMENT GOALS

## Governance, Ethics & Transparency

Our alignment with the UN Sustainable Development Goals through our Governance, Ethics & Transparency.



### 16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children

#### Understanding our Modern Slavery risks

Northern Star's commitment to ensuring the elimination of modern slavery requires an understanding of the risks of modern slavery within our own supply chain. In CY2020 Northern Star completed another survey of its current suppliers of goods and services. Deep dive investigations were conducted on those suppliers who returned high risk responses to our survey, with requirements for employee awareness training and executive acknowledgement of the requirements outlined in our Supplier Code of Conduct (SCC). Our SCC and the completion of regular modern slavery surveys enables collaboration with our suppliers to promote and develop a deeper understanding of our expectations in relation to human rights and modern slavery.



### 12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

#### Increasing sustainability disclosures

Northern Star continues to implement its Sustainability Vision across the Business with oversight of the ESS Committee. The ESS Committee meets quarterly to discuss sustainable practices and risk among its other obligations and in CY2020 revised its Sustainability Strategy with assistance from Finsbury ([www.finsbury.com](http://www.finsbury.com)). This Report is Northern Star's 5th annual Sustainability Report and third consecutive calendar year report, containing more detailed disclosures and metrics.



### 16.5 Substantially reduce corruption and bribery in all their forms

#### Governance framework and Policy

Northern Star's governance framework includes an Anti-Bribery and Anti-Corruption Policy which prohibits the paying or receiving of bribes or facilitation payments, and mandates proper record keeping of all entertainment, gifts and financial benefits. In addition, our Whistleblower Policy, provides a confidential, anonymous and retaliation-free process for employees and other Stakeholders to report any concerns they may have. These Policies are underpinned by our Code of Conduct.



Social

Performance

# Our Stakeholders matter

“Acknowledging Stakeholders’ interests, considering their views and responding both respectfully and meaningfully is critical to the performance of our business.”

Dr Guy Singleton, **Social Responsibility & External Relations Manager**

Northern Star acknowledges that our business can have cultural and physical impacts in and around the areas we operate. We define our key Stakeholders as those individuals and collectives that have an interest in what we do, or have (or should have) influence over what we do, or those who are potentially able to feel the impacts of our business.

All Northern Star Operations are required to identify their key Stakeholders and the issues that are material to them, a requirement of our Stakeholder Mapping and Engagement Global Standard. As well as being best practice, this Company-wide requirement is critically important for minority groups, such as Indigenous Peoples, whose voice may be underrepresented or in need of culturally-specific methods of engagement.

Our approach to providing financial and in-kind support to our Stakeholders and communities is aligned primarily to the United Nations’ SDGs. These 17 goals set by the UN cover a wide range of targets and objectives that form a “shared blueprint for peace and prosperity for people and the planet, now and into the future” (United Nations, <https://sdgs.un.org/goals>). These goals, and the targets that sit behind them provide us with guidance for implementing our Sustainability Vision, which seeks to “Deliver responsible environmental and social business

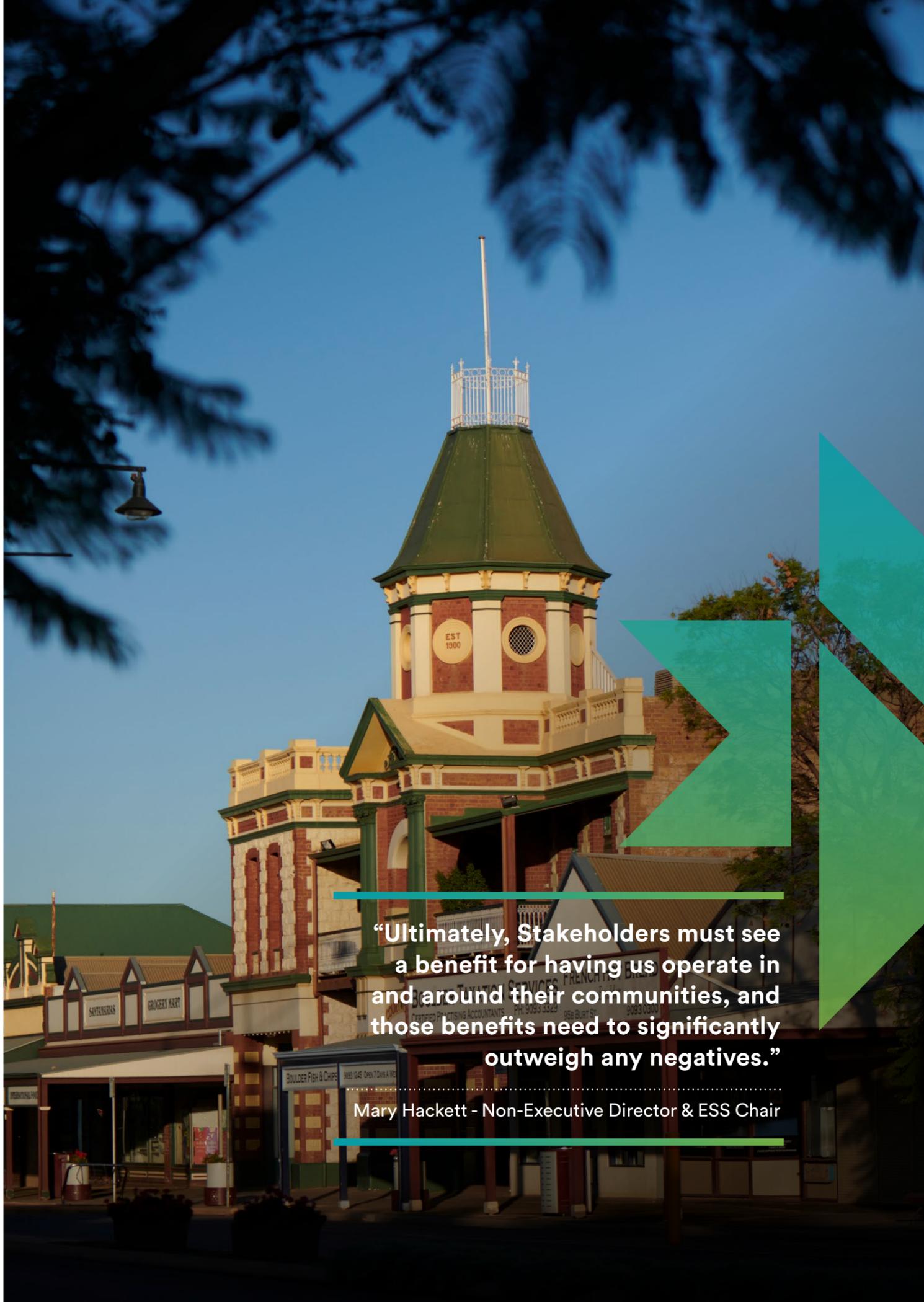
practice that lead to both the creation of strong economic returns for our Shareholders, and shared value for our Stakeholders”.

We ensure all operational areas have grievance mechanisms that allow Stakeholders to raise what they consider to be serious concerns and have their issues considered and responded to in a respectful and timely manner. No complaints were recorded during CY2020.

Our Board is informed and engaged on matters of stakeholder engagement via the ESS Sub-Committee. Chaired by Non-Executive Director Mary Hackett, membership includes Executive Chair Bill Beament and Non-Executive Director Peter O’Connor, with a standing invitation to Chief Executive Officer Stuart Tonkin. Senior members of the leadership team are regularly invited to brief the committee on material topics, including Group Manager Health and Safety, Melissa Collins, and Social Responsibility and External Relations Manager, Dr Guy Singleton.

We are confident in our ability to continue to deliver strong social performance by realising our sustainability vision. This is only achieved by acknowledging our impacts as a business, identifying our key Stakeholders, committing to open and respectful engagement, and creating shared value for society.

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“Ultimately, Stakeholders must see a benefit for having us operate in and around their communities, and those benefits need to significantly outweigh any negatives.”

Mary Hackett - Non-Executive Director & ESS Chair

# Indigenous Peoples Statement

## Our Philosophy:

Without question, Indigenous Peoples are key Stakeholders of our business. We recognise the rights and values of Indigenous Peoples and Traditional Owners and respect their cultural values and differences. Our ongoing responsible and respectful engagement of Indigenous Peoples is paramount to the success of the business and aligns with our Respect STARR Core Value.

We believe that an approach to indigenous relations focused solely on a narrow interpretation of legal rights is insufficient.

We are confident that our historical actions align with society's increasing expectations of corporate behaviour and believe the changes seen in recent years are a positive evolution for businesses and Indigenous peoples alike.

Northern Star embraces this cultural shift and is confident we are well positioned through long term positive relationships with our Indigenous Stakeholders, and a Company culture and operating model that aligns with these changing expectations.

**Table 16** Encroachment on Indigenous Land (excluding KCGM)

Region	% encroachment of tenement area on Indigenous Land <sup>17</sup>
Kalgoorlie Operations	88.9
Yandal Operations	71.7
Pogo	0



Goldfields Rangers preparing seedlings for use in regeneration programs, Kalgoorlie, Australia

<sup>17</sup> Indigenous land is that land covered by a registered or determined Native Title Claim as defined in the Australian Government's Native Title Act 1993 or the Alaskan Government's Alaska Native Claims Settlement Act 1971.

# Agreement Making

Since the early 1990s, agreement making between resource companies and Indigenous Peoples has been seen as an appropriate means of defining the terms by which each party will meet the behavioural expectations of the other, and ensure deliverables are specified and accountable. In Australia, agreement making between resource companies and Indigenous peoples is driven by a mix of legal requirements, good faith negotiations and mutual respect.

The process is widespread, commonplace, and considered to be best practice. An extension of agreement making is the basis on which companies undertake an agreement negotiation process, with frameworks such as Free Prior Informed Consent (FPIC) considered a valuable process and standard to adopt. Organisations such as the International Council of Mining and Metals (ICMM) and the United Nations encourage companies to adopt such practices within their negotiation process. The United Nations defines FPIC as:

- Free: consent given voluntarily and without coercion, intimidation, or manipulation

- Prior: consent sought sufficiently in advance of any authorisation or commencement of activities
- Informed: the nature of the engagement and type of engagement that should be provided prior to seeking consent
- Consent: the collective decision made by the rights-holders and reached through the customary decision-making process of the affected Indigenous Peoples or communities. (<http://www.fao.org/3/a-i6190e.pdf>)

Northern Star commits to agreement making with Indigenous Peoples where and when deemed appropriate, and as a voluntary requirement when working in Australia where a defined group of Traditional Owners exists. We also commit to upholding FPIC principles within our agreement making processes, as defined above by the United Nations.

Our Pogo Operations are located on 100% State of Alaska Land. We maintain positive engagements with Doyon Limited as a neighbouring Stakeholder group.

# Heritage Management

How companies interact with Indigenous heritage and those who place value on it is a rapidly increasing area of interest to our Stakeholders and Shareholders. The destruction of the Puutu Kuntj Kurrama Peoples' Juukan Gorge sites has brought into question the appropriateness of some legal frameworks for interacting with heritage, especially the Section 18 Provision of the Western Australian Heritage Act 1972. In Western Australia, the Heritage Act 1972 (WA) is currently under review, with a draft Aboriginal Cultural Heritage Bill to be considered by the WA state parliament in 2021.

Northern Star welcomes the review of the Heritage Act 1972 (WA). We have actively participated in the consultation of the draft Aboriginal Cultural Heritage Bill via the Chamber of Minerals and Energy, and the Association of Mining and Exploration Companies.

We are confident in the ability of the Western Australian government to address the needs of both industry and Aboriginal Stakeholders to ensure the revised legislation affords improved protection measures for Aboriginal heritage while providing industry with a clear process and pathway for project approvals.

In CY2020, we completed a Company-wide audit of our historical Section 18 approvals issued by the Western Australian Government under the Heritage

Act 1972 (WA) for all our Western Australian tenure. The findings of this audit were communicated to the Chief Executive Officer and relevant project leaders and used to confirm we have no material business risks associated with our existing and historical Section 18 approvals.

The audit indicated that we do have current Section 18 Notices, however we do not intend to rely on them to progress any of our operations. The CEO has directed that fresh consultation must occur in all cases before any reliance is made on those Notices.

We do not currently have any section 18 applications.

Northern Star has a flexible approach in terms of project planning and development. This enables us to minimise our impact on heritage areas and we do so only with the agreement of the relevant Aboriginal groups, following FPIC practices.

**Figure 15** CY2020 Heritage incidents

Number of heritage incidents

Number of heritage-related infringements

Cost of heritage-related infringements (A\$)

0



**Partnering with  
Indigenous Peoples  
to facilitate  
knowledge sharing**

Ray Carbine maintaining pastoral leases as part of the Martu Ranger group, Jundee, Yandal Operations.

**“The Martu Rangers play an important role in our Environmental and Land Management team at Jundee, assisting with key compliance and pastoral management.”**

William Moore, Senior ESR Advisor, Jundee, Yandal Operations

# Fee for service Ranger Program

## Acknowledging Difference

Recognising the need to offer meaningful employment opportunities for Indigenous peoples, Northern Star has been running highly successful Aboriginal Ranger programs since 2014. This innovative employment model was developed by necessity, after reflecting on the limited success of prior attempts to employ and retain Aboriginal peoples from surrounding remote communities at our Jundee Operations.

Both Northern Star and previous mine owners noted that whilst attracting employment interest from the local Martu Traditional Owners was relatively successful, the medium to long term retention of these employees was not. At the time, the realities of working on a mine site did not align with the wants and needs of most Martu employees, resulting in limited long-term interest. Martu were however, proactively providing land management services to their communities on traditional lands. In some instances, this also extended to co-management partnerships with government agencies with environmental management authority.

This sparked an idea between the Jundee team and staff at Central Desert Native Title Services, who were then representing the Wiluna Native Title Claim Group (now the Tarlpa Matuwa Piarku Aboriginal Corporation), that perhaps the Martu Rangers could provide commercial environmental management services to the Jundee mine, as part of the mine's environmental compliance requirements. This would provide Martu with economic benefit through professional employment, while allowing them to meet cultural obligations of managing country.

The initial trail of the program was deemed a success by all parties and not only remains in place at Jundee to this day, but has also been expanded to all Northern Star Australian sites where there has been interest from local Aboriginal groups. Rangers undertake a range of environmental management duties including water quality monitoring, biodiversity management, exploration rehabilitation and materials recycling.

## Key Elements

A key factor of this program's success is the engagement approach. Noting that most groups have a large pool of Rangers, the mine site draws a portion of these rangers to work for a block per month. This allows for Rangers to undertake other work and meet cultural obligations with the mine needs being continuously met. This was a key downside of mainstream employment models that did not afford participants with the flexibility needed to occupy their cultural obligations. Whilst less impactful in urban areas, this is a key determinant of success for Aboriginal employment in remote settings.

Another success element identified was that the program engaged Aboriginal people as experts or in possession of tangible knowledge and skills that they could offer to the mine. This was in stark contrast of previous employment models that typically engaged Aboriginal people as unskilled and in need of training, for what were typically considered entry level positions. This reframe provides participants with greater sense of pride in their employment.

## Project Expansion

Noting the success of the Jundee Ranger program and other expanded initiatives across WA and the NT, Northern Star linked into a range of third-party studies to help validate the program's success so it could be adopted by other Aboriginal groups and businesses. A collaborative study between the Australian Federal Government and Social Ventures Australia in 2016 concluded that such programs could deliver a social return on investment of 2.3:1, (meaning for every dollar spent on rangers, \$2.30 of value is generated) affirming that it was an effective and meaningful means for Northern Star to direct community support.

The report also concluded that ranger programs facilitated mutual benefit and synergies between Indigenous Protected Areas and resource companies. Equally, in 2016 the Australian Cooperative Research Centre NintiOne identified a strong positive correlation between the interplay of Aboriginal Ranger employment and determinants of health, education, empowerment, and well-being.

Most recently in 2020, the University of Queensland's Centre for Social Responsibility in Mining observed that programs such as Jundee's increased understanding of priorities for managing land that breakdown barriers and promote opportunities. These programs also promote a platform for mining companies and Indigenous landowners to collaboratively address rehabilitation issues, closure criteria and relinquishment, among a raft of other noteworthy conclusions (report forthcoming in 2021).

## Lasting Impact

The long-term function and widespread adoption of this model is a testament of its value to both Northern Star and the numerous Aboriginal participants. There is no clearer example of Northern Star delivering on its Sustainability Vision. This program is something we are all incredibly proud of and look to continue to develop, expand and evolve it to greater success into the future.



## Caring for Country

Martu Rangers undertake feral animal control, Jundee, Yandal Operations

## Economic Return to Society

Our economic return to society is consistently a material issue for many Stakeholder groups.

We understand it is important for us to be able to transparently quantify how our business contributes to the local, state, and national economies in which

we operate, to enable Stakeholders to evaluate the collective benefits from our Business. In CY2020, we generated over A\$2.03B in payments through government royalties, taxes, employee wages, procurement of goods and services, interests and dividends, and donations.

## Community investment

In CY2020, we significantly increased our commitment of direct financial community investment by 633%, from CY2019, to over A\$11.m<sup>18</sup> across a wide range of initiatives that align with our Community Investment Framework and the United Nations' SDGs. These are presented in Appendix D – UN SDG Alignment

Unique to this reporting period, our Board approved an extraordinary COVID-19 relief fund of A\$10M to respond to the projected health and economic impacts of the pandemic on our local communities. A community needs analysis saw us target health related issues in the first instance, which included the single largest donation of medical personal protective equipment to the State of Alaska and the development of a world-first mobile COVID-19 testing laboratory in Western Australia. To date, A\$3.4M has been spent, with A\$6.6M remaining to respond to the evolving situation as there is a transition from health to broader social and economic impacts.

In addition, Northern Star did not receive any funding or monetary support, through initiatives such as the Australian Government's JobKeeper Fund, from any Government.

Northern Star is a member of the Gold Industry Group (GIG), see [www.goldindustrygroup.com.au](http://www.goldindustrygroup.com.au). The GIG works to drive education and community initiatives that cultivate understanding and awareness of gold's value to the social fabric of communities and economies.

Our CEO, Stuart Tonkin, is a GIG Director alongside a number of other gold industry leaders. By supporting GIG we are able to combine our individual funding resources into a collective gold sector budget and support projects at a scale otherwise unobtainable to the sector. This serves to generate much greater positive impact within communities and allows the gold sector to reinforce its societal value far beyond what individual companies can achieve in isolation.

A good example of this in practice is the GIG sponsorship of Netball WA and the West Coast Fever. Through member company funds, the GIG has committed a A\$5M partnership to Netball WA and the West Coast Fever to support the growth of, provide more opportunities for and ensure the sustainability of netball across the State as the first Principal Partner of Netball WA, Elite Partner of West Coast Fever and Premier Partner of Shooting Stars. Netball is one of the largest sports by participation within Western Australia, and this deal is one of the largest in Australian female sporting history.

**Northern Star did not receive any funding or monetary COVID-19 support from any Government.**

Figure 16 Economic value add

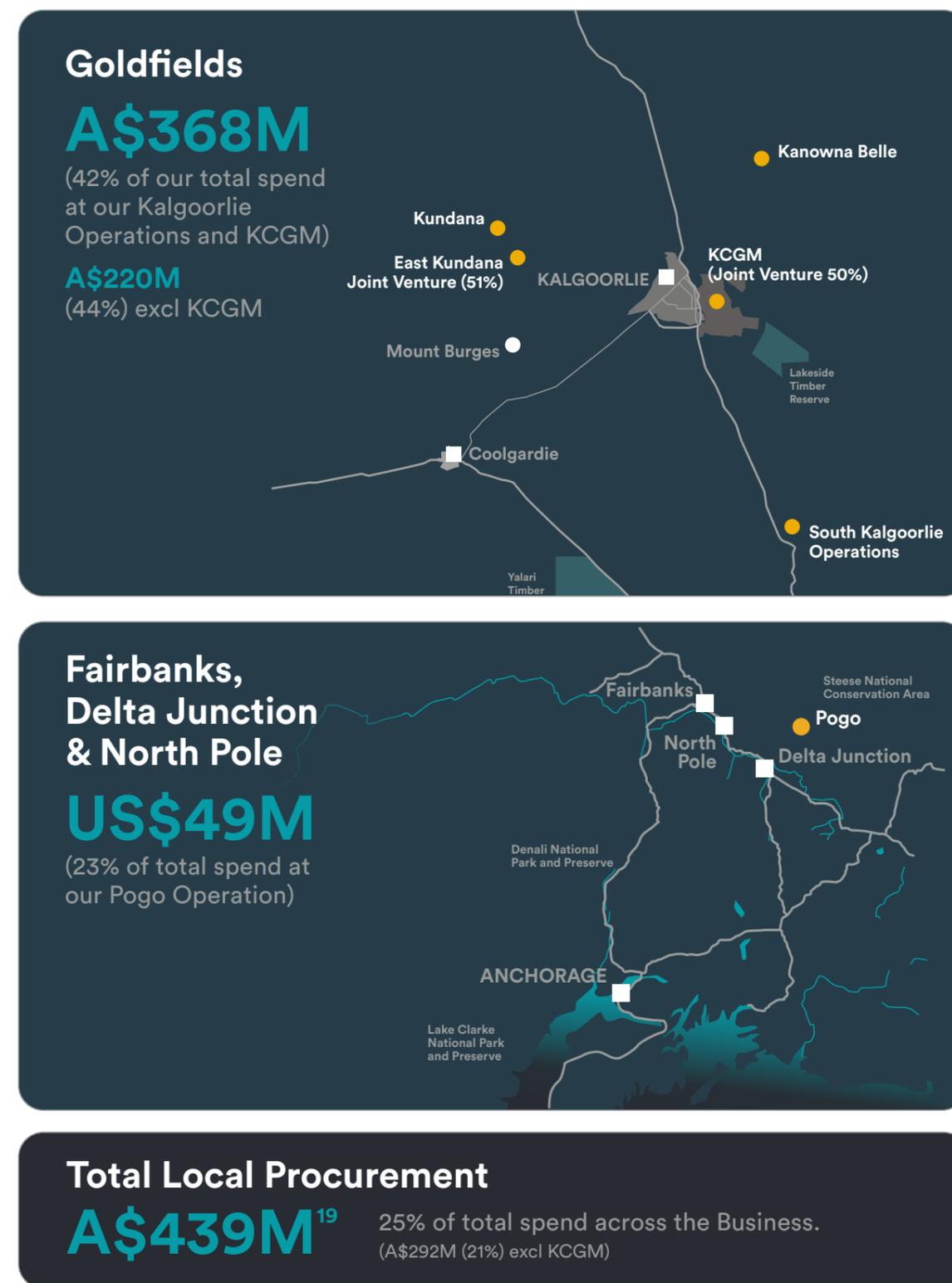


## Local Procurement

Supporting local businesses through the purchasing of goods and services provides a significant benefit to regional businesses within the areas we operate. We consistently take into account this positive impact when evaluating procurement opportunities

to ensure we maximise benefits and opportunities of our local supply chain. Our primary local procurement areas are the Goldfields Region of Western Australia, and the Fairbanks/Delta Junction region of Alaska, USA.

Figure 17 Local procurement spend by area



18 Including our COVID-19 Community Fund

19 AUD:USD exchange rate applied 0.69

## Case Study: Fighting COVID-19 – Labs Without Walls Partnership

“The mobile coronavirus laboratory developed in association with Lab Without Walls and funded by Northern Star Resources has put WA in a good place to respond to any regional surge in COVID-19 activity”.

Dr TJJ Inglis, Medical Microbiologist, UWA and PathWest



During the initial stages of the COVID-19 outbreak, the Australian resources sector was afforded the great privilege of being given government and community support to continue operating. Aside from implementing change management practice to ensure our activity did not pose any virus-related risks, it was clear we needed to use our resources to help defend against the wider impacts of the virus. Considering this and as part of our A\$10M COVID-19 relief fund, we donated A\$1M to Labs Without Walls, a Western Australian-based medical not-for-profit.

Labs Without Walls was established by Professor Tim Inglis, a medical microbiologist at the PathWest Laboratory Medicine WA and Head of Pathology and Laboratory Medicine at the University of Western Australia. Our funding has directly led to the development of a pioneering,

highly mobile, molecular diagnostic testing platform to rapidly deploy into remote regions to control COVID-19 clusters. Test results can now be generated by this mobile system within approximately two hours of screening in remote settings. This aspect is critical to successfully controlling a COVID-19 outbreak in a regional setting. The platform has gained Therapeutic Goods Administration (TGA) approval, a Commonwealth Government agency which regulates medical devices and ensures that Australian standards of quality, safety and efficacy are met. In December 2020, the platform was deployed into a regional setting in response to a COVID-19 cluster, and it performed as required allowing the situation to be contained. Because of this partnership, Western Australia remains the only jurisdiction with a mobile COVID-19 laboratory on standby.

# SUSTAINABLE DEVELOPMENT GOALS

## Social Performance

Our alignment with the UN Sustainable Development Goals through our Social Performance.



**2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round**

### Preventing hunger during COVID

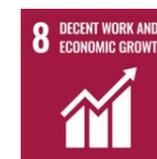
During lockdowns imposed in Western Australia and Alaska vulnerable people, such as the elderly, had restricted access to basic needs, including meals. Through our support of multiple organisations such as Foodbank WA and the Fairbanks Senior Centre we were able to assist in provided meals to these vulnerable people. Our accommodation village in Coolgardie, WA, developed its own food distribution service to provide aid to the elderly community members throughout 2020.



**4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes**

### Supporting education programs across Alaska

Young minds are Alaska’s greatest resource and Alaska Resource Education (ARE) works to spark an interest in resources and fuel their passion through education. ARE provides statewide educational opportunities to students and teachers and distributes primary education curriculum that meets Alaska State Science Standards. Through our ongoing support, ARE inspire future engineers, scientists, operators and regulators. In CY2020 ARE taught 4,966 students and 291 teachers in over 75 communities throughout the state.



**8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value**

### Supporting Indigenous business

In CY2020 Northern Star, in collaboration with Saracen Minerals and KCGM, formed a partnership with the Wirrpanda Foundation to support quarterly Regional pop-up Wirra Hubs. The Wirra Hub is an Indigenous Business and Employment Hub based in the Perth metropolitan area to help Indigenous Australians establish sustainable businesses and work with existing businesses to become more competitive. The regional pop-up hubs provide businesses in Kalgoorlie-Boulder access to coaches and mentors who can assist with building capacity, fostering networking, facilitating tender briefings and workshops, and identifying opportunities. The Wirra Hub will also work with other companies to identify potential synergies and partnerships for the Indigenous businesses.



NORTHERN STAR  
MINING

DT300

# Modern Slavery

# Modern Slavery

## Recognising our role in advancing the human rights of all people.

Northern Star acknowledges human rights as a legitimate set of moral principles of which every human being is inherently entitled to regardless of their personal, social, economic, cultural or geographic circumstances. We recognise our role in advancing the human rights of all people involved in, or impacted by, our business practices.

Modern slavery encompasses human rights violations including human trafficking, slavery and slavery-like practices such as forced labour, debt bondage and discriminatory employment practices. Northern Star acknowledges that modern slavery in its supply chain is a business risk that requires action to identify and mitigate. Northern Star welcomed the Australian Government's introduction of the Modern Slavery Act 2018 (Cth) (Act).

Simultaneous with the release of this Report, Northern Star publishes its first mandatory modern slavery statement under the Act, covering the report period

1 July 2019 to 30 June 2020 (as required) (Modern Slavery Statement). This Statement sets out in detail:

- Northern Star's operations and supply chains;
- modern slavery risks identified in our operations and supply chains;
- actions taken to 30 June 2020 to assess and address those risks; and
- the effectiveness of such actions.

A copy of our FY2020 Modern Slavery Statement is available on our website <https://www.nsrld.com/about/corporate-governance>.

Since 30 June 2020, the Company has undertaken the following further actions with a view to furthering our understanding of, and addressing, the modern slavery risks to which our supply chain and operations are exposed:

<p>92</p> <p>The CEO emailed all suppliers (including KCGM):</p> <ul style="list-style-type: none"> <li>• attaching our Supplier Code of Conduct, which includes a commitment to undertake modern slavery due diligence; and</li> <li>• requesting participation in our 2020 modern slavery supplier survey</li> </ul> <p>Northern Star conducted 'deep dive' reviews of ~50 suppliers whose previous survey responses raised the risk flags, requesting:</p> <ul style="list-style-type: none"> <li>• their CEO, Board and procurement department review our Supplier Code of Conduct; and</li> <li>• their procurement department and senior management complete training focused on identifying and managing modern slavery risks.</li> </ul>	<p>Aug 2020</p> <hr/> <p>Oct 2020</p> <hr/> <p>Nov 2020</p> <hr/> <p>Oct -Dec 2020</p> <hr/> <p>Nov-Dec 2020</p> <hr/> <p>Dec 2020</p>	<p>Northern Star and its joint venture partner, Saracen Mineral Holdings Limited, adopted a KCGM Supplier Code of Conduct including a voluntary Modern Slavery Statement</p> <p>Identified a specialist resource to undertake comprehensive due diligence checks to identify any human rights, financial crime and other risk flags on current and prospective/potential suppliers.</p> <p>Conducted a second survey of all of suppliers (this time including KCGM) using the modern slavery supplier self-assessment questionnaire developed by a mining industry group in collaboration with Walk Free Foundation (SAQ). Some insights from this survey appear overpage.</p> <p>On United Nations Human Rights Day, the CEO emailed all employees a short statement regarding Northern Star's commitment to the elimination of modern slavery and advancing human rights for all people, together with a short film promoting employee awareness of modern slavery.</p>
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The above actions, and further progress in the second half of FY2021, will be comprehensively disclosed in

our next Modern Slavery Statement to be released in late 2021.

Figure 18 Percentage of suppliers that operate in countries with the highest risk<sup>20</sup> of modern slavery



Figure 19 Percentage of suppliers that operate in industries with the highest risk<sup>21</sup> of modern slavery

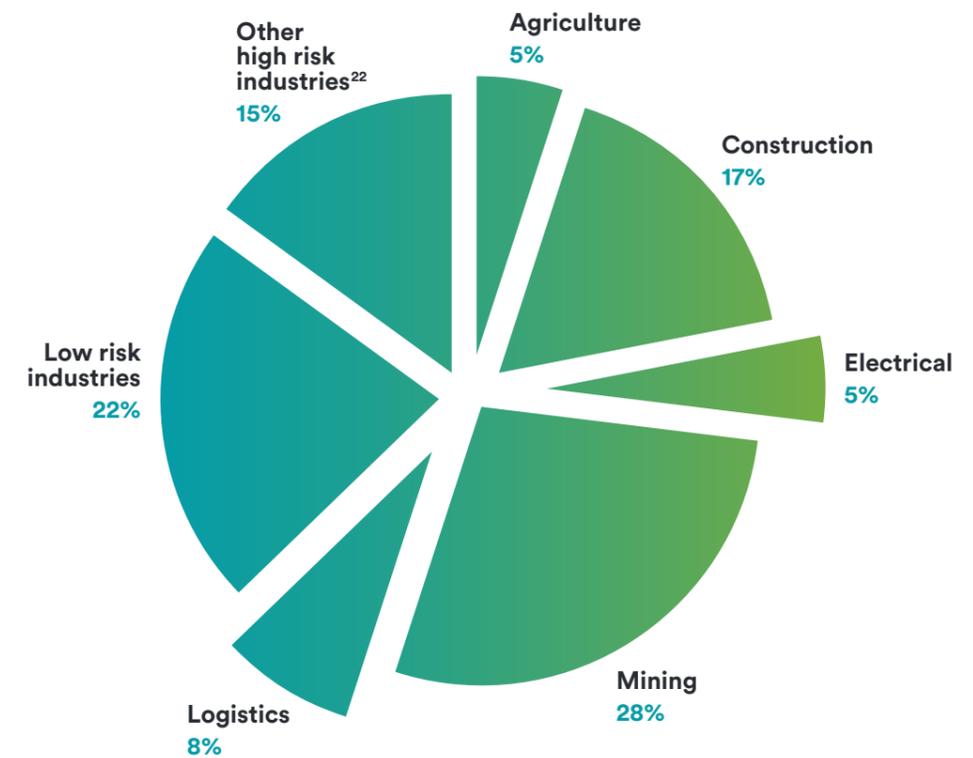


Figure 20 Percentage of suppliers addressing modern slavery



<sup>20</sup> According to the estimated prevalence of modern slavery victims per 1,000 people by country from Walk Free Foundation's 2018 Global Slavery Index (GSI).  
<sup>21</sup> Industries that are understood to present a significant risk of slavery and human trafficking according to 'Strengthening Protections Against Trafficking in Persons in Federal and Corporate Supply Chains', Verite, January 2015. Note: Suppliers may operate one or more industries.  
<sup>22</sup> Other high risk industries include: fishing, forestry, healthcare, hospitality, cleaning and textiles.

# Appendix A: SASB Materiality Assessment

# SASB Materiality Assessment

Northern Star's assessment of the SASB Metals & Mining Sustainability Accounting Standard

Disclosure Topic	Accounting Metric	Category	Unit of Measure	Northern Star Assessment	Notes
<b>Greenhouse Gas Emissions</b>	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO <sub>2</sub> -e, Percentage (%)	<b>Environmental Performance:</b> Greenhouse Gas Emissions, pages 46-47	<p>Scope 1 emissions are calculated based on the methodology required by the Australian Government under the National Greenhouse and Energy Reporting (NGER) Act for all Operations.</p> <p>NGER methodology includes 6 of the 7 gases identified in the accounting metric: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>).</p> <p>Nitrogen trifluoride (NF<sub>3</sub>) is not included in the NGER methodology as there does not appear to be significant use in Australia.</p> <p>Northern Star's Scope 1 emissions figures do not include HFCs as the NGER legislation and methodology exclude mining from the requirement to report HFC emissions.</p> <p>Northern Star's Scope 1 emissions figures do not include PFCs as these are a by-product of aluminium production or used in electronics, neither of which are applicable to our business.</p> <p>Northern Star's Jundee Operations are covered by an emissions limiting program: the Australian Government's Safeguard Mechanism.</p>
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	<b>Climate Change:</b> Metrics and Targets, page 67	
<b>Air Quality</b>	Air emissions of the following pollutants: (1) CO, (2) NO <sub>x</sub> (excluding N <sub>2</sub> O), (3) SO <sub>x</sub> , (4) particulate matter (PM <sub>10</sub> ), (5) mercury (Hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs)	Quantitative	Metric tons (t)	Not included in this Report	<p>Air emissions are reported through to the National Pollutant Inventory (NPI) for our Australian Operations.</p> <p>Air emissions are reported via the Toxics Release Inventory (TRI) and in accordance with permit requirements for our Pogo Operation.</p> <p>Air emission data is not included in this Report as the methods of calculating emissions differs between regions.</p> <p>Air emission data will be collected in a consistent manner across our regions and reported in the CY2021 Sustainability Report.</p>
<b>Energy Management</b>	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percentage (%)	<b>Environmental Performance:</b> Energy Use and Production, page 48	<p>Energy consumed is calculated based on the methodology required by the Australian Government under the National Greenhouse and Energy Reporting (NGER) Act for all Operations.</p> <p>Percentage of renewable energy consumed has not been reported as it cannot be accurately calculated due to a mixture of renewables, coal and gas energy provided from the Australian grid at our Kalgoorlie Operations.</p>

Disclosure Topic	Accounting Metric	Category	Unit of Measure	Northern Star Assessment	Notes
<b>Water Management</b>	1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m <sup>3</sup> ), Percentage (%)	<b>Environmental Performance:</b> Water Management, page 49	
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Quantitative	Number	<b>Environmental Performance:</b> Environmental Snapshot, page 44	No material incidents of non-compliance with water quality permits, standards or regulations occurred that resulted in a fine or regulatory order.
<b>Waste &amp; Hazardous Materials Management</b>	Total weight of tailings waste, percentage recycled	Quantitative	Metric tons (t),	<b>Environmental Performance:</b> Tailings Management, page 51	Recycled tailings at our Pogo and Kalgoorlie Operations are used to create paste for use in our underground operations.
	Total weight of mineral processing waste, percentage recycled	Quantitative	Percentage (%)	<b>Environmental Performance:</b> Waste Management, page 50 Hazardous Materials Management, page 50	<p>Arsenic trioxide and tailings production are created solely from our mineral processing.</p> <p>All other wastes at our operations are generated in both our mining and mineral processing operations.</p> <p>All of the waste figures reported on page 50 include volumes of waste generated from mineral processing and mining, we have not discriminated against business area when capturing the data.</p>
	Number of tailings impoundments, broken down by MSHA hazard potential	Quantitative	Number	Appendix E – Tailings Disclosure	<p>Detailed information on our tailings impoundments has been in line with the industry standard developed by the Church of England Pension fund.</p> <p>Hazard potential for our Alaskan facility has been assessed using Title 11 of the Alaska Administrative Code (AAC) 93.157, set by the Alaska Dam Safety Program (ADSP).</p> <p>Hazard potential for our Australian facilities have been assessed using Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia.</p>

# SASB Materiality Assessment (continued)

Disclosure Topic	Accounting Metric	Category	Unit of Measure	Northern Star Assessment	Notes
<b>Biodiversity Impacts</b>	Description of environmental management policies and practices for active sites	Discussion and Analysis	n/a	<b>Environmental Performance:</b> Biodiversity Statement, page 52	
	Percentage of mine sites where acid rock drainage is: (1) predicted to occur, (2) actively mitigated, and (3) under treatment or remediation	Quantitative	Percentage (%)	Not included in this Report	The process for tracking acid rock drainage potential is being standardised with the intent to disclose in CY2021.
	Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	Quantitative	Percentage (%)	Not included in this Report	The process for tracking reserves and resources in these areas is being standardised across the business with the intent to disclose in CY2021.
<b>Security, Human Rights &amp; Rights of Indigenous Peoples</b>	Percentage of (1) proved and (2) probable reserves in or near areas of conflict	Quantitative	Percentage (%)	Not included in this Report	The process for tracking reserves and resources in or near areas of conflict is being standardised across the business with the intent to disclose in CY2021.
	Percentage of (1) proved and (2) probable reserves in or near indigenous land	Quantitative	Percentage (%)	<b>Social Performance:</b> Table 16, page 80	The process for tracking reserves and resources in or near indigenous land is being standardised across the business with the intent to disclose in CY2021.  The percentage of our tenement area on indigenous land has been disclosed in this Report.
	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	Quantitative	n/a	<b>Social Performance:</b> Indigenous Peoples Statement, page 80  Agreement Making, page 81  Heritage Management, page 81  <b>Modern Slavery:</b> Pages 92-93	

Disclosure Topic	Accounting Metric	Category	Unit of Measure	Northern Star Assessment	Notes
<b>Community Relations</b>	Discussion of process to manage risks and opportunities associated with community rights and interests	Discussion and Analysis	n/a	<b>Social Performance:</b> Our Stakeholders Matter, page 78	
	Number and duration of non-technical delays	Quantitative	Number, Days	<b>Social Performance:</b> Our Stakeholders Matter, page 78	
<b>Labor Relations</b>	Percentage of active workforce covered under collective bargaining agreements, broken down by U.S. and foreign employees	Quantitative	Percentage (%)	<b>People Performance:</b> Our Workforce, page 34	This figure relates to our American employees only.
	Number and duration of strikes and lockouts <sup>2</sup>	Quantitative	Number, Days	Appendix A – This appendix	There were no strikes or lockouts at any of our Operations throughout CY2020.
<b>Workforce Health &amp; Safety</b>	(1) MSHA all-incident rate, (2) fatality rate, (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for (a) full-time employees and (b) contract employees	Quantitative	rate	<b>Safety Performance:</b> Safety Snapshot, page 20	The LTIFR and TRIFR are calculated according to the Western Australian Government's Department of Mines, Industry Regulation, and Safety guidelines.  Additional disclosures in this area are considered for the CY2021 Sustainability Report.
<b>Business Ethics &amp; Transparency</b>	Description of the management system for prevention of corruption and bribery throughout the value chain	Discussion and Analysis	n/a	<b>Governance, Ethics &amp; Transparency:</b> Ethical Business Practices, page 73	
	Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Quantitative	Metric tons (t) saleable	<b>Governance, Ethics &amp; Transparency:</b> Ethical Business Practices, page 73	

# Appendix B:

## Climate Change

### Scenario Analysis

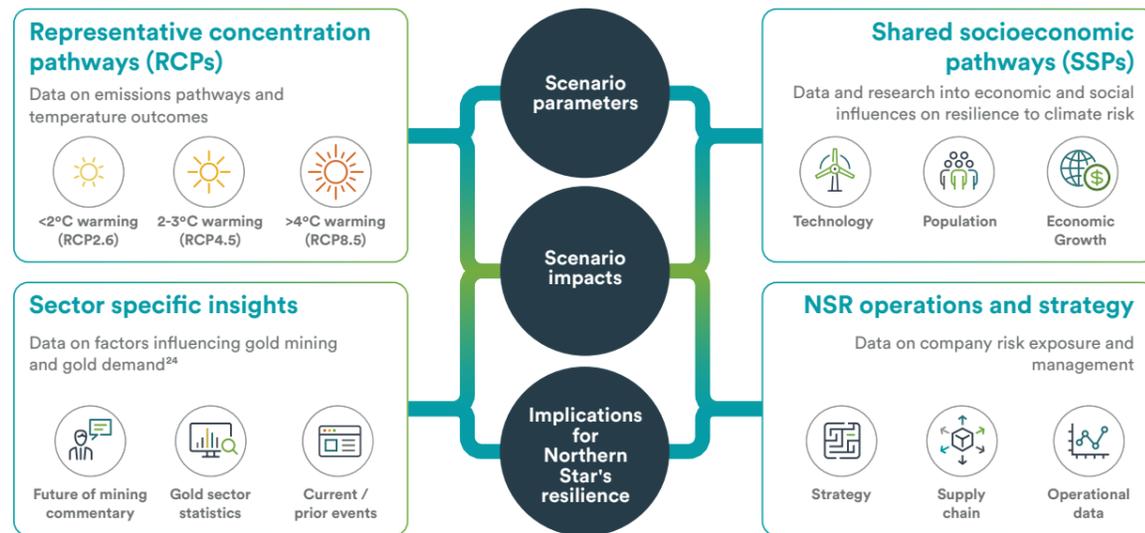
#### Details

# Development of the scenarios: methodological approach and data sources

The three scenarios used by Northern Star, developed in conjunction with Energetics, were anchored by global greenhouse gas emissions levels (Representative Concentration Pathways (RCPs), which provide emissions constraints and physical outcomes, and Shared Socio-Economic Pathways (SSPs), which provide social and economic context for climate-related actions. The use and

choice of RCP-SSP combinations drew on international research undertaken for the forthcoming IPCC 6th Assessment Report<sup>23</sup>. Additional data was drawn from sector-specific research and expertise, and from Northern Star's internal operations and insights. Figure 21 summarises the contribution made by each of these inputs and Table 17 outlines some key parameters stemming from the chosen IPCC pathways.

**Figure 21: Information sources used to construct Northern Star's climate-driven scenarios<sup>24</sup>**



**Table 17 Key scenario parameters**

		Scenario 1 Proactive effort	Scenario 2 Passive response	Scenario 3 Regressive action
<b>Reference point</b>	Representative concentration pathway	RCP 2.6	RCP 4.5	RCP 8.5
	Socio-economic pathway	SSP 1	SSP 3	SSP 5
	Basis for use	Investigates a <2°C pathway aligned with the Paris Agreement goal and TCFD requirements	Explores mid-range emissions and warming broadly aligned with countries' current emission pledges, in context of depressed GDP growth and geopolitical challenges	Investigates a pathway consistent with worst-case climate change outcomes
<b>Key parameters</b>	Global temperature increase (2100)	<2°C	2-3°C	>4°C
	Australian temperature increase (2050)	~1°C	~1.5°C	~2°C
	Projected Australian GDP (2050)	~5 trillion	~2.8 trillion	~8.8 trillion
	Projected global population (2050)	8.5 billion	9.9 billion	8.6 billion
	Projected Australian population (2050)	36.6 million	28.5 million	44.2 million

23. Intergovernmental Panel on Climate Change AR6 report due in 2021-22; <https://www.ipcc.ch/assessment-report/ar6/>

24. Mining sector resources considered included The World Economic Forum's Mining and metals scenarios (2010, 2015), PWC's We need to talk about the future of mining (2017), and Deloitte's The digital mine (2017). Gold sector insights and statistics were accessed from a variety of sources including the Gold Hub and World Gold Council websites. Historical and current events discussed in peer reviewed literature, reports and news articles were used to explore the impact of events and trends on the price and demand for gold and mining products.

## Scenario Narratives

**Scenario 1**  
**Proactive Effort:**  
 <2° Celsius  
 (SSP1-RCP 2.6)

Environmental degradation and accumulating impacts from climate-related events lead to increased environmental awareness and concern. An increased focus on managing climate change risk and capturing opportunity influences investors, business, governments, and public opinion. This drives more sustainable policy, practices, and investments, both in terms of environmental and social outcomes.

As the world embraces the scale of the transformation required, large investments are made into research and

development, facilitating innovation, and helping to commercialise low emissions technology more rapidly. Consumption patterns shift as the population becomes less materialistic and may impact the retail demand for gold. Gold's role as a portfolio diversifier and hedge in times of uncertainty remains, with limited potential for growth. However, there would be increased opportunities for sustainable gold for environmental and medical technologies.

There is a strong focus on reducing emissions, minimising environmental footprints, and improving rehabilitation practices in the mining sector. Investors become increasingly selective, backing companies with clear and transparent pathways towards decarbonisation and increasing engagement with the outliers. There may be consolidation of mining sector companies in these conditions, as newer and smaller entrants find it more difficult to compete in the face of relatively stable gold demand and high public and investor expectations.

**Scenario 2**  
**Passive Response:**  
 2-3° Celsius  
 (SSP3-RCP 4.5)

Financial crises in major economies reinforce and spread distrust in globalisation. Protectionist and national security issues slowly take priority over environmental protection. Demand for local goods increases, putting upward pressure on inflation. In the longer term, more stringent regulation comes into play, including climate policy, to safeguard national resources. The mining sector becomes affected by decreased globalisation and policy which aims to protect upstream supply chains and retain a greater share of returns in Australia.

In this anaemic economic environment, there may be greater turnover of existing gold assets as holders liquidate

their investment to cash as economic conditions become more challenging. Stunted per capita wealth may reduce retail demand for newly produced gold and, as technology investment is reduced, the potential and breadth of gold applications may be lower in this scenario. However, global population growth is high (particularly in Asia), becoming the main driver of jewellery and technology demand. Additionally, in an environment of greater uncertainty and with inflationary pressures, gold is likely to be increasingly sought for hedging purposes. Central banks may diversify their monetary reserves, accumulating gold. Overall, these diverging pressures may contribute to a larger range of gold prices as volatility increases.

In addition to growing regulatory red tape and climate impacts, there is a widespread push for producers to lower costs and hedge output. Lower tendency to extend life of mine to minimise the risk exposure due to gold price volatility. Increased geopolitical tensions may increase international shipping costs. Companies are evaluated on their contribution to local GDP and their compliance with regulation.

**Scenario 3**  
**Regressive Action:**  
 >4° Celsius  
 (SSP5-RCP 8.5)

Connections across a greater portion of the population in developed and emerging economies through the digital revolution increasingly facilitate access to education and enable discourse and collaboration. In this highly globalised society, investments in health and education are favoured to support human capital and drive innovation and economic growth. With equality and comfort pursued at all costs and no environmental focus, there is a global exploitation of fossil fuel resources and a widespread adoption of resource and

energy intensive lifestyles. Regulation is minimised so as not to shackle progress.

The retail market and technology applications become increasing sources of gold demand, particularly as the global population and economic growth thrive. With increases in wealth and with inflationary pressures present in the economy, there may be an increase in demand for gold as a store of value. While the gold price may be relatively lower in this scenario, it may be more stable due to global integration and focus on growth.

In this free-for-all world, large companies take over and maximise new developments. The burden of adaptation and safety measures is increasing, with implications for existing mining companies' reputation, while also presenting barriers to entry for new market entrants. A focus is placed on automation and digitisation to enhance safety and convenience and compete with peers.

**Table 18** Summary of impacts on key supply and demand factors for gold as a commodity, by scenario

		Scenario 1 Proactive effort	Scenario 2 Passive response	Scenario 3 Regressive action
Mining	Energy mix and use	Rapid electrification of energy systems, including in the transport sector.	Fossil fuel dependency persists, although Australia increasingly focuses on harnessing local sources of energy, including renewables.	Exploitation of fossil fuel resources continues and growth enables widespread adoption of resource- and energy-intensive lifestyles.
	Technology	Innovation focuses on renewable energy and environmental technologies. Digitalisation of mining enables process optimisation.	Investment constraints hinder advancements. Innovation focuses on short-term cost minimisation.	Innovation and automation prioritise production, convenience and safety.
	Environmental protection	Stakeholder pressure drives a gradual shift toward improving environmental conditions, beyond impact mitigation.	Resources are extracted at lowest cost, resulting in environmental degradation. Climate policy is limited or delayed.	Environmental problems are managed rather than mitigated. Control measures become more extreme over time, and may include geo-engineering.
	Policy	Policy mandates deep decarbonisation, impacting asset values and operational costs. New developments need to be designed for net zero emissions.	Countries become increasingly nationalistic and policy prioritises domestic interests and concerns ahead of the global commons.	Policy supports human capital development and economic growth. Institutional barriers are gradually removed and regulation minimised.
	Mining company characteristics	Successful companies invest in sustainability innovation and resource efficiency to meet ambitious emission reduction targets.	Volatile conditions keep average life of mine shorter. Physical climate impacts impose greater production costs.	Leading companies capitalise on innovation. Costs of adaptation and high safety standards gradually rise, leading to industry consolidation.
Gold	Demand profile	Applications for gold in medicine and environmental technologies grow. There may be emerging demand from retail buyers of gold products for sustainably mined gold with reduced demand for gold per capita, due in part to repair and reuse of electronic products.	Gold is sought for hedging purposes. As physical climate impacts increase and livelihoods are affected, gold demand in Asia may begin to stall.	High demand for gold as a store of value and status signifier, and for use in hi-tech consumer applications.
	Recycled gold	Electronic waste is increasingly repurposed as part of circular economy practices. This does not noticeably impact key gold producers.	There may be greater turnover of existing gold assets as holders liquidate their investment to cash as economic conditions become more challenging.	Recycled gold is only likely to grow in demand if technology improvements do not deliver enough newly-mined gold.
	Price volatility	Moderate	High	Moderate
	Labour retention	Companies with sustainable reputations can attract motivated and high quality staff.	Teams may be trimmed to reduce costs but job security concerns minimise staff turnover	Increased practices in poaching of key staff by larger competitors.
	Investors	Investors prefer companies with credible pathways towards decarbonisation.	Investors prefer blue chip gold producers, limiting investments in gold explorers/juniors.	Investors back companies with the largest gold reserves.

# Appendix C: Climate-related residual risks

# Climate related residual risks

Climate change related risks, their inherent risk ratings with business as usual controls, key mitigating controls and the resulting residual risk ratings are shared in Table 2

**Table 19** High, medium and low inherent risk ratings

Risk Rating	Priority	Description
High	1	<ul style="list-style-type: none"> <li>High inherent risks are generally considered unacceptable</li> <li>The implementation of mitigating strategies to be actively pursued</li> <li>Notification to, and approval to conduct or continue activity required from, Executive management prior to commencement or continuation when first identified or assessed as high risk</li> <li>A risk owner is appointed to ensure mitigation strategies are pursued and progress reported at least quarterly to the Audit and Risk Committee</li> </ul>
Medium	2	<ul style="list-style-type: none"> <li>Where appropriate, further risk mitigation strategies should be considered and applied as practicable.</li> <li>A risk owner is appointed to ensure that all aspects relating to the risk and its mitigation are managed</li> </ul>
Low	3	<ul style="list-style-type: none"> <li>Where appropriate, further risk mitigation strategies should be considered as part of the process of continuous improvement</li> <li>A risk owner is appointed to ensure all aspects relating to the risk and its mitigation are managed</li> </ul>

**Table 20** Climate change related risks

Risk	Site affected	Description	Inherent risk rating	Key control measures	Residual risk rating	Planned action
Groundwater scarcity	Australia	Decreased average total annual rainfall causes drier surface conditions and underground aquifers to be replenished slowly	High	<ul style="list-style-type: none"> <li>Third party reviews of usage and aquifer health</li> <li>Recycled water use with underground and processing</li> <li>Decant water from tailings facilities for reuse in all our operating process plants</li> </ul>	Medium	Thickener installation at our Jundee Operations
Flooding	Australia and Alaska	In Western Australia, rainfall is becoming more concentrated and cyclones more severe; in Alaska, total rainfall is increasing and permafrost melting off-site, both pointing to an increase in the frequency and severity of floods	High	<ul style="list-style-type: none"> <li>Surface water management infrastructure installed at all sites (e.g. diversion ditches, bunds)</li> <li>Water level monitoring at surface water structures</li> <li>Severe Weather and Cyclone Management Plans in place</li> <li>Scenario analysis completed as per TCFD recommendations</li> </ul>	High	Flood mitigation infrastructure review Update and review current risk profile of storm events

Risk	Site affected	Description	Inherent risk rating	Key control measures	Residual risk rating	Planned action
Extreme heat days and heatwaves	Australia	Increase in the frequency of extreme heat days can cause worker health issues and impact production	Medium	<ul style="list-style-type: none"> <li>Working in Adverse Temperatures procedures and guidelines in place</li> <li>Hydration testing completed at our Yandal, Paulsens and Tanami Operations</li> </ul>	Medium	Extend hydration testing to high-risk functions at our Kalgoorlie Operations during Summer
Cyclones	Australia	Increased severity of cyclones and alteration of cyclone tracks, leading to broadening of risk region	Medium	<ul style="list-style-type: none"> <li>Severe Weather and Cyclone Management Plans in place.</li> <li>Scenario analysis completed as per TCFD recommendations</li> </ul>	Medium	Introduce pre-cyclone season audit strategy for high-risk areas
Hotter average conditions for workers and equipment	Australia	Rising average temperatures causing a hotter environment for site workers, equipment, and controls	Medium	<ul style="list-style-type: none"> <li>Working in Adverse Temperatures procedures and guidelines in place.</li> <li>Well maintained ventilation at underground operations</li> <li>Hydration testing completed at our Yandal, Paulsens and Tanami Operations</li> <li>Air-conditioned vehicle cabs at all operations</li> </ul>	Low	Extend hydration testing to high-risk functions at our Kalgoorlie Operations during Summer
Bushfires	Australia and Alaska	More high-risk conditions (e.g. hot weather, dry vegetation, high winds) increases bushfire frequency and severity	Medium	<ul style="list-style-type: none"> <li>Asset protection burns conducted at high risk operations.</li> <li>Emergency Response Teams at all operating sites</li> </ul>	Medium	Expand asset protection burning across relevant company areas. Complete a company-wide fire risk assessment
Climate change policy evolution	Australia and Alaska	The climate change policy landscape is evolving quickly influenced by the Paris Agreement. A change in Federal government in Australia or the US has the potential to increase compliance obligations	Medium	<ul style="list-style-type: none"> <li>Advocacy group membership including Chamber of Minerals and Energy – Western Australia and the Council of Alaskan Producers</li> </ul>	Medium	
Emissions reduction or offset requirements for new developments or expansions	Australia	There are precedents for offsetting greenhouse gas emissions from significant new or expanding development proposals in Western Australia	Medium	<ul style="list-style-type: none"> <li>Advocacy group membership including Chamber of Minerals and Energy – Western Australia and the Council of Alaskan Producers</li> </ul>	Medium	Investigate carbon abatement project feasibility on Company owned pastoral leases

Risk	Site affected	Description	Inherent risk rating	Key control measures	Residual risk rating	Planned action
<b>Removal of fossil fuel subsidies and rebates</b>	Australia and Alaska	There is mounting global pressure to remove fossil fuel subsidies. In Australia, a major focus is on the fuel tax credit. The US Congress recently introduced legislation to reform and repeal fossil fuel subsidies, although this legislation has not been passed by the Senate	Medium	<ul style="list-style-type: none"> <li>Regular replacement of old mobile equipment to increase diesel efficiency per tonne moved.</li> <li>Constantly monitoring and assessing renewable energy pricing and OEM fleet opportunities</li> </ul>	Medium	
<b>Increased penetration of renewable energy</b>	Australia and Alaska	As renewable energy becomes increasingly cost competitive with fossil fuels, electricity grid operators are planning for the increased penetration of variable generation	Medium	<ul style="list-style-type: none"> <li>Contracts with gas suppliers and electricity providers</li> <li>Regular replacement of old mobile equipment</li> </ul>	Low	Investigate renewable energy options for new projects
<b>Government mandated carbon charges</b>	Australia and Alaska	Increased cost due to potential future tax or trading schemes	Medium	<ul style="list-style-type: none"> <li>Advocacy group membership including Chamber of Minerals and Energy – Western Australia and the Council of Alaskan Producers</li> </ul>	Low	
<b>Loss of community confidence</b>	Australia and Alaska	As communities become increasingly concerned about climate change, stakeholders may question the impacts on Northern Star's operations	Medium	<ul style="list-style-type: none"> <li>Regular stakeholder engagement</li> <li>Annual Sustainability Report</li> <li>Annual ESG Roadshows with key Company representatives</li> <li>Board Environment, Social &amp; Safety Committee.</li> <li>Climate change risk assessment process</li> </ul>	Low	Meet TCFD recommendations
<b>Increased dust generation</b>	Australia	Higher average temperatures and decreased total rainfall will create drier soil, generating more dust from transport and mining activities	Medium	<ul style="list-style-type: none"> <li>Stockpile dome installed at Kanowna Belle</li> <li>Polymer application to high-risk care and maintenance landforms</li> </ul>	Medium	Continued progressive rehabilitation of completed landforms Consider polymer use at other high-risk locations

Risk	Site affected	Description	Inherent risk rating	Key control measures	Residual risk rating	Planned action
<b>Need for capital investment in low emissions technology</b>	Australia and Alaska	To reduce emissions, companies will need to invest in low emissions technologies and renewable energy systems	Medium	<ul style="list-style-type: none"> <li>Capital replacement schedule geared towards replacement rather than rebuilds to get exposure to latest technology (e.g. Tier 4 engines in mining equipment)</li> </ul>	Low	Monitor developments in mining fleet electrification
<b>Insufficient abatement from the electricity sector</b>	Australia and Alaska	Low emissions reduction in the electricity sector increases the decarbonisation required by other industries to meet state and federal emissions targets	Medium	<ul style="list-style-type: none"> <li>Current relationships and contracts with major energy suppliers</li> </ul>	Low	
<b>Stricter environmental management and protection</b>	Australia and Alaska	Stricter management and new regulations may be implemented to preserve biodiversity, and new areas may be classed as environmentally sensitive	Low	<ul style="list-style-type: none"> <li>Biodiversity Management Global Standard</li> <li>Site-specific Biodiversity Management Plans</li> <li>Regular biodiversity monitoring at key locations e.g. fish monitoring at Pogo</li> </ul>	Low	Develop partnerships with scientific organisations studying key species in Alaska and Australia
<b>Engineering challenges for integrating renewable energy into mine sites</b>	Australia and Alaska	Transitioning the power supply to renewable energy requires significant expertise and planning to avoid design flaws and shortcomings	Low	<ul style="list-style-type: none"> <li>Utilise vendor expertise to evaluate renewable power scenarios</li> </ul>	Low	Continue to monitor technology trends and evolution. Continue to invest in research and development specific to the renewable energy market
<b>Stakeholder expectations</b>	Australia and Alaska	Stakeholders are becoming increasingly concerned about climate change, putting pressure on companies to take greater climate action	Low	<ul style="list-style-type: none"> <li>Annual ESG Roadshows</li> <li>ESS Committee</li> </ul>	Low	Update Sustainability Strategy
<b>Changing animal range, migration and hibernation patterns</b>	Alaska	Warmer temperatures have been linked to changes in bear hibernation and the grazing routes of their prey, which would increase presence of bears around the Alaskan site	Low	<ul style="list-style-type: none"> <li>Biodiversity Management Global Standard</li> <li>Site specific Biodiversity Management Plans</li> <li>Regular biodiversity monitoring at key locations e.g. fish monitoring at Pogo</li> </ul>	Low	Develop partnerships with scientific organisations studying key species in Alaska and Australia

Risk	Site affected	Description	Inherent risk rating	Key control measures	Residual risk rating	Planned action
Shareholder divestment	Australia and Alaska	Shareholders may change their investment decisions for not demonstrating action on climate change generally	Low	<ul style="list-style-type: none"> <li>Annual ESG Roadshows</li> <li>ESS Committee</li> </ul>	Low	Update Sustainability Strategy
Higher storm surges	Australia and Alaska	Storm surges are worsened by sea level rise	Low	<ul style="list-style-type: none"> <li>Alternate suppliers identified for critical stock items</li> </ul>	Low	
Scope 3 reporting may become a requirement	Australia and Alaska	Scope 3 emissions reporting may become a more common requirement and possibly a consideration for project approvals	Low	<ul style="list-style-type: none"> <li>Advocacy group membership including Chamber of Minerals and Energy – Western Australia and the Council of Alaskan Producers</li> </ul>	Low	
Rejection of development applications due to high emissions intensity	Australia and Alaska	Emissions intensity of new proposals may be benchmarked against best practice operations and less ambitious projects may be rejected	Low	<ul style="list-style-type: none"> <li>Advocacy group membership including Chamber of Minerals and Energy – Western Australia and the Council of Alaskan Producers</li> </ul>	Low	
Supply issues from wider interconnected electricity network	Australia and Alaska	Risk of interruptions to electricity supply and power quality issues due to, for example, closure of ageing coal fired power stations and increasing penetration of renewable generation sources	Low	<ul style="list-style-type: none"> <li>Utilise vendor expertise to evaluate renewable power scenarios</li> </ul>	Low	
Electricity and natural gas price volatility	Australia	While there is currently a domestic gas reservation policy, any threats to this policy combined with increased demand for LNG globally could expose WA electricity and natural gas users to higher and more volatile prices	Low	<ul style="list-style-type: none"> <li>Utilise vendor expertise to evaluate renewable power scenarios.</li> <li>Advocacy group membership including Chamber of Minerals and Energy – Western Australia and the Council of Alaskan Producers</li> <li>Quarterly reviews of costs and annual budgets</li> </ul>	Low	

Risk	Site affected	Description	Inherent risk rating	Key control measures	Residual risk rating	Planned action
Changes to the Safeguard Mechanism	Australia	Potential for Australia's Safeguard Mechanism policy to be expanded to cover additional sites beyond Jundee, through the lowering of emission thresholds. Existing baselines may need to be lowered	Low	<ul style="list-style-type: none"> <li>Advocacy group membership including Chamber of Minerals and Energy – Western Australia and the Council of Alaskan Producers</li> </ul>	Low	
Uncertainty around renewable incentive schemes	Australia	Electricity purchased from the grid, and from other non-renewable power stations which meet certain conditions, attract a charge on every MWh of electricity consumed under Australia's Renewable Energy Target (RET) scheme. While the scheme is coming to an end, there is the possibility for a new or expanded and extended scheme under a change in government	Low	<ul style="list-style-type: none"> <li>Advocacy group membership including Chamber of Minerals and Energy – Western Australia and the Council of Alaskan Producers</li> </ul>	Low	
Cost of climate change risks built into insurance premiums	Australia and Alaska	Physical assets insured for extreme weather events may face higher insurance premiums as regional frequency of these events increase	Low	<ul style="list-style-type: none"> <li>Utilise vendor expertise to evaluate renewable power scenarios</li> <li>Quarterly reviews of costs and annual budgets</li> </ul>	Low	

# Appendix D: UN SDG Alignment



Sustainable Development Goal 1

# No Poverty

End poverty in all its forms everywhere.

Target	Indicators	2020 Alignment
<b>1.1</b> By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	<b>1.1.1</b> Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)	Indigenous Ranger employment programs across multiple Australian sites for environmental compliance works provides employment and business development opportunities for Australia's most economically-marginalised demographic of peoples.  Direct donations and support initiatives to local community groups in the remote areas where we operate.
	<b>1.2</b> By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	<b>1.2.1</b> Proportion of population living below the national poverty line, by sex and age  <b>1.2.2</b> Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions
<b>1.3</b> Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	<b>1.3.1</b> Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable	
	<b>1.4</b> By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	<b>1.4.1</b> Proportion of population living in households with access to basic services  <b>1.4.2</b> Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure
<b>1.5</b> By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	<b>1.5.1</b> Number of deaths, missing persons and persons affected by disaster per 100,000 people	
	<b>1.5.2</b> Direct disaster economic loss in relation to global gross domestic product (GDP)	Partnership with the Kalgoorlie-Boulder Chamber of Commerce and Industry (KBCCI) to provide monetary grants to local businesses impacted by COVID-19 in the Goldfields region of Western Australia.
	<b>1.5.3</b> Number of countries with national and local disaster risk reduction strategies	
<b>1.A</b> Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions	<b>1.A.1</b> Proportion of resources allocated by the government directly to poverty reduction programmes	
	<b>1.A.2</b> Proportion of total government spending on essential services (education, health and social protection)	
<b>1.B</b> Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions	<b>1.B.1</b> Proportion of government recurrent and capital spending to sectors that disproportionately benefit women, the poor and vulnerable groups	



Sustainable Development Goal 2

# Zero Hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

Target	Indicators	2020 Alignment
<b>2.1</b> By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round	<b>2.1.1</b> Prevalence of undernourishment	Via our Jundee Mine we support the Wiluna Remote Community School healthy food and nutrition program, ensuring that their students receive sufficient nutrition/sustenance/food to support their learning and development. The majority of Wiluna's population identifies as Aboriginal.  Additional food donations to support children and elders in Wiluna. Sourcing fresh food and staples became difficult due to COVID travel restrictions.
	<b>2.1.2</b> Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)	Community partnership with Foodbank WA providing access to food and resources to vulnerable communities within Western Australia in response to the pandemic.  Donation to Fairbanks Senior Centre to provide meals to vulnerable people during the COVID pandemic.  Provision of meals for the elderly within the Coolgardie community via our Accommodation Village during the COVID lockdown.  Annual support of the 'Christmas in the Park' event, providing access to a meal and community activities on Christmas Day for the wider community of Kalgoorlie, including people living with a disability and other disadvantaged people.  Additional support provided to Foodbank Kalgoorlie in partnership with Saracen Minerals to enable direct support of the Kalgoorlie-Boulder region.
<b>2.2</b> By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons	<b>2.2.1</b> Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age	
	<b>2.2.2</b> Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)	
<b>2.3</b> By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	<b>2.3.1</b> Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size	
	<b>2.3.2</b> Average income of small-scale food producers, by sex and indigenous status	
<b>2.4</b> By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality	<b>2.4.1</b>	
<b>2.5</b> By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed	<b>2.5.1</b>	
<b>2.A</b> Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries	<b>2.A.1</b>	
	<b>2.B.1</b> Producer Support Estimate	
<b>2.B</b> Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round	<b>2.B.2</b> Agricultural export subsidies	
	<b>2.C.1</b> Indicator of food price anomalies	



Sustainable Development Goal 3

# Good Health & Well-being

Ensure healthy lives and promote well-being for all at all ages.

Target	Indicators	2020 Alignment
<b>3.1</b> By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	<b>3.1.1</b> Maternal mortality ratio	
	<b>3.1.2</b> Proportion of births attended by skilled health personnel	
<b>3.2</b> By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	<b>3.2.1</b> Under-five mortality rate	Ongoing donations to the Perth Children's Hospital Foundation to directly support children's medical research.
	<b>3.2.2</b> Neonatal mortality rate	
<b>3.3</b> By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	<b>3.3.1</b> Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations	
	<b>3.3.2</b> Tuberculosis incidence per 1,000 population	
	<b>3.3.3</b> Malaria incidence per 1,000 population	
	<b>3.3.4</b> Hepatitis B incidence per 100,000 population	
	<b>3.3.5</b> Number of people requiring interventions against neglected tropical diseases	
<b>3.4</b> By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being	<b>3.4.1</b> Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease	Investment in the health of the Alaskan community through a partnership with the American Heart Association's Health for Good initiative.  Ongoing access to health care insurance for all permanent employees and families to support and assist with maintaining a healthy lifestyle; thus reducing the risk of cardiovascular disease, cancer, diabetes or chronic respiratory diseases.  Continuation of access for personnel to the Best Doctors program which provides global access to health specialists.  Ongoing support of the Goldfields Children's Charity and Starlight Children's Foundation which provide support for families living with ill children in regional communities.  Support for multiple health and wellness not-for-profits and programs within the communities in which we operate.
	<b>3.4.2</b> Suicide mortality rate	Donation to Lifeline during COVID pandemic to assist in providing support to record number of people seeking help.  Partnering with Lysn for the provision of free psychological support services for permanent employees and families.  Accredited Mental Health First Aid Training provided to employees across our operations.  Provision of free Mental Health First Aid Training to the community in Kalgoorlie-Boulder.
<b>3.5</b> Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	<b>3.5.1</b> Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders	Sponsor of the Sideeffect Australia - Regional Roadshow, providing drug awareness presentations tailored to high school students across regional Western Australia.  Correct storage of harmful substances at our operations in close proximity to nearby communities to prevent access and abuse. e.g. inhaling of spray paint.  Zero tolerance to illicit substance use at our operations. Illicit substance and alcohol testing is compulsory for new hires and conducted randomly throughout employment at our operations.
	<b>3.5.2</b> Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol	Sponsor of the Sideeffect Australia - Regional Roadshow, providing drug awareness presentations tailored to high school students across regional Western Australia.  Increased focus on storage and handling of potentially harmful substances of abuse. Inclusion in region specific reporting where access is identified.  Zero tolerance to illicit substance use at our operations. Illicit substance and alcohol testing is compulsory for new hires and conducted randomly throughout employment at our operations.
<b>3.6</b> By 2020, halve the number of global deaths and injuries from road traffic accidents	<b>3.6.1</b> Death rate due to road traffic injuries	Traffic Management Plans implemented and effectiveness monitored through compliance reporting

Target	Indicators	2020 Alignment
<b>3.7</b> By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes	<b>3.7.1</b> Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods	
	<b>3.7.2</b> Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group	
<b>3.8</b> Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	<b>3.8.1</b> Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)	Donation of medical personal protective equipment to communities throughout Alaska during the COVID-19 pandemic.  Ongoing support of the Ngangganawili Aboriginal Health Service in Wiluna to ensure affordable and culturally appropriate medical services are available to the extremely remote Indigenous community.
	<b>3.8.2</b> Proportion of population with large household expenditures on health as a share of total household expenditure or income	
<b>3.9</b> By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	<b>3.9.1</b> Mortality rate attributed to household and ambient air pollution	Workplace Exposure Standards continue to be measured and monitored in accordance with Regulatory requirements, exposure standards adjusted to meet revised industry requirements.  Automated continuous monitoring system at our Kanowna Belle operation to ensure emissions generated from ore processing are constantly within threshold limits set by regulators and present no net negative effect on surrounding communities.
	<b>3.9.2</b> Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)	
	<b>3.9.3</b> Mortality rate attributed to unintentional poisoning	
<b>3.A</b> Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate	<b>3.A.1</b> Age-standardized prevalence of current tobacco use among persons aged 15 years and older	
<b>3.B</b> Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all	<b>3.B.1</b>	Labs Without Walls COVID-19 partnership, developing a TGA approved mobile COVID testing unit to service remote communities.
	<b>3.B.2</b>	
<b>3.C</b> Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States	<b>3.C.1</b> Health worker density and distribution	
<b>3.D</b> Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks	<b>3.D.1</b> Health worker density and distribution	Donation of medical personal protective equipment to communities throughout Alaska during the COVID-19 pandemic.  Offered out two Tanami mining camps to the State of Western Australia and the Northern Territory Government to use as remote quarantine protection vilgalges for Aboriginal elders during the COVID-19 pandemic.  Handed over our two Tanami minig camps to the Federal Government for boarder control purposes during the COVID-19 pandemic.  Labs Without Walls COVID-19 partnership, developing a TGA approved mobile COVID testing unit to service remote communities.



Sustainable Development Goal 4

# Quality Education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Target	Indicators	2020 Alignment
4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	4.1.1 Proportion of children and young people: (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex	Direct donations and support initiatives to local schools in the remote areas where we operate (Kalgoorlie, Delta Junction and Wiluna).  Direct donations to Alaska Resource Education to provide state-wide educational opportunities to students and teachers.  Ongoing support of the Wiluna Remote Community School and Wiluna TAFE which provides vocational education and employment training for local residents who reside in a highly remote region.  Investment in programs within our local communities that support the professional development of local educators, leading to improved local educational outcomes.
	4.2.1 Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex	
4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education	4.2.2 Participation rate in organized learning (one year before the official primary entry age), by sex	Support provided to local child care organisations within our local communities, supporting increased learning outcomes for young children.  Investment in programs within our local communities that support the professional development of local educators, leading to improved local educational outcomes.
	4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex	Partnership with the Clontarf Foundation to provide support to Indigenous student education and employment in the Goldfields Region of Western Australia. Northern Star attendance at events provides an opportunity for the young Clontarf men to engage with potential employers and gain a valuable insight into employment opportunities in the region.  Support for Goldfields Girl, an organisation providing a personal and professional development program for young Aboriginal and Torres Strait Islander women residing in the Goldfields region. The program aims to build participants' leadership skills and confidence.  Provide scholarships to students at the University of Alaska and Western Australian School of Mines.  Ongoing support of programs and site visits encouraging STEM <sup>25</sup> careers for secondary and tertiary students.  Increased numbers of Apprenticeship and Graduate positions provided at our operations to provide increased employment and career pathways for youth.  Support of Shooting Stars through Netball WA partnership with the Gold Industry Group. Shooting Stars encourages greater school participation through sport and other tools.
4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, for employment, decent jobs and entrepreneurship	4.4.1 Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill	Support for Australian Earth Science Education which supports the teaching of Earth and Environmental Science across secondary schools across NSW, Australia.  Strategic support to the Western Australian School of Mines over 10 years to expand specialist, underground skills and innovation including automation and digital transformation.
4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations	4.5.1 Parity indices (female/male, rural/urban, bottom/top wealth quintile and others such as disability status, indigenous peoples and conflict-affected, as data become available) for all education indicators on this list that can be disaggregated	
4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy	4.6.1 Percentage of population in a given age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills, by sex	Via our Jundee Mine we support the Wiluna Remote Community School healthy food and nutrition program, ensuring that their students receive sufficient nutrition/ sustenance/food to support their learning and development. The majority of Wiluna's population identifies as Aboriginal.  Partnership with the Clontarf Foundation to provide support to Indigenous student education and employment in the Goldfields Region of Western Australia. Northern Star attendance at events provides an opportunity for the young Clontarf men to engage with potential employers and gain a valuable insight into employment opportunities in the region.
4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	4.7.1 Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessment	

25 STEM - Science, Technology, Engineering & Mathematics

Target	Indicators	2020 Alignment
4.8 Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all	4.A.1 Proportion of schools with access to: (a) electricity; (b) the Internet for pedagogical purposes; (c) computers for pedagogical purposes; (d) adapted infrastructure and materials for students with disabilities; (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities (as per the WASH indicator definitions)	
4.B By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries	4.B.1 Volume of official development assistance flows for scholarships by sector and type of study	
4.C By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States	4.C.1 Proportion of teachers in: (a) pre-primary; (b) primary; (c) lower secondary; and (d) upper secondary education who have received at least the minimum organized teacher training (e.g. pedagogical training) pre-service or in-service required for teaching at the relevant level in a given country	



Sustainable Development Goal 5

# Gender Equality

Achieve gender equality and empower all women and girls.

Target	Indicators	2020 Alignment
5.1	End all forms of discrimination against all women and girls everywhere	5.1.1 Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex  Support of the Girls Focus on Mining Camp. A 3-day tour in the Goldfields that gives high school students exposure and education about the mining industry and encourages the various career pathways for females in the industry.  WA Football Development Commission. Major sponsor of the inaugural junior and youth girls football teams this year.
	5.2	Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation
5.3		Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation
	5.4	Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate
5.5	Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	5.5.1 Proportion of seats held by women in national parliaments and local governments
		5.5.2 Proportion of women in managerial positions  33% of women on the Board. 28.5% of women in Executive roles 11.4% of women in General Manager & Manager roles.
5.6	Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences	5.6.1 Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care  5.6.2 Number of countries with laws and regulations that guarantee women aged 15-49 years access to sexual and reproductive health care, information and education
	5.A	Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws
5.B		Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women
5.C	Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels	5.C.1 Proportion of countries with systems to track and make public allocations for gender equality and women's empowerment



Sustainable Development Goal 6

# Clean Water & Sanitation

Ensure availability and sustainable management of water and sanitation for all.

Target	Indicators	2020 Alignment
6.1	By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services
6.2	By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water
6.3	By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	6.3.1 Proportion of wastewater safely treated  Suitable wastewater treatment facilities are installed at all operations with scheduled maintenance completed by suitably qualified personnel.
		6.3.2 Proportion of bodies of water with good ambient water quality  The Off-River Treatment Works at Pogo ensure any water discharged back into the Goodpaster River is of the same water quality as the river water itself. This prevents impact to the Goodpaster River from mine operations.
6.4	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	6.4.1 Change in water-use efficiency over time  Approval for a tailings thickener to be installed at our Jundee Mine. This will increase the water-use efficiency of processing at the facility per ounce of gold produced, reducing our use of groundwater resources.  Received a 2020 Gold Waterwise Business Award from the Water Corporation for an 11.43% reduction in water use our Kanowna Belle Operation during 2018-2019.
		6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources
6.5	By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	6.5.1 Degree of integrated water resources management implementation (0-100)
		6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation
6.6	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	6.6.1 Change in the extent of water-related ecosystems over time
6.A	By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies	6.A.1 Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan
6.B	Support and strengthen the participation of local communities in improving water and sanitation management	6.B.1 Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management

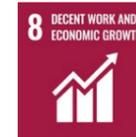


Sustainable Development Goal 7

# Affordable and Clean Energy

Ensure access to affordable, reliable, sustainable and modern energy for all.

Target	Indicators	2020 Alignment
7.1	By 2030, ensure universal access to affordable, reliable and modern energy services	7.1.1 Proportion of population with access to electricity
		7.1.2 Proportion of population with primary reliance on clean fuels and technology
7.2	By 2030, increase substantially the share of renewable energy in the global energy mix	7.2.1 Renewable energy share in the total final energy consumption
7.3	By 2030, double the global rate of improvement in energy efficiency	7.3.1 Energy intensity measured in terms of primary energy and GDP
7.A	By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	7.A.1 Mobilized amount of United States dollars per year starting in 2020 accountable towards the \$100 billion commitment
7.B	By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support	7.B.1 Investments in energy efficiency as a percentage of GDP and the amount of foreign direct investment in financial transfer for infrastructure and technology to sustainable development services

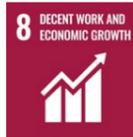


Sustainable Development Goal 8

# Decent Work & Economic Growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Target	Indicators	2020 Alignment
8.1	Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries	8.1.1 Annual growth rate of real GDP per capita
		Economic value add of A\$1.44 billion through government taxes, royalties, employee wages and procurement to the regions in which we operate
8.2	Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors	8.2.1 Annual growth rate of real GDP per employed person
		Increased pressure on Original Equipment Manufacturers to fast-track development and innovation on equipment to increase business efficiencies with an onflow to economic value add
8.3	Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services	8.3.1 Proportion of informal employment in non-agriculture employment, by sex
		Diversified regional contractor use in high agricultural areas. Support for local small businesses in the Goldfields Region of Western Australia during COVID with the provision of advertising grants. Support the Southern Deserts Matuwa Ranger Forum (Indigenous Desert Alliance) where discussions are held on the regional opportunities for Ranger Programs. Major sponsor of the Student Meets Industry Night in Kalgoorlie, providing a networking opportunity for students at the Western Australian School of Mines. Investment in multiple organisations providing business growth, coaching and networking opportunities in our areas of operation.
8.4	Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead	8.4.1 Material footprint, material footprint per capita, and material footprint per GDP
		8.4.2 Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP
8.5	By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	8.5.1 Average hourly earnings of female and male employees, by occupation, age and persons with disabilities
		8.5.2 Unemployment rate, by sex, age and persons with disabilities
		Indigenous Ranger employment programs across multiple Australian sites for environmental compliance works provides employment and business development opportunities for Australia's most economically-marginalise demographic of peoples. Employment of Traditional Owners at our Australian Operations to conduct heritage surveys provides the opportunity for local residents to work on country. Partnership with the Wirrpanda Foundation to provide Indigenous businesses in regional areas access to experienced business coaches and independent professional support.
8.6	By 2020, substantially reduce the proportion of youth not in employment, education or training	8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training
		Ongoing support of the Wiluna Remote Community School and Wiluna TAFE which provides vocational education and employment training for local residents who reside in a highly remote region. Continued investment in Apprenticeship and Graduate positions provided at our operations to provide increased employment and career pathways for youth. Partnership with the Clontarf Foundation to provide support to Indigenous student education and employment in the Goldfields Region of Western Australia. Northern Star attendance at events provides an opportunity for the young Clontarf men to engage with potential employers and gain a valuable insight into employment opportunities in the region.
8.7	Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms	8.7.1 Proportion and number of children aged 5-17 years engaged in child labour, by sex and age
		Modern slavery training is completed by key staff members within the company; including Procurement, Social Responsibility, External Relations, Legal and Contracts. In 2020 Northern Star conducted modern slavery surveys of its current suppliers of goods and services to identify any modern slavery breaches within our supply chain.



## Sustainable Development Goal 8

## Decent Work &amp; Economic Growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Target	Indicators	2020 Alignment
8.4	8.8.1	Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status
	8.8.2	Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status
8.9	8.9.1	Tourism direct GDP as a proportion of total GDP and in growth rate
	8.9.2	Number of jobs in tourism industries as a proportion of total jobs and growth rate of jobs, by sex  Supported the Wiluna Tjukurba Art Gallery and Indigenous artists in showcasing their artwork to our Jundee Mine employees to increase income that was impacted by COVID. Partnership with Hannans North Tourist Mine in Kalgoorlie-Boulder, enabling a premier tourist attraction to continue to operate and be an employer of the local community.
8.10	8.10.1	Number of commercial bank branches and automated teller machines (ATMs) per 100,000 adults
	8.10.2	Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider
8.A	8.A.1	Aid for Trade commitments and disbursements
8.B	8.B.1	Total government spending in social protection and employment programmes as a proportion of the national budgets and GDP



## Sustainable Development Goal 9

## Industry, Innovation &amp; Infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

Target	Indicators	2020 Alignment
9.1	9.1.1	Proportion of the rural population who live within 2 km of an all-season road
	9.1.2	Passenger and freight volumes, by mode of transport  Pogo Mine Access Road supports other gold exploration operations in the region, as well as logging operations
9.2	9.2.1	Manufacturing value added as a proportion of GDP and per capita
	9.2.2	Manufacturing employment as a proportion of total employment
9.3	9.3.1	Proportion of small-scale industries in total industry value added
	9.3.2	Proportion of small-scale industries with a loan or line of credit
9.4	9.4.1	CO2 emission per unit of value added  By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities  Underground mining contractor has developed and trialled diesel electric underground truck with the intentions of reducing carbon emissions whilst improving productivity. The trial was successful and demonstrated the truck could hold a position in the fleet with no impact to productivity in comparison with the traditional diesel engines. Further design and optimisation will take place in 2021
9.5	9.5.1	Research and development expenditure as a proportion of GDP  Provide scholarships to students at the University of Alaska and Western Australian School of Mines.  Support and undertaking of a regional pit lake water monitoring program ran through the ChemCentre Research Centre.
	9.5.2	Researchers (in full-time equivalent) per million inhabitants
9.A	9.A.1	Total official international support (official development assistance plus other official flows) to infrastructure
9.B	9.B.1	Proportion of medium and high-tech industry value added in total value added
9.C	9.C.1	Proportion of population covered by a mobile network, by technology  Installation of mobile signal towers at remote mine sites providing phone signal to neighbouring communities and travellers.



Sustainable Development Goal 10

# Reduced Inequalities

Reduced inequality within and among countries

Target	Indicators	2020 Alignment
<b>10.1</b> By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average	<b>10.1.1</b> Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population	
<b>10.2</b> By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status	<b>10.2.1</b> Proportion of people living below 50 per cent of median income, by age, sex and persons with disabilities	The core trays used at our Pogo Operations are supplied from an organisation with an integrated workforce, where adults with disabilities work alongside more abled individuals.  Development of a disability employment plan at our Kalgoorlie Operations in conjunction with local disability service providers.  Ongoing support for multiple organisations in the Goldfields Region of Western Australia who provide support and community events to adults and children living with a disability.
<b>10.3</b> Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard	<b>10.3.1</b> Proportion of the population reporting having personally felt discriminated against or harassed within the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law	Strong implementation of our Equal Employment Opportunity Policy.  Modern slavery training is completed by key staff members within the company; including Procurement, Social Responsibility, External Relations, Legal and Contracts.  In 2020 Northern Star surveyed its current suppliers of goods and services to identify any modern slavery breaches within our supply chain.
<b>10.4</b> Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality	<b>10.4.1</b> Labour share of GDP, comprising wages and social protection transfers	
<b>10.5</b> Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations	<b>10.5.1</b> Financial Soundness Indicators	
<b>10.6</b> Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions	<b>10.6.1</b> Proportion of members and voting rights of developing countries in international organizations	
<b>10.7</b> Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies	<b>10.7.1</b> Recruitment cost borne by employee as a proportion of yearly income earned in country of destination	
	<b>10.7.2</b> Number of countries that have implemented well-managed migration policies	
<b>10.A</b> Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements	<b>10.A.1</b> Proportion of tariff lines applied to imports from least developed countries and developing countries with zero-tariff	
<b>10.B</b> Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes	<b>10.B.1</b> Total resource flows for development, by recipient and donor countries and type of flow (e.g. official development assistance, foreign direct investment and other flows)	
	<b>10.C.1</b> Remittance costs as a proportion of the amount remitted	
<b>10.C</b> By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent		



Sustainable Development Goal 11

# Sustainable Cities & Communities

Make cities and human settlements inclusive, safe, resilient and sustainable

Target	Indicators	2020 Alignment
<b>11.1</b> By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums	<b>11.1.1</b> Proportion of urban population living in slums, informal settlements or inadequate housing	Indigenous Ranger employment programs across multiple Australian sites for environmental compliance works provides employment and business development opportunities for Australia's most economically-marginalised demographic of peoples.  Engagement of Traditional Owner owned business to completed exploration rehabilitation activities on Country.  Financial support provided for refurbishment of sports courts at the Kurrawang Aboriginal Christian Community, an independent Aboriginal community situated 10 kilometres south of our Kundana Operations.
<b>11.2</b> By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons	<b>11.2.1</b> Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities	
<b>11.3</b> By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries	<b>11.3.1</b> Ratio of land consumption rate to population growth rate	
	<b>11.3.2</b> Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically	
<b>11.4</b> Strengthen efforts to protect and safeguard the world's cultural and natural heritage	<b>11.4.1</b> Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)	Engagement of Aboriginal Traditional Owners in heritage site surveys prior to clearing activities at our Australian Operations.  Annual cultural resource surveys conducted at our Pogo Mine in Alaska to ensure preservation of sites with cultural value.  Sponsorship of the Kalgoorlie-Boulder NAIDOC Week Celebrations, celebrating the culture and heritage of local Indigenous people.
<b>11.5</b> By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations	<b>11.5.1</b> Number of deaths, missing persons and persons affected by disaster per 100,000 people	
	<b>11.5.2</b> Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services	
<b>11.6</b> By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management	<b>11.6.1</b> Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities	Implementation of a Global Waste Management Standard.  Reduce our single use of materials through our broad recycling program, including scrap metal, batteries, printer toner cartridges, paper, cardboard and comingled recycling wastes.  Additional initiatives this year included HDPE poly pipe recycling.
	<b>11.6.2</b> Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)	
<b>11.7</b> By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	<b>11.7.1</b> Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities	Support for local community garden in the City of Kalgoorlie-Boulder to provide a space available to the public for sustainable food production and inclusion.
	<b>11.7.2</b> Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months	Shifting public perception on the importance of providing safe spaces for marginalised and vulnerable groups through education and awareness of our employees via the Equal Employment Opportunity Policy and Whistle-blower Policy.
<b>11.A</b> Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning	<b>11.A.1</b> Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city	



Sustainable Development Goal 11 (continued)

# Sustainable Cities & Communities

Make cities and human settlements inclusive, safe, resilient and sustainable

Target	Indicators	2020 Alignment
<b>11.B</b> By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels	<b>11.B.1</b> Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030a	
	<b>11.B.2</b> Number of countries with national and local disaster risk reduction strategies	
<b>11.C</b> Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials	<b>11.C.1</b> Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials	



Sustainable Development Goal 12

# Responsible Consumption & Production

Ensure sustainable consumption and production patterns

Target	Indicators	2020 Alignment
<b>12.1</b> Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries	<b>12.1.1</b> Number of countries with sustainable consumption and production (SCP) national action plans or SCP mainstreamed as a priority or a target into national policies	
<b>12.2</b> By 2030, achieve the sustainable management and efficient use of natural resources	<b>12.2.1</b> Material footprint, material footprint per capita, and material footprint per GDP	
	<b>12.2.2</b> Domestic material consumption, domestic material consumption per capita, and domestic material consumption per GDP	
<b>12.3</b> By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	<b>12.3.1</b> Global food loss index	
<b>12.4</b> By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	<b>12.4.1</b> Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement	
	<b>12.4.2</b> Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment	
<b>12.5</b> By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse	<b>12.5.1</b> National recycling rate, tons of material recycled	Implementation of a Global Waste Management Standard.  Reduce our single use of materials through our broad recycling program, including scrap metal, batteries, printer toner cartridges, paper, cardboard and comingled recycling wastes.  Additional initiatives this year included HDPE poly pipe recycling.
<b>12.6</b> Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	<b>12.6.1</b> Number of companies publishing sustainability reports	This 2020 Sustainability Report is Northern Star's 5th Sustainability Report.
<b>12.7</b> Promote public procurement practices that are sustainable, in accordance with national policies and priorities	<b>12.7.1</b> Number of countries implementing sustainable public procurement policies and action plans	
<b>12.8</b> By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature	<b>12.8.1</b> Extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in (a) national education policies; (b) curricula; (c) teacher education; and (d) student assessment	
<b>12.A</b> Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production	<b>12.A.1</b> Amount of support to developing countries on research and development for sustainable consumption and production and environmentally sound technologies	
<b>12.B</b> Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products	<b>12.B.1</b> Number of sustainable tourism strategies or policies and implemented action plans with agreed monitoring and evaluation tools	
<b>12.C</b> Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities	<b>12.C.1</b> Amount of fossil-fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels	



Sustainable Development Goal 13

# Climate Action

Target urgent action to combat climate change and its impacts\*

Target	Indicators	2020 Alignment
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	13.1.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people	
	13.1.2 Number of countries with national and local disaster risk reduction strategies	
	13.1.3 Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	
13.2 Integrate climate change measures into national policies, strategies and planning	13.2.1 Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their 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 (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other)	
13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula	
	13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions	Strengthened alignment with the Taskforce on Climate-related Financial Disclosures recommendations.
13.A Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible	13.A.1 Mobilized amount of United States dollars per year starting in 2020 accountable towards the \$100 billion commitment	
13.B Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities  * Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.	13.B.1 Number of least developed countries and small island developing States that are receiving specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change-related planning and management, including focusing on women, youth and local and marginalized communities	



Sustainable Development Goal 14

# Life Below Water

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Target	Indicators	2020 Alignment
14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	14.1.1 Index of coastal eutrophication and floating plastic debris density	
14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans	14.2.1 Proportion of national exclusive economic zones managed using ecosystem-based approaches	
14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels	14.3.1 Average marine acidity (pH) measured at agreed suite of representative sampling stations	
14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics	14.4.1 Proportion of fish stocks within biologically sustainable levels	Ongoing scientific monitoring of fish species in the Goodpaster River at Pogo Mine, Alaska.
14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information	14.5.1 Coverage of protected areas in relation to marine area	
14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation	14.6.1 Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing	
14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism	14.7.1 Sustainable fisheries as a percentage of GDP in small island developing States, least developed countries and all countries	
14.A Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries	14.A.1 Proportion of total research budget allocated to research in the field of marine technology	
14.B Provide access for small-scale artisanal fishers to marine resources and markets	14.B.1 Progress by countries in the degree of application of a legal/regulatory/policy/institutional framework which recognizes and protects access rights for small-scale fisheries	
14.C Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want	14.C.1 Number of countries making progress in ratifying, accepting and implementing through legal, policy and institutional frameworks, ocean-related instruments that implement international law, as reflected in the United Nation Convention on the Law of the Sea, for the conservation and sustainable use of the oceans and their resources	



Sustainable Development Goal 15

# Life on Land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt & reverse land degradation and halt biodiversity loss

Target	Indicators	2020 Alignment
15.1	15.1.1 Forest area as a proportion of total land area	Supporting local non-government organisation to enhance biodiversity values including the Kalgoolie-Boulder Urban Landcare Group.
	15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	
15.2	15.2.1 Progress towards sustainable forest management	
15.3	15.3.1 Proportion of land that is degraded over total land area	
15.4	15.4.1 Coverage by protected areas of important sites for mountain biodiversity	
	15.4.2 Mountain Green Cover Index	
15.5	15.5.1 Red List Index	Implementation of a Global Biodiversity Management Standard. Biodiversity management plans and practices have been implemented at all sites where threatened species may be present. Pre-clearance flora and fauna surveys by suitably trained personnel.
15.6	15.6.1 Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits	
15.7	15.7.1 Proportion of traded wildlife that was poached or illicitly trafficked	
15.8	15.8.1 Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species	Feral animal management and weed control activities are conducted at our operations.
15.9	15.9.1 Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity 2011-2020	Implementation of a Global Biodiversity Management Standard. Biodiversity management plans and practices have been implemented at all sites where threatened species may be present. Pre-clearance flora and fauna surveys by suitably trained personnel.
15.A	15.A.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems	Multi-million dollar annual rehabilitation budget to increase biodiversity at our operations through progressive rehabilitation activities.
15.B	15.B.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems	
15.C	15.C.1 Proportion of traded wildlife that was poached or illicitly trafficked	



Sustainable Development Goal 16

# Peace, Justice and Strong Institutions

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Target	Indicators	2020 Alignment
16.1	16.1.1 Number of victims of intentional homicide per 100,000 population, by sex and age	
	16.1.2 Conflict-related deaths per 100,000 population, by sex, age and cause	
	16.1.3 Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months	
	16.1.4 Proportion of population that feel safe walking alone around the area they live	
16.2	16.2.1 Proportion of children aged 1-17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month	
	16.2.2 Number of victims of human trafficking per 100,000 population, by sex, age and form of exploitation	Modern slavery training is completed by key staff members within the company; including Procurement, Social Responsibility, External Relations, Legal and Contracts.  In 2020 Northern Star surveyed its current suppliers of goods and services to identify any modern slavery breaches within our supply chain.
	16.2.3 Proportion of young women and men aged 18-29 years who experienced sexual violence by age 18	
16.3	16.3.1 Proportion of victims of violence in the previous 12 months who reported their victimization to competent authorities or other officially recognized conflict resolution mechanisms	
	16.3.2 Unserved detainees as a proportion of overall prison population	
16.4	16.4.1 Total value of inward and outward illicit financial flows (in current United States dollars)	
	16.4.2 Proportion of seized, found or surrendered arms whose illicit origin or context has been traced or established by a competent authority in line with international instruments	
16.5	16.5.1 Proportion of persons who had at least one contact with a public official and who paid a bribe to a public official, or were asked for a bribe by those public officials, during the previous 12 months	
	16.5.2 Proportion of businesses that had at least one contact with a public official and that paid a bribe to a public official, or were asked for a bribe by those public officials during the previous 12 months	Our Anti-Bribery and Anti-Corruption Policy covers all aspects of our business.
16.6	16.6.1 Primary government expenditures as a proportion of original approved budget, by sector (or by budget codes or similar)	
	16.6.2 Proportion of the population satisfied with their last experience of public services	
16.7	16.7.1 Proportions of positions (by sex, age, persons with disabilities and population groups) in public institutions (national and local legislatures, public service, and judiciary) compared to national distributions	
	16.7.2 Proportion of population who believe decision-making is inclusive and responsive, by sex, age, disability and population group	
16.8	16.8.1 Proportion of members and voting rights of developing countries in international organizations	
16.9	16.9.1 Proportion of children under 5 years of age whose births have been registered with a civil authority, by age	
16.10	16.10.1 Number of verified cases of killing, kidnapping, enforced disappearance, arbitrary detention and torture of journalists, associated media personnel, trade unionists and human rights advocates in the previous 12 months	
	16.10.2 Number of countries that adopt and implement constitutional, statutory and/or policy guarantees for public access to information	
16.A	16.A.1 Existence of independent national human rights institutions in compliance with the Paris Principles	
16.B	16.B.1 Proportion of population reporting having personally felt discriminated against or harassed in the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law	



## Sustainable Development Goal 17

## Partnerships for the Goals

Strengthen the means of implementation and revitalize the global partnership for sustainable development

Target	Indicators	2020 Alignment
<b>Finance</b>		
17.1	Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection	17.1.1 Total government revenue as a proportion of GDP, by source Strengthen domestic revenue with KCGM acquisition and the Merge Co. of both JV Owners
		17.1.2 Proportion of domestic budget funded by domestic taxes
17.2	Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of ODA/GNI to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries	17.2.1 Net official development assistance, total and to least developed countries, as a proportion of the Organization for Economic Cooperation and Development (OECD) Development Assistance Committee donors' gross national income (GNI)
17.3	Mobilize additional financial resources for developing countries from multiple sources	17.3.1 Foreign direct investments (FDI), official development assistance and South-South Cooperation as a proportion of total domestic budget
		17.3.2 Volume of remittances (in United States dollars) as a proportion of total GDP
17.4	Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress	17.4.1 Debt service as a proportion of exports of goods and services
17.5	Adopt and implement investment promotion regimes for least developed countries	17.5.1 Number of countries that adopt and implement investment promotion regimes for least developed countries
<b>Technology</b>		
17.6	Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism	17.6.1 Number of science and/or technology cooperation agreements and programmes between countries, by type of cooperation
		17.6.2 Fixed Internet broadband subscriptions per 100 inhabitants, by speed
17.7	Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed	17.7.1 Total amount of approved funding for developing countries to promote the development, transfer, dissemination and diffusion of environmentally sound technologies
17.8	Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology	17.8.1 Proportion of individuals using the Internet
<b>Capacity-Building</b>		
17.9	Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation	17.9.1 Dollar value of financial and technical assistance (including through North-South, South-South and triangular cooperation) committed to developing countries

Target	Indicators	2020 Alignment
<b>Trade</b>		
17.10	Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda	17.10.1 Worldwide weighted tariff-average
17.11	Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020	17.11.1 Developing countries' and least developed countries' share of global exports
17.12	Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access	17.12.1 Average tariffs faced by developing countries, least developed countries and small island developing States
<b>Systematic Issues</b>		
17.13	Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism	17.13.1 Macroeconomic Dashboard
17.14	Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed	17.14.1 Number of countries with mechanisms in place to enhance policy coherence of sustainable development
17.15	Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology	17.15.1 Extent of use of country-owned results frameworks and planning tools by providers of development cooperation
17.16	Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries	17.16.1 Number of countries reporting progress in multi-stakeholder development effectiveness monitoring frameworks that support the achievement of the sustainable development goals
17.17	"Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships Data, monitoring and accountability "	17.17.1 Amount of United States dollars committed to public-private and civil society partnerships
17.18	By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts	17.18.1 Proportion of sustainable development indicators produced at the national level with full disaggregation when relevant to the target, in accordance with the Fundamental Principles of Official Statistics
		17.18.2 Number of countries that have national statistical legislation that complies with the Fundamental Principles of Official Statistics
		17.18.3 Number of countries with a national statistical plan that is fully funded and under implementation, by source of funding
17.19	By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries	17.19.1 Dollar value of all resources made available to strengthen statistical capacity in developing countries
		17.19.2 Proportion of countries that (a) have conducted at least one population and housing census in the last 10 years; and (b) have achieved 100 per cent birth registration and 80 per cent death registration

# Appendix E: Tailings Disclosure

# Tailing Storage Management Summary Information

Site	1. Tailings Facility Name	2. Location (latitude/longitude)	3. Ownership (as at December 2020)	4. Status	5. Date of Initial Operation	6. Is the Dam currently operated or closed as per currently approved design? (Yes/No)	7. Raising Method	8. Current Maximum Height (m)	9. Current tailings storage impoundment volume (m3 as at December 2020)	10. Planned Tailings storage impoundment volume in 5 years time (m3 as planned for December 2025)	11. Most recent independent expert review (date)	12. Do you have full and complete relevant engineering records including design, construction, operation, maintenance and/or closure? (Yes/No)	13. What is your hazard categorisation of this facility, based on the consequence of failure?	14. What guideline to you follow for the classification system?	15. Has this facility, at any point in its history, failed to be confirmed or certified as stable, or experienced notable stability concerns, as identified by an independent engineer (even if later certified as stable by the same or a different firm). (Yes/No)	16. Do you have internal/in house engineering specialist oversight of this facility? Or do you have external engineering support for this purpose?	17. Has a formal analysis of the downstream impact on communities, ecosystems and critical infrastructure in the event of catastrophic failure been undertaken and to reflect final conditions? If so, when did this assessment take place?	18. Is there a closure plan in place for this dam, and b) does it include long term monitoring?	19. Have you, or do you plan to assess your tailings facilities against the impact of more regular extreme weather events as a result of climate change, e.g. over the next two years? (Yes/No)	20. Any other relevant information and supporting documentation. Please state if you have omitted any other exposure to tailings facilities through any joint ventures you may have.
Bronzewing	TSF1	Latitude: -27.385 Longitude: 121.016	Owned and operated	Inactive/Care and Maintenance	1994	Yes	Upstream & downstream	34	15,800,00	15,800,00	Apr-18	Yes	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	Unknown	Internal	Unknown	Yes and Yes	No	
	Discovery In-pit TSF	Latitude: -27.388 Longitude: 121.001	Owned and operated	Inactive/Care and Maintenance	2011	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Apr-18	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	Unknown	Internal	Unknown	Yes and Yes	No	
	Mt McClure TSF1	Latitude: -27.418 Longitude: 120.924	Owned and Operated	Closed and Rehabilitated	1992	Yes	Upstream	11	Unknown	Unknown	Jan-13	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	Unknown	Internal	Unknown	Yes and yes	No	
	Mt McClure TSF4	Latitude: -27.412 Longitude: 120.946	Owned and Operated	Closed and Rehabilitated	1995	Yes	Down-stream	27	3,000,000	3,000,000	Jan-13	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	Unknown	Internal	Unknown	Yes and yes	No	
Central Tanami Project	TSF Cell 1	Latitude: -19.972 Longitude: 129.720	JV - 40%	Closed and Rehabilitated	1993	Yes	Uncertain	12	Unknown	No planned changes - facility is closed	Not available	No	Unknown	Not classified	Unknown	Internal	Unknown	Yes and Yes	No	Q12.Due to the historic ownership and rehabilitation of the facility NSR holds no records for its design, construction or operation.
	TSF Cell 2	Latitude: -19.968 Longitude: 129.730	JV - 40%	Closed and Rehabilitated	1993	Yes	Uncertain	5	Unknown	No planned changes - facility is closed	Not available	No	Unknown	Not classified	Unknown	Internal	Unknown	Yes and Yes	No	Q12.Due to the historic ownership and rehabilitation of the facility NSR holds no records for its design, construction or operation.
	TSF Cell 3	Latitude: -19.971 Longitude: 129.728	JV - 40%	Closed and Rehabilitated	1997	Yes	Uncertain	8	Unknown	No planned changes - facility is closed	Not available	No	Unknown	Not classified	Unknown	Internal	Unknown	Yes and Yes	No	Q12.Due to the historic ownership and rehabilitation of the facility NSR holds no records for its design, construction or operation.
	Dice	Latitude: -19.956 Longitude: 129.722	JV - 40%	Closed and Rehabilitated	1999	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No	Fully relinquished and no further obs
	Airstrip	Latitude: -19.964 Longitude: 129.718	JV - 40%	Closed and Rehabilitated	Unknown	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No	
	Dingo	Latitude: -19.962 Longitude: 129.712	JV - 40%	Closed and Rehabilitated	Unknown	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No	
	North Temby	Latitude: -19.967 Longitude: 129.717	JV - 40%	Closed and Rehabilitated	Unknown	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No	
	South Temby	Latitude: -19.970 Longitude: 129.715	JV - 40%	Closed and Rehabilitated	Unknown	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No	
	Central	Latitude: -19.971 Longitude: 129.713	JV - 40%	Closed and Rehabilitated	Unknown	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No	
	Reward	Latitude: -19.973 Longitude: 129.709	JV - 40%	Closed and Rehabilitated	Unknown	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No	
	Assault	Latitude: -19.975 Longitude: 129.711	JV - 40%	Closed and Rehabilitated	Unknown	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No	
	Battery	Latitude: -19.975 Longitude: 129.712	JV - 40%	Closed and Rehabilitated	Unknown	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No	
	Bumper	Latitude: -19.981 Longitude: 129.694	JV - 40%	Closed and Rehabilitated	2001	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No	
Bouncer	Latitude: -19.984 Longitude: 129.691	JV - 40%	Closed and Rehabilitated	2001	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Unknown	Not classified	Unknown	Internal	N/A	Yes and Yes	No		
Jundee	TSF 1	Latitude: -26.351 Longitude: 120.618	Owned and operated	Active	October 1995	Yes	Upstream	21	7,700,000	13,100,000	Not available	Yes	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	Yes 28-Jun-2019	Yes and Yes	Yes	
	TSF 2	Latitude: -26.346 Longitude: 120.59	Owned and operated	Active	December 1999	Yes	Upstream	17.4	12,200,000	13,400,000	Not available	Yes	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	Yes 28-Jun-2019	Yes and Yes	Yes	
	Fisher in-pit TSF	Latitude: -26.367 Longitude: 120.600	Owned and operated	Active	July 2004	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	Yes	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	N/A	Yes and Yes	Yes	
	Nimary TSF1	Latitude: -26.381 Longitude: 120.574	Owned and operated	Closed and Rehabilitated	Dec-95	Yes	Upstream	26.2	8,700,000	8,700,000	Not available	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	No	Yes and Yes	No	

### Tailing Storage Management Summary Information (continued)

Site	1. Tailings Facility Name	2. Location (latitude/longitude)	3. Ownership (as at December 2020)	4. Status	5. Date of Initial Operation	6. Is the Dam currently operated or closed as per currently approved design? (Yes/No)	7. Raising Method	8. Current Maximum Height (m)	9. Current tailings storage impoundment volume (m3 as at December 2020)	10. Planned Tailings storage impoundment volume in 5 years time (m3 as planned for December 2025)	11. Most recent independent expert review (date)	12. Do you have full and complete relevant engineering records including design, construction, operation, maintenance and/or closure? (Yes/No)	13. What is your hazard categorisation of this facility, based on the consequence of failure?	14. What guideline to you follow for the classification system?	15. Has this facility, at any point in its history, failed to be confirmed or certified as stable, or experienced notable stability concerns, as identified by an independent engineer (even if later certified as stable by the same or a different firm). (Yes/No)	16. Do you have internal/in house engineering specialist oversight of this facility? Or do you have external engineering support for this purpose?	17. Has a formal analysis of the downstream impact on communities, ecosystems and critical infrastructure in the event of catastrophic failure been undertaken and to reflect final conditions? If so, when did this assessment take place?	18. Is there a closure plan in place for this dam, and b) does it include long term monitoring?	19. Have you, or do you plan to assess your tailings facilities against the impact of more regular extreme weather events as a result of climate change, e.g. over the next two years? (Yes/No)	20. Any other relevant information and supporting documentation. Please state if you have omitted any other exposure to tailings facilities through any joint ventures you may have.
Kanowna Belle	TSF1 Cell 1	Latitude: -30.593 Longitude: 121.565	Owned and operated	Inactive	August 1993	Yes	Upstream	22.5	7,700,000	8,500,000	1-Dec-20	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	No	Yes and Yes	Yes	
	TSF1 Cell 2	Latitude: -30.593 Longitude: 121.571	Owned and operated	Inactive	January 1994	Yes	Upstream	22.5	7,700,000	8,500,000	1-Dec-20	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	No	Yes and Yes	Yes	
	Red Hill In-Pit TSF	Latitude: -30.596 Longitude: 121.612	Owned and operated	Inactive	July 2008	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	1-Dec-20	No	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	N/A	Yes and Yes	Yes	
	Calcine TSF	Latitude: -30.600 Longitude: 121.577	Owned and operated	Inactive	April 1994	Yes	Uncertain	4	106,350	106,350	1-Dec-20	No	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	No	Yes and Yes	No	
	Waldon in-pit TSF	Latitude: -30.589 Longitude: 121.601	Owned and operated	Closed	January 2017	Yes	In-Pit	Ground level	No above ground storage	No above ground storage	Not available	No	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	N/A	Yes and Yes	No	
	TSF2 Cell 1	Latitude: -30.586 Longitude: 121.565	Owned and operated	Active	April 2020	Yes	Upstream	6	230,000	8,390,000	Not available	Yes	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	Yes 10-Aug-2017	Yes and Yes	Yes	Q4. Tailings are not currently being actively discharged into the facility.
	TSF2 Cell 2	Latitude: -30.586 Longitude: 121.571	Owned and operated	Active	September 2019	Yes	Upstream	6	148,000	8,390,000	Not available	Yes	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	Yes 10-Aug-2017	Yes and Yes	Yes	
KCGM	Fimiston I	Latitude: -30.746707 Longitude: 121.508969	JV	Active	1988	Yes	Upstream	60	42 million	55 million	Jul-19	Yes	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Both	Yes, 12/2016	Yes and Yes	Yes	
	Fimiston II	Latitude: -30.751359 Longitude: 121.546371	JV	Active	1991	Yes	Upstream	60	120 million	135 million	Jul-19	Yes	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Both	Yes, 2/2014	Yes and Yes	Yes	
	Kaltails	Latitude: -30.798458 Longitude: 121.563501	JV	Active	2011	Yes	Upstream	60	82 million	97 million	Jul-19	Yes	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Both	Yes, 9/2018	Yes and Yes	Yes	
	Gidji I	Latitude: -30.583170 Longitude: 121.453803	JV	Inactive/Care and Maintenance*	1989	Yes	Upstream	30	3 million	2.6 million	Jul-19	Yes	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Both	Yes, 11/2010	Yes and Yes	Yes	Q4. Currently being used as a source of borrow material. Tailings are not being actively discharged into the facility.
	Gidji II	Latitude: -30.583170 Longitude: 121.453803	JV	Active	2012	Yes	Down-stream	16	1.5 million	2 million	Jul-19	Yes	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Both	Yes, 3/2011	Yes and Yes	Yes	
	Mullingar	Latitude: -30.729694 Longitude: 121.471046	JV	Inactive/Care and Maintenance	Unknown	No	Upstream	8	0.1 million	N/A	-	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	Uncertain	No	Unknown	Yes and No	No	Q10. Estimate
	Mt. Percy	Latitude: -30.718556 Longitude: 121.487728	JV	Inactive/Care and Maintenance	1985	No	Upstream	23	8.4 million	N/A	Jul-19	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	Uncertain	No	Unknown	Yes and No	No	Q9. 42 ha and 20 to 23 m high. Q11 informal. Q16 informal only.
	Paringa	Latitude: -30.757052 Longitude: 121.523793	JV	Inactive/Care and Maintenance	1982	No	Upstream	5	0.836 million	N/A	Jul-19	No	Category 2	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	Uncertain	No	Unknown	Yes and No	No	
	Croesus	Latitude: -30.752291 Longitude: 121.499765	JV	Closed and Rehabilitated	Before 1973	No	Upstream	20	4.25 million	N/A	2012	Yes	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	Uncertain	No	Unknown	Yes and No	No	Q9. Estimate of portion not associated with Fim 1 TSF, partially encapsulated with waste rock. Q12 Fimiston I is built on top of a portion of the facility.
	Old Croesus	Latitude: -30.759984 Longitude: 121.497266	JV	Inactive/Care and Maintenance	1960s	No	Upstream	23	2.12 million	N/A	-	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	Uncertain	No	Unknown	Yes and No	No	Q7. Most of this tailings is encapsulated in waste rock within the pit Q9. Located in the pit
Kundana	TSF1	Latitude: -30.706 Longitude: 121.219	Owned and operated	Inactive	December 1988	Yes	Upstream	18	390,000	390,000	1-Dec-19	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	No	Yes and Yes	Yes	Q6 - tailings is being reclaimed for paste fill
	TSF 2	Latitude: -30.710 Longitude: 121.222	Owned and operated	Inactive	October 1997	Yes	Upstream	17.5	214,000	214,000	1-Dec-19	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	No	Yes and Yes	Yes	Q6 - tailings is being reclaimed for paste fill
	TSF 3 Cell A	Latitude: -30.706 Longitude: 121.215	Owned and operated	Inactive	April 2002	Yes	Upstream	9	150,000	150,000	1-Dec-19	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	No	Yes and Yes	Yes	Q6 - tailings is being reclaimed for paste fill
	TSF 3 Cell B	Latitude: -30.709 Longitude: 121.218	Owned and operated	Inactive	May 2002	Yes	Upstream	8	250,000	250,000	1-Dec-19	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	No	Yes and Yes	Yes	Q6 - tailings is being reclaimed for paste fill
	TSF 3 Cell C	Latitude: -30.713 Longitude: 121.220	Owned and operated	Inactive	November 2002	Yes	Upstream	11	300,000	300,000	1-Dec-19	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	No	Yes and Yes	Yes	Q6 - tailings is being reclaimed for paste fill



### Tailing Storage Management Summary Information (continued)

Site	1. Tailings Facility Name	2. Location (latitude/longitude)	3. Ownership (as at December 2020)	4. Status	5. Date of Initial Operation	6. Is the Dam currently operated or closed as per currently approved design? (Yes/No)	7. Raising Method	8. Current Maximum Height (m)	9. Current tailings storage impoundment volume (m3 as at December 2020)	10. Planned Tailings storage impoundment volume in 5 years time (m3 as planned for December 2025)	11. Most recent independent expert review (date)	12. Do you have full and complete relevant engineering records including design, construction, operation, maintenance and/or closure? (Yes/No)	13. What is your hazard categorisation of this facility, based on the consequence of failure?	14. What guideline to you follow for the classification system?	15. Has this facility, at any point in its history, failed to be confirmed or certified as stable, or experienced notable stability concerns, as identified by an independent engineer (even if later certified as stable by the same or a different firm). (Yes/No)	16. Do you have internal/in house engineering specialist oversight of this facility? Or do you have external engineering support for this purpose?	17. Has a formal analysis of the downstream impact on communities, ecosystems and critical infrastructure in the event of catastrophic failure been undertaken and to reflect final conditions? If so, when did this assessment take place?	18. Is there a) a closure plan in place for this dam, and b) does it include long term monitoring?	19. Have you, or do you plan to assess your tailings facilities against the impact of more regular extreme weather events as a result of climate change, e.g. over the next two years? (Yes/No)	20. Any other relevant information and supporting documentation. Please state if you have omitted any other exposure to tailings facilities through any joint ventures you may have.
Paulsens	TSF	Latitude: -22,576 Longitude: 116.235	Owned and operated	Active	May 2005	Yes	Upstream	14.85	2,900,000	2,629,200	Not available	Yes	Category 2	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	Yes 2013	Yes and Yes	Yes	
Pogo	Dry Stack Tailings Facility	RTP Dam - Latitude: 64.451117, Longitude: -144.892750	Owned and operated	Active	2004	Yes	Upstream	145 More information in Q20.	7,700,000	11,000,000	2014	Yes	Class I (Significant)	Title 11 of the Alaska Administrative Code (AAC) 93.157, set by the Alaska Dam Safety Program (ADSP).	No	Internal & External	Yes May 2011	Yes and Yes	Yes	Q8. This facility is constructed in a valley at a 3:1 slope and the 145m height refers to the difference between the toe elevation and the top of the facility. No section of the DSTF is 145m in thickness.  Q11. Independent review currently in progress.
South Kalgoorlie Mine	Jubilee TSF1	Latitude: -31.042 Longitude: 121.618	Owned and operated	Closed	Unknown	Unknown	Uncertain	Unknown	Unknown	No planned changes - facility is closed	Not available	No	Unknown	Not classified	Unknown	Internal	Unknown	No	No	Q18 Current regulations do not require a Mine Closure Plan for this facility. Internal regulations do require a closure strategy which is currently a work in progress.
	Jubilee TSF2	Latitude: -31.039 Longitude: 121.623	Owned and operated	Closed	Unknown	Unknown	Uncertain	Unknown	Unknown	No planned changes - facility is closed	Not available	No	Unknown	Not classified	Unknown	Internal	Unknown	No	No	Q18 Current regulations do not require a Mine Closure Plan for this facility. Internal regulations do require a closure strategy which is currently a work in progress.
	Jubilee 3A & 3B	Latitude: -31.044 Longitude: 121.625	Owned and operated	Active	October 1994	Yes	Upstream	32.5	6,060,000	6,480,000	19-Nov-18	No	Category 1	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	Unknown	No	Yes	Q18 Current regulations do not require a Mine Closure Plan for this facility. Internal regulations do require a closure strategy which is currently a work in progress.
	New Celebration TSF1	Latitude: -31.022 Longitude: 121.613	Owned and operated	Closed	1986	Unknown	Upstream & Centreline	18	2,020,000	2,020,000	Mar-2009	No	Category 1	Department of Industry and Resources (1999) - Guidelines on the Safe Design and Operating Standards for Tailings Storage [in Western Australia]	Unknown	Internal	Unknown	No	No	Q18 Current regulations do not require a Mine Closure Plan for this facility. Internal regulations do require a closure strategy which is currently a work in progress.  This facility has been covered with waste rock.
	New Celebration TSF2	Latitude: -31.018 Longitude: 121.613	Owned and operated	Closed	1989	Unknown	Upstream & Centreline	30	9,700,000	9,700,000	Mar-2010	No	Category 2	Department of Industry and Resources (1999) - Guidelines on the Safe Design and Operating Standards for Tailings Storage [in Western Australia]	Unknown	Internal	Unknown	Yes and Yes	No	This facility has been covered with waste rock.
	New Celebration 3A & 3B	Latitude: -31.020 Longitude: 121.618	Owned and operated	Closed	1997	Unknown	Upstream	15	3,500,000	3,500,000	Mar-2011	No	Category 3	Department of Industry and Resources (1999) - Guidelines on the Safe Design and Operating Standards for Tailings Storage [in Western Australia]	Unknown	Internal	Unknown	Yes and Yes	No	
	Golden Hope North In-pit TSF	Latitude: -31.045 Longitude: 121.614	Owned and operated	Active	September 2003	Yes	In Pit	ground level	No above ground storage	No above ground storage	Oct-2017	No	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal & External	N/A	No	Yes	Q18 Current regulations do not require a Mine Closure Plan for this facility. Internal regulations do require a closure strategy which is currently a work in progress.
	Mt Goddard in-pit TSF	Latitude: -31.157 Longitude: 121.609	Owned and operated	Active	July 2007	Yes	In Pit	ground level	No above ground storage	No above ground storage	Oct-2017	No	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal & External	N/A	No	Yes	Q18 Current regulations do not require a Mine Closure Plan for this facility. Internal regulations do require a closure strategy which is currently a work in progress.
	Samphire in-pit TSF	Latitude: -31.070 Longitude: 121.531	Owned and operated	Active	July 2007	Yes	In Pit	ground level	No above ground storage	No above ground storage	Oct-2017	No	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal & External	N/A	Yes and Yes	Yes	
West Tanami Project	Bellevue in-pit TSF	Latitude: -31.030 Longitude: 121.642	Owned and operated	Closed	October 2006	Yes	In Pit	ground level	No above ground storage	No above ground storage	Oct-2017	No	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	N/A	Yes and Yes	No	
	TSF 1	Latitude: -19.891 Longitude: 128.830	Owned and operated	Care and Maintenance	2006	Yes	Upstream	8.5	320,000	320,000	28-Jun-16	No	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	Yes December 2012	Yes and Yes	Yes	
	TSF 2	Latitude: -19.891 Longitude: 128.834	Owned and operated	Care and Maintenance	2008	Yes	Upstream	5.5	970,000	970,000	Oct-2017	No	Category 3	Department of Mines, Industry Regulation and Safety (2013) Code of Practice - Tailings Storage Facilities in Western Australia	No	Internal	Yes December 2012	Yes and Yes	Yes	

# Appendix F: Modern Slavery Survey

# Modern Slavery Supplier Survey

In November to December 2020, Northern Star conducted a second survey of all its suppliers, including KCGM suppliers, using the modern slavery supplier self-assessment questionnaire developed by a mining industry group in collaboration with Walk Free Foundation (SAQ). The SAQ was chosen in favour of reissuing the previous modern slavery supplier survey questions developed by Northern Star in 2018-2019. We consider the SAQ is likely to be adopted by numerous resources companies operating in Western Australia in particular. We hope that issuing this standard form questionnaire will reduce the burden on suppliers asked to respond to such survey requests.

A benefit of using the SAQ was an improved survey response rate from our suppliers.

The only departure from the SAQ made by Northern Star was to request suppliers list the countries in which they have operations, and industries in which they operate, in order to interpret these responses against the 2018 Global Slavery Index data on the prevalence of modern slavery victims by country, and by industry.

A copy of the SAQ questions as adjusted by Northern Star appears below.

## Self-Assessment Questionnaire

Working together to identify and understand the risks of modern slavery, including in operations and supply chains, is a critical step toward addressing world-wide modern slavery and related practices.

### Modern Slavery Laws

The introduction of the UK Modern Slavery Act in 2015, and more recently the Australian Modern Slavery Act 2018 (Cth) (Modern Slavery Laws), require businesses to do more to address risks of modern slavery. The Modern Slavery Laws require large organisations to lodge annual statements which explain what businesses are doing to assess and address risks of modern slavery in operations and supply chains. The Modern Slavery Laws are designed to (amongst other things) increase business awareness of modern slavery risks and improve transparency across global supply chains.

In addition, the UN Guiding Principles on Business and Human Rights outline that businesses have a responsibility to respect human rights, which includes acting to prevent, mitigate and where appropriate remedy modern slavery within operations and supply chains.

### Purpose of the SAQ

This self-assessment questionnaire ("SAQ") is designed to:

- support the identification of modern slavery risks;
- foster collaborative efforts between suppliers and organisations to address these risks;
- improve transparency; and
- identify areas for further due diligence.

This SAQ was developed through extensive consultation between resources, mining and energy industry organisations. Addressing modern slavery risks is a business-critical issue, as not only is it the right thing to do, it will also improve the integrity and quality of business operations and supply chains.

### How to complete the SAQ

Please answer all questions to the best of your own knowledge, having made reasonable enquiries if the answer is not within your own knowledge. Completing this SAQ honestly and transparently will allow us to work together to address identified risk factors in the supply chain.

#### 1. Your details

Name	City
Email Address	State
Phone Number	Postcode
Company address	Country

#### 2. Your position / role

#### 3. Organisation number (ABN/ACN or foreign equivalent e.g. EIN)

#### 4. Countries in which your organisation operates (please select all that apply)

#### 5. Industries in which your organisation operates

(please select all that apply and if none select 'None applicable')

- |  |  |
|--|--|
| <input type="checkbox"/> Agriculture                                     | <input type="checkbox"/> Healthcare                          |
| <input type="checkbox"/> Construction                                    | <input type="checkbox"/> Hospitality                         |
| <input type="checkbox"/> Electronics / electrical products manufacturing | <input type="checkbox"/> Housekeeping / facilities operation |
| <input type="checkbox"/> Extractives / milling / basic metal production  | <input type="checkbox"/> Textile / apparel manufacturing     |
| <input type="checkbox"/> Fishing / aquaculture                           | <input type="checkbox"/> Transportation / warehousing        |
| <input type="checkbox"/> Forestry  | <input type="checkbox"/> None applicable                     |

#### 6. Worker information (as at 31 October 2020)

Total number of permanent employees

Total number of labour hire / contract workers

#### 7. Auditing history

Provide the date and details of any responsible sourcing audits or certifications (including social, ethical and environmental) conducted, and locations they relate to.

#### 8. Certification schemes

Provide the details of any responsible sourcing third-party certification schemes including SMETA, ETI or other, relevant inspections including the dates of certifications.

### Modern Slavery Risk Factor Self-Assessment

NOTE FOR REPRESENTATIVES COMPLETING SAQ: Please answer every question and describe reasons for your answer, together with referencing any relevant additional information. You can attach supplementary annexures as appropriate. If you need assistance or clarification, please contact your procurement representative.

#### 1. Does your organisation have policies and processes to identify, investigate and remedy the risk and any instances of modern slavery within your organisation?

Yes  No  Please describe

**2. Do you provide training to your employees on modern slavery risk?** Yes  No Comments**3. Does your organisation conduct due diligence for modern slavery risks on your suppliers?** Yes  No Comments**4. Does your organisation require your suppliers to conduct due diligence for modern slavery risks on their suppliers?** Yes  No Comments**5. What action does your organisation take if modern slavery practices are suspected?**

Please describe

**6. Does your organisation comply with the United Nations ILO Conventions that prohibit the worst forms of child labour, hazardous child labour and minimum age for work?** Yes  No Comments**7. Does your organisation undertake checks to ensure child labour is not being used within your organisation or by your suppliers?** Yes  No Please describe**8. Does your organisation have a policy or process that prohibits modern slavery including all forms of forced labour, bonded labour and human trafficking in its operations and in those of its suppliers?** Yes  No Please describe**9. Are any original identity relate documents of workers (e.g. passports, birth certificates, national identity cards) retained?** Yes  No Comments**10. Are workers required to lodge any 'security deposits' (this could include financial or personal property ) or pay any recruitment fees?** Yes  No Comments**11. Does your organisation deduct wages, impose monetary fines, and/or withhold pay or pay entitlements of workers? This includes fines for misconduct and poor production.** Yes  No Comments**12. Are all workers provided with a written contract in a language they understand, where terms of employment including wage rates and hours of work are clear?** Yes  No Comments**13. Where accommodation is provided to workers (for example, dormitories, hostels or other forms of shared accommodation), are regular checks conducted to ensure that the living conditions are adequate and meet legal requirements (for example, fire safety, space, temperature, lighting, sanitary facilities, privacy, ventilation)?** Yes  No  Not applicable Please describe**14. Where accommodation is provided to workers, are workers free to leave at will?** Yes  No  Not applicable Please describe**15. Are workers free to Lawfully resign their employment without restriction or penalty?** Yes  No Comments**16. Are workers paid their legal pay entitlements, on time and provided with pay slips clearly showing how wages have been calculated and details of any deductions?** Yes  No Comments**17. Do workers have mechanisms to anonymously raise concerns related to Labour conditions or workplace grievances and access appropriate remedy?** Yes  No Comments**18. If yes, please describe how these mechanisms are monitored and remedy is provided?**

## Declaration by person submitting SAQ

The SAQ is required to be signed by a duly authorised representative of the organisation. It is preferable that this be a senior level employee, such as director, general manager or executive.

# Additional Information

# Glossary

## A\$

Australian dollars

## AMMA

Australian Mines and Metals Association

## ASX

Australian Securities Exchange

## ASX Corporate Governance Principles and Recommendations

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

## Au

The chemical symbol for gold

## Board

Board of Directors

## CEO

Chief Executive Officer

## CFO

Chief Financial Officer

## Company

Northern Star Resources Limited ABN 43 092 832 892

## CO<sub>2</sub>

Carbon dioxide

## COO

Chief Operating Officer

## Contractors

Externally employed contracted workers engaged by the Company to support operations

## CY2018

Calendar year ending 31 December 2018

## CY2019

Calendar year ending 31 December 2019

## CY2020

Calendar year ending 31 December 2020

## Employees

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

## ESS Committee

Environment, Social & Safety sub Committee

## FIFO

Fly-in fly-out; those personnel who fly to our operations and stay in an accommodation village while at work.

## GHG

Greenhouse gases

## GJ

Giga-joule; one million joules

## Group

Northern Star Resources Limited, all of its wholly owned subsidiaries, and KCGM.

## ha

Hectare

## K or k

Thousand

## KCGM

KCGM means Kalgoorlie Consolidated Gold Mines Pty Ltd, a 50:50 joint venture between Northern Star and Saracen Mineral Holdings which owns the Super Pit in Kalgoorlie, Western Australia, among other operations and assets.

## Kg or kg

Kilogram

## kL

kilolitre; one thousand litres

## LTIFR

Lost Time Injury Frequency Rate

## M or m

million

## ML

Mega-litre; one million litres

## Northern Star

Northern Star Resources Limited ABN 43 092 832 892

## Oz

ounce

## PPE

Personal protective equipment

## RCP

Representative Concentration Pathway. Greenhouse gas concentration trajectories which provide emissions constraints and physical outcomes in Climate Change Scenario Analysis

## Rounding

Amounts in this Report have been rounded off to the nearest thousand, million, or in certain cases, the nearest whole number

## SASB

Sustainability Accounting Standards Board

## SSP

Shared Socio-Economic Pathway. These provide social and economic context for Climate Change Scenario Analysis

## STARR

Our Core Values of Safety, Teamwork, Accountability, Respect and Results

## TCFD

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

## T CO<sub>2</sub>-e

Tonnes of carbon dioxide equivalent

## TSF

Tailings storage facility

## TRIFR

Total Recordable Injury Frequency Rate

## UN

United Nations

## UN SDGs

The United Nations Sustainable Development Goals

## US

United States of America

## WA

Western Australia

# ASX Disclosures in this Report

## Statement in respect of Northern Star's Exploration Results, Ore Reserves and Mineral Resources

The information in this Report that relates to Northern Star's Ore Reserves and Mineral Resources for FY20 (including in respect of Kalgoorlie Operations, Yandal Operations and Pogo Operations Ore Reserves and Mineral Resources) has been extracted from Northern Star's ASX release dated 13 August 2020 titled "Resources and Reserves, Production and Cost Guidance Update (ex-KCGM)" (Northern Star Announcement). A copy of the Northern Star Report is available at [www.nsrld.com](http://www.nsrld.com) or [www.asx.com.au](http://www.asx.com.au). 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 and that in the case of the estimates of the Ore Reserves and Mineral Resources 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 Persons' findings are presented have not been materially modified from the Northern Star Announcement.

The information in this Report that relates to exploration results and ore reserves and mineral resources in respect of KCGM has been extracted from Northern Star's and Saracen's joint ASX release dated 18 August 2020 titled "KCGM Reserves, Resources and Guidance Update" (KCGM Announcement). A copy of the KCGM Announcement is available at [www.nsrld.com](http://www.nsrld.com) or [www.asx.com.au](http://www.asx.com.au). Northern Star confirms that it is not aware of any new information or data that materially affects the information included in the KCGM Announcement and that, in the case of the estimates of the Ore Reserves and Mineral Resources, all material assumptions and technical parameters underpinning the estimates in the KCGM Announcement continue to apply and have not materially changed. Northern Star confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the KCGM Announcement.

## Statements in respect of the Northern Star and Saracen Merged Group's combined production guidance

The information underpinning the Merged Group's combined gold production guidance in this Report has been extracted from (i) the Northern Star Announcement, (ii) the ASX release by Saracen entitled "Carosue Dam and Thunderbox only – Reserves rise to 3.7Moz" dated 4 August 2020, available at [www.saracen.com.au](http://www.saracen.com.au) and [www.asx.com](http://www.asx.com) (Saracen Announcement) and (iii) the KCGM Announcement. For the purposes of ASX Listing Rule 5.19, (i) Northern Star confirms that all the material assumptions underpinning the production target 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, (ii) Saracen confirms that all the material assumptions underpinning the production target in the Saracen Announcement continue to apply and have not materially changed. Saracen confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from that announcement and (iii) both Northern Star and Saracen confirm that all the material assumptions underpinning the production target in the KCGM Announcement continue to apply and have not materially changed. Saracen and Northern Star confirm that the form and context in which the Competent Person's findings are presented have not been materially modified from that announcement.

# Contact information

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<b>Email</b> (Legal, Company Secretary, Reporting & Compliance)	<a href="mailto:compliance@nsrld.com">compliance@nsrld.com</a>
<b>ASX Code</b>	NST



[nsrltd.com/sustainability](https://nsrltd.com/sustainability)