



 Sandfire

20  
22

Sustainability Report

Our goal is for sustainability to be  
a part of **every decision we make.**

The 2022 Sandfire Resources Sustainability Report  
is available online at [www.sandfire.com.au](http://www.sandfire.com.au)





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## About this Report

This Sustainability Report, approved for release by Sandfire's Board of Directors, covers the period from 1 July 2021 to 30 June 2022 (FY2022), unless otherwise stated. The report provides an overview of Sandfire's long-term and ongoing commitment to sustainable development. The information, opinions or conclusions expressed in the course of this report should be read in conjunction with Sandfire's other periodic and continuous disclosure announcements lodged with the Australian Securities Exchange (ASX), which are available on the Sandfire website.

In this report, the terms 'Sandfire', the 'Company', the 'Group', 'our business', 'organisation', 'we', 'us', 'our' and 'ourselves' refer to Sandfire Resources Limited (ABN 55 105 154 185). The currency used throughout this report is United States Dollars, unless otherwise stated.

## Our reporting approach

We pride ourselves on voluntary and transparent disclosure and welcome your feedback on our report or any other aspect of our business. Please visit the Contact Us page of our website to provide your feedback.



# Business Overview

Sandfire Resources Limited is an international and diversified sustainable mining company which is listed on the Australian Securities Exchange (ASX:SFR).

With a strong operational base, our business is underpinned by a demonstrated commitment to the highest standards of safety, responsibility and sustainability. This dedication has been recognised through receipt of numerous awards including: Prospectors of the Year; Best Australian Explorer; Developer of the Year; Hard Rock Mine of the Year; and in 2019, the Golden Gecko Award for Environmental Excellence.

We have firmly established a reputation as a consistent and reliable performer, with over ten successive years of safe and profitable operations from our DeGrussa Copper-Gold Mine, located 900km north of Perth in Western Australia.

The strong cash-flows generated by DeGrussa have provided us with the platform to grow and diversify across the globe, through the acquisition of MOD Resources, subsequent discovery of A4 and the recent acquisition of MATSA.



## ● Operating Mines

1. MATSA Copper Operations, Spain
2. DeGrussa Copper Operations, Western Australia

## ● Mines Under Development

3. Motheo Copper Mine, Botswana  
T3 and A4 Deposits
4. Black Butte Copper Project, Montana, USA  
Johnny Lee and Lowry Deposits

## ● Study phase

5. Old Highway Gold Project, Western Australia

## ● Exploration

6. Iberian Pyrite Belt Exploration, Spain and Portugal
7. Kalahari Copper Belt Exploration, Botswana and Namibia
8. Black Butte Exploration, Montana, USA
9. New South Wales Exploration, Australia
10. Doolgunna Province Exploration, Western Australia

# 2022 Year in Review

## Sustainability Highlights



### Our Workforce

**3.8 TRIFR**

Decreased from 4.0 in FY2021

**3,635**

**Total Workforce**

including direct Employees and Contractors

**23%**

Female employees

**15,826**

**hours of training**

provided to staff



### Environment

**Announced  
our emission  
reduction targets**

The first of our new ESG Goals

**MAR trial**

hydrogeological studies and modelling  
completed for the Motheo Copper Mine

**Saved 14,117t  
of CO<sub>2</sub>-e** through solar  
use in Australia

**A4 Biodiversity  
Baseline Studies**

Completed for the Motheo Copper Mine



### Creating Value

**\$73.0M**

Spent on Employee Wages

**\$563M**

Spent on Contractors and Suppliers

**\$700,000**

Spent on community  
development worldwide





## Our Approach to Sustainability

**Sustainability is at the heart of our business. Our core product, copper, is of critical importance for enabling the low emission economy of the future. Our ambition is to maximise production of this vital commodity whilst minimising the impact on people, communities, and the environments in which we operate.**

Sandfire's global expansion continued in 2022 with the acquisition of the MATSA Copper Operations in southern Spain. This acquisition provided an opportunity to review our sustainability practices and ensure our strategy continues to be appropriate for a growing global business.

Sandfire has developed an enhanced framework to guide our long-term environmental, social and governance (ESG) activities that are key drivers of sustainable outcomes. Within the framework we have continued our use of ESG Pillars and ESG Goals to clearly establish the priorities and boundaries for our sustainability focus.

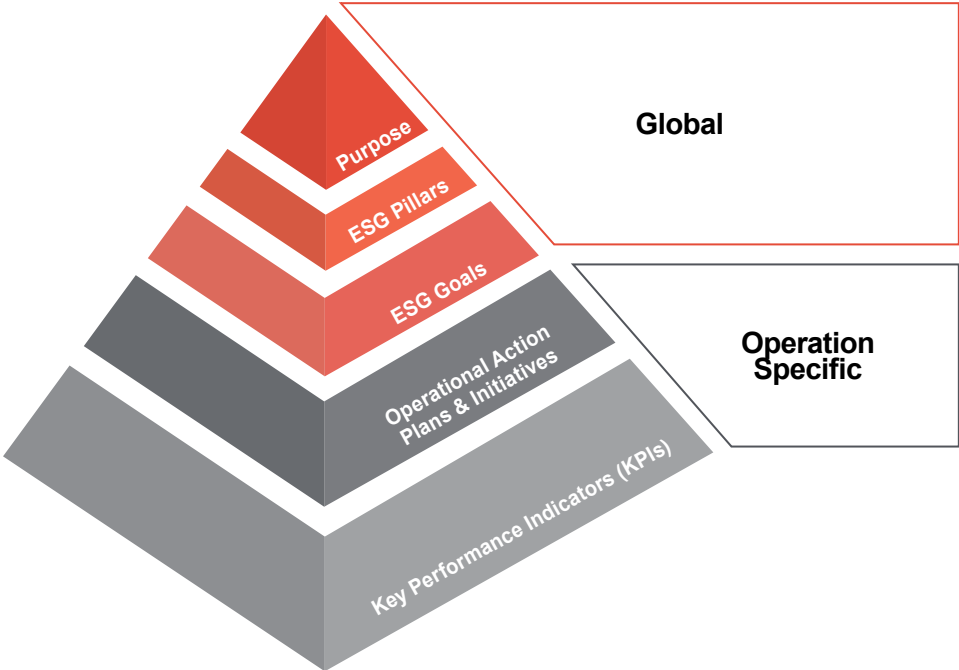
Sustainability practices are evolving rapidly, and Sandfire remains vigilant in assessing trends, industry progress and changing regulations. Our approach to sustainability will necessarily continue to evolve and grow with the Sandfire business and support the Company's purpose of *Creating value through opportunity*.



**ESG Framework**

Sandfire’s ESG framework outlines our approach to sustainability by establishing ESG Pillars and Goals aligned with our purpose of *Creating value through opportunity*.

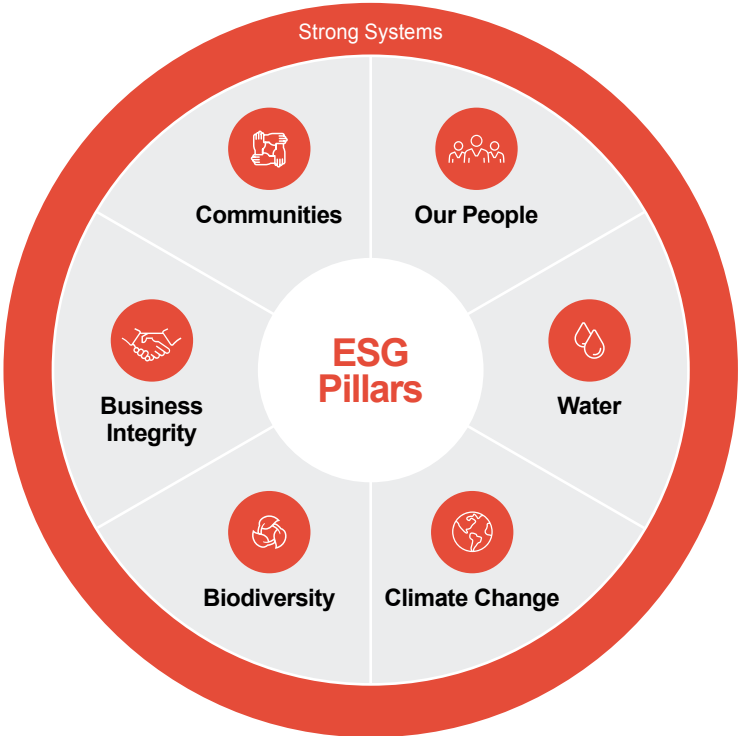
The global aspects of the framework (Purpose, ESG Pillars and ESG Goals) will ensure consistent sustainability outcomes across the business. At an operational level, action plans and initiatives are developed and linked to key performance indicators which help drive accountability and transparency in our pursuit of sustainable outcomes.



**ESG Pillars**

Our ESG Pillars describe the ESG areas that are key drivers for our sustainability outcomes. In revising our ESG Pillars, Sandfire considered a range of inputs including surveys of internal and external stakeholders and consideration of the sustainability positioning of our peers within and external to the mining industry.

The ESG Pillars are structured to recognise the different social, community and operational contexts we operate within. The ESG Pillars are shown below. The six pillars are supported throughout by Strong Systems which is a key aspect of our business wide approach to effective governance.

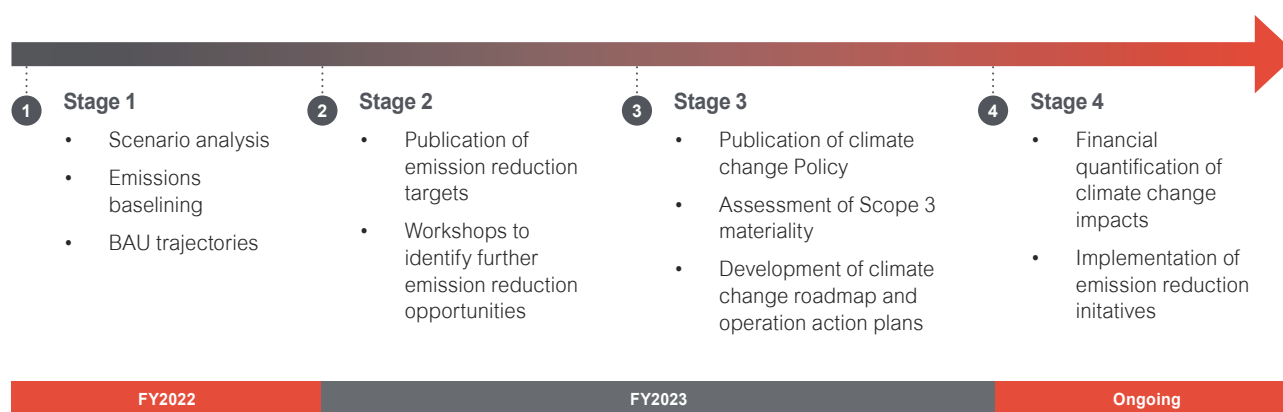


## ESG Goals

During the 2022 reporting year significant focus was placed on the development of critical emission reduction targets for the business. As a result, we are pleased to announce the first of our new ESG Goals:

- **A commitment to a company-wide net zero by 2050 target, covering Scope 1 and 2 emissions for all sites under operational control.**
- **A commitment to an interim company-wide renewable electricity target of 50% by 2030.**

Our climate change response roadmap is shown below. Revised goals under each of our ESG Pillars will be established at a corporate level and rolled out progressively during FY2023. Operations will be supported in the development of operational plans and initiatives to meet these goals.



## Reporting

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards Core Option, with additional disclosures from the G4 Mining and Minerals Sector Supplement. The GRI Standards guide the comprehensive analysis and disclosure of topics deemed to be material to our business for the past financial year (see Material topics). Our GRI Standard disclosures have been externally assured (see Appendix D for the assurance statement). For more information about the GRI Standards visit <https://www.globalreporting.org/>.

This year, Sandfire has provided partial reporting against the Sustainability Accounting Standards Board (SASB) Standards. Our disclosure against the SASB Standards is outlined in Appendix E. For more information about the SASB Standards visit <https://www.sasb.org/>.

Sandfire has adopted the Taskforce for Climate-related Financial Disclosures' (TCFD) recommendations for addressing climate-related risks and opportunities. Implementation of the TCFD recommendations will be undertaken progressively with full alignment planned by FY2024. Our key achievements in FY2022 include developing our emission reduction targets, conducting emissions baselining for our activities, modelling business-as-usual trajectories and undertaking qualitative scenario analysis for our operations under three divergent climate scenarios (see Climate Change for more information). Our planned activities are outlined in our roadmap on page 49. For more information about the TCFD visit <https://www.fsb-tcfid.org/>.

## Reporting boundaries

The reporting boundaries for this FY2022 report have been determined in accordance with the GRI Standards. Disclosure is provided on activities that are within Sandfire's operational control, and that have material impacts on our business, stakeholders and overall ESG performance.

This report includes full disclosure on the performance of non-financial topics of our wholly owned mining assets for FY2022 including the DeGrussa operation in Western Australia, and the development of the Motheo Copper Mine in Botswana.

In February 2022, Sandfire finalised the acquisition of the MATSA Mining Complex in south-western Spain. MATSA is a substantial polymetallic mining complex comprising three underground mines, a 4.7Mtpa central processing facility and related infrastructure. Full disclosure is not included in this report for the MATSA operation as Sandfire did not have operational control of the facility for the majority of the financial year. Information from MATSA's most recent non-financial disclosure report and qualitative disclosure has been incorporated where appropriate.

Full integration of MATSA's non-financial disclosures into the Sandfire Sustainability report will occur in FY2023. In addition, MATSA will continue to report their non-financial disclosures in accordance with local Spanish and European Union (EU) requirements via their operations [website](#).

This report provides limited disclosure on exploration activities and projects that have yet to be developed, including our Australian exploration activities and the Black Butte Copper Project located in Montana, USA, held via an 85 per cent interest in TSX Venture Exchange-listed company, Sandfire Resources America Inc. (Sandfire America).



# Chair's Introduction

**We are pleased to present Sandfire Resources' Sustainability Report for 2022, to review our performance over the past year and to outline our plans for FY2023 and beyond.**

The global expansion of our business continued in 2022 with the transformational acquisition of the MATSA mining complex in south-western Spain and the rapid progress with construction of the new Motheo Copper Mine in Botswana. This has provided an opportunity to review our approach to sustainability to ensure that our methodology is evolving in line with a global business operating in multiple jurisdictions.

In light of this, the Company's Sustainability Report is presented separately this year, rather than as part of the Annual Financial Report as in recent years. The pages of this report outline the new framework we have developed to guide the environmental, social and governance (ESG) activities that are key drivers of sustainable outcomes, and we are delighted to share it with you.

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards Core Option and, this year, Sandfire has also provided partial reporting against the Sustainability Accounting Standards Board (SASB) Standards, reflecting our commitment to continually improve the integrity of the data collected across our operations.

Sustainability is at the heart of our business, and our goal is for sustainability to be part of every decision we make. We believe that non-financial performance is connected to long-term value creation, and that this is best effected when sustainability is firmly embedded throughout our business.

We recognise that a strong ESG performance will support our ability to grow, thrive and develop as an organisation and will maximise the benefits that flow, both from our operations and from our interactions with key stakeholders at our projects around the world.

Our core product, copper, will play a critical role in the global transition to a low-emission economy – as a highly efficient conductor of heat and electricity and a key component in many of the technologies required to electrify the world's transportation fleet and switch to renewable energy applications.

A number of highly respected forecasting groups including S&P Global have predicted that demand for copper could more than double over the next decade, from 25 million tonnes a year currently to 50 million tonnes by 2035 – a record high that will be sustained thereafter if the world is to achieve its net-zero carbon emissions target by 2050.

Against this backdrop, Sandfire's ambition is to maximise production of this vital commodity whilst minimising our impact on the environment and delivering maximum benefits to the people and communities in which we operate.

## Our ESG Pillars and Goals

Our Sustainability Report is designed to report on sustainability matters which are material to our stakeholders, while also providing a guideline of how we intend to address these matters into the future.

With active mining operations now in Spain and Australia, development projects in Botswana and Montana, USA, and exploration personnel working across all of these jurisdictions, we have worked hard during the year to establish global ESG Pillars and Goals that are aligned with our corporate vision of "Creating Value Through Opportunity".

The global aspects of the framework (Vision, ESG Pillars and ESG Goals) are intended to ensure consistent sustainability outcomes across the business.

At the operational level, action plans and initiatives are developed and linked to key performance indicators which help drive accountability and transparency in pursuing sustainable outcomes.

The ESG Pillars – namely, Communities, Our People, Water, Climate Change, Biodiversity and Business Integrity – were redefined in 2022 providing our operations with the flexibility they need to achieve success in their unique operating environments. We have a strong belief in the importance of a decentralised structure that empowers people on the ground at each of our operations – with the pillars supported by Strong Systems, which is a key aspect of our business-wide approach to governance.

“ Sustainability is at the heart of our business, and our goal is for sustainability to be part of every decision we make. ”

John Richards, Non-Executive Chair



## ESG Highlights for FY2022

Some of the key sustainability highlights from the 2022 financial year have included:

- A revised Sustainability Strategy to ensure our ESG Framework accurately reflects our growing business and supports our operations to succeed in their ESG initiatives
- Development of our emission reduction targets.
- Contributions of over \$700,000 USD to local communities for sustainable development initiatives.
- Achieving a TRIFR of 3.8 decrease from 4.0 in FY2021.
- Completed environmental baseline studies relating to the Motheo Hub and significantly progressed the Environmental Social and Impact Assessment for the A4 Project.
- Improving and streamlining our human resources frameworks and systems, including improved recruitment and on-boarding processes, the implementation of a new performance management and salary review system and a detailed review of our Values.
- The implementation of system improvements to assist with managing supplier risks related to modern slavery, anti-bribery and corruption and business continuity.

## Tackling Climate Change

During the 2022 financial year, a key priority was to develop our most critical ESG Goals, with the priority being to set emission reduction targets for the business.

Accordingly, we are delighted to announce the first of our revised ESG Goals, namely:

- A commitment to a company-wide net zero by 2050 target, covering Scope 1 and Scope 2 emissions for all sites under our operational control; and
- A commitment to an interim company-wide renewable electricity target of 50% by 2030.

Furthering our commitment to action on climate change we have;

- Continued and extended our alignment with the Taskforce for Climate-related Financial Disclosures (TCFD) recommendations for addressing climate-related risks and opportunities.
- Reviewed our baseline emissions and undertaken modelling of emission trajectories.
- Performed qualitative climate change scenario modelling for our operations under three divergent climate scenarios.

## Looking to the Future

We are proud of our sustainability performance and reporting in FY2022; however, we know that we still have much work to do to ensure transparent disclosure and to ensure that the Company remains on a path to achieve a world-class sustainability framework that befits a global mining company.

Accordingly, we are currently working hard to establish revised goals under each of our other ESG Pillars at a corporate level and to roll these out progressively during 2023. We look forward to communicating these with you in due course.

In conclusion, we would like to thank everyone who has contributed to the publication of this Sustainability Report, especially our shareholders and proxy advisers for their constructive engagement on key sustainability and governance issues.

As Sandfire continues to grow as a global mining business, we have a unique opportunity to cement the Sandfire brand amongst local communities and key stakeholder groups across the regions where we operate and to deliver tangible net-positive outcomes from our operations.

A strong underlying commitment to excellence in ESG performance remains at the heart of this exciting opportunity, and we are very much looking forward to sharing our continued progress in this area with you in the years ahead.

**John Richards**  
Non-Executive Chair

# Our Board



## John Richards

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**Independent  
Non-Executive Chair**

B.Econ (Hons)

Mr Richards is an economist with more than 35 years' experience in the resources industry. He has held strategy and business development positions across several mining companies and has worked extensively in the investment banking and private equity industries. He has been involved in a wide range of significant mining M&A transactions on a global scale.

Mr Richards is also a Non-Executive Director of leading gold producer Northern Star Resources Ltd and Lead Independent Director of mineral sands company Sheffield Resources Ltd.



## Sally Langer

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**Independent  
Non-Executive Director**

B.Com, CA, AICD

Ms Langer has 25 years' experience in Professional Services including as founder and Managing Partner of the management consulting and executive recruitment firm Derwent Executive, where she set up and led the growth of the Perth office servicing a wide range of clients both local and national and led the Mining and Industrial Practice. Prior to that, she was a Director at international recruitment firm Michael Page and a Chartered Accountant at accounting and consulting firm Arthur Andersen.

During her career, Ms Langer has been responsible for strategy development and execution with a strong focus on profitable business growth, supervising and coordinating large teams and other management functions including strategy, business development, budgeting and human resources.



## Roric Smith

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**Independent  
Non-Executive Director**

B.Sc, B.Sc (Hons) Geology,  
Ph.D Geology, MAICD

Dr Smith is a highly experienced geologist with extensive Australian and international experience. Dr Smith was previously Vice President, Discovery and Chief Geologist for Evolution, where he played a key role in leading that company's exploration efforts. Prior to joining Evolution, Dr Smith held senior executive positions with the gold producer AngloGold Ashanti, including as Senior Vice President, Global Greenfield Exploration; Country Manager and Chief Representative China; Exploration Manager – North Asia Region; and Chief Geologist Australia.



### Jenn Morris

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#### Independent Non-Executive Director

B.Arts, MAICD, Finance for Executives (INSEAD)

Ms Morris is a former partner of global professional services firm Deloitte where her career spanned more than 10 years working across the mining, government and transport sectors. Her experience includes advising government entities and corporations on strategy development, governance controls, business transformation, the embedding of environment, social and governance related policies, the development of leadership and understanding of high-performance environments.

Ms Morris is a Fellow of Leadership WA and a member of the Vice Chancellor's List, Curtin University. Prior to her business career, she was a member of the highly successful Australian Women's Hockey Team which won Olympic gold medals at both Atlanta in 1996 and Sydney in 2000. In 1997, she was awarded a Medal of the Order of Australia (OAM).



### Robert Edwards

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#### Independent Non-Executive Director

BE (Hons) Mining, Member of the IOM

As a mining engineer, Mr Edwards has worked in the natural resources industry for over 30 years across production mining, new business development, equity research and investment banking.

Robert is the former Chairman of Global Mining and Metals at Renaissance Capital, providing oversight over investment banking and principal investment activity in the mining, metals and fertiliser sectors. He has also worked for HSBC, the Royal Bank of Canada and served as Non-Executive Director of a number of listed entities, including MMC Norilsk Nickel until early 2022, the world's biggest producer of nickel and palladium as well as major producer of copper and platinum.



### Sally Martin

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#### Independent Non-Executive Director

BE (Elec), AICD

Ms Martin is a former senior executive who has held various roles at Shell over the last 34 years. She has extensive operational and business team leadership experience in complex industrial environments including refining and trading. She also has deep working knowledge of stimulating and leading transformational change – most recently as General Manager, Trading and Supply Operations, Europe & Africa. Ms Martin has strong ESG credentials, including in energy transition strategy development as Vice President Health, Safety, Security, Environment & Social Performance at Shell.

# Our Executive Team

## Jason Grace



### Acting CEO

B.AppSc (Geo), B.Sc (Hons), MMinEng, MEnt (Exec)

Mr Grace is an experienced mining professional with industry experience spanning Australia and the AsiaPacific region and ranging across multiple disciplines including general and operational management, technical leadership, business improvement, mineral resource evaluation, mine planning and mine geology. He was most recently Executive General Manager – Iron Ore for diversified mining services group Mineral Resources Ltd (ASX: MIN), where he managed the group's Australian iron ore business.

Jason's role is accountable for the day-to-day operational delivery and performance of the Company. This includes the DeGrussa Copper Operations, MATSA Copper Operations and development and construction of the Motheo Copper Mine. Jason's role also includes responsibility for operational planning and forecasting, sales and marketing, and oversight of the Company's ESG activities and reporting.

## Matthew Fitzgerald



### Chief Financial Officer and Company Secretary

B.Com, CA

Mr Fitzgerald is a chartered accountant with extensive experience in the resources industry. He began his career in the Assurance & Advisory division of KPMG, before joining ASX listed Kimberley Diamond Company NL in 2003, where he held the position of Chief Financial Officer and Director until July 2008. Mr Fitzgerald is also the Chair of the Company's subsidiary, Sandfire Resources America Inc. (TSX-V: SFR), which is permitting the Black Butte Copper Project in Montana, USA.

Matthew's role includes responsibility for statutory financial compliance and reporting, taxation, treasury, and procurement. Matt also supports the Board as well as advising and implementing good governance practices across the organisation, while providing oversight of corporate affairs, investor relations and legal matters.

## Richard Holmes



### Executive Growth

BSc Hons (Geology/Geography),  
MSc & DIC (Applied Structural Geology and Engineering Rock Mechanics)

Mr Holmes is a geologist who has a mining industry career spanning 25 years across the globe with practical experience in over 35 countries. He brings a wealth of experience in leadership, strategic thinking, exploration management, business development, innovation and strong technical evaluation skills that are reinforced by extensive experience reviewing the technical/ financial/commercial aspects of many projects throughout the world. Richard joined Sandfire following his role at Oz Minerals Ltd (ASX:OZL) as the Head of Exploration and Growth, where he successfully built a global pipeline of growth opportunities.

Richard's role is accountable for the growth of the Sandfire exploration and development portfolio through partnering, acquisition and divestment of assets aligned with the Company strategy.

## Scott Browne



### Executive People and Performance

B.Com (Hons), AICD

Mr Browne is an experienced human resources leader, with more than 20 years experience within senior and global HR roles. Mr Browne was most recently the Vice President People for Rio Tinto's Iron Ore business, a position he held from March 2019. In this role, Scott was a member of the Rio Tinto Iron Ore Executive Leadership Team and responsible for direct and functional leadership of the Western Australian People Function. This included the development and delivery of the people strategy, business partnering, capability development, employee relations, talent, performance and remuneration.

Scott's role is to provide leadership and oversight of all people and culture activities, including oversight of the Company's global operating model, diversity, equity and inclusion initiatives, learning and talent development and reinforcing the organisation's culture, purpose and values.







## Copper<sup>29</sup>Cu

Copper is a chemical element with the symbol Cu (from Latin: cuprum) and atomic number 29. It is a soft, malleable, and ductile metal with very high thermal and electrical conductivity.

# About Copper

## Copper goes into products that we use everyday.



### Electrical & Electronic

Wind turbines, air conditioning and heating, smartphones

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### Consumer & General Products

Coins, jewellery, fungicides

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### Building & Construction

Wiring, piping and plumbing & earthing systems

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### Machinery & Metallurgy

Transformers, generators, power stations

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### Transportation Equipment

Car wiring (particularly in electric vehicles), motors, plane, train, ship electronics and wiring

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### Renewable Energy

Renewable energy systems use up to 12 times more copper than conventional power systems<sup>3</sup>.

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### Recycling

Unlike many other resources and metals, copper boasts the ability to be recycled and reused.

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### Green Technologies

Given expected increase in green technologies - including electric cars - copper consumption is predicted to rise by more than 40% by 2035<sup>3</sup>.

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### Superior Conductivity

Copper has a superior electrical and thermal conductivity, is highly durable and can be 100% recyclable, without any loss in performance.

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### Solar Power

Copper's combination of high heat conductivity, resistance to atmospheric and aqueous corrosion, ease of fabrication, sealability (joining by soldering), mechanical strength and longevity offer strong advantages over any other material in solar power heating applications.

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<sup>3</sup> [copperalliance.eu](http://copperalliance.eu)

# Our Value Chain

Sandfire draws on the different stores of capital as part of its value chain.



## Our Inputs

- |   |                           |                                  |                               |                                  |                                   |
|---|---------------------------|----------------------------------|-------------------------------|----------------------------------|-----------------------------------|
| <b>1</b><br>Social & Relationship Capital | <b>2</b><br>Human Capital | <b>3</b><br>Manufactured Capital | <b>4</b><br>Financial Capital | <b>5</b><br>Intellectual Capital | <b>6</b><br>Environmental Capital |
|---|---------------------------|----------------------------------|-------------------------------|----------------------------------|-----------------------------------|



## What we do

- |                         |                                   |                            |                          |                                    |
|-------------------------|-----------------------------------|----------------------------|--------------------------|------------------------------------|
| <b>1</b><br>Exploration | <b>2</b><br>Resources Development | <b>3</b><br>Mine Operation | <b>4</b><br>Mine Closure | <b>5</b><br>Mergers & Acquisitions |
|-------------------------|-----------------------------------|----------------------------|--------------------------|------------------------------------|



## Value we create

- |                                |                            |                                   |                                   |                                |                               |                               |
|--------------------------------|----------------------------|-----------------------------------|-----------------------------------|--------------------------------|-------------------------------|-------------------------------|
| <b>1</b><br>Copper Concentrate | <b>2</b><br>Employee wages | <b>3</b><br>Meaningful employment | <b>4</b><br>Shareholder dividends | <b>5</b><br>Community Benefits | <b>6</b><br>Taxes + Royalties | <b>7</b><br>Supplier Payments |
|--------------------------------|----------------------------|-----------------------------------|-----------------------------------|--------------------------------|-------------------------------|-------------------------------|



## Downstream Logistics & Processing

- |                     |                      |                      |                      |                           |
|---------------------|----------------------|----------------------|----------------------|---------------------------|
| <b>1</b><br>Hauling | <b>2</b><br>Shipping | <b>3</b><br>Smelting | <b>4</b><br>Refining | <b>5</b><br>Manufacturing |
|---------------------|----------------------|----------------------|----------------------|---------------------------|



## Value from our product

- |                                 |                             |                               |                                |  |                             |
|---------------------------------|-----------------------------|-------------------------------|--------------------------------|--|-----------------------------|
| <b>1</b><br>Electrical Products | <b>2</b><br>Household Goods | <b>3</b><br>Electric Vehicles | <b>4</b><br>Healthcare Devices | <b>5</b><br>Electrical Wiring & Plumbing | <b>6</b><br>Green Buildings |
|---------------------------------|-----------------------------|-------------------------------|--------------------------------|--|-----------------------------|

## Our Supply Chain

Our Supply Chain includes small businesses local to our activities, through to global suppliers and service providers. During FY2022, the products and services provided by our supply chain included:

**Support services:** Camp management services, air charter services, freight of inbound goods, energy supply, information technology services, training providers, fuel supply, provision of branded clothing and protective personal equipment, other equipment, and vehicles.

**Exploration:** drilling and geophysical contractors, drill tools, general hardware, and analytical laboratories.

**Processing:** shutdown contractors, supply of grinding media, supply of flocculants, and labour hire.

**Mining:** underground mining contractors, cement, explosives, and earth movers.

**Delivery:** haulage services, port services, stevedoring, and shipping.

**Projects:** technical support services, equipment suppliers, and construction contractors.

Through the acquisition of MATSA in FY2022, there is now significantly increased European representation in our supply chain.



Through the acquisition of MATSA in FY2022, there is now significantly increased European representation in our supply chain.

# Materiality

Sandfire conducts an annual materiality assessment in accordance with the GRI Standards (2016) to identify the ESG topics of most importance to our stakeholders and our business in the past year. This materiality assessment determines the content of our Sustainability Report.

## Step 1 – Identification

The identification of material ESG topics is informed by a comprehensive review of current and emerging issues facing the mining industry, stakeholder and investor feedback, employee surveys, peer and industry leader benchmarking, and feasibility and impact studies.

## Step 2 – Prioritisation

We have prioritised our most material ESG topics by:

- Assessing the impact to our stakeholders, such as our local communities and the environment,
- Determining our ability to contribute (positively or negatively) to sustainable development through management of the issue, and
- Stakeholder's interest in understanding Sandfire's management of the topic.

## Step 3 – Validation

The material ESG topics are reviewed and validated by the Executive Committee and endorsed by the Board.

## Step 4 – Assurance

Sandfire engaged Bureau Veritas to undertake independent, external limited assurance on selected information and disclosures in this year's Sustainability Report. Refer to Bureau Veritas' report in Appendix D for the full assurance statement.

## Restatements

No restatements of information were identified for reporting periods prior to FY2022.

## Material topics

Our material topics for FY2022, including their impacts and where they are discussed within the sustainability report, are presented in Table 1.



**Table 1: Material topic boundaries**

Material topic	Description	Where the impact occurs	Link to ESG Pillars	Report chapter
Our People	How we empower our people, provide opportunities for development, and promote inclusion.	Employees and contractors.	 	Chapter 1
Business Integrity	How we demonstrate transparency, accountability, and ethical conduct.	Employees, contractors, and other stakeholders.	     	Chapter 2
Human Rights	How we collaborate with our supply chain to mitigate human rights and Modern Slavery risks.	Employees, contractors, our supply chain, local communities, regulators, and other stakeholders.	    	Chapter 3
Indigenous Peoples	How we engage with Indigenous groups, respect cultural heritage, and provide opportunities for Indigenous peoples.	Indigenous peoples with connections to the land on which we operate.	     	Chapter 4
Communities	How we contribute to regional economic development and provide opportunities for local communities.	People living and working in close proximity to our operations and future developments.	     	Chapter 5
Health and Safety	How we promote and protect the physical and mental wellbeing of our workforce.	Employees, contractors and visitors at our current operations and future developments.	    	Chapter 6
Biodiversity	How we mitigate and manage our impacts on the environment and leave a positive legacy.	Employees, contractors, local communities, and local flora and fauna species.	     	Chapter 7
Waste	How we reduce waste and align with global best practices for tailings management.	Operations, people living within close proximity to our operations and the environment.	    	Chapter 8
Water	How we manage water resources to ensure sustainable access for our operations and the local community.	Water bodies above and below the surface at our current operations and future developments.	     	Chapter 9
Climate Change	How we are transitioning to a low emissions economy.	Operations, supply chain, governments and regulators, local communities, stakeholders, and investors.	     	Chapter 10

We believe that non-financial performance is connected to long-term value creation, and that this is **best effected when sustainability is firmly embedded throughout our business.**









# Chapter 1: Our People



Sandfire believes that our people are our greatest asset. Sandfire is committed to creating a supportive workplace that empowers our people to achieve their full potential. Our people are values driven and strive for excellence. Our success and the ability to execute our strategic plan depends on our high performing and engaged workforce. Sandfire is committed to fostering a culture of diversity and inclusion, where differences are valued, and everyone is welcomed and treated with dignity and respect. Sandfire values the increasing diversity of backgrounds, cultures and experiences which our people bring to the workforce which positively contributes to our organisational culture and the strategic outcomes of the business.

## Our performance

<b>Achieved</b> 	Sandfire Values refresh	Implementation of performance management / salary review system	Total workforce has increased to 3,635 people in FY2022
<b>In progress</b> 	Global People Framework including Global Code of Conduct implementation and training	Global Remuneration and Benefits framework design	Global Sandfire Values program

## FY2022 progress

This year, Sandfire has focused on refreshing and globalising our human resourcing systems and processes. Sandfire undertook a review of our Values to ensure that they articulate what is important to everyone at Sandfire. Our Values will continue to build alignment and purpose for our people to achieve success wherever we operate in the world.

Sandfire has refreshed its recruitment and onboarding platform to improve candidate experience and streamline these processes for our Australian activities. Additionally, Sandfire also implemented a performance management and salary review system to provide a more efficient interface between employees, managers, and the Human Resources department through the performance review process.

## Governance framework

Sandfire's [Our People Policy](#) sets out our commitment to our workforce. The policy is supported by our standards which detail our approach for creating a workplace where our people are empowered and reach their full potential. The key standards that support our approach include the Diversity and Inclusion Policy, EEO<sup>1</sup> Discrimination and Harassment Standard, Human Rights Policy, Performance Management Standards, Grievance Standard and Recruitment Standard. We also require our workforce to act in accordance with our [Code of Conduct](#). Sandfire manages workforce outcomes through bi-annual performance reviews against Key Performance Indicators (KPIs) as set out in our Compensation and Benefits Procedure.

Additionally, each of our operations have supplementary policies and standards which support the implementation of context-specific arrangements.

## Stakeholder engagement

Sandfire undertakes an annual employee engagement survey which gauges the health of the organisation by measuring employees' commitment, motivation, sense of purpose and passion for their work and our business. Employee feedback is critical in understanding and acting on areas of strength and opportunity. This year, we also incorporated questions about events of disrespect and psychosocial safety in the workplace, including bullying and harassment. Participation in the employee engagement survey is voluntary, anonymous, and confidential.

The outcomes of the surveys are included in the materiality process for our sustainability reporting and our non-financial disclosures.

## Employee conduct

Sandfire is committed to providing a safe and inclusive workplace, where bullying, discrimination, victimisation, intimidation or harassment is not tolerated. Employees and contractors can report any issues of concern confidentially and anonymously (if preferred) using independent third party managed reporting portals, EthicsLine (Spain) and StopLine (Australia and Botswana). All matters reported via this process are investigated and appropriate action taken. We will continue to report on all conduct matters classified as material to the Board People and Performance Committee.

<sup>1</sup> Equal Employment Opportunity (EEO)

### Training and education

Providing opportunities for our people and communities in which we operate to develop both professionally and personally is one of the most significant and positive impacts we can have. We view investment in our employee and community training and development programs as a benefit to all parties, driving greater employee engagement, job satisfaction and productivity.

Sandfire provides a range of training and development opportunities including further education sponsorship for our employees. Where appropriate, employees may receive external coaching or mentoring and have the opportunity to undertake secondments to further their career and personal development.

**Table 2: Training hours completed by topic**

Training Topic	Leadership	Operational and Risk Management	Business Integrity	Diversity and Inclusion	Skills Development	Safety, Health and Wellbeing
Hours Completed	716	1414.25	260	735	342	1455
Total	14.5%	28.7%	5.3%	14.9%	6.9%	29.6%

### Diversity

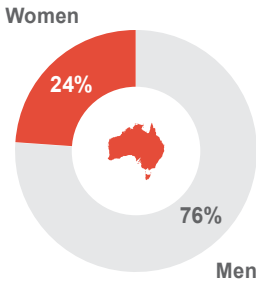
Sandfire is committed to fostering a culture of diversity and inclusion, where differences are valued, and everyone is welcomed and treated with respect. We believe that the diverse backgrounds and experiences of our employees positively contribute to our organisational culture and the strategic outcomes of the business. Our Diversity and Inclusion Policy details how we achieve our commitment to create a diverse and inclusive workforce.

Details on Sandfire’s commitment to improve gender diversity, including our measurable objectives to increase the representation of women at every level within Sandfire, are contained within our 2022 Corporate Governance Statement.

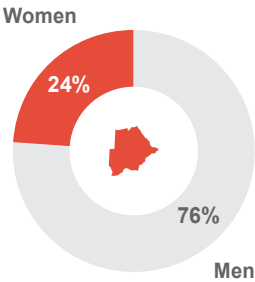
In FY2022, our gender diversity composition levels for each operation were:

We continue to support gender diversity by targeting female workforce composition levels. As we continue to expand our business

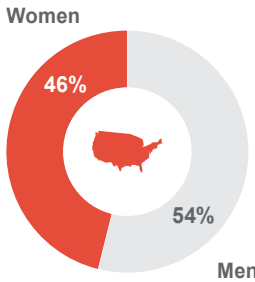
#### Australia



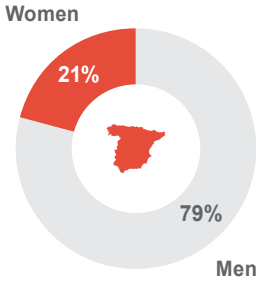
#### Botswana



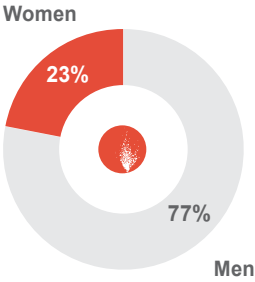
#### USA



#### Spain



#### Group



internationally, we are committed to integrating our diversity and inclusion strategies to our development projects in Spain, Botswana and Montana, USA.





# Chapter 2: Business Integrity



Sandfire conducts its business with integrity and transparency wherever we operate. Our governance framework supports our people to meet our Code of Conduct and deliver our company strategy whilst making effective and responsible decisions; ensures our business complies with relevant laws and regulations across jurisdictions; ensures risks are identified and managed; and assists with managing stakeholder expectations.

## Our performance

<b>Achieved</b> 	Anti-Bribery and Corruption training delivered to 83 staff across the business	Refreshed our StopLine process to be more visible and consistent across global operations
<b>In progress</b> 	Development and implementation of software solution to manage procurement risk	Development of Integrity Policy

## FY2022 progress

Throughout 2022, Sandfire has been working to implement software upgrades to assist with managing procurement risks related to modern slavery, anti-bribery and corruption and business continuity. The upgrades are expected to be fully implemented in early FY2023 promoting a more streamlined approach to managing procurement risk (see Risk Management for further details).

During 2022, we began developing an Integrity Policy which will cover broader business integrity topics and our strategy. The policy is due for publication in FY2023.

## Governance framework

Our Board and management are fully committed to maintaining and enhancing corporate governance so that it continues to contribute to Sandfire's purpose and key growth objectives.

Whilst the Board is responsible for establishing the corporate governance framework of the Group, at Sandfire, we believe good governance is the collective responsibility of all our management and staff. We believe that excellence in governance is intrinsic to our social license to operate and essential for the long-term sustainability of our business. Our governance framework supports our people to deliver our strategy and provides an integral role in effective and responsible decision making and business conduct.

The Code of Conduct and Sandfire's governance policies reinforce the importance of our values in carrying out our responsibilities to shareholders, employees, business partners, government, regulators and the broader community.

Our EthicsLine (Spain) and StopLine (Australia and Botswana) processes that enable our personnel, contractors and other stakeholders to report any issue that may adversely affect Sandfire or its people or reputation have been refreshed, made more accessible and consistently available across our increasingly global operations. EthicsLine and StopLine are supported by our Sandfire Code of Conduct and Whistle-blower Policies.

Sandfire regularly reviews its governance practices and corporate governance policies to reflect the growth and strategy of the Company, current legislation and best practice.

## Corporate Governance Practices

Our Corporate Governance Statement outlines the key features of Sandfire's governance framework by reference to the 4th edition of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations.

The responsibilities of our Board and management are defined in our:

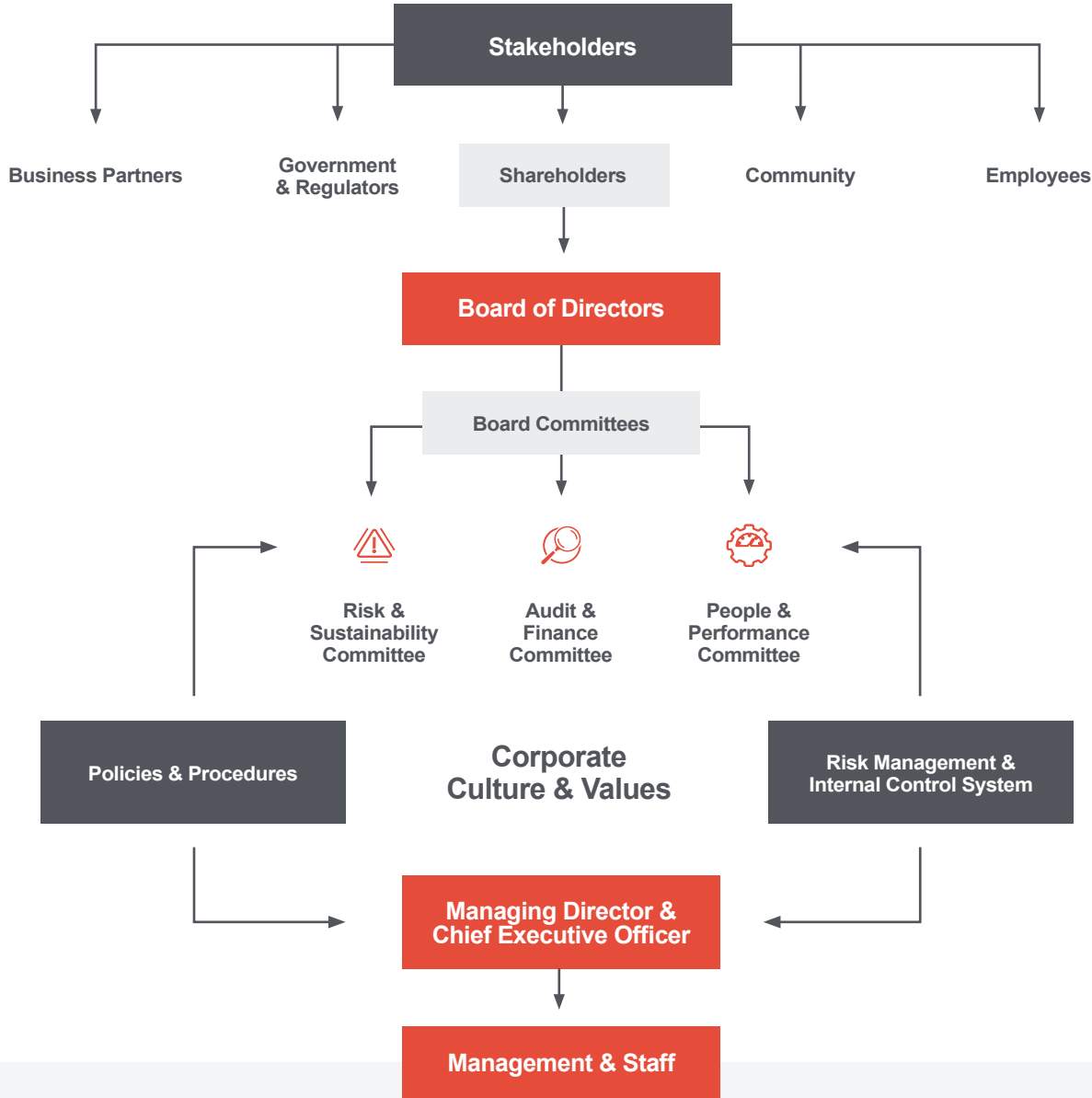
- Board Charter
- Constitution of Sandfire Resources

The Board Committees operate under specific Charters including:

- Risk & Sustainability Committee
- Audit & Finance Committee
- People & Performance Committee



**Corporate Governance Framework**



**Supporting Documents**

We have established policies, standards and procedures that actively promote ethical and responsible decision making. These set our expectations regarding how we will conduct our business and work and behave towards each other.

They include:

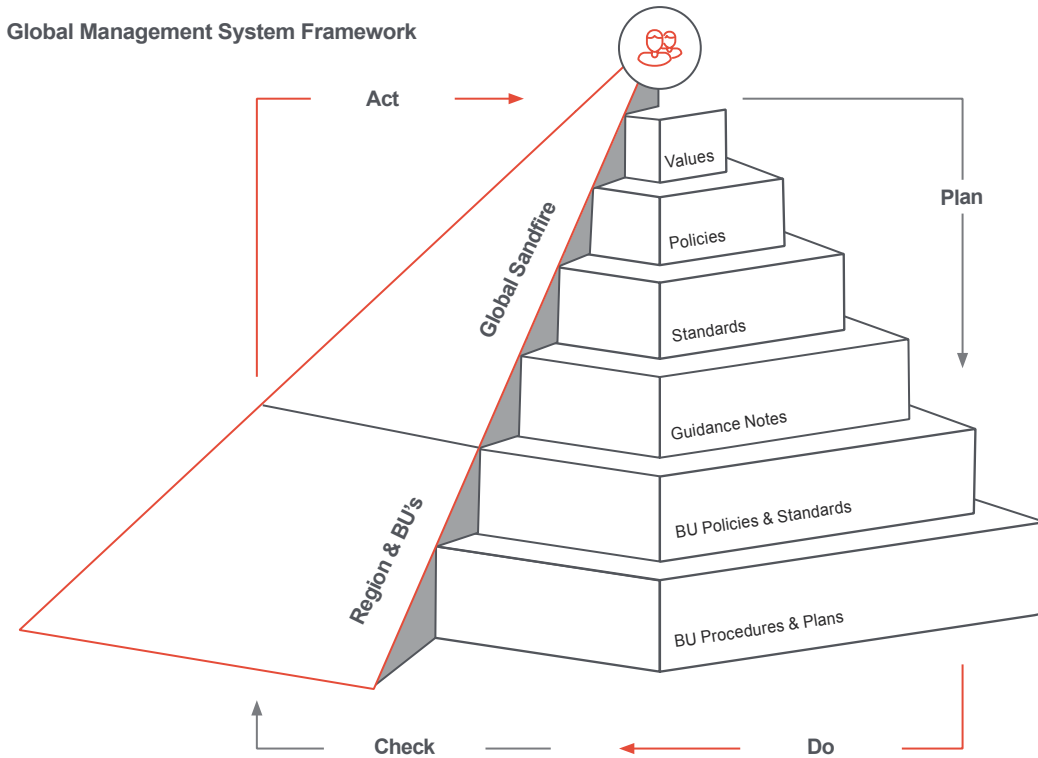
- Code of Conduct
- Supplier Code of Conduct
- Securities Trading Policy
- Disclosure Policy
- Periodic Corporate Reports Standard
- Shareholder Communication Policy
- Risk Management Policy

- Whistleblower Protection Policy
- Whistleblower Optional Disclosure Form
- Privacy Policy
- Environmental Policy
- Our People Policy
- Community Policy
- Health and Safety Policy
- Anti-Bribery and Corruption Policy
- Human Rights Policy
- Legal and Compliance Policy
- Diversity and Inclusion Policy

**All Sandfire policies are available through our public website pages:**  
[www.sandfire.com.au/about-sandfire/corporate-governance/](http://www.sandfire.com.au/about-sandfire/corporate-governance/)

## Strong Systems

Strong systems underpin our ESG Pillars at Sandfire and are critical to our business success. Our global management system framework was updated in FY2021 and commenced roll out in FY2022. The framework supports our continued expansion into international jurisdictions by ensuring a consistent approach to the way we operate across borders and remains flexible enough to adapt to local legal, economic, social and environmental practices.



During FY2022 a complete set of Health, Safety, Environment and Communities (HSEC) Management Standards was released. These standards apply across the Group and set out the expectations and requirements for addressing our HSEC activities including the management of our core ESG risks and opportunities. Our operations will continue to be regularly assessed against their alignment with the HSEC Management System through our audit and assurance processes.

## Anti-corruption

Sandfire and its Board are committed to fostering a culture of compliance, ethical behaviour and good corporate governance. Our [Anti-bribery and Corruption \(ABC\) Policy](#) and [Code of Conduct](#) outline the expectation for all staff to uphold our zero-tolerance approach to corruption or bribery in any form and a commitment to complying with all applicable laws and regulations of the countries in which we operate. All breaches of the policy are reported to Sandfire's Board.

Sandfire has increased the scrutiny of anti-bribery and corruption reviews in our risk assessments and due diligence processes due to our growing international presence. Sandfire maintains a Conflict-of-Interest process which requires our people to declare any perceived or actual conflicts with the Anti-Bribery and Corruption Policy.

Controls to manage these risks include the implementation of the Anti-bribery and Corruption Policy, our governance framework which details how Sandfire assesses third party risks, appropriate due diligence based on assessed level of risk, and the approvals process.

Sandfire also has a Whistleblower process which is governed by our [Whistleblower Protection Policy](#), and monitored by an independent Anti-Bribery and Corruption Officer who deidentifies any disclosures and reports these on to the business action.

Data Tables





Sandfire conducts its business with integrity and transparency **wherever we operate.**

# Chapter 3: Human Rights



Sandfire is committed to upholding the fundamental human rights of our employees, local communities in which we operate, those within our supply chains and other stakeholders who may be impacted directly or indirectly by our business activities. We aim to avoid contributing to negative outcomes for human rights from our activities or from those who work with us and to remedy any issues that are identified.

## Our performance

<b>Achieved</b> 	Developed and published Sandfire HSEC Human Rights Standard	Stakeholder engagement on Resettlement Action Plan
<b>In progress</b> 	Undertaking Motheo Hub Human Rights Impact Assessment	Resettlement Action Plan for affected parties at the Motheo Copper Mine

## FY2022 progress

Sandfire completed enterprise risk assessments in FY2022 which considered human rights risks and impacts. The findings of the enterprise risk assessments have been incorporated into our risk management system which supports our Business Units to manage action items to closure.

Sandfire currently assesses major tenders against human rights and modern slavery criteria and includes modern slavery clauses in our standard contract wording. We are currently implementing a software solution to assist with the identification of human rights risks and allow a greater level of detail to be assessed in our supplier due diligence and onboarding processes. The early identification of risks will determine the questions contractors and suppliers are asked during tender evaluations. Contractors and suppliers can then be given a risk rating which will inform our management approach, mitigation measures, and training approach.

Sandfire has commissioned a Human Rights Impact Assessment through an independent local specialist for the Motheo Hub which will inform the Motheo Human Rights Management Plan as part of the Environmental and Social Impact Assessment process. The impact assessment has been completed and the final report is due for delivery in Q3 2022 following a detailed review. Any material findings will be disclosed in our FY2023 Sustainability Report.

## Governance framework

Sandfire's approach to human rights is governed by our Human Rights Policy which includes the requirement to undertake human rights risk assessments of our business activities to identify and address potential human rights impacts. Our policy is supported by our HSEC Management System standards including the Human Rights Standard, the Social Baseline and Impact Assessment Standard and the ESG Governance and Risk Standard. The policy is also supported by the Grievance Management Standard and our Whistleblower Protection Policy and disclosure process. Where significant potential human rights risks have been identified, Business Units are required to develop and implement a Human Rights Management Plan.

Human Rights management is also integrated into our procurement and contracting process. Sandfire assesses a supplier's compliance with human rights and other social performance criteria prior to onboarding and during audit processes. We may cease or choose not work with suppliers who do not comply with the requirements of our Supplier Code of Conduct.

A key component of our HSEC Management System is the Risk and Assurance Management Standard which describes the requirements for Business Units to manage risk, and to ensure that assurance processes are implemented to provide sufficient feedback on the adequacy and effectiveness of controls related to human rights risks.





## Stakeholder engagement

Stakeholder engagement is an essential input into the management of human rights risks. Effective and transparent engagement with local communities, suppliers and contractors, our workforce, regulators, and legislative bodies is essential for protecting human rights interests associated with our activities. Sandfire utilises engagements during supplier onboarding and contractor management activities to discuss and develop strategies to mitigate human rights risks.

## Modern Slavery

Sandfire prepares an annual Modern Slavery Statement in accordance with the Commonwealth Modern Slavery Act 2018. We will publish our fourth statement in December 2022. Our Modern Slavery Statements are available on our [website](#).

Our [Human Rights Policy](#) governs our approach and is complimented by our Supplier Code of Conduct and Grievance Mechanism Standard. Sandfire's [Code of Conduct](#) was updated this year to include our commitment to uphold ethical human rights conduct in our business and supply chains.

In FY2022, our modern slavery questionnaire for suppliers was updated to better identify any modern slavery risks in our supply chain and reflect our global expansion. This questionnaire will be rolled out in FY2023 via a new third-party risk management software solution (see Risk management).

The procurement team at our newly acquired MATSA operation received training on Sandfire's procurement standards and requirements to manage modern slavery risks and violations of the standards. This training will ensure that the team are equipped to meet the intent of our Modern Slavery Statement and all regulatory requirements.

## Risk management

Successful management of modern slavery risks is measured by our ability to identify risks through our systems and frameworks and support our existing suppliers to mitigate risks and address any weaknesses where identified.

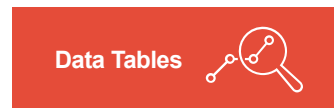
Sandfire is currently implementing a third-party risk management software solution to assist in the identification and mitigation of risks associated with our third parties. This includes the risk of Sandfire causing, contributing, or being linked to modern slavery practices within our supply chains. The system will allow for greater standardisation, automation, efficiency, and knowledge sharing across the business as we deploy to our business units. System implementation is expected to be completed by the end of 2022.

## Resettlement

Sandfire has identified a potential requirement to relocate farm workers currently residing on a farm close to where the A4 mine will be developed at the Motheo Hub. Sandfire purchased this land in FY2021 and has conducted extensive consultation with potentially affected farm workers and households to determine whether relocation of these families is required and if so, how to ensure their quality of life and livelihoods can be improved following relocation.

During FY2022, our stakeholder engagement plan involved consultations with potentially affected households, government authorities and potential host community non-government institutions. The purpose of the consultation was to socialise the planned resettlement process with the various stakeholders and provide the affected people with the opportunity to enact their eligibilities and rights in line with the government policies, legislation and guidance from international standards. Consultation with key partners supported Sandfire's development of a compensation framework which articulated the boundaries of compensation and entitlements including relocation assistance and a livelihood restoration program. Through this process, Sandfire has identified two households that may require our support to relocate.

These consultations have supported Sandfire's development of a Resettlement Action Plan and a subsequent monitoring and evaluation plan in accordance with IFC Performance Standard 5 and 7. The Resettlement Action Plan is due for completion prior to the end of 2022.





# Chapter 4: Indigenous Peoples



Sandfire acknowledges the Indigenous Peoples of the land in which we live, operate, and explore, and recognises their continuing connection to the land. Sandfire is committed to engaging with Indigenous Peoples when a project is located on land they traditionally own or use. Our aim is to have meaningful and respectful relationships with Indigenous Peoples and avoiding impacts to significant cultural heritage sites. Our management practices ensure our approach is based on engagement, consultation, collaboration, and good faith negotiations towards establishing agreements with Indigenous Peoples wherever required.

## Our performance

<b>Achieved</b> 	Kuke Village development projects completed	Employed 74 people from local villages in Botswana via our local recruitment strategy	Completed an Ecosystem Services Assessment addressing Indigenous people's natural resources for Motheo A4 Project
<b>In progress</b> 	Continuous improvement of the GIS System for improved land management	Motheo is undertaking a human rights impact assessment with a focus on vulnerable language groups in the Ghanzi District	

## FY2022 progress

During the year, Sandfire completed comprehensive engagement with the Nharnuwangga, Wajarri and Ngarlawangga (NWN) People in respect of the Land Access Deed for the Old Highway Project in Western Australia. As Sandfire's exploration activities have continually expanded into the NWN Determination Area, we have continued to forge a close working relationship with the NWN People. Our positive relationship continued to develop throughout the year as Sandfire and the NWN People worked collaboratively to agree on mutually beneficial terms for the Old Highway Land Access Deed that will provide lasting social and economic benefits for the NWN People.

Our ongoing engagement culminated with the terms of the Deed being finalised on a mutually acceptable basis that provides the NWN People with future employment, training, education and contracting opportunities, together with production-based royalties for mining activities. The Deed will also form a strong foundation for future engagement and the protection of cultural values of the NWN People through agreed measures such as cultural awareness training and heritage protection procedures.

As part of the development of the Motheo Copper Mine, Sandfire has undertaken several programs to provide support for local indigenous groups. This year Sandfire has undertaken a community development project which included the construction on a package of community infrastructure in Kuke village, Botswana. This included solar-powered streetlights, a guest house and community food garden. In August 2022, Motheo was employing 30 residents of D'kar (50km south west) and 44 residents of Kuke (40km north west) in addition to 206 residents of Ghanzi township (80km south) which is home to a variety of land-connected peoples.

In addition, Sandfire completed an ecosystem services assessment for the A4 expansion study which examined impacts on traditional peoples' access to bushfoods, medicines and other cultural resources.

## Governance framework

Sandfire's management approach to engaging and collaborating with Indigenous Peoples is governed by our [Community Policy](#), [Our People Policy](#) and [Human Rights Policy](#). These policies demonstrate our commitment to participating in meaningful engagement, respecting heritage and local customs, and valuing diversity of backgrounds and cultures.

These Policies are supported by our HSEC Management System Standards including the External Stakeholder Engagement Standard, Community Investment Standard and Human Rights Standard.

Each of Sandfire's operations comply with the local laws and regulations of the jurisdiction in which they operate. Where laws and regulations addressing the protection of cultural heritage and engagement with Indigenous Peoples is limited, we may consult relevant external recognised standards supplementing our internal standards to assist us meet country specific requirements.

Sandfire will continue to utilise Land Access Agreements, negotiated heritage agreements and develop Heritage Management Plans or Procedures to manage cultural heritage sites and provide opportunities for collaboration including employment, education, and commercial contracts for Indigenous Peoples.

A key component of our HSEC Management System is the Risk and Assurance Management Standard. This standard describes the requirements for Business Units to manage risk, and to ensure that assurance processes are implemented to provide sufficient feedback on the adequacy and effectiveness of controls relating to our engagement with Indigenous Peoples.

## Stakeholder engagement

Sandfire's stakeholder engagement process identifies minority groups who may be affected by our activities which includes any people who identify as indigenous. We seek out these people during our engagement processes as they are often disproportionately represented in community meetings and governance bodies, and often have barriers to participating in traditional methods of engagement. Sandfire utilises a suite of engagement mediums (both written and graphic), translators and trusted community representative bodies to support our engagement approaches and negotiations with indigenous groups.

### Australian Indigenous territories

Sandfire currently has 20 sites which are on or adjacent to Indigenous territories in Australia. The following Agreements are in place for our mining and exploration activities:

- Two Land Access Agreements in WA with the Yugunga-Nya Native Title Claim Group and the Gingirana Native Title Claim Group provide for royalties, employment opportunities, contracting opportunities, scholarships and land access payments.
- One Land Access Deed with the Nharnuwangga Wajarri and Ngarlawangga Native Title Claim Group which is represented by the Jidi Jidi Aboriginal Corporation. This provides for royalties, employment opportunities, contracting opportunities, scholarships, and land access payments.
- One Settlement, Consultation and Heritage Deed with the Nharnuwangga Wajarri and Ngarlawangga Native Title Claim Group which is represented by the Jidi Jidi Aboriginal Corporation. This provides for consultation meetings and heritage surveys.
- Two Heritage Agreements in Queensland with Yulluna Native Title Determination and the Mitakoodi Mayi #5 Native Title Claim Group. These provide for heritage surveys.
- One heritage agreement with the Wajarri Yamatji Native Title Claimant Group (WA). This provides for heritage surveys.
- One heritage agreement with the Gingirana Native Title Claimant Group (WA). This provides for heritage surveys; and
- Six Heritage Agreements with the Yugunga-Nya Native Title Claimant Group (WA). These provide for heritage surveys.

### Botswana

The Ghanzi District has a complex mix of ethnic and cultural groupings. The most diverse population group in the Ghanzi District is the Basarwa (sometimes known as San peoples).

Sandfire engages with all ethnic and cultural groups through the Kgotla traditional decision-making forum that is open to the whole community. During meetings and through follow up after meetings we ensure all language groups have understood key messages and ensure the perspectives of minority groups have been heard.

Data Tables



### Stephen Michael Foundation



Sandfire has partnered with the Stephen Michael Foundation since early 2018, assisting them to deliver sporting and leadership programs to at-risk children and youth in Meekatharra and the surrounding Murchison communities. Our partnership with the Stephen Michael Foundation provides for positive and transformative community outcomes, through increased school attendance, reduction in anti-social behaviour, opportunities to build healthy relationships with Elders and links with culture. At its core, the program aims to build unity and respect, traits which the foundation's patron and WAFL legend, Stephen Michael, has demonstrated throughout his life. Sandfire is proud to be a continued supporter of the Stephen Michael Foundation, allowing the foundation to expand their programs year on year, to reach over 3,000 youth across metro and regional Western Australia.

# Chapter 5: Communities



Sandfire collaborates with its stakeholders to generate enduring socio-economic development in the areas in which we operate. We contribute to the economic development and social wellbeing of the communities through job creation, procuring local goods and services, community investments, and paying taxes and royalties. We seek to build effective relationships by partnering with our stakeholders supporting them to meet their goals and to benefit their communities whilst aligning with Sandfire's values.

## Our performance

<b>Achieved</b> 	Contributed over \$700,000 USD to communities local to our operations	Research and baseline studies for the Motheo ESIA	Implementation of Sustainable Procurement Standard in Botswana
<b>In progress</b> 	Actioning handover strategies for DeGrussa community partnerships as part of mine closure strategy		

## FY2022 progress

Sandfire has conducted significant stakeholder engagement throughout FY2022 to support our community development objectives. Ongoing consultation has been necessary to fully inform the community and our partners of the transition from operations to mine closure for our DeGrussa Copper Mine. An important stage in the transition towards mine closure is an orderly and planned reduction in community activity and community funding. Through many years of community support, Sandfire is confident we are leaving a positive social and community legacy for DeGrussa which has been our flagship operation and will remain as an enduring example of the benefits we have helped our partners to deliver to the communities in which we operate.

Community development and local content programs have been developed and implemented in the communities local to the Motheo Copper Mine. These projects include an infrastructure development, community gardens, water bores and tanks, youth development and local recruitment programs, and local procurement of goods and services. Sandfire intends to continue investing into the communities local to the Motheo Hub and support the community to achieve their medium and long-term development objectives.

## Governance framework

Sandfire's approach to managing community issues is governed by our **Community Policy**. This policy outlines our commitment to engage with communities in a meaningful way, respecting cultural heritage and local customs, investing in strategic community projects, and developing mechanisms for community members to lodge feedback with the company.

Our Community Policy is supported by our HSEC Management System Standards including the Grievance Mechanism Standard, Community Investment Standard, External Stakeholder Engagement Standard, and our Human Rights Standard. Our Standards require management plans to be developed and implemented at operating sites including: a Community Investment Plan which identifies target stakeholders, selection criteria, key program areas and partnership opportunities; and a Stakeholder Engagement Plan identifying stakeholders to be consulted, engagement topics, and the purpose and frequency of engagement. Where significant potential human rights risks have been identified, Business Units, are required to develop and implement a Human Rights Management Plan.

A key component of our HSEC Management System is the Risk and Assurance Management Standard. This standard describes the requirements for Business Units to manage risk, and to ensure that assurance processes are implemented to provide sufficient feedback on the adequacy and effectiveness of controls relating to our engagement with local communities.



## Stakeholder engagement

Sandfire seeks to establish relationships at the earliest stage possible and continue to manage stakeholder expectations throughout the mining lifecycle. We rely on strong and open dialogue with our stakeholders to obtain and maintain our social licence to operate, as well as deliver sustainable benefit to our host communities.

Sandfire's External Stakeholder Engagement Standard details a systematic and comprehensive approach to engaging with host communities, local government authorities, non-governmental institutions and other interested or affected parties. These relationships are managed using stakeholder engagement plans which are a requirement for all Business Units. Stakeholder engagement plans identify key stakeholders, the impact we have on them, known topics of interest, our engagement method and the objectives of engagement. These plans help our teams to address key risks related to projects and plan for transition management, and ensure that stakeholders are kept informed about the topics that are important to them.

Effective stakeholder and community engagement remains critical to our success. Sandfire recognises that due to our global expansion the communities we engage with are increasingly diverse and require a strong understanding of local customs to establish community trust and earn and maintain our social licence to operate. These communities are made up of complex stakeholder networks with different priorities and needs. Sandfire actively engages with a variety of stakeholder groups, including disadvantaged and minority groups, to ensure that engagement outcomes present a fair and accurate representation of the local community.

### Our local communities

Sandfire considers local communities to be those in closest proximity to our operations where our impacts are most significant.

Sandfire's local communities include:

#### Australia

- Perth, Western Australia
- Meekatharra, Western Australia
- Temora, New South Wales

#### Botswana

- Ghanzi District (Ghanzi, Maun and Kuke)

#### Spain

- Huelva Province

#### USA

- White Sulphur Springs, Montana

**Contributed over  
\$700,000 USD to  
communities local  
to our operations**

## Community development

Increasingly, governments and other stakeholders are demanding mining companies play a greater role in promoting sustainable socio-economic development. Local employment, procurement and community investment are common expectations from host communities and are all addressed in Sandfire's community investment plans. Community development activities span all phases of the mining project lifecycle and present different challenges and opportunities.

Our Community Investment Strategy and Community Investment Standard guide Sandfire's community investment decisions throughout each phase of the mining lifecycle and support sustainable development in our local communities. Each region requires a Community Investment Plan which outlines how strategic development initiatives will be identified and implemented, defines objectives, identifies target stakeholder groups, key program areas and key areas of support. The plans are designed in collaboration with the stakeholders and key partners to ensure they are fit for purpose and meet the long-term needs of the community.

Financial dependency can be a potentially negative impact of long-term community investment. Sandfire employs multi-stakeholder partnerships to reduce the risk of creating financial dependency. We also incorporate funding transition planning into our long-term partnership projects to set them up for success beyond the life of our operations in regional areas.



### Community beekeeping initiative

Sandfire supports local community programs that encourage environmental stewardship, conservation practices, and animal welfare. Sandfire's Local Beekeeping Capacity Building initiative is a community program aimed at providing primary school students with the practical experience in inspecting and harvesting beehives in a safe environment. As part of World Bee Day, our team in Botswana recently donated beehives, beekeeping equipment, protective clothing and educational material to the Kgaphamadi Primary School Special Educational Unit, with the aim of assisting students in learning the foundations of sustainable beekeeping.

## Voluntary community investment

Details of funding recipients are provided on our operations websites.

**Table 3: Community investment expenditure**

Country	Investment Amount (\$USD)
Australia	\$119,712.09
Botswana	\$207,351.30
Spain	\$194,775.00
USA	\$193,066.98
<b>Total</b>	<b>\$714,905.37</b>

## Local employment and procurement

Sandfire recognises the importance of contributions to economic development through the procurement of local goods and services. Our operations promote the benefits of doing business with Sandfire and demonstrate our commitment to supporting local development.

Sandfire has developed a Sustainable Procurement Standard which will enhance our current approach to working with local businesses. Our Sustainable Procurement Standard will allow our contracting and procurement practices to have more flexibility and provisions to engage with smaller suppliers and contractors. We have worked with local companies at our DeGrussa operation to provide services such as earthworks and labour hire which have proven valuable to local communities.

We are utilising local companies in Ghanzi and broader Botswana where skillsets are available. Sandfire supports the Botswanan Government’s local employment and economic empowerment strategies by supporting local companies through our contracts and offering capacity building programs.

## Economic contribution

A full record of our economic profile can be viewed in our Annual Report.



### Motheo Youth Development Program

In FY2022, Sandfire introduced the Sandfire Youth Development Program (YDP) which provides training and employment opportunities to Youth within our local communities in Botswana. The program represents Sandfire’s commitment to the “Youth Development” focus area within our Motheo Community Investment Plan and supports the Ghanzi District in reducing the unemployment rate within the region.

Each intake of the YDP occurs on a 6-monthly basis and offers three youths the opportunity to work within Exploration, Laboratory, Safety Health and Environment or Procurement for a 12-month period, with the potential to grow into a permanent opportunity with Sandfire. This program offers individuals a tailored development pathway aimed at supporting skill development and future career opportunities.



# Chapter 6: Health and Safety



The health and safety of our people is integral to the success of our business. We strive to create a positive workplace culture in which everyone actively contributes and carries out their work competently in a manner that makes a positive contribution to workforce health and safety.

Inherent in our approach is our philosophy of 'Don't Walk Past' – this means the standard you walk past is the standard you accept. We actively encourage our people to speak up and report workplace hazards and unsafe practices.

## Our performance

<b>Achieved</b> 	Achieved a TRIFR of 3.8	Developed Tshukudu Exploration Health and Safety Management Plan	WA WHS legislation training for Operations and Executive Committee
<b>In progress</b> 	Review and implement Principal Hazard Management Program	Global legal obligation review and mapping	Operations gap analysis against the HSEC Management System

## FY2022 progress

This year, Sandfire has made improvements to the health and safety features of the HSEC Management System to reflect legislative changes and improve guidance to our global operations. Training has been provided to affected supervisors and staff members to ensure that they understand the new requirements. We are currently developing guidance notes which are supplementary to our standards to further assist our operations to meet the requirements of the HSEC Management System. In addition, an Incident and Risk taxonomy evaluation is currently underway to provide a more in-depth trend analysis to inform our Principal Hazard management process. Our Principal Hazard management approach is being reviewed to ensure critical controls are applicable, functioning, and reliable across the business.

Sandfire has continued its vigilant management of COVID-19 to support our business to carry out their duties in safe working environments. Unfortunately, travel restrictions and aversion to high COVID-19 risk environments has delayed some auditing activities for our interstate and international activities. These audits are planned to resume in FY2023.

## Governance framework

Sandfire's [Health and Safety Policy](#) and [Our People Policy](#) govern our approach to managing health, safety and wellbeing across our workforce. These policies are supported by our HSEC management System and Standards including the Health and Hygiene Standard, Incident Management Standard, Risk and Assurance Management Standard, and Competency and Behaviour Standard. Our HSEC Management System Standards are mandatory and apply to everyone who works with us.

Our HSEC Management System provides a systematic approach to setting objectives and targets, planning, measuring performance, continuous improvement, risk management and meeting our legal and other obligations. Sandfire's approach to occupational health and safety, risk management and hazard identification aligns with ISO 45001:2018 – OHS Management Systems and ISO 31000:2018 – Risk Management.

A key component of our HSEC Management System is the Risk and Assurance Management Standard. This standard describes the requirements for Business Units to manage risk, and to ensure that assurance processes are implemented to provide sufficient feedback on the adequacy and effectiveness of controls relating to health and safety risks.

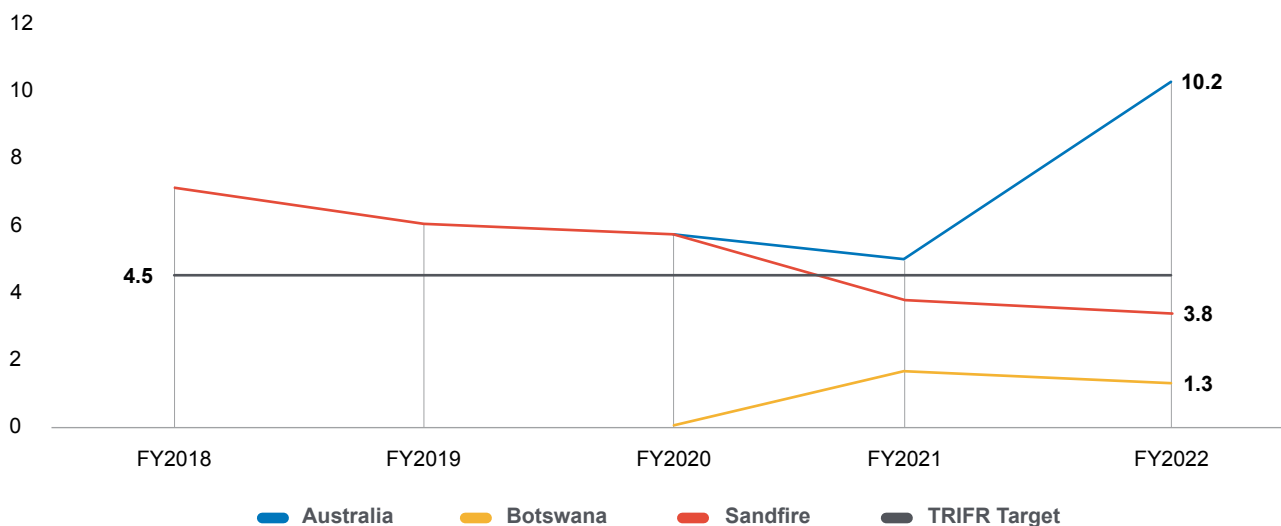


## Incidents and injuries

In FY2022, there were no work-related fatalities, however five high potential incidents (HPIs) occurred during the year. The HPIs involved vehicle rollover, working on energised rotating plant and potential contact with electricity. We continue to review and enhance our safety controls through our investigation process and analysis of contributing factors.

Injuries during FY2022 predominantly consisted of sprains and strains, muscular stress, superficial and minor injuries.

**Figure 1: Total Recordable Injury Frequency Rate (TRIFR) Trends**



## Risk management

Active management of risks within the workplace is integral to protecting our workforce and maintaining a safe workplace. Our health and safety processes are built around preventing fatalities and serious incidents by identifying principal hazards and implementing controls to reduce the risk. Principal hazards are those hazards that have a significant fatality risk. Principal hazard management plans are developed detailing how the hazards will be controlled and reviewed for effectiveness, via our Critical Control Verification (CCV) assurance program.

Incident management is a key component of safety risk management, identifying failures in safety processes and practices. It is a requirement that all safety incidents are reported and investigated to identify root causes, contributing factors and remediation actions to ensure that improvement initiatives are implemented.

**We strive to create a positive culture in which everyone actively contributes and makes a positive contribution to our workforce health and safety.**

## Stakeholder engagement

Everyone who works with us has health and safety obligations not only to themselves but to every other person in the workplace. Communication of these responsibilities is provided during the contract engagement and induction stages when commencing work with Sandfire, and reiterated in our policies, standards, management plans and procedures. Any employee grievances or issues can be reported through our independent third party managed reporting portals (see Employee conduct). Sandfire is also legally obliged to consult with our workforce on work-related health and safety matters to manage risks, maintain a safe workplace, and promote understanding and ownership for their own and others safety. Consultation is undertaken in the form of operation-specific Health and Safety Committees or workgroups, toolbox and pre-start meetings, Job Hazard Assessments (JHAs), risk management processes, health and safety education programs, and our formal grievance processes. Sandfire understands consultation provides opportunities for the workforce to contribute views, practical opinions and information to the decision-making process which drives continuous improvement in our business.

## Training and competency

The Competency and Behaviour Standard defines the minimum requirements for training to ensure that training needs are managed effectively, and all personnel achieve the appropriate levels of competency.

Our training supports our workers to identify and control hazardous situations in their workspace. We ensure our workers are competent in hazard management by providing inductions and regular training sessions. All personnel and visitors that attend our sites must complete a general induction prior to arrival. The general induction includes information about hazard awareness, completing Job Hazard Assessments (JHA), incident reporting, emergency procedures, personal protective equipment requirements, and general health and safety information.



## Health and well-being

We strive to create a workplace culture in which our people are able to bring their best selves to work and take their learnings back to their homes and communities. To achieve this, we have implemented a number of programs focused on health and well-being. These initiatives include community investment programs, participating in educational initiatives, and the extension of our Employee Assistance Program (EAP) service to employee families.

Sandfire continues to encourage employees, contractors and their immediate family members to access to our EAP, a free, professional and confidential service. All employees and their families in USA, Spain and Australia can access the EAP, which provides confidential support and counselling services in relation to work related and non-work-related issues. Consideration will be given to implementation for Botswana as the operational phase of mining begins. We also provide mental health wellness training to our employees every two years, focused on raising awareness of mental health issues in the workplace and imparting strategies to manage mental well-being.

Sandfire conducts an employee survey each year to gather feedback which informs our continuous improvement processes. These surveys include questions about safety in the workplace, training programs, stress levels and overall wellbeing. For more information see Our People: Stakeholder engagement.

To manage risks associated with the health of our people, Sandfire requires all operations to identify and assess risk exposure to workers, establish monitoring programs in compliance with regulatory requirements and maintain the effectiveness of controls. All our operations have qualified personnel undertaking relevant health and wellbeing services which includes but not limited to Medical and Emergency Response Personnel, Air Quality and Ventilation Officers and Infectious Disease Coordinators.

## Health programs

Sandfire is conscious that mining rosters, fly-in, fly-out (FIFO) and drive in, drive out (DIDO) work, and the labour-intensive conditions on operations can be a challenging work environment both personally and professionally. Sandfire provides personnel with opportunities to improve and maintain their health and wellbeing both at work and in their personal time. Sandfire regularly schedules providers to deliver free flu vaccinations and skin cancer screenings, general health screenings, ergonomic assessments, and advertises the availability of the EAP and other health services. We also have systems in place to promote healthy lifestyles and ensure fitness for work. These include having exercise facilities at our operations, working with our catering contractor to provide healthy food choices and nutritional education, and fitness challenges.

## Community health

Our approach to health and safety extends beyond the people who work for us. Sandfire aims to provide support for the communities in which we operate to improve their physical and mental health outcomes. Sandfire participates in several community development activities that contribute to improved outcomes for health and wellbeing in local communities.

Funding health and wellbeing programs is a key focus area for all our Community Investment Strategies. In FY2022, Sandfire spent \$172,053 USD on health-related programs for communities local to our Australian and Botswanan activities. Our investments have supported health services to continue to deliver robust and effective physical and mental health programs.

Data Tables



### Botswana Health and Wellness Day

At Sandfire, we actively promote a healthy lifestyle and mental wellbeing. To achieve this, we have a number of initiatives focused on the health and wellbeing of our workforce and local community. As part of these initiatives, we recently hosted an annual Health and Wellness Day for our Motheo Copper Mine employees.

The event themed 'O shapo' (You Okay) commenced with aerobics sessions led by a local professional trainer, which was then followed by education talks on several topics, including financial literacy, prevention and support for gender-based violence, and the importance of regular screening for the detection of potential health disorders in people who do not have any symptoms.

Dr Musina of Bozogo Private Clinic delivered a message of encouragement to our employees and reiterated the importance of early detection for preventable diseases, and how lifestyle changes can support in reducing the risk.



We strive to create a positive workplace culture which places the health and wellbeing of our employees first and encourage our people to speak up and report unsafe workplace practices.

# Chapter 7: Biodiversity



Sandfire operations are located in a diverse range of habitats on different continents, each with its own unique biodiversity values. The Sandfire Biodiversity Standard provides consistent guidance to our operations on the required approach to biodiversity management. Operating sites are tasked with preparing site-specific management plans and procedures to manage biodiversity in accordance with Sandfire standards and local regulatory requirements.

## Our performance

<b>Achieved</b> 	Detailed Biodiversity Baseline Studies (Flora and Fauna) for the A4 Project	Ecosystems Services Study for the Motheo Hub	Critical Habitat Screening Assessment for the Motheo Hub
<b>In progress</b> 	A4 Environmental and Social Impact Assessment study	Rehabilitation planning for mine closure at DeGrussa and Monty operations	Ongoing six-monthly audits of exploration rehabilitation at drill sites in Botswana

## FY2022 progress

Sandfire has completed several key biodiversity studies related to our operations in Botswana and continues to progress rehabilitation planning for the DeGrussa and Monty operations as they approach the closure phase of the mining lifecycle.

Independent specialist studies for an Environmental and Social Impact Assessment (ESIA) have been completed for the development of the A4 project at the Motheo Hub. This includes specialist flora and fauna surveys and impact assessments. In addition, a Critical Habitat Assessment and an Ecosystems services assessment of the Motheo Hub have been completed.

The DeGrussa and Monty Copper Mines are approaching the end of mine life in late 2022. This year we have refined our biological completion criteria and methodology for assessing the success of rehabilitated sites with an increased focus on remote sensing for the broadscale assessment of landscape rehabilitation performance.

## Governance framework

Sandfire's approach to biodiversity is governed by our **Environmental Policy**. The policy is supported by our HSEC Management System including our Biodiversity Standard which requires each of our operations to develop and implement a Biodiversity Management Plan. These plans articulate mitigation strategies for risks and impacts to features of the natural environment which are identified during environmental impact assessments and related field studies. Our Water Standard and Mine Closure Standards also support biodiversity management during operations and post mine closure.

A key component of our HSEC Management System is the Risk and Assurance Management Standard which describes the requirements for Business Units to manage risk, and to ensure that assurance processes are implemented to provide sufficient feedback on the adequacy and effectiveness of controls related to biodiversity risks.





### ***Eremophila demissa* – a survivor of environmental extremes !**

Whilst undertaking field work for the Old Highway Gold Project near DeGrussa, our environmental team encountered a cryptic native flora species named *Eremophila demissa*.

The species was difficult to identify as it dies off during the extreme heat of Summer, and the distribution of the species was poorly known making it difficult to quantify the impact of our exploration activities.

With assistance from an expert botanist, we undertook a targeted flora survey and found our cryptic species in the extremely hot, dry stony plains surrounding our DeGrussa operations.

Recent rainfall had encouraged flowering, and flowers always make species identification easier. With an initial target to find 1000 plants, we found more than 17,000 *Eremophila demissa* plants in the local area, a great outcome all round.

We have mapped the locations of the plants in our GIS system and advise our exploration teams to avoid these locations to minimise any impacts. The data from our surveys was shared with regulatory agencies furthering the body of public knowledge on *Eremophila demissa*.



## **Stakeholder engagement**

Stakeholder engagement relating to biodiversity at the Motheo Copper Mine has focused on an assessment of ecosystem services at the Motheo Hub. The assessment of ecosystem services is aligned with the IFC Performance Standard 6 which aims to ensure that the benefits from ecosystem services are identified as part of the environmental and social risk and impact identification process. The ecosystems services assessment focused on the requirements of adjacent famers and indigenous farmworkers. A detailed census was undertaken on five farmworker households to (amongst other things) describe their use of natural resources on the farm and establish their degree of reliance on bush foods, herbal remedies and other ecosystem services. This work informed planning with these farmworkers on maintaining access to the same or similar ecosystem services at their new relocated residences away from the mine site.

Throughout 2022 there has been extensive engagement with regulators in Botswana on matters relating to biodiversity impacts and management for Sandfire's exploration activities, A4 Project studies and mine site development and construction at Motheo. A significant part of this engagement is performed by Botswanan registered Independent Environmental Assessment Practitioners who are required to conduct impact assessment studies under the Botswanan environmental regulations.

At the DeGrussa Operations stakeholder engagement has focused on engagement with regulators in relation to Mine Closure planning and rehabilitation at DeGrussa, and engagement with the pastoralists and regulators who play a critical role as long term land managers of the areas surrounding the DeGrussa operation. Regular meetings and engagement with these stakeholders provide valuable input to the mine closure planning, landscape rehabilitation and future use of the DeGrussa area post mine closure.

**Data Tables**



## **Mine Closure Planning**

Mine closure planning at Sandfire commences as early as possible in the project lifecycle. Planning for future mine closure typically starts prior to construction with activities such as planning of vegetation clearing, delineation of biodiversity or cultural avoidance areas, and the harvesting of sufficient and appropriate topsoil and subsoil as growth media for future rehabilitation.

Sandfire's Mine Closure Standard outlines our minimum mine closure requirements, including:

- Closure planning must be integrated into project planning and design from the project feasibility stage,
- Closure plans must be prepared and revised with an increasing degree of specificity as closure approaches,
- Sites at closure must be physically safe, geotechnically stable and non-polluting,
- Closure completion criteria must be developed in consultation with relevant stakeholders,
- Site be capable of sustaining a post mining land use as agreed with relevant stakeholders in accordance with the External Stakeholder Engagement Standard, and
- Cost estimates must be developed, reviewed by finance departments and incorporated into closure provisions.

Being at the closure end of the mining lifecycle, our closure plans for the DeGrussa and Monty Mines have been completed and previously approved by the WA Department of Mines, Industry Regulation and Safety (DMIRS). With closure now imminent, the plans were revised and submitted to DMIRS for approval during FY2022. Approval of the revised closure plans is pending.

The Motheo Preliminary Mine Closure Plan was updated in FY2021. The plan describes at a high level the future activities required for mine closure at Motheo. Importantly the Motheo Closure Plan includes a consideration of future climate change risks and the potential impacts on future closure activities. The Motheo Closure plan will be scheduled for detailed update on a three-year cycle unless there are significant changes impacting closure planning in the interim. The financial provisions for closure are reviewed on a 6 monthly cycle to ensure closure liability estimates are kept up to date.



# Chapter 8: Waste



Waste produced at Sandfire operations includes a range of materials from general accommodation and operations, construction and exploration activities in addition to waste rock and tailings from mineral processing. Our most significant streams of non-hazardous waste include domestic (putrescible materials), glass, plastic, cardboard, ferrous and non-ferrous metals. Hazardous waste generated by our operations includes oil, tyres, grease, batteries and hydrocarbon contaminated waste. We have systems in place to ensure that all hazardous waste is appropriately collected and stored on site, then transported by licensed operators to offsite licensed facilities for reuse or recycling as appropriate.

Tailings is our most significant waste stream and demands specialised management. Sandfire has an established history of excellent tailings management at the DeGrussa Copper Mine. As we expand by acquisitions such as MATSA and construct new facilities such as Motheo, Sandfire expects the highest possible performance from our tailings management facilities at all times. Implementation of our new Tailings Management Standard followed by staged implementation of the Global Industry Standard for Tailings Management (GISTM) requirements will ensure Sandfire continues to manage our most significant waste stream to an exemplary standard.

## Our performance

<b>Achieved</b> 	New HSEC Standards developed for Waste, Waste Rock, and Tailings management	Working group review of the GISTM conformance criteria completed	Recycled 1000 tonnes of steel including 678 tonnes in a single recycling campaign at DeGrussa
<b>In progress</b> 	Audit and assurance activities in relation to standards implementation	Implementation of action plan to meet the requirements of the GISTM	

## FY2022 progress

During FY2022 three new HSEC Management Standards covering Waste Management, Waste Rock and Ore Stockpile Management and Tailings Management were rolled out across all Sandfire business units. During FY2023 compliance and implementation reviews will be implemented to ensure the standards are being implemented and corrective actions are documented for implementation.

Sandfire has continued to progress our alignment with the GISTM. During FY2022, our Tailings Management Working Group completed a gap assessment of Sandfire's management systems against the GISTM conformance criteria. For further details see Global Industry Standard on Tailings Management.

In FY2022 we sustained our well-developed waste collection, separation and recycling efforts at DeGrussa recycling in excess of 1000 tonnes of steel including 678 tonnes in a single recycling campaign. With mine closure imminent, DeGrussa is planning for a large-scale reduction in infrastructure and a corresponding response in the removal and recycling of materials during closure.

Our Botswana operations are working toward improving waste management practices and have implemented designated collection facilities in the accommodation villages, however, the infrastructure and service providers to handle recyclable waste streams in our remote location are limited at present.

## Governance framework

Our approach to waste management is governed by our [Environmental Policy](#). The Policy is supported by our HSEC Management System standards which provide specific requirements for waste management and include the: Waste Management Standard; Waste Rock and Ore Stockpile Management Standard; and Tailings Management Standard, supplemented by our Hazardous Materials Management Standard. Our standards require operating sites to implement a range of management plans including a Waste Management Plan or equivalent to manage all expected Hazardous and Non-Hazardous waste types, a Waste Rock and Ore Stockpile Management Plan to ensure adequate levels of protection for human health, safety, and the environment, and a Tailings Storage Facility operating manual to ensure operational design requirements are met and the facility is operated in accordance with the design intent and regulatory requirements.

Tailings are managed in accordance with approved facility designs and subject to continuous monitoring in addition to annual independent reviews of geotechnical risk and performance. Operational tailings facilities are subject to independent geotechnical review on an annual basis. The DeGrussa facility was subject to an independent inspection on 1 July 2022 finding that the facility is being operated in accordance with design intent and at a high level of compliance with regulatory requirements.

Our Mine Closure Standard addresses the requirement to monitor and manage waste storage structures remaining beyond facility closure. The standard also requires all operating sites to have a Mine Closure Plan in place and sufficient funding to ensure closure activities can be effectively implemented.

A key component of our HSEC Management System is the Risk and Assurance Management Standard which describes the requirements for Business Units to manage risk, and to ensure that assurance processes are implemented to provide sufficient feedback on the adequacy and effectiveness of controls related to waste management.

## Stakeholder engagement

Sandfire engages with local stakeholders, predominantly regulators and local service providers, to manage waste streams and risks associated with waste generation and management. Regular engagement helps to keep our operations informed on any changes to industry or regulatory requirements and assists us to promote sustainable waste management practices.

## Global Industry Standard on Tailings Management

Sandfire supports the intent of the Global Industry Standard on Tailings Management<sup>2</sup> and is committed to adopting the standard at our current and future operations. To commence alignment with the GISTM, Sandfire has established a Tailings Management Working Group comprised of representatives from each of our operations. During FY2022, our Tailings Management Working Group completed a gap assessment of our management systems against the GISTM conformance criteria. The working group has made recommendations that will be progressively implemented. With the acquisition of MATSA, Sandfire now has two active tailings storage facilities in operation. A review of the MATSA tailings storage facilities against the conformance requirements of the GISTM will be completed during FY2023.

Alignment with the GISTM is being progressively implemented and we expect to be in full alignment with the standard by the end of FY2026.

An overview of our existing and planned Tailings Storage Facilities can be found in the FY2021 Sustainability Report.

Data Tables



### Clean up Australia Day at DeGrussa

Clean Up Australia Day is held annually across Australia on the first Sunday in March. The annual event is promoted by Clean Up Australia, a not-for-profit organization that inspires and empowers communities to clean up, fix up and conserve our environment.

This year a team from our DeGrussa operations undertook to clean up two sections of Great Northern Highway near the DeGrussa site entrance. These areas are frequented by travellers stopping for a rest and to make use of the public facilities near Noonyarreena Pool. Over time these areas have become littered with general waste.

Two teams from DeGrussa worked over two 2-hour shifts at each of these sites. Over the 4 hours our team of 20 volunteers collected:

- 250 kg of mixed waste
- 87 kg of scrap metal
- 56 kg of cans/bottles (donated to Yulella Containers for Change)
- 13 kg of timber waste

A total of **406 kg** of waste material was removed from the environment. A fantastic effort from our DeGrussa team underlining our commitment to the local environment outside of our direct operating footprint.

<sup>2</sup> Global Industry Standard on Tailings Management - <https://globaltailingsreview.org/global-industry-standard/>



# Chapter 9: Water



Sustainable water resources are critical for supporting all life on our planet. Sandfire recognises that water is a precious and finite resource which holds significant social, cultural, environmental, and economic value. Sandfire depends on reliable water supplies in all aspects of our business including exploration drilling, construction, mining, mineral processing, dust suppression and for domestic purposes.

Water is a strategic priority for our business. We treat water as a precious resource and take a catchment-based approach to managing surface and groundwater. We aim to collaboratively manage water resources with the communities in which we operate, to mitigate any impacts to the environment and to ensure sustainability of supply to our neighbours and stakeholders.

## Our performance

<b>Achieved</b> 	MAR trial hydrogeological studies and modelling completed	Implementation of the MAR trial EMP	Contaminant fate modelling study completed for Motheo
<b>In progress</b> 	Progression of the Water Stewardship Committee	Ongoing consultation on Make Good Agreements for Motheo	

## FY2022 progress

All our key water initiatives for FY2022 were focused on the Motheo Copper Mine including:

- Managed Aquifer Recharge (MAR) modelling and related studies completed to support a trial of the managed aquifer recharge project at the Motheo site,
- Commencement of the MAR Trial Project to test the aquifer recharge concept and the aquifer recharge modelling,
- Contaminant fate modelling to demonstrate environmental protection from potential sources of pollution at Motheo, and
- Completion of a conceptual study on local community development projects for and innovative and sustainable solution to utilise excess mine dewatering and surplus land acquired adjacent to the Motheo Copper Mine.

## Governance framework

Sandfire's approach to managing water resources is governed by our [Environmental Policy](#) which describes the need to assess water requirements and scarcity in our operating environments, seek water efficiency opportunities, and implement robust systems to ensure water is used responsibly and usage is accounted for.

The Environmental Policy is supported by our HSEC Management System including our Water Standard which outlines the minimum requirements our operations will implement to manage surface and groundwater resources. The Water Standard requires all operations to have a Water Management Plan including a site water balance and ensures operations are responsible for the collection and assurance of all water related monitoring data.

A key component of the HSEC Management System is the Risk and Assurance Management Standard which describes the requirements for Business Units to manage risk, and to ensure that assurance processes are implemented to provide sufficient feedback on the adequacy and effectiveness of controls over water related risks.

## Stakeholder engagement

Sandfire's approach to water management includes extensive stakeholder engagement due to the social, cultural, environmental, and economic values attached to water resources. Stakeholder engagements related to water are documented in our stakeholder engagement system for action tracking and close out where necessary.

Sandfire has completed extensive water baseline studies in all areas in which we operate. Monitoring programmes are in place at all locations and monitoring results are shared with regulators on a regular basis.

Significant local stakeholder engagement relating to water at the Motheo Copper Mine has resulted in the establishment of a local stakeholder led Water Stewardship Committee that will have oversight of all regional groundwater usage and project related groundwater monitoring data. Sandfire has also invested in community development programs to deliver access to potable water sources via bores and water tanks.

Sandfire will continue to engage with our local stakeholders throughout the life of our mines to mitigate and remedy any impacts to water resources attributed to our activities.

**Sandfire recognises that water is a precious and finite resource which holds significant social, cultural, environmental, and economic value.**

## Country profiles

### Australia

The DeGrussa and Monty Copper-Gold Mines in Western Australia are Sandfire's largest water consumers. DeGrussa and Monty are located in an arid environment, experiencing low rainfall and regular droughts. As such, they are classified as having a high overall water risk<sup>3</sup> according to the World Resources Aqueduct Water Risk Atlas, however, they are not subject to water stress due to the low water use in the region.

This risk is managed through the implementation of our HSEC Standards and regular monitoring and review programs. Any excess water that cannot be used is discharged to ephemeral creeks under our Environmental Protection Act licences. The DeGrussa and Monty Mines source water from groundwater aquifers as there is no access to surface water near the mines. Both mines conduct dewatering of fractured rock aquifers to ensure safe mining activities.

Once groundwater enters the ore processing circuit, we efficiently use water by reusing and recycling wherever possible. Water abstraction and dewatering for the DeGrussa and Monty Mines is reviewed monthly, and an Aquifer Review is conducted annually. This information is also submitted to regulators on an annual basis to ensure we align with our permitting and licence requirements.

Our water abstraction and discharge are reported to the WA Department of Water and Environmental Regulation through the Annual Aquifer Review and Annual Environmental Report. Sandfire's water activities are regulated by legislation through operating licences and approvals which have set quality and quantity thresholds.

It is important to note that with imminent closure of DeGrussa and Monty, the water consumption at the DeGrussa processing plant is expected to rapidly decline throughout FY2023.

### Botswana

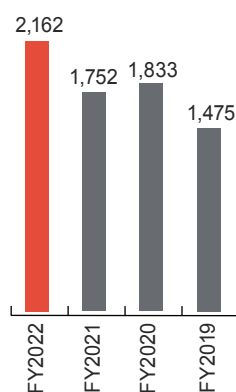
The Motheo Copper Mine is located within the Kalahari Desert, characterised by an arid to semi-arid region with cold dry winters and hot and relatively humid summers. There is no permanent surface water in the area and all Motheo water requirements will be sourced via groundwater aquifers. The area around Motheo is classified as extremely high overall water risk<sup>4</sup> by the World Resources Aqueduct Water Risk Atlas. The Sandfire Water Value Tool places a high value on water in the region due to the environmental and social connection and reliance on water resources to sustain life and livelihoods in the region. Sandfire has continued the development and implementation of water stewardship initiatives in FY2022 to support the development of the Motheo Copper Mine in Botswana.

These initiatives have included:

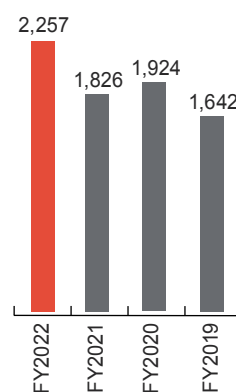
- Comprehensive stakeholder engagement to develop a collaborative approach to water management,
- Commencement of a local stakeholder committee that will have oversight of all regional groundwater usage,
- Developing accurate and complete hydrological models and monitoring records,
- Identifying the cumulative impact of water usage on the catchment area,
- Aligning our impact assessments and management plans with IFC Performance Standards,
- Managed Aquifer Recharge (MAR) modelling and related studies completed to support a trial of the managed aquifer recharge project at the Motheo site,
- Commencement of the MAR Trial Project to test the concept and the aquifer recharge modelling, and
- Completion of a conceptual study on local community development projects for and innovative and sustainable solution to utilise excess mine dewatering and surplus land acquired at the Motheo Copper Mine.

The extensive data collected through hydrological studies, monitoring and stakeholder consultation informs our management approach and the mitigation measures we will employ during the construction and operations at Motheo.

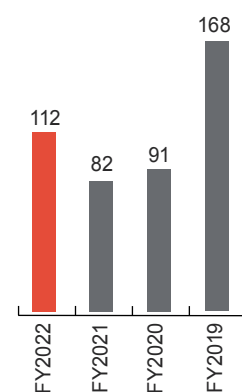
Total water consumption (ML)



Total water withdrawal (ML)



Total water discharge (ML)



<sup>3</sup> DeGrussa and Monty are classified as high risk according to the [World Resources Institute Aqueduct Water Risk Atlas](#).

<sup>4</sup> Motheo is classified as extremely high overall risk according to the [World Resources Institute Aqueduct Water Risk Atlas](#).

## USA

The Black Butte Copper Project is located approximately 27 kms north of White Sulphur Springs in Montana, USA within the Sheep Creek watershed, a tributary of the Smith River. The project area is classified as a low – medium water risk<sup>5</sup> by the World Resources Aqueduct Water Risk Atlas, and water stress is medium – high. Our local stakeholders place a high value on maintaining clean and plentiful water resources.

Sandfire America is committed to protecting the water resources in the water catchment area. Careful management is critical to maintaining water quality and quantity. Montana law, through its Mine Operating Permit structure, mandates that industrial activities cannot degrade water quality nor quantity during the development, operation, closure and reclamation of a mining operation.

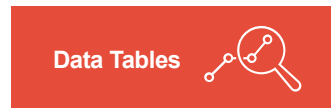
To protect the water quality and quantity, the proposed mine development is designed with the following features:

- All planned openings or entry points to the mine (including air ventilation and escape routes) are located far above the water table to keep water from leaving the mine after closure and mixing with surface water,
- All ground water from the mine and surface run off water from precipitation will be collected, monitored, tested, and treated before being placed back into the ground water system through an underground infiltration system buried 2 metres below the surface. There is zero discharge to surface waters. Water temperature will also be monitored and maintained through this system, and;
- A Reverse Osmosis (RO) water treatment plant will be constructed onsite for treating all waters discharged to the underground infiltration gallery and will remain operational through the reclamation phase of the mining operation.

## Spain

The MATSA Copper Operations are located in the Huelva Province of south-western Spain. The climate is characterised as an arid region with cold, relatively dry winters and hot dry summers. The operational area is classified as medium-high water risk<sup>6</sup> by the World Resources Aqueduct Water Risk Atlas, and water stress is extremely high. Water resources in the region are scarce and effective management of these resources is critical to ensure the long-term sustainability of the resource for our operations and the local community.

MATSA has a very strong focus on water efficiency has been awarded the EsAgua Gold Category for its involvement and commitment to the sustainable use of water resources. In the 2022 reporting period MATSA reported a reduction in the use of freshwater from external sources of 15% for the processing of one ton of ore when compared to the previous year. Achievements of this magnitude demonstrate the water management capabilities that now exist within Sandfire through the MATSA acquisition and Sandfire will be seeking to leverage this knowledge to other areas of the business into the future.



### Black Butte - collaborative water management

Sandfire America continues to work closely with the local community and Government agencies to ensure our water management practices are sustainable. The Meagher County Stewardship Council, established in FY2019, brings together local voices to direct our attention to the issues that matter most to the community. The Council meets monthly with the Sandfire to talk about our activities and the future role of the Council. The Council has broadened their scope from focussing only on water and environmental topics to also considering additional social wellbeing, economic development, and community sustainability. Sandfire and the Council are working toward a Community Benefits Agreement (CBA) which will reflect the values and needs of the community. The CBA will aim for final negotiations by the end of 2022.

<sup>5</sup> Black Butte is classified as low – medium risk according to the [World Resources Institute Aqueduct Water Risk Atlas](#).

<sup>6</sup> MATSA is classified as medium – high risk according to the [World Resources Institute Aqueduct Water Risk Atlas](#).





## Mining Water Living Lab

Sandfire MATSA has participated in a research study that led to the development of a new treatment solution to regenerate and reuse wastewater in mining. MATSA's state of the art facilities now house the first platform for water treatment technological experimentation in the mining sector, the Mining Water Living Lab, which is also supported by renewable energies to drive the recovery of resources and the reuse of process water.



This project, which is co-funded by the European Union's LIFE programme, is coordinated by Cetaqua Barcelona (a Water Technology Centre), in collaboration with the Łukasiewicz-Institute of Non-Ferrous Metals of Poland (IMN), which is responsible for examining the replicability of the process in the mining and metallurgical industry; and the French SME Newheat, which specialises in implementing solar thermal energy projects in industry, which will demonstrate the financial feasibility of using this type of energy in water treatment processes in the mining sector.

The purpose of this platform is to turn the current water treatment process from a linear to a circular economy model, thus allowing more than 90% of the treated water to be recovered for later reuse. A second treatment line will make it possible to recover 70% of the copper and 40% of the zinc in metal-rich acidic streams.

This system is partly powered by solar thermal energy, thus reducing the carbon footprint associated with operating evaporation processes and achieving a more sustainable and lower-cost process.

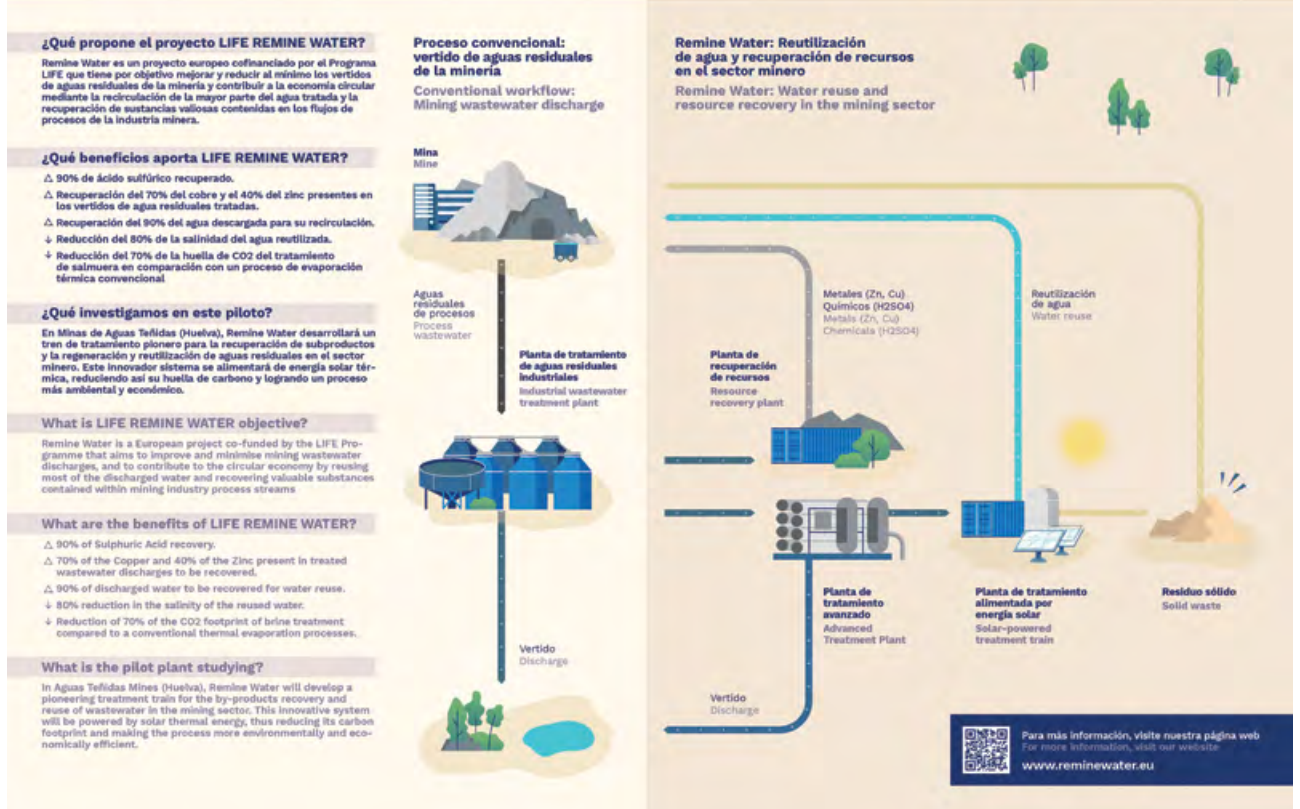
# Nuevas soluciones en la gestión del agua para la industria minera

## New water solutions for the mining industry

LIFE17 ENV/ES/000315

Presupuesto: 2.770.781€ (60% financiado por la UE)  
Duración: 48 meses (2018-2022)  
Socios del proyecto: CETAQUA, Sandfire matsa, Subterranos, newheat

Budget: 2.770.781€ (60% EU funding)  
Duration: 48 months (2018-2022)  
Project partners:



# Chapter 10: Climate Change





Sandfire recognises that climate change is a shared global challenge that requires collective action between business, government and society. Sandfire supports the move to a low emission economy to reduce the scale of future climate change impacts and avoid increasing their severity. This, coupled with the world's increasing requirements for secure, affordable energy, creates significant challenges which are best met by companies, governments and society working together. Sandfire views copper as a critical input to enabling the low emission economy of the future. Our positioning as a leader in copper production and exploration, places Sandfire at the forefront of delivering this key commodity. The challenge for Sandfire is to increase copper production whilst reducing emissions across different operating jurisdictions with variable inputs, variable energy market diversity, and variable and complex regulatory requirements.

Sandfire is committed to acting on climate change and in FY2022 has set the following targets for our business:

- A commitment to a company-wide net zero by 2050 target, covering Scope 1 and 2 emissions for all sites under operational control, and
- A commitment to an interim company-wide renewable electricity target of 50% by 2030.

Planning to achieve these targets is underway and Sandfire will report on progress in future sustainability reports.

## Our performance

<b>Achieved</b> 	Reviewing emissions baseline options for our activities and modelling business-as-usual trajectories	Completed qualitative scenario analysis in line with the TCFD recommendations	Established a net zero target and an interim renewable electricity target
<b>In progress</b> 	Development of operational strategies to meet our net zero emissions commitment and our interim renewable electricity target	Conducting feasibility studies for renewable energy facilities	Undertaking a Scope 3 emission materiality assessment

## Taskforce for Climate-related Financial Disclosures

In 2017, the Task Force on Climate-related Financial Disclosures (TCFD) released a set of 11 recommendations to assist organisations to further their understanding and transparent disclosure of the impacts of climate change on their value chain, with the ultimate aim of maturing management practices, allocation of capital and long-term strategies.

In FY2022 Sandfire continued to progress the implementation of the TCFD framework through the following activities:

- Ongoing studies supporting the development of a long-term net zero target and an interim target aligned with our business strategy,
- Incorporating climate change into our enterprise risk assessments,
- Undertaking qualitative scenario analysis for our operations under three divergent scenarios (refer to section Climate Change Response below),
- Reviewing emissions base options for our activities and modelling business-as-usual trajectories,
- Commissioning the development of a Scope 3 emission materiality and data collection framework, and
- Initial identification of emission reduction opportunities which may be incorporated into operational action plans.

In accordance with previous commitments Sandfire will continue to work towards alignment with the TCFD recommendations by the end of FY2024.

## Governance framework

Sandfire's approach to climate change is governed by our [Environmental Policy](#) which requires us to seek energy efficiency opportunities including renewable energy technology to reduce greenhouse gas emissions, assess climate change risk and opportunities and develop a climate change strategy to help guide the business through the global transition to a low emissions future. This policy is supported by HSEC Management System which includes our Energy and Greenhouse Gas Standard.

A key component of the HSEC Management System is the Risk and Assurance Management Standard which describes the requirements for Business Units to manage risk, and to ensure that assurance processes are implemented to provide sufficient feedback on the adequacy and effectiveness of controls related to climate change risk.

Sandfire's Board has ultimate responsibility and oversight for climate-related activities. This includes:

- Reviewing and endorsing our Environmental Policy,
- Reviewing and endorsing public disclosure of climate-related information, and
- Reviewing and endorsing the Sustainability Strategy and public climate-related targets and goals.

Sandfire has a Risk Committee which maintains oversight of the company's most material ESG topics (both opportunities and risks) and provides feedback and recommendations to the Board. The Risk Committee's Charter can be viewed on our [website](#).

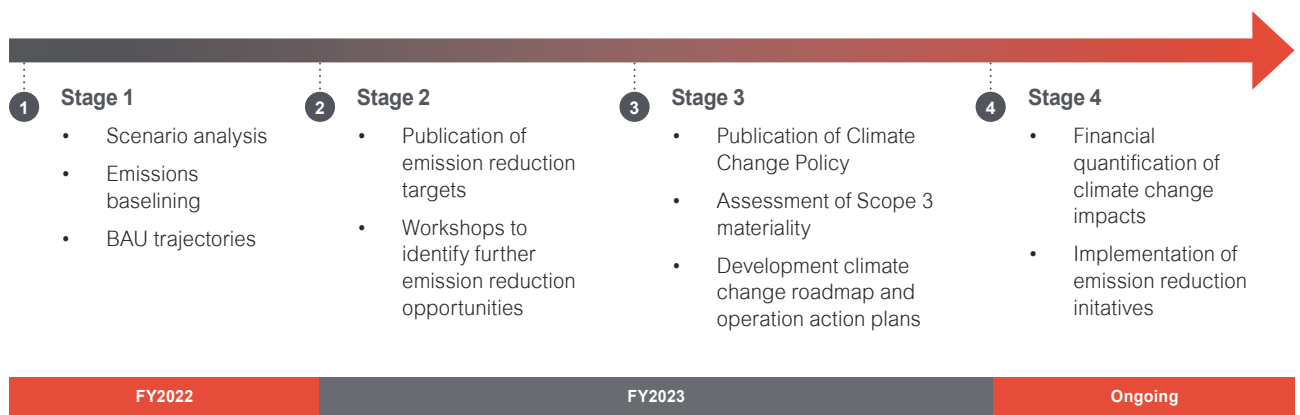
Our Executive Committee is directly accountable to the Board and the Risk and Sustainability Committee on all ESG matters and are responsible for ensuring ESG KPI's are met to achieve our Sustainability Strategy.

## Climate Change Response

Responding to climate change remains one of the six pillars in Sandfire's ESG framework. A public policy on climate change based on our climate change targets is in development and will be published in FY2023. Sandfire has completed the following activities in FY2022:

- Development of a group wide emission reduction target,
- Development of a group wide renewable energy target,
- Conducting business-as-usual (BAU) emission modelling,
- Conducting qualitative climate change scenario analysis, and
- Reviewing emissions baseline options.

Looking forward, early FY2023 will include a materiality analysis of Scope 3 emissions and a series of workshops to identify emission reduction opportunities.



## Understanding risks and opportunities

Sandfire recognises that the physical and transition risks presented by climate change may affect our assets, productivity, the markets in which we sell our products, and the communities in which we operate. The work undertaken in FY2022 has supported Sandfire's risk management process by identifying additional enterprise risks associated with the physical impacts of climate change, operational emissions reduction, and challenges due to local contexts. A summary of these risks is provided under Enterprise risks.

### Transition risks

Transition risks arise from a variety of policy, regulatory, legal, technological, and market responses to the challenges posed by climate change and the transition to a lower carbon economy. Sandfire's key transition risks include maintaining social licence to operate in the face of activism and changing stakeholder expectations, responding to legislative requirements in multiple jurisdictions, and staying market competitive by adopting new technologies and seizing opportunities to deliver a low emission product.

### Physical risks

Risks related to the physical impacts of climate change include acute risks resulting from increased severity of extreme weather events and chronic risks resulting from longer-term changes in climate patterns. Sandfire's key physical risks include operational and supply chain interruptions, maintaining safe working conditions for our workforce, and short-term growth of our emissions profile as a result of new projects.

### Opportunities

Sandfire understands that our climate change response should present upside opportunities for our business beyond emissions reduction. These may include cost savings, improved resource efficiency and delivery of a recognised low emission product that may command a price premium. Sandfire is currently assessing opportunities to reduce emissions through renewable energy feasibility studies. The potential for renewable energy generation is substantial due to the geographical positioning of our operations and their exposure to favourable climatic conditions. The additional opportunity linked to self-managed renewable energy generation is guaranteeing the security of supply in the event of any future energy shortages.

## Scenario analysis

Sandfire's response to climate change impacts and the decarbonisation of our business considers three of the Representative Concentration Pathways (RCPs)<sup>7</sup> under three Shared Socioeconomic Pathways (SSPs)<sup>8</sup>. Three scenarios have been chosen based on their relevance to our business to support our development of a robust response to climate change regardless of the geopolitical, socioeconomic, and market driven circumstances we may operate in. Sandfire undertook qualitative scenario analysis against these pathways in FY2021. However, due to the substantial changes to our business portfolio in FY2022, Sandfire will undertake further qualitative and quantitative scenario analysis periodically to ensure that the analysis accurately represents our growing business. We will use the opportunity to update the underlying climate data to align with the latest science from the IPCC (Sixth Assessment Report). Sandfire is aware that the climate-projections are more severe under the Sixth Assessment Report and these changes will be reflected in future disclosures.

The scenarios underlying Sandfire's analysis are summarised below:

**Green Growth:** Global coordinated efforts to reduce emissions by utilising policy orientated towards climate outcomes, circular economy principles, energy and resource efficiency solutions, and advancement of technology solutions. Global action limits the average global temperature increase to 1.5°C to 2°C by 2100. Green Growth is the most ambitious mitigation scenario in which Sandfire could find itself operating in on a country or global level. This scenario has high transition risk and has supported the analysis of how our business may operate in highly regulated environments with elevated environmental scrutiny.

**Market Rivalries:** Fragmented approach to reducing emissions which focuses on national security, increasing severity of competition for resources, slow development of decarbonisation technology, and increasing concerns over food, energy and information security. This results in an average global temperature increase of 2°C to 3°C by 2100. Market Rivalries presents a scenario in which Sandfire may find itself in highly competitive operating conditions which are disrupted by supply chain and resourcing issues, conflict over collective resources and community interests, difficulties meeting regulatory requirements due to cost of subpar technology and mitigation efforts, and market volatility.

**Growth at a Cost:** Limited endeavours to reduce emissions, ineffective climate policies, material and energy intensive consumption, and competition leads to rapid innovation focussed on enhancement of lifestyles and social development. The average global temperature rises to above 4°C by 2100. Growth at a Cost presents a scenario in which environmental conditions become unsafe for communities and our workforce, labour retention becomes difficult due to poaching of employees, and shareholders push for high returns.

	SSP1	SSP3	SSP5
RCP (>4 °C warming)	8.5		Growth at a Cost
RCP (2-3 °C warming)	4.5	Market Rivalries	
RCP (<2 °C warming)	2.6	Green Growth	

## Risk management

Sandfire aims to mitigate and adapt to climate-related risks to protect our people, operations and local communities from their adverse effects. Sandfire maintains a consistent approach to risk management through our **Risk Management Policy**. Sandfire is committed to managing and minimising risk by proactively and systematically identifying, analysing, evaluating, and treating exposures that could potentially impact our business. Risk management forms part of Sandfire's line management and operational responsibilities and is integrated into the strategic and business planning processes. Climate change considerations have been incorporated into Sandfire's existing risk management process to ensure it is evaluated and assessed with the same rigour as all other business risks.

Our Risk and Assurance Management Standard and Crisis and Emergency Management Standard support our people in identifying, managing, and responding to risks in both minor and catastrophic circumstances. The processes outlined in these standards will be implemented when addressing climate-related risks at a local and enterprise level.

To help inform our understanding of climate-related risk and opportunity, Sandfire undertakes stakeholder engagement to identify and assess the impact and likelihood of these on local communities. Sandfire conducts interviews with our stakeholders annually through our materiality process to determine what our stakeholders perceive as being short, medium, and long-term risks to the business and our local communities. We engage with local communities, industry groups, analysts, investors, and regulators throughout this process.

Sandfire understands that risks and opportunities will arise over different or multiple time horizons. Identifying the time horizon in which a risk or opportunity will occur helps us to develop our strategy and prioritise our responses.

























































<sup>7</sup> IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.

<sup>8</sup> As described in O'Neill et al. (2015) The roads ahead: Narratives for shared socioeconomic pathways describing world futures in the 21st century. *Global Environmental Change*; and SSP database v2.0 hosted by the IASA Energy Program at <https://tntcat.iiasa.ac.at/SspDb>.

## Enterprise risks

In FY2022, Sandfire undertook enterprise risk assessments that considered the impacts of climate change from a global perspective. The risks listed below have been updated to reflect the outcomes of those risk assessments.

Classification	Actual and potential risks and impacts	Transitional or Physical	Time Horizon
Policy	<b>Sandfire's Climate Change Policy</b> - Integration of the Climate Change Policy and decarbonisation strategy will result in some changes to operational plans and business priorities.		 
	<b>Carbon Taxes</b> - Carbon pricing including carbon tax, cap and trade systems and any other regulatory carbon pricing mechanisms which may result in increased costs.		 
Legal	<b>Operating in New Jurisdictions</b> - Adapting to new legal and regulatory requirements for the management and disclosure of climate-related topics.		
Reputation	<b>Shareholder Divestment</b> - Loss of shareholder confidence in the Company's ability to address climate change resulting in divestment activity.		 
	<b>Activism</b> - Communities and workforce advocating for more proactive climate responses resulting in disruption of business activities.		 
	<b>Social Licence to Operate</b> - Unmet expectations of stakeholders and communities on climate action resulting in the loss of social licence to operate. These tensions may arise after a climate-related disaster or prolonged exposure to the negative impacts of climate change.		 
	<b>Misinterpreted Climate Commitments</b> - Redistribution of the Company's climate commitments without the supporting methodology may result in misinterpretation of the robustness of the commitments.		
Shareholder action	<b>ESG Disclosure Scrutiny</b> - Shareholders attention on companies' disclosure, responsiveness, and lobbying activities. Shareholders could divest if the Company is perceived as being vague or dishonest in its response to climate change. This could lead to loss of financial capabilities.		 
Technology	<b>Integration of New Technology</b> - Difficulties in integrating new technology with existing systems – and the cost and unproven nature of new technology – could reduce productivity and margins.		 
	<b>Disruptive Innovation</b> - Risks associated with the disruptive nature of new technologies, which may change demand for our products.		 
Market changes	<b>Commodity Demands</b> - The supply and demand for our commodities may change as technology changes and consumer demands shift.		 
	<b>Business Growth</b> - Reducing emissions to meet our commitments will require all new projects and acquisitions to be 'net zero' compatible.		 
	<b>'Green' Products</b> - Demand for responsibly sourced products including those with a low emissions profile throughout the supply chain.		 
	<b>Resource Availability</b> - Availability and price of resources, technology, and expertise to support our operations to reduce emissions.		  
Environmental	<b>Short-term Growth of Emissions Profile</b> - The development of the Motheo Copper Mine and integration of the MATSA Mining Complex will result in the Company's emissions growing in the short-term.		
	<b>Delays and Interruptions</b> - Extreme weather events (e.g. bushfires, cyclones, flooding and droughts) may lead to production and logistics delays.		  
	<b>Unsafe Working Conditions</b> - Drought, heat extremes or unseasonal weather variability could contribute to worker ill-health or unsafe working conditions.		  
	<b>Mine Closure Liabilities</b> - The physical impact of climate change has the potential to increase closure liabilities.		 
	<b>Insurance</b> - Impacts to the price or availability of insurance due to the likelihood and velocity of extreme weather.		 
	<b>Shared Resources</b> - Conflict over access to shared resources (including water, electricity, food, fuel) during a climate-related event or prolonged exposure to climate hazards.		  

### Transitional or Physical Legend

Transitional  Physical 

### Time Horizon Legend

Short  Medium  Long 

## Metrics and targets

### Our GHG metrics

Scope 1 emissions are direct emissions from our operations. Scope 2 emissions are indirect emissions from the generation of electricity purchased from suppliers. Scope 3 emissions are all other indirect emissions from our value chain, occurring both upstream and downstream. Developing a full GHG emissions inventory will enable us to focus our emission reduction efforts on the most material emissions sources.

Sandfire's Australian emissions inventory for scope 1 and 2 GHG emissions at DeGrussa are calculated in accordance with the Australian National Greenhouse and Energy Reporting (NGER) Act (2007) guidelines. Similarly, the emissions inventory for the Motheo Copper Mine have been calculated in accordance the NGER Guidelines.

In FY2023 Sandfire will progress a materiality assessment of our Scope 3 emissions as a first step in understanding the nature of these emissions across our operating sites. In addition, the emissions for a full year of MATSA Operations will be included in the FY2023 Sustainability Report.

See the tables below for our emissions data.

### Developing our targets

Sandfire's approach to target setting reflects our existing operations, growth aspirations and the increasing projected demand for our commodities, in particular copper concentrate. Sandfire recognises the need to sustainably increase production and bring new projects online in support of the accelerating global demand for low emission technologies, while minimising GHG emissions associated with mining and mineral processing.

We have calculated our scope 1 and 2 emissions across all sites under our operational control and developed a business-as-usual trajectory to understand our emissions profile across the life of the assets. The business-as-usual trajectory accounts for Sandfire's Australian operation, MATSA operation, and ramp up of the Motheo operations.

We have completed an in-depth review of different types of emissions targets and their suitability in meeting our internal and external stakeholder needs. Opportunities exist in some of the markets we operate in to reduce our scope 2 emissions through purchasing renewable electricity. Therefore, Sandfire has committed to an interim target of 50% renewable electricity across our operations by 2030 to capitalise on this opportunity.

Scope 1 emissions are more challenging to abate. At present Sandfire is focused on identifying emission reduction options and technical solutions by working closely with our operations teams, suppliers, and industry groups. Some of the technologies needed to sustainably replace fossil fuels are not yet mature or commercially available. In light of this Sandfire has committed to achieving **net zero for all scope 1 and 2 emissions, no later than 2050**.

### Emissions reporting

Sandfire will continue to provide disclosure regarding progress on climate-related initiatives in our annual Sustainability Reports and on our website.

**Table 4: Emissions<sup>9</sup>**

	FY2022	FY2021	FY2020	FY2019	FY2018
Scope 1 emissions (tonnes of CO <sub>2</sub> -e)	96,835	86,344	97,426	89,053	84,902
Scope 2 emissions (tonnes of CO <sub>2</sub> -e)	92	75	80	71	129
Sandfire's Energy consumption (GJ)	1,463,684	1,320,179	1,463,486	1,358,306	1,284,899
Carbon emissions abated through solar (tonnes of CO <sub>2</sub> -e)	14,117	14,585	12,098	14,727	12,959
Percentage of electricity produced by renewable sources	14.6%	16.8%	12.4%	16.5%	15.2%

Data Tables



<sup>9</sup> The approach for calculating emissions includes those under operational control.

Sandfire recognises the need to sustainably increase production and bring new projects online in support of the accelerating global demand for low emission technologies, **while minimising GHG emissions associated with mining and mineral processing.**



# Appendix A - Glossary

Term	Definition
Employees	All people directly employed by Sandfire wherever they are located in the world.
Executive Committee (ExCo)	Chief Executive Officer, Chief Financial Officer and Chief Operations Officer.
Group Management Team (GMT)	Comprised of the following members; Chief Executive Officer, Chief Operating Officer, Chief Financial Officer, and Chief Exploration and Business Development Officer.
Human rights	The human rights most relevant for our operations are related to workplace safety, labour conditions, and the rights of Native Title Groups and communities where we have an impact.
Lost time injury (LTI)	An injury which results in the person being declared (by a medical practitioner) as being unfit to perform their normal duties for a shift, after the shift in which the injuries were sustained.
Lost time injury frequency rate (LTIFR)	The total number of lost time injuries (for the 12 month period/ total hours worked for the 12 month period) multiplied by 1,000,000 hours.
Modern slavery	Modern slavery includes serious human exploitation such as human trafficking, slavery, servitude, forced marriage, forced labour, debt bondage, the worst forms of child labour, and deceptive recruiting for labour or services.
Native Title	The communal, group or individual rights and interests of Aboriginal peoples and Torres Strait Islanders in relation to land and waters, possessed under traditional law and custom, by which those people have a connection with an area which is recognised under Australian law (s 223 NTA).
Native title claim group	Indigenous party who have made an application for the legal recognition of native title rights and interests held by Indigenous Australians.
Native title determination group	Indigenous party whose right to native title has been established by an Australian court or other recognised body.
Permanent contractor	Contractors with a fixed term contract and staff on rosters.
Principal hazard	Principal hazards are potential fatality risks. Our principal hazards include: confined space; dropped loads or objects; electrical hazards; inundation or inrush of substance; rotating equipment; explosions; fall from height; working alone; fire; vehicle interaction; fall of ground; and structural failure.
Recordable injury	The combination of fatalities, lost time injuries, restricted work injuries and medically treated injuries.
Significant near miss	An unplanned event that did not result in significant injury, illness or damage, but had the potential to do so. Significant is defined as having an actual or potential risk rating of > 18 in Sandfire's Risk Matrix.
Tailings	Tailings are finely ground rock and mineral waste products of mineral processing operations.
Tailings storage facility (TSF)	Purpose built facility to store tailing for the life of mine.
Total recordable injury frequency rate (TRIFR)	The total number of recordable injuries (for the 12 month period/ total hours worked for the 12 month period) multiplied by 1,000,000 hours.
UN Guiding Principles	The United Nations Guiding Principles are a set of guidelines for States and companies to prevent, address and remedy human rights abuses committed in business operations.
Waste Rock	Waste rock is material that contains no mineralisation or minerals in concentration considered too low to be extracted at a profit.
Workforce	All employees and contractors working on any Sandfire operation in the world.



## Appendix B - GRI Content Index

GRI Standard	Disclosure	Reference or response	Omissions	Reason for omissions	Assured (y/n)	Reference (page)
<b>GRI 102: General Disclosures</b>						
102-1	Name of the organisation	Sandfire Resources Ltd			Y	-
102-2	Primary brands, products and services	Exploration and mining company extracting precious metals			Y	-
102-3	Location of headquarters	<a href="https://www.sandfire.com.au/contact/">https://www.sandfire.com.au/contact/</a>			Y	-
102-4	Location of operations	<a href="https://www.sandfire.com.au/where-we-operate/">https://www.sandfire.com.au/where-we-operate/</a>			Y	-
102-5	Ownership and legal form	Sandfire Resources Limited is an international and diversified sustainable mining company which is listed on the Australian Securities Exchange (ASX:SFR).			Y	-
102-6	Markets served	Business overview <a href="https://www.sandfire.com.au/where-we-operate/">https://www.sandfire.com.au/where-we-operate/</a>			Y	-
102-7	Scale of the organisation	Financial Report Data tables			Y	-
102-8	Information on employees and other workers	Our People			Y	24
102-9	Supply chain	Our Approach to Sustainability			Y	6
102-10	Significant changes to the organisation and its supply chain	Our supply chain <a href="https://www.sandfire.com.au/investor/asx-announcements/">https://www.sandfire.com.au/investor/asx-announcements/</a>			Y	18
102-11	Adoption of the precautionary approach	Refer to our initiatives within each of our material topics.			Y	-
102-12	External initiatives	Sandfire aligns with the International Organisation for Standardization (ISO) where appropriate and is improving its alignment with the Taskforce for Climate-related Financial Disclosures (TCFD), Global Industry Standard on Tailings Management, and International Finance Corporation's (IFC) Performance Standards.			Y	-
102-13	Memberships of associations	Sandfire is an active member of the Association of Mining and Exploration Companies (AMEC) and has representatives on the Environment and Water Committee, the Safety Committee and the Aboriginal Affairs Committee.			Y	-
102-14	Statement from senior decision maker	Chair's Introduction			Y	10
102-16	Values, code of conduct and code of ethics	<a href="https://www.sandfire.com.au/about-sandfire/our-purpose-and-values/">https://www.sandfire.com.au/about-sandfire/our-purpose-and-values/</a>			Y	-
102-18	Governance structure	<a href="https://www.sandfire.com.au/site/About/corporate-governance">https://www.sandfire.com.au/site/About/corporate-governance</a>			Y	-
102-40	Stakeholder groups engaged	Appendix C: Stakeholder Matrix			Y	62
102-41	Collective bargaining agreements	All employees are employed on individual contracts in line with national Employment Standards. Sandfire MATSA has collective bargaining agreements.			Y	-
102-42	Identifying and selecting stakeholder groups	Appendix C: Stakeholder Matrix			Y	62
102-43	Approach to stakeholder engagement	Communities: Stakeholder engagement			Y	35

# Appendix B - GRI Content Index

GRI Standard	Disclosure	Reference or response	Omissions	Reason for omissions	Assured (y/n)	Reference (page)
<b>GRI 102: General Disclosures (continued)</b>						
102-44	Key topics and concerns raised	Appendix C: Stakeholder Matrix			Y	62
102-45	Entities included in the consolidated financial statements	<a href="#">Financial Report</a>			Y	-
102-46	Defining report content and topic boundaries	Materiality: Material topics			Y	20
102-47	List of material topics	Materiality: Material topics			Y	21
102-48	Restatements of information	Materiality: Restatements			Y	20
102-49	Changes in reporting	Our approach to sustainability: Reporting boundaries			Y	8
102-50	Reporting period	01 July 2021 - 30 June 2022			Y	-
102-51	Date of most recent previous report	8-Oct-21			Y	-
102-52	Reporting cycle	Annual			Y	-
102-53	Contact point for questions	<a href="mailto:Sustainability@sandfire.com.au">Sustainability@sandfire.com.au</a>			Y	-
102-54	Claims of reporting in accordance with the GRI Standards	Reporting			Y	8
102-55	GRI content index	Appendix B			-	53
102-56	External assurance	Appendix D: Assurance Statement			-	64
<b>Material Topic - Our People</b>						
<b>401: Employment</b>						
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Our People		Y	24
	103-2	The management approach and its components	Our People: Governance framework		Y	24
	103-3	Evaluation of the management approach	Our People: Governance framework		Y	24
GRI 401: Employment	401-1	New employee hires and employee turnover	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y
<b>402: Labour/Management Relations</b>						
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Our People		N	24
	103-2	The management approach and its components	Our People: Governance framework		N	24
	103-3	Evaluation of the management approach	Our People: Governance framework		N	24
GRI 402: Labour/Management Relations	402-1	Minimum notice periods regarding operational changes	Data Tables		N	
<b>404: Training and Education</b>						
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Our People: Training and education		Y	25
	103-2	The management approach and its components	Our People: Training and education		Y	25
	103-3	Evaluation of the management approach	Our People: Training and education		Y	25
GRI 404: Training and Education	404-1	Average hours of training per year per employee	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y
	404-3	Percentage of employees receiving regular performance and career development reviews	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y

## Appendix B - GRI Content Index

GRI Standard	Disclosure	Reference or response	Omissions	Reason for omissions	Assured (y/n)	Reference (page)
<b>Material Topic - Our People (continued)</b>						
405: Diversity						
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Our People: Diversity		Y	25
	103-2	The management approach and its components	Our People: Diversity		Y	25
	103-3	Evaluation of the management approach	Our People: Diversity		Y	25
GRI 405: Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	<a href="https://www.sandfire.com.au/about-sandfire/corporate-governance/">https://www.sandfire.com.au/about-sandfire/corporate-governance/</a> Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y
	405-2	Ratio of basic salary and remuneration of women to men	Data Tables	Ratio of remuneration omitted for all operations	Data unavailable at time of assurance	Y
406: Non-discrimination						
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Our People: Employee conduct		N	24
	103-2	The management approach and its components	Our People: Employee conduct		N	24
	103-3	Evaluation of the management approach	Our People: Employee conduct		N	24
GRI 406: Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	Data Tables		N	
<b>Material Topic - Business Integrity</b>						
205: Anti-corruption						
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Business Integrity: Anti-corruption		Y	28
	103-2	The management approach and its components	Business Integrity: Anti-corruption		Y	28
	103-3	Evaluation of the management approach	Business Integrity: Anti-corruption		Y	28
GRI 205: Anti corruption	205-2	Communication and training about anti-corruption policies and procedures			Y	
<b>Material Topic - Human Rights</b>						
412: Human Rights Assessment						
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Human Rights		Y	30
	103-2	The management approach and its components	Human Rights: Governance framework		Y	30
	103-3	Evaluation of the management approach	Human Rights: Governance framework		Y	30
GRI 412: Human Rights Assessment	412-1	Operations that have been subject to human rights reviews or impact assessments	Human Rights: FY2022 progress		Y	30
	412-2	Employee training on human rights policies or procedures	Data Tables		N/A	
Sector Specific Disclosures						
Sector Specific Disclosure	MM9	Sites where resettlements took place, number of households, and how their livelihoods have been affected	Human Rights: Resettlement		N	31

# Appendix B - GRI Content Index

GRI Standard	Disclosure	Reference or response	Omissions	Reason for omissions	Assured (y/n)	Reference (page)	
<b>Material Topic - Indigenous Peoples</b>							
411: Rights of Indigenous Peoples							
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Indigenous Peoples		Y	32	
	103-2	The management approach and its components	Indigenous Peoples: Governance framework		Y	32	
	103-3	Evaluation of the management approach	Indigenous Peoples: Governance framework		Y	32	
GRI 411: Rights of Indigenous People	411-1	Incidents of violations involving rights of Indigenous peoples	Data tables		Y	-	
Sector Specific Disclosure	MM5	Total number of operations taking place in or adjacent to Indigenous people's territories	Indigenous Peoples: Stakeholder Engagement		Y	33	
<b>Material Topic - Communities</b>							
413: Local Communities							
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Communities		Y	34	
	103-2	The management approach and its components	Communities: Governance framework		Y	34	
	103-3	Evaluation of the management approach	Communities: Governance framework		Y	34	
GRI 413: Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	Communities: Governance framework		Y	34	
	413-2	Operations with significant actual and potential negative impacts on local communities	Communities: Our local communities		N	35	
202: Market Presence							
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Communities: Community development Communities: Local employment and procurement		Y	35-36	
	103-2	The management approach and its components	Communities: Community development Communities: Local employment and procurement		Y	35-36	
	103-3	Evaluation of the management approach	Communities: Community development Communities: Local employment and procurement		Y	35-36	
GRI 202: Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
	202-2	Proportion of senior management hired from the local community	Data Tables			Y	-

## Appendix B - GRI Content Index

GRI Standard	Disclosure	Reference or response	Omissions	Reason for omissions	Assured (y/n)	Reference (page)	
<b>Material Topic - Health And Safety</b>							
403: Occupational Health and Safety							
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Health and safety		Y	37	
	103-2	The management approach and its components	Health and safety: Governance framework		Y	37	
	103-3	Evaluation of the management approach	Health and safety: Governance framework		Y	37	
GRI 403: Occupational Health and Safety	403-8	Workers covered by an occupational health and safety management system	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
	403-9	Work-related injuries	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
	403-10	Work-related ill-health	Data Tables	Botswana data omitted from assurance	Data management process unassurable	N	-
<b>Material Topic - Biodiversity</b>							
304: Biodiversity							
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Biodiversity		Y	40	
	103-2	The management approach and its components	Biodiversity: Governance framework		Y	40	
	103-3	Evaluation of the management approach	Biodiversity: Governance framework		Y	40	
GRI 304: Biodiversity	304-3	Habitats protected or restored	Data Tables	Botswana data omitted from assurance	Data management process unassurable	N	-
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Data Tables		Y	-	
307: Environmental Compliance							
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Biodiversity: Governance framework		Y	40	
	103-2	The management approach and its components	Biodiversity: Governance framework		Y	40	
	103-3	Evaluation of the management approach	Biodiversity: Governance framework		Y	40	
GRI 307: Environmental Compliance	307-1	Non-compliance with environmental laws and regulations	Data Tables		Y	-	
<b>Sector Specific Disclosures</b>							
Sector Specific Disclosure	MM1	Rehabilitation	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
Sector Specific Disclosure	MM2	Biodiversity Management Plans	Data Tables		Y	-	
Sector Specific Disclosure	MM10	Mine closure	Data Tables		Y	-	

## Appendix B - GRI Content Index

GRI Standard	Disclosure	Reference or response	Omissions	Reason for omissions	Assured (y/n)	Reference (page)
<b>Material Topic - Waste</b>						
GRI 306: Waste						
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Waste		Y	42
	103-2	The management approach and its components	Waste: Governance framework		Y	42
	103-3	Evaluation of the management approach	Waste: Governance framework		Y	42
GRI 306: Waste	306-2	Waste by type and disposal method	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y -
	306-3	Significant spills	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y -
<b>Sector Specific Disclosures</b>						
GRI Sector Disclosure	MM3	Total amounts of overburden, rock, tailings, and sludges and their associated risks	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y -
<b>Material Topic - Water</b>						
303: Water and Effluents						
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Water		Y	44
	103-2	The management approach and its components	Water: Governance framework		Y	44
	103-3	Evaluation of the management approach	Water: Governance framework		Y	44
GRI 303: Water and Effluents	303-3	Water withdrawal	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y -
	303-4	Water discharge	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y -
	303-5	Water consumption	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y -

## Appendix B - GRI Content Index

GRI Standard	Disclosure	Reference or response	Omissions	Reason for omissions	Assured (y/n)	Reference (page)	
<b>Material Topic - Climate Change</b>							
302 & 305: Energy and Emissions							
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Climate Change		Y	48	
	103-2	The management approach and its components	Climate Change: Governance framework		Y	48	
	103-3	Evaluation of the management approach	Climate Change: Climate Change Response		Y	48	
GRI 302: Energy	302-1	Energy consumption within the organisation	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
	302-3	Energy intensity	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
	302-4	Reduction of energy consumption	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
GRI 305: Emissions	305-1	Direct (scope 1) GHG emissions	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
	305-2	Indirect (scope 2) GHG emissions	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
	305-4	GHG emissions intensity	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
	305-5	Reduction of GHG emissions	Data Tables	Botswana data omitted from assurance	Data management process unassurable	Y	-
GRI 201: Economic Performance	201-2	Financial implications and other risks and opportunities due to climate change	N/A	Figures not yet available	Financial quantification of climate change will be determined once our alignment with the TCFDs is complete.	N	-
<b>Material Topic - Other</b>							
201: Economic Performance							
GRI 103: Management approach	103-1	Explanation of the material topic and its boundaries	Financial Report				
	103-2	The management approach and its components	Financial Report				
	103-3	Evaluation of the management approach	Financial Report				
201: Economic Performance	201-1	Direct economic value generated and distributed	Data Tables		Y		
419: Socio-economic Compliance							
GRI 419: Socio-economic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area	Data Tables		N	-	

## Appendix C – Stakeholder Matrix

Stakeholder Group	Engagement Method	Frequency	Was engagement undertaken as part of developing this report?	Topics of Interest/ Concern	Sandfire's Response in FY2022 Sustainability Report
Employees	<ul style="list-style-type: none"> <li>Employee engagement surveys</li> <li>ESG and materiality surveys</li> <li>Performance reviews</li> <li>Committees and working groups</li> <li>Newsletters and company announcements</li> </ul>	Quarterly and as required	Yes	<ul style="list-style-type: none"> <li>Safety and health</li> <li>Training and development</li> <li>Impacts on environment and society</li> </ul>	<ul style="list-style-type: none"> <li>Our people</li> <li>Communities</li> <li>Health and safety</li> <li>Water</li> <li>Climate change</li> </ul>
Contractors/ Suppliers	<ul style="list-style-type: none"> <li>Meetings</li> <li>Site visits</li> </ul>	As required	Yes	<ul style="list-style-type: none"> <li>Local procurement opportunities</li> <li>Human rights and modern slavery</li> </ul>	<ul style="list-style-type: none"> <li>Business integrity</li> <li>Human rights</li> <li>Communities</li> </ul>
Local Communities	<ul style="list-style-type: none"> <li>Meetings</li> <li>Site visits</li> <li>Community events and activities</li> <li>Stakeholder Committees</li> <li>Materiality surveys</li> <li>Media (brochures, radio, tv, website)</li> </ul>	As required	Yes	<ul style="list-style-type: none"> <li>Employment</li> <li>Socio-economic development</li> <li>Local procurement</li> <li>Environment</li> <li>Water</li> <li>Climate change</li> </ul>	<ul style="list-style-type: none"> <li>Indigenous Peoples</li> <li>Communities</li> <li>Biodiversity</li> <li>Water</li> <li>Climate change</li> </ul>
NGO's and Not for Profits	<ul style="list-style-type: none"> <li>Partnership progress reports</li> <li>Meetings</li> <li>Site visits</li> <li>Community events and activities</li> <li>Stakeholder Committees</li> <li>Materiality surveys</li> <li>Media (brochures, radio, tv, website)</li> </ul>	As required	Yes	<ul style="list-style-type: none"> <li>Employment</li> <li>Socio-economic development</li> <li>Local procurement</li> <li>Water</li> <li>Climate change</li> </ul>	<ul style="list-style-type: none"> <li>Our people</li> <li>Communities</li> <li>Biodiversity</li> <li>Water</li> <li>Climate change</li> </ul>
Indigenous Peoples	<ul style="list-style-type: none"> <li>Meetings</li> <li>Heritage surveys and site visits</li> <li>Agreement negotiations</li> </ul>	As required	Yes	<ul style="list-style-type: none"> <li>Employment</li> <li>Cultural heritage</li> <li>Socio-economic development</li> </ul>	<ul style="list-style-type: none"> <li>Communities</li> <li>Human rights</li> <li>Indigenous Peoples</li> </ul>
Government/ Regulators	<ul style="list-style-type: none"> <li>Meetings</li> <li>Regulatory reporting</li> <li>Site visits</li> </ul>	Quarterly and as required	Yes	<ul style="list-style-type: none"> <li>Safety and health</li> <li>Impacts on environment and society</li> <li>Employment</li> <li>Socio-economic development</li> <li>Compliance</li> </ul>	<ul style="list-style-type: none"> <li>Business integrity</li> <li>Health and safety</li> <li>Communities</li> <li>Biodiversity</li> <li>Water</li> </ul>



## Appendix C – Stakeholder Matrix

Stakeholder Group	Engagement Method	Frequency	Was engagement undertaken as part of developing this report?	Topics of Interest/Concern	Sandfire's Response in FY2022 Sustainability Report
Investors	<ul style="list-style-type: none"> <li>Quarterly results reporting</li> <li>Half yearly reporting</li> <li>Annual reporting</li> <li>Annual General Meeting</li> <li>ASX announcements</li> <li>Website</li> <li>Investor roadshows, briefings and forums</li> </ul>	Quarterly and as required	Yes	<ul style="list-style-type: none"> <li>Business development and continuity</li> <li>Economic performance</li> <li>Compliance</li> <li>Anti-bribery and corruption</li> <li>Human rights and modern slavery</li> <li>Impacts on environment and society</li> <li>Climate change</li> </ul>	<ul style="list-style-type: none"> <li>Business integrity</li> <li>Human rights</li> <li>Indigenous peoples</li> <li>Communities</li> <li>Health and safety</li> <li>Biodiversity</li> <li>Waste</li> <li>Water</li> <li>Climate change</li> </ul>
Financiers	<ul style="list-style-type: none"> <li>Information memorandums</li> <li>Due diligence engagements</li> <li>Agreements</li> <li>Quarterly results reporting</li> <li>Half yearly reporting</li> <li>Annual reporting</li> <li>Annual General Meeting</li> <li>ASX announcements</li> <li>Website</li> </ul>	During review periods and ongoing monitoring	No	<ul style="list-style-type: none"> <li>Business development and continuity</li> <li>Economic performance</li> <li>Compliance</li> <li>Anti-bribery and corruption</li> <li>Human rights and modern slavery</li> <li>Impacts on environment and society</li> <li>Climate change</li> </ul>	<ul style="list-style-type: none"> <li>Business integrity</li> <li>Human rights</li> <li>Indigenous peoples</li> <li>Communities</li> <li>Health and safety</li> <li>Biodiversity</li> <li>Waste</li> <li>Water</li> <li>Climate change</li> </ul>

# Appendix D - Assurance Statement

## INDEPENDENT ASSURANCE STATEMENT



To: The Stakeholders of Sandfire Resources NL

### Introduction and Objectives of Work

Bureau Veritas Australia Pty Ltd ("Bureau Veritas") was engaged by Sandfire Resources NL ("Sandfire") to undertake a limited assurance engagement on selected information and data presented in the 2022 Sandfire Resources Sustainability Report ("the Report"). This Assurance Statement applies to the related information included within the scope of assurance described below.

### Scope of Limited Assurance

The scope of assurance was limited to the information and data related to the operations of DeGrussa and Monty Copper-Gold Mines in Western Australia, Motheo Copper Project in Botswana, exploration activities and offices in Australia, for the period of 1<sup>st</sup> July 2021 to 30<sup>th</sup> June 2022.

The complete list of assured disclosures is referred to within the GRI Index of the Report.

Our assurance engagement does not extend to any other information included in the Report or information in respect of earlier periods.

### Limited Assurance Conclusion

On the basis of our procedures as described under "Methodology" and the evidence we have obtained, we provide limited assurance that nothing has come to our attention:

- To indicate that the statements reviewed within the scope of our assurance engagement are inaccurate and the information included therein is not fairly stated.
- That causes us to believe that the information, within the scope of our assurance engagement, is not prepared, in all material respects, in accordance with the criteria indicated under "Understanding how Sandfire has Prepared the Information".

It is our opinion that Sandfire has established systems for the collection, aggregation and analysis of relevant information and quantitative data.

### Understanding how Sandfire has prepared the Information

The Report was prepared in accordance with the GRI Standards: Core option and GRI G4 "Mining and Metals Sector" Disclosures including appropriate considerations of the reporting principles for defining report content and report quality, profile disclosures, management approach disclosures and performance indicators.

### Sandfire's Responsibilities

Management of Sandfire was responsible for:

- Selecting and establishing suitable criteria for preparing the Report and information subject to our limited assurance;
- Preparing the information in accordance with the criteria; and
- Designing, implementing and maintaining internal controls over information relevant to the preparation of the Report that is free from material misstatement, whether due to fraud or error.

### Our Responsibilities

Bureau Veritas was responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the information included within the scope of assurance is free from material misstatement, whether due to fraud or error;
- Forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- Reporting our conclusion to the Directors of Sandfire.

Bureau Veritas was not involved in the drafting of the Report and our independence has not been compromised.



# INDEPENDENT ASSURANCE STATEMENT



## Methodology

Our limited assurance engagement was performed in accordance with International Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements other than Audits or Reviews of Historical Financial Information* issued by the International Auditing and Assurance Standards Board, and informed by Bureau Veritas' standard procedures and guidelines for external verification of Sustainability Reports.

Our work was planned and executed in a manner designed to produce a limited level of assurance and to provide a sound basis for our conclusions. We undertook the following activities:

- Review of the suitability of the criteria used as the basis for preparing the information subject to assurance;
- Interviews and follow-up communication with relevant individuals;
- Review of documentary evidence produced by Sandfire representatives;
- Audit of performance data and factual information including source verification; and
- Review of Sandfire's processes for identification, aggregation and analysis of relevant information, report content and performance data.

## Limitations and Exclusions

Excluded from the scope of our work is any assurance of information relating to:

- Activities outside the defined reporting period;
- Statements of commitment to, or intention to undertake future actions by Sandfire;
- Statements of position, opinion, belief and/or aspiration by Sandfire;
- Financial data audited by an external third party; and
- Other sites and/or activities not included in the scope.

This independent assurance statement should not be relied upon to detect all errors, omissions or misstatements that may exist within the Report.

## Statement of Independence, Impartiality and Competence

Bureau Veritas is a global leader in Testing, Inspection and Certification ("TIC") services. The Group's mission is to reduce its clients' risks, improve their performance and help them innovate to meet the challenges of quality, health, safety, hygiene, environmental protection and social responsibility. Leveraging its renowned expertise, as well as its impartiality, integrity and independence, Bureau Veritas has helped build trust between companies, public authorities and consumers for more than 190 years.

Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among its personnel in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest.

No member of the assurance team has a business relationship with Sandfire, its Directors or Managers beyond that required of this assignment. We have conducted this assurance engagement independently and there has been no conflict of interest.

The assurance team was selected based on its extensive Industry Sector knowledge and experience in conducting independent verification, validation and assurance of Environmental Social and Governance (ESG) information and associated systems and processes.

**Jeremy Leu**

**General Manager – Certification and Sustainability Pacific**

12<sup>th</sup> October 2022

Bureau Veritas Australia Pty Ltd



# Appendix E - SASB Content Index

Topic	Code	Accounting Metric	Reference
GHG Emissions	EM-33-110a.1	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations.	Data tables
	EM-33-110a.2	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.	Climate Change
Air Quality	EM-MM-120a.1	Air emissions of the following pollutants: (1) CO, (2) NOx (excluding NO2), (3) SOx, (4) particulate matter (PM10), (5) mercury (hg), (6) lead (Pb), and (7) volatile organic compounds (VOCs).	Annual National Pollutant Inventory reporting to the Department of Agriculture, Water and Environment
Energy Management	EM-MM-130a.1	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Data tables
Water Management	EM-MM-140a.1	(1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress.	Water Data tables
	EM-MM-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations.	No incidents of non-compliance occurred in FY2021.
Waste & Hazard Materials Management	EM-MM-150a.1	Total weight of tailings waste, percentage recycled.	Data tables
	EM-MM-150a.2	Total eight of mineral processing waste, percentage recycled.	Data tables
	EM-MM-150a.3	Number of tailings impoundments, broken down by MSHA hazard potential.	Tailings and Waste Facilities are classified under the ANCOLD Guidelines and Global Industry Standard on Tailings Management.
Biodiversity Impacts	EM-MM-160a.1	Description of environmental management policies and practices for active sites.	Biodiversity
	EM-MM-160a.2	Percentage of mine sites where acid rock drainage is: (1) predicted to occur, (2) actively mitigated, and (3) under treatment or remediation.	Waste PAF material is managed in accordance with our standards.
	EM-MM-160a.3	Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat.	Data unavailable
Security, Human Rights & Rights of Indigenous Peoples	EM-MM-210a.1	Percentage of (1) proved and (2) probable reserves in or near areas of conflict.	Not applicable
	EM-MM-210a.2	Percentage of (1) proved or (2) probable reserves in or near indigenous land.	Indigenous Peoples
	EM-MM-210a.3	Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict.	Human Rights Indigenous Peoples Sandfire does not operate in areas of conflict.
Labor Relations	EM-MM-310a.1	Percentage of active workforce covered under collective bargaining agreements, broken down by U.S. and foreign employees.	All employees are employed on individual contracts in line with national Employment Standards. Sandfire MATSA has collective bargaining agreements.
	EM-MM-310a.2	Number and duration of strikes and lockouts.	No strikes or lockouts occurred in FY2022.
Workforce Health & Safety	EM-MM-320a.1	(1) MSHA all-incidence 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.	Data tables (4) Data breakdown not provided. Total hours provided in Table 2.
Business Ethics & Transparency	EM-MM-510a.1	Description of the management system for prevention of corruption and bribery throughout the value chain.	Business Integrity
	EM-MM-310a.2	Production in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index.	Our operations are not based in countries that have the 20 lowest rankings according to the latest Corruption Perception Index.

# Appendix F - TCFD Content Index

## Governance

Disclose the organisation's governance around climate-related risks and opportunities.

Recommended Disclosure	References	Next Steps
a) Describe the Board's oversight of climate-related risks and opportunities.	Climate Change: Governance framework	Publication of our Climate Change Policy in 2022.
b) Describe the management's role in assessing and managing climate-related risks and opportunities.	Climate Change: Governance framework	Ongoing development of our Climate Change Strategy and emission reduction plan.

## Strategy

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.

Recommended Disclosure	References	Next Steps
a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	Climate Change: Risk management	Undertaking further scenario analysis and opportunities and risk identification in FY2023.
b) Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning.	Climate Change: Risk management	Undertaking further scenario analysis and opportunities and risk identification in FY2023.
c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2 degree Celsius or lower scenario.	Not available	Development of our Climate Change Strategy will continue throughout FY2023.

## Risk management

Disclose how the organisation identifies, assesses, and manages climate-related risks.

Recommended Disclosure	References	Next Steps
a) Describe the organisation's processes for identifying and assessing climate-related risks.	Climate Change: Risk management	Ongoing integration into our governance system and processes.
b) Describe the organisation's processes for managing climate-related risks.	Climate Change: Risk management	Ongoing integration into our governance system and processes.
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	Climate Change: Risk management	Ongoing integration into our governance system and processes.

## Metrics and targets

Disclose the metrics and targets used to assess and manage climate-related risks and opportunities where such information is material.

Recommended Disclosure	References	Next Steps
a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	Climate Change: Metrics and targets	
b) Disclose Scope 1, Scope 2, and, if applicable, Scope 3, greenhouse gas (GHG) emissions, and related risks.	Climate Change: Metrics and targets	Materiality assessment of Scope 3 emissions planned for FY23.
c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	Climate Change	Progress against our targets will be provided annually in our Sustainability Report.

# Corporate Information

## Directors

John Richards	Independent Non-Executive Chair
Sally Langer	Independent Non-Executive Director
Roric Smith	Independent Non-Executive Director
Jennifer Morris OAM	Independent Non-Executive Director
Robert Edwards	Independent Non-Executive Director
Sally Martin	Independent Non-Executive Director

## Company Secretary

Matthew Fitzgerald Chief Financial Officer and Company Secretary

## Registered Office and Principal Place of Business

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West Perth WA 6005

T: +61 8 6430 3800  
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W: [www.sandfire.com.au](http://www.sandfire.com.au)

## Share Registry

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Perth WA 6000

T: 1300 288 664 (within Australia)  
+61 2 9698 5414  
F: +61 2 8583 3040  
E: [hello@automicgroup.com.au](mailto:hello@automicgroup.com.au)

## Auditors

Ernst & Young  
11 Mounts Bay Road  
Perth WA 6000 Australia

## Home Exchange

Australian Securities Exchange Limited  
Level 40, Central Park  
152-158 St George's Terrace  
Perth WA 6000

## ABN

55 105 154 185

## ASX Code

Sandfire Resources Limited shares are listed on the Australian Stock Exchange (ASX).

Ordinary fully paid shares: SFR

Sandfire produces a range of publications, which can be downloaded or viewed at our website.



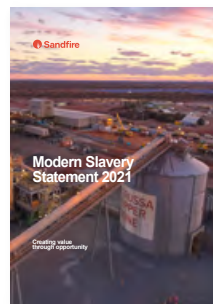
Annual Report



Corporate Governance Statement



Code of Conduct



Modern Slavery Statement

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