

# CORPORATE DIRECTORY

**ABN** 55 104 154 185

#### PRINCIPAL PLACE OF BUSINESS & REGISTERED OFFICE

Level 2, 10 Kings Park Road, West Perth, Western Australia 6005

T: +61 8 6430 3800

F: +61 8 6430 3849

E: admin@sandfire.com.au

W: www.sandfire.com.au

#### **SHARE REGISTRY**

Security Transfer Australia Pty Ltd

770 Canning Highway, Applecross WA 6153

T: +61 8 9315 2233

F: +61 8 9315 2233

E: registrar@securitytransfer.com.au

## **HOME EXCHANGE**

Australian Securities Exchange Limited

Exchange Plaza

2 The Esplanade, Perth WA 6000

# **AUSTRALIAN SECURITIES EXCHANGE (ASX) CODE**

Ordinary fully paid shares: SFR

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This Sustainability Report, approved for release by Sandfire's Board of Directors, covers the period from 1 July 2017 to 30 June 2018 (FY2018). The report forms part of Sandfire's annual corporate reporting suite. It offers an account of our contributions to sustainable development and complements Sandfire's FY2018 Annual Report.

The report covers our 100 per cent owned DeGrussa Copper-Gold Mine (DeGrussa), the Monty Copper-Gold Mine (Monty) and provides an overview of our exploration activities in Australia.

Sandfire holds a 78 per cent interest, via North-America-listed company Sandfire Resources
America Inc. (Sandfire America) in the Black
Butte Copper project, located in central Montana
in the United States. As Sandfire America
remains an independent listed company, we
have provided limited reporting based on
publically available information and will provide
more information on this emerging operation
in the future. Further information about this
project can be found on the Sandfire America
website www.sandfireamerica.com and the
Black Butte Copper Project's website www.
blackbuttecopper.com.

Please see our website and accompanying Annual Report available at www.sandfire.com. au/investor/reports/annual-reports.html for more information about our company activities.

This report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards Core option. For more information about the Standards, please see www.globalreporting.org.

The currency used throughout this report is Australian Dollars, unless otherwise stated.

We engaged an independent external assurance organisation, Bureau Veritas, to provide limited assurance on selected assertions and selected performance information included in this year's Sustainability Report. The full text of Bureau Veritas' assurance statement can be found on page 65.

We welcome your feedback on our report. For further information about our sustainability approach, or to provide feedback about this report please email **sustainability@sandfire.com**. **au** or contact +61(08) 6430 3800.

# FY2018 IN REVIEW



\$606.7M









**Gold Production** 

**Direct Sandfire Employees** 



# **OPERATING RESPONSIBLY**











# SUPPORTING ECONOMIC DEVELOPMENT



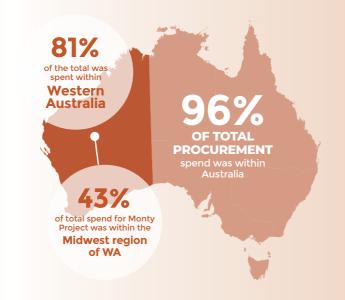
**Total Community Investment** 50% of spend was on long term partnerships



WE'RE WORKING ON..

**Avoiding financial** dependency by prioritising partnerships which provide long term sustainable benefits





# STRIVING FOR A SAFE & SUPPORTIVE WORKPLACE



significant injuries





**FEMALE PARTICIPATION** RATES e above industry average **Females** represent

of our total

representation at all levels

**Unconscious bias training COMPLETED BY** 

WE'RE WORKING ON... Attracting people for Retain top talent to

### **CONDUCTING OUR BUSINESS WITH RESPECT & ACCOUNTABILITY**

**Conducted** stakeholder 360 research











## **EXPLORATION, DEVELOPMENT & GROWTH**

- Monty-Copper Gold project (Springfield JV) decline development
- Final permitting stage (EIS) for the Black Butte Copper Project, located in central Montana USA
- Strengthened the Group's holding at the highly prospective Doolgunna region and continued multi-pronged exploration
- · Emerging international and domestic growth pipeline with the launch of our Sandfire Ventures Strategy

# CHAIR AND CFO'S ADDRESS

We are proud to present Sandfire Resources' fourth annual Sustainability Report. We believe success is not solely defined by what we achieve, but also by how we achieve it.

Sandfire has established itself as a reliable, low-cost Australian copper-gold producer with a robust international growth pipeline and an unwavering focus on responsible business practices.

We are driven to continuously consider the broader economic, environmental and social impacts to which our activities contribute. Our emphasis is on how Sandfire fits into a larger value chain. This has implications for how we pursue our organisation's long-term strategy and goals.

This increasing focus appropriately comes as we see rising expectations from a range of stakeholders for metals to be responsibly mined. These expectations encompass a breadth of sustainability issues including response to environmental concerns such as climate change and water scarcity, commitment to an ethical supply chain, transparency, and maximising social and economic benefits to communities. In Australia, the likely introduction of a Modern Slavery Act exemplifies this trend. Sandfire embraces this as a move in the right direction.

In FY2017, we embarked on a strategy to guide our sustainability efforts to 2021. This signalled an evolution of the organisation's approach to sustainable development by setting out what we hoped to achieve looking ahead. The organisation has embraced the strategy, and the goal setting and measurement has been a catalyst for effecting change. We recognise the value in making these commitments and measuring our progress. Our sustainability strategy is detailed further on page 9.

In a holistic sense, Sandfire is driven by a desire to demonstrate that the mining industry can, and does, play a significant role in global sustainable development. We actively look to partner with people who uphold our values - whether it be employees, contractors or potential project development partners. We see multi-stakeholder partnerships as becoming increasingly significant to help tackle sustainability and business challenges that reach beyond the boundaries of our operations.

Looking forward, Sandfire is well placed to benefit from sustainability trends influencing global markets, and our growth projects. Our key product, copper, plays an important role in sustainable development. Renewable energy systems consume approximately 12 times more copper than conventional power generation systems, making the metal essential for any successful transition to fossil fuel alternatives.

On business development, our commitment is to continue to operate with a high standard of environmental and social care is crucial to our plans. The year saw exciting activity (detailed on pages 32 and 33) which may see us working in new jurisdictions and with this, new opportunities and challenges. As we look to these new prospects, we are steadfast in our intent to maintain our

social licence to operate in our host communities. We recognise that we are guests in those communities and we will always act with the utmost responsibility.

We aim for the standard we have set for our existing operations to apply to our new projects, wherever they are located. This is reflected in the award of a Draft Operating Permit for the Black Butte Copper Project by the Montana Department of Environmental Quality in the United States, marking the commencement of the Environmental Impact Statement (EIS) process – the final stage of project

Montana has some of the most stringent mining standards and environmental protection laws globally. The award of this key permit reflects Sandfire's commitment to diligently work through the required permitting processes to ensure Black Butte is a world-class underground mine development.

We are buoyed by this year's progress towards achieving the goals of our 2017-2021 Sustainability Strategy (detailed on pages 9-15). This strategy references the UN Sustainable Development Goals, aimed at achieving a more sustainable world by 2030. Sandfire is committed to contributing to the achievement of these goals, with a focus on our key areas of impact.

The progress we have made would not have been possible without the exceptional efforts and exacting standards of Sandfire's team of staff and contractors. We share a collective enthusiasm about our role in genuine and meaningful social and environmental sustainability, and we look to the future with great excitement.

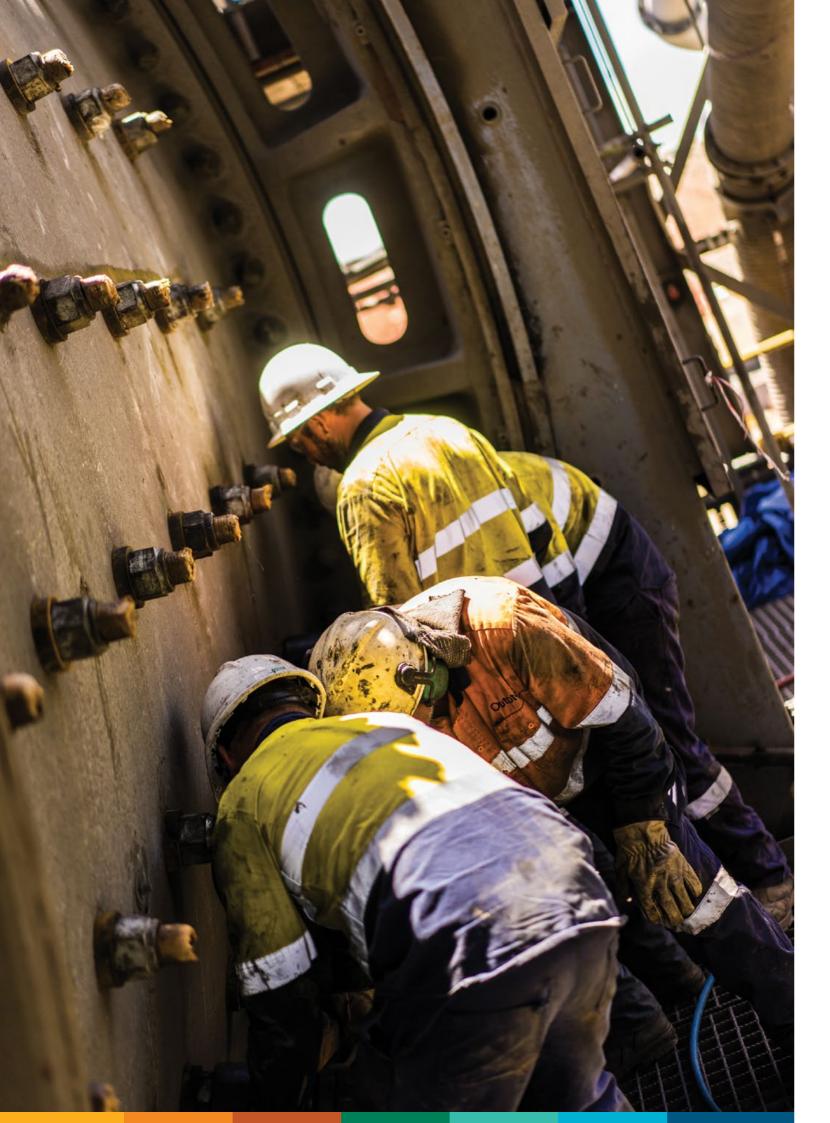








Karl Simich Managing Director and CEO



# OUR BUSINESS

Sandfire Resources NL is a mid-tier Australian mining and exploration company headquartered in Perth, Western Australia and listed on the Australian Securities Exchange (ASX:SFR). We produce copper and gold from our 100 per cent owned DeGrussa Copper-Gold Mine, (DeGrussa), located 900 kilometres north of Perth.

# **OUR BUSINESS MODEL**

We are in the business of producing base and precious metals safely and profitably from our operations for the benefit of our shareholders and stakeholders. Our focus is on three business elements:

# SAFELY MANAGING

our operations by optimising production and rigorously controlling expenditure

# INVESTING IN EXPLORATION

to increase our resource base by discovering new deposits

# SECURING ASSETS

that meet our investment criteria through business development initiatives and developing assets in accordance with a set of strict economic and technical criteria.

# **OUR VALUES**

Our core values are:

SAFETY
Act safely and with care for the environment

We strive for continuous improvement, technical excellence and innovation

PROFITABILITY
Through effective operating practices and cost consciousness

PEOPLE
Attract the best people and reward performance

# **OUR COPPER CONCENTRATE**

Sandfire produces copper concentrate at DeGrussa which is sold to international trading companies and smelters. Copper is extracted from the copper concentrate for use in electrical products, machinery and equipment, building construction and transport. Its conductive properties make it an integral component in renewable energy production systems. Due to its antimicrobial properties copper is also used in medical facilities to stop the spread of germs.

The Copper Alliance®<sup>1</sup>, led by the International Copper Association, represents a network of regional copper centres and their industry-leading members. The mission of the Copper Alliance is to 'defend and grow markets for copper based on its superior technical performance and contribution to a higher quality of life worldwide'. As global

issues such as energy, climate change and health become more urgent, copper plays an increasingly more important role in almost every industry.

The Copper Alliance® states that the copper industry is critical to sustainable development and to a higher quality of life for people around the globe. It posits that copper will be integral to meeting the UN Sustainable Development Goals for climate change mitigation and adaptation, energy efficiency and energy security, water quality, renewable energy, energy access, public health and others<sup>2</sup>. Research on electromobility has shown that copper will play a critical role in electric vehicles with energy storage being the most copper-intensive component<sup>3</sup>. It is anticipated that this will increase demand for copper in the future<sup>4</sup>.



Contractors and suppliers are a crucial part of our business and we rely on them to ensure that we meet our overall operating strategy and maximise efficiencies.

# Our supply chain includes:



### **Support Services**

Camp management services, air charter services, freight of inbound goods, power supply, IT services and fuel supply.



### **Exploration**

Drilling contractors, geophysical contractors, analytical laboratories, and consultants.





Haulage services, port services, stevedoring and shipping



A breakdown of our procurement spend is provided on page 30



**Underground mining** contractors, cement supply, explosives supply, drilling contractors



# **Processing**

Shutdown contractors, supply of grinding media, supply of flocculants, labour hire, and supply of equipment and materials



<sup>&</sup>lt;sup>2</sup> https://sustainablecopper.org/

**OUR BUSINESS** 



# **EXTERNAL MEMBERSHIPS**

Sandfire is an active member of the Association of Mining and Exploration Companies (AMEC) and holds positions on the Environment and Water committee, the Safety committee and the Aboriginal Affairs committee.

Our Managing Director and Chief Executive Officer, Karl Simich, is a member of the Board of the ICA Australia (ICAA), the peak body for the

copper industry in Australia. The ICAA, represents some of the country's most influential companies in mining, manufacturing, production, and recycling.

The Chair of our Board, Derek La Ferla is a fellow of the Australian Institute of Company Directors (AICD) and a member of the AICD Council (WA division).

3 http://copperalliance.org/trends-and-innovations/electric-mobility/

<sup>&</sup>lt;sup>4</sup> http://copperalliance.org/wordpress/wp-content/uploads/2017/06/2017.06-E-Mobility-Factsheet-1.pdf



# OUR SUSTAINABILITY PRIORITIES

# **SUSTAINABILITY STRATEGY**

In 2017 we developed a sustainability strategy to guide Sandfire through the period 2017-2021 and affirmed our position on responsible business.

Our overarching goal for our sustainability activities is to achieve high standards in safety, environmental management, productivity, governance and transparency whilst also delivering positive outcomes for society.

In the past year, we achieved many of the goals and targets of our strategy, while progressing others within the anticipated timeframes. By integrating our strategy goals and targets within our day-to-day business, we have realised value through greater clarity and purpose, uncovering opportunities for improvement and understanding how sustainability contributes to our success.





### **FOCUS AREAS**

# **Operating responsibly**

We will undertake our work in a manner that respects and supports people and the environment by minimising negative impacts and supporting positive outcomes.

This area encompasses compliance and management systems relating to water, waste, carbon emissions management and biodiversity protection. It includes responsible behavior in all activities from exploration and project development through to mine closure planning. It also encourages us to focus our attention to those areas outside our direct control such as an ethical supply chain and understanding the impacts of transport and processing and smelting.

# Our goals are to:

- manage performance at or above compliance with applicable laws and regulations
- responsibly manage water
- manage mineral and non-mineral waste to minimise negative impacts
- engage local communities in mine closure planning
- ensure responsible stewardship of land used for operations and exploration, with closure and rehabilitation objectives in place
- identify our carbon footprint and emissions efficiency.

CLIMATE ACTION PRODUCTION LIFEON LAND SOLUTIONS CLIMATE ACTION PRODUCTION CLIMATE ACTION PRODUCTION CONTROL CO

# Supporting economic development

We acknowledge that our success supports the economic empowerment of individuals and communities and we aim to maximise benefits and minimise negative impacts of our economic influence.

This focus area includes how Sandfire facilitates regional economic development through local procurement and employment (of both local and Indigenous people). It also encompasses how we respect and engage with local communities where we operate, aspects of mine closure planning, and our social and community investment.

### Our goals are to:

- · ensure communities in the region of our operations have opportunities to benefit economically from our activities
- develop a local workforce capacity where possible
- preference local workers for jobs at all Sandfire
- · support Indigenous employment at our operations
- engage local communities to understand their community priorities
- address community needs for support
- direct local community support to sustainable programs that can endure post operations
- provide avenues for local business to supply to











# A safe and supportive workforce

We place the highest emphasis on providing a safe and inclusive workplace. We aim to enable all employees to develop the skills they need to reach their potential in our organisation.

Safety is fundamental to our business. Topics covered under this focus area include occupational health and safety and employee wellbeing, anti-discrimination and commitment to diversity. Also covered are inclusion, training and development and ethical workplace practices.

## Our goals are to:

- ensure our people always go home safely to their loved ones
- continuously improve our safety performance
- inspire our employees to give their best each day and have a sense of wellbeing and belonging
- invest in the growth and development of our people
- be an employer of choice
- prevent any form of discrimination at work
- have a diverse and inclusive workplace
- maintain ethical workplace practices.









# Respect and accountability

We will engage respectfully with our stakeholders, behave ethically and with integrity at all times in our work and meet stakeholder expectations for accountability and transparency.

This focus area includes our commitments to respect and engage with our stakeholders, to good governance, risk identification and management, transparency and communication, anti-corruption and our contribution to governments and public debate.

# Our goals are to:

- establish and maintain our social licence to operate
- ensure our code of conduct is well understood and followed by all who work with us
- effectively identify and manage risk including climate change risk
- communicate with all stakeholders in an open and transparent manner
- listen and be responsive to our stakeholders
- be transparent in our contributions to all governments by reporting on taxes and royalties paid and being open about our engagement with public policy
- ensure we have strong governance systems to avoid corruption in the first instance, but also able to identify and remedy if necessary.











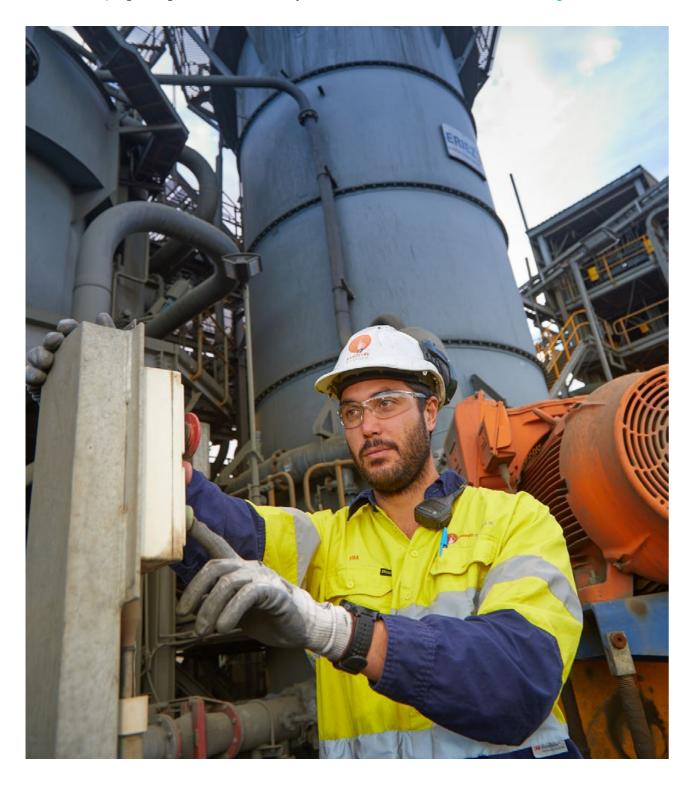
# **HOW WE GOVERN SUSTAINABILITY**

The Sandfire Board of Directors (Board) oversees Sandfire's sustainability strategy, measures performance and considers sustainability risks and opportunities as part of the process. The primary function of the Board's Sustainability Committee is to oversee the health and safety, environmental, diversity land access and community policies and activities on behalf of the Board.

Sandfire's Sustainability Management Committee monitors the progress against the sustainability

strategy on a quarterly basis and reports into the Sustainability Committee. As we make progress against our strategy we have identified new targets which will allow us to achieve the goals of each of our four focus areas. These new targets as well as our progress is reported in this section.

Further detail about Sandfire's corporate governance framework can be found in our annual Corporate Governance Statement available at www.sandfire.com.au/investor/governance.html.



### **SANDFIRE TARGETS**

	Area	Target	When	Progress	Planned Activities
Operating Responsibly	Water	Increase our understanding of water usage and its impacts at DeGrussa. Develop a water strategy aimed at improving efficiency	FY2019	Improved the DeGrussa water balance model Continued to publically report on water metrics in accordance with the GRI	Establish single point accountabilities for managing water balance Expand water balance to include Monty Set a water budget for DeGrussa Identify opportunities to improve efficiencies
	Mineral waste	Undertake annual independent technical reviews of our tailings storage facility	Annually	Audit undertaken in November 2017	Next audit scheduled for November 2018 Completion of TSF closure design and planning
	Mine closure	Successfully and responsibly close operations with no liabilities or legacy issues	Closure	Undertook rehabilitation studies on the waste dump Monty and DeGrussa mine closure plans approved by regulators	Appoint a mine closure committee to oversee the responsible closure of our operations
	Climate change	Reduce our emissions intensity at the DeGrussa operation by 10% using 2016 as a baseline <sup>5</sup> .	FY2019	Undertook a Life of Mine emissions modelling study Achieved a 5.4% reduction in emissions intensity	Working on increasing utilisation of solar
	Renewable energy	20% of energy from renewable sources at the DeGrussa operation	FY2019	Renewable energy accounted for 17.2% of DeGrussa's energy needs	Working on increasing utilisation of solar
Support Economic Development	Facilitate regional economic development	Procurement spend in regional areas > 10% of total procurement spend	FY2019	Procurement spend in regional areas was 13% against the FY2018 target of 8%	Formalise mechanism for prioritising local procurement
	Support Indigenous employment at major places of operation	Major contractors maintain 5% of their workforce as Indigenous	FY2019	Achieved	Continue to work with major contractors to boost representation of Aboriginal people in the workforce
	Social and community investment	Donate one per cent of FY2017 pre-tax profit <sup>6</sup> annually, both direct and in-kind, to projects which will have a long term positive effect in the communities where we operate	FY2021	Achieved. Total donations were \$600k with 50% going towards partnerships aimed at addressing local needs, particularly around education.	Continue to work with local community to identify priority areas for support

<sup>&</sup>lt;sup>5</sup> 2016 emissions intensity was 55

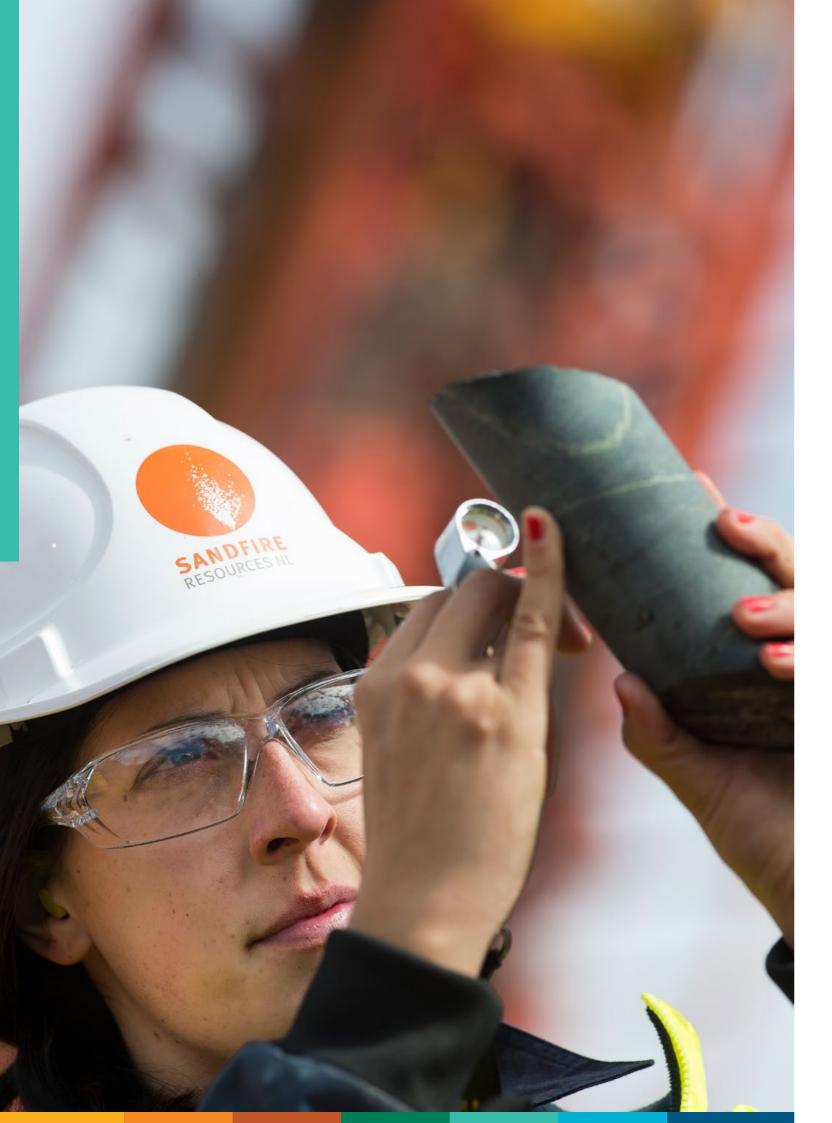
<sup>&</sup>lt;sup>6</sup> Equivalent to \$500k per annum

# **SANDFIRE TARGETS**

	Area	Target	When	Progress	Planned Activities
A Safe and Supportive Workplace	Occupational Health and Safety	No fatalities or significant incidents	Ongoing	Achieved	Continue to prioritise prevention of fatalities and significant incidents
		TRFIR 4.5	FY2019	Sandfire did not meet its FY2018 target and TRIFR increased to 7.1 from 5.0 in the previous year	Reduce TRIFR of 7.1 by 20% annually, by continuing to focus on positive performance indicators
	Employee engagement and wellbeing	Increase employee engagement levels by 20% by 2019 based on survey undertaken in 2017	FY2019	Will be assessed in 2019 employee engagement study	Undertake engagement study in 2019
		95% of employees to live Sandfire values as measured by end of year performance reviews	FY2019		Values workshops for all employees Leadership training will have a focus on leading for values
	Diversity and inclusion	Increase female representation amongst direct employees year-on-year	FY2019	Female representation has remained constant with the previous financial year Female participation accounted for 22% of direct employees in FY2018	Continue to work on improving diversity across the business
		Increase participation of Aboriginal people in the workforce at > 7% of total workforce	FY2019	Aboriginal people's participation in the workforce was 7.6% in FY2018 against a target of 5%	Continue to focus on retention of Aboriginal people
Respect and Accountability	Respect and engage stakeholders	Undertake a stakeholder perception survey every two years to measure effectiveness of stakeholder engagement plans	FY2020	First survey was undertaken in FY2018 and had implications for our stakeholder engagement strategy.	Update stakeholder engagement plans across the business
	Organisational governance	No breaches of code of conduct No incidents of bribery or corruption	Ongoing	No breaches of the Code of Conduct reported Revised Sandfire's Code of Conduct	Provide mandatory training on new Code of Conduct for everyone who works for Sandfire
	Risk management	Review climate change risks and third party risks in the supply chain	FY2018	Sandfire reviewed the Task Force for Climate Related Disclosures during the year Undertook a study to prepare for Modern Slavery Act	Implement action and provide disclosure to stakeholders as required
	Responsible exploration	Implement an internal price on carbon in evaluation of business development opportunities	FY2018	Kept up-to-date with the regulatory landscape for carbon pricing in jurisdictions where we have interests	Formalise policy for applying internal price on carbon



14 OUR SUSTAINABILITY PRIORITIES



# REPORTING WHAT MATTERS

## **OUR MATERIAL ISSUES**

Our reporting process provides an understanding of the most important sustainability issues for our stakeholders and our business. Our annual materiality review process, which is aligned to the GRI, helps to ensure that the content of our report meets the information needs of our stakeholders and reflects our most significant impacts.

To understand perceptions of our sustainability performance and key issues we:

- engaged an external consultant to interview our stakeholders. This included community representatives, landholders, suppliers, employees, investors and Traditional Owners The discussions covered their perceptions of the significant impacts and issues for Sandfire
- considered the feedback received throughout the year from analysts and stakeholders and the results from our 2017 employee engagement survey
- undertook a desktop review to understand emerging issues in our overseas interest.

The results were reviewed internally, prioritised by senior managers and subsequently validated by Sandfire's Group Management Team (GMT). Discussions in these forums included consideration of the impacts of each topic, enabling us to set the boundary for each topic where the impact occurred. The validation process provided an opportunity to check that the proposed report content would adhere to the GRI Reporting Principles of sustainability context, completeness and materiality.

All of the topics are addressed in this report, with more detail around those considered to have significant and material impacts.

These topics are discussed with relevant stakeholders at meetings to allow all affected and interested parties the opportunity to collaborate on making decisions to address the issues and develop ways in which we can further improve our performance. We remain open to engaging in a dialogue on our performance and invite all key stakeholders to engage with us directly.



The table below shows the material sustainability topics for Sandfire and the chapter in the report where information can be found.

Topic	What did we hear	Where are our Impacts	Report Chapter
Transparency	Our stakeholders told us it was important that we tell the truth and present information in a way that is clear.	Across the business in our dealings with all who work for us as well as with our stakeholders	Respect and accountability
Regional economic development	Our stakeholders value our contribution to the economies of the regions in which we operate through royalties, wages, local suppliers, support of local business, community investment and employment.	Local stakeholders, employees and suppliers	Supporting economic development
Visible mine life & financial dependency	Our stakeholders expressed that there is a potential dependency on us financially and that the visible mine life of DeGrussa may have a negative impact on them.	Local stakeholders and suppliers	Supporting economic development
Exploration, future development	Stakeholders expressed interest in understanding the next steps for Sandfire's business and how development will be undertaken.	Our interests in Australia and overseas	Supporting economic development
Water	Stakeholders are concerned about the impacts on water availability, quality and impact on water table.	At our current operations and will also be important for future development	Operating responsibly
Land	Stakeholders told us they wanted to know how we care for the land and prevent negative impacts of our land use as how we can ensure mining can co-exist with other types of land use.	At our current operations and will also be important for future development	Operating responsibly
Waste management	Stakeholders are interested in how we manage waste and in particular, tailings management. This includes details of wastes produced and any adverse impacts from waste or toxic emission.	At our current operations and will also be important for future development	Operating responsibly
Energy and carbon	Stakeholders told us they want to know how we manage our carbon emissions and steps to reduce our emissions intensity. They want to know about our energy usage and the uptake of renewables. Some stakeholders mentioned they were interested in understanding whether we planned to align to the TCFDs.	At our current operations and will also be important for future development	Operating responsibly

Topic	What did we hear	Where are our Impacts	Report Chapter
Connect and inspire	Our stakeholders talked about Sandfire's presence in the community and how it helps community members to connect to the broader world, and this about what is possible and inspire them in their education.	In our communities and also for young people who want to pursue a career in mining	Respect and accountability
Aboriginal engagement	Our stakeholders told us they were interested in knowing how we respect, support and promote Aboriginal culture. They also told us they wanted to understand what steps we have taken to develop positive relationships.	In our communities and in our places of work	Building a safe and supportive workplace
Sandfire's presence in the community and how it helps community members to connect to the broader world, and this about what is possible and inspire them in their education.  Aboriginal engagement  Our stakeholders told us they were interested in knowing how we respect, support and promote Aboriginal culture. They also told us they wanted to understand what steps we have taken to develop positive relationships.  Sandfire people  Stakeholders want to know  In	In our places of work and for future employees	Building a safe and supportive workplace	





# RESPECT AND ACCOUNTABILITY

Our aim is to engage respectfully with our stakeholders, behave ethically and with integrity at all times in our work and meet stakeholder expectations for accountability and transparency. We value our stakeholder relationships and our approach is focused on open dialogue and trust.

# OUR COMMITMENT TO TRANSPARENCY

Demands for transparency and accountability are increasing. Transparency means being open and honest in our conversations with stakeholders. Accountability means that we take responsibility for the decisions that we have made. These are essential components of a responsible business and we are committed to operating and engaging openly.

We believe that transparent reporting provides our stakeholders with an understanding of our business and how we respond to challenges and opportunities. This reinforces the work we do on the ground to build meaningful relationships with stakeholders.

Being open with our workforce is equally as important as being open with our external stakeholders. It is essential that our employees share our vision and understand their role in achieving the goals of our business. In our 2017 Employee Engagement Survey, our people told us they wanted more communication and insight into how decisions were made. We have been working to improve communication channels at all levels of the business. We believe we still have a way to go to improve communication and will continue to work on this.

# HIGHLIGHTS

No fines or sanctions received from regulators

We continue to operate within the requirements of our licences and approvals

Continued disclosure of sustainability performance

This year marks our fourth year of GRI sustainability reporting

Reviewed and updated our Code of Conduct

To reflect our expanding business



# **CASE STUDY**

**Black Butte Project demonstrating transparency** 



Sandfire is working closely with Sandfire America to develop the Black Butte Copper Project (Black Butte), located in the state of Montana, USA. We support Sandfire America financially and by contributing operational expertise. Together we believe Black Butte will be an example of responsible mining in the 21st century.

Transparency is paramount at Black Butte. Sandfire America seeks to engage with the community at all stages of the project's development. Keeping stakeholders informed and facilitating an open dialogue helps to identify project risks at an early stage and determine the information needs of stakeholders.

Sandfire America is going beyond industry standards and regulatory requirements in its effort to protect the environment at Black Butte. A site tour is held monthly, welcoming anyone with an interest to see where the mine will be located and to closely examine the project development plans.

On site tours, technical aspects of the project are explained and attendees have the opportunity to ask questions. About 80-100 visitors attend each site visit and include local community members, academics, overseas visitors and other stakeholders.

In addition to the site tours, members of the Black Butte project team regularly deliver presentations to school and civic groups throughout the State of Montana. The project website www.blackbuttecopper.com has comprehensive resources and is used to publish studies, permits, plans and reports.

# **Responsible sourcing**

Stakeholders are increasingly seeking more transparency about how the goods they purchase have been produced. Much of the focus for the mining industry has previously been on ensuring their production was conflict-free however, this is evolving to consider a wide range of sustainability issues including looking at how a company manages its procurement.

A large driver in Australia towards ethical supply chains is the likely introduction of a Modern Slavery Act, expected to pass Parliament in the latter half of 2018.

During FY2018, Sandfire prepared for this legislation by undertaking an assessment of our current approach towards management of human rights in supply chains using the United Nations Guiding Principles. This work will enable Sandfire to put together a roadmap for how we will address any gaps or areas of risk. This work was ongoing at end of FY2018 and we intend to publish a statement during FY2019.

Greater visibility of the risks in our supply chain will enable us to uncover opportunities for improvement, and to collaborate in industry initiatives to address those risks.

# **OUR VALUES**

Sandfire's values are available on our website (http://www.sandfire.com.au/about/our-visionmission-values.html)

Our values are communicated to all who work with us through our inductions. In FY2019, we will further embed our values by holding workshops

with all employees. These workshops will address how each individual can exhibit the company values. We will explore what behaviours constitute upholding Sandfire's values and how they align to our personal values. We see this as an opportunity to be transparent about Sandfire's desired culture.

# **Extending Don't Walk Past**

Don't Walk Past is Sandfire's philosophy that the standard you walk past is the standard you accept. This philosophy was born out of safety and is highly visible and recognisable at Sandfire. We actively encourage all our people to speak up and act if they see something that is unsafe. As a positive reinforcement, we ask people to share when they applied Don't Walk Past.

We recognise the applications Don't Walk Past has in how we exhibit our values and believe it can epitomise our culture of speaking up.

In FY2019, as part of our values workshops we will formally extend Don't Walk Past and link each of the values to what it means to 'not walk past' an issue.



# **Code of Conduct**

Acting ethically and with integrity is fundamental to Respect and Accountability. This year, we updated our Code of Conduct (www.sandfire. com.au/investor/governance.html) to guide all people who do work for us on the behaviour we expect.

At Sandfire, we are proud of the culture that has evolved in our business and see the Code of Conduct as a tool that encourages ethical behaviour and reflects our strong corporate culture.

We review our Code every two years, or when there is a material change to the business, to ensure it remains current and relevant to the business and regulatory environments in which we operate.

This year senior management undertook a workshop to identify the topics which may pose a risk to our culture and for which we need to provide our workforce with guidance. We saw this as an opportunity to reinforce the Don't Walk Past philosophy by linking it to the guidance on the behaviour we expect.

It is a requirement that all people who perform work for us understand and abide by our Code. A copy of the Code is provided to all new employees and to our contractors. In FY2019, we will provide mandatory training on the Code which will be refreshed every two years.

To complement the Code, we have an ethics helpline which is facilitated by a third party. This operates as a whistle-blower helpline but also allows people to raise concerns which may not necessarily be a report of serious misconduct.

RESPECT AND ACCOUNTABILITY

### **CLIMATE CHANGE DISCLOSURE**

In June 2017, the Financial Stability Board's Task Force on Climate-Related Disclosures released its full report and recommendations. The objective was to develop a standardised reporting framework that will provide stakeholders with quality information about how climate-change is expected to affect financial performance and how companies plan to manage the related impacts. We recognise there is stakeholder expectation for companies to align with these recommendations.

Previously, Sandfire has considered climate change not to pose significant risks to the company based on the relatively short mine life of the DeGrussa operation, which is currently expected to close in 2022. The climate change related risks and opportunities we have identified to date are presented in Table 1.

Despite DeGrussa's short mine life, we have embraced solar power at DeGrussa to reduce emissions and to act as a reference site for the mining industry. The DeGrussa solar facility was commissioned in 2016 and in FY2018 was providing 17.2 per cent of DeGrussa's energy requirements (see page 42 for more detail). The data clearly demonstrates solar is a reliable and cost effective source of energy and we would consider the application of renewable energy in future projects.

In light of our solid growth pipeline and the possibility that Sandfire will have another operation we are committed to reassessing our exposure as well as our governance and strategy when this occurs. We have not yet quantified and potential future risks or the financial implications and cost of mitigation plans but plan to do this as part of our reassessment.

For more information on our approach to identifying and managing climate risks and opportunities, please read our 2018 response to the Climate Disclosure Project (CDP) reporting framework<sup>8</sup>.



THIS IT	Bescription	Thinguitori and Opportunities
Regulatory changes in Australia	Amendments to the Safeguard mechanism. This is the Australian Government's replacement for the carbon tax and covers facilities emitting above 100,000 tonnes of CO2-e. Each facility in the scheme is given a baseline CO2-e figure and once facilities exceed this baseline they are required to offset their excess emissions. Last year, DeGrussa emitted 85,000 tonnes of CO2-e. However, our future mine plan with the inclusion of Monty might put us over the threshold and the emissions modelling will allow us to determine this.  There is also the risk that the Government may decide to lower the threshold or introduce a new mechanism.	During FY2018 we undertook emissions modelling to life of mine to understand our total footprint and identify emissions savings. See page 54.  Ensure Sandfire understands regulatory changes.
Increased emissions at DeGrussa	As above, this may put DeGrussa operations over the threshold for the Safeguard mechanism. It could also result in an increase in costs.	Continue to undertake emissions modelling to understand our total footprint and identify emissions savings.
Physical impacts	Extreme weather events such as prolonged heatwaves and flooding events that have the potential to disrupt mining operations and impact the safety and health of our workforce.	Ensure there is appropriate emergency response plans in place at all potentially affected operations.
Regulatory changes outside of Australia	Introduction of a carbon price in other jurisdictions impacting on supply chain and potential business opportunities.	Apply shadow price on carbon as part of our analysis of prospective business opportunities.
Increased expectation and scrutiny from stakeholders and investors	Stakeholders and investors requesting more transparency and disclosure	Continue to report and publicly disclose emissions and energy use through our sustainability reporting, and National Pollution Index and National Greenhouse and Energy Reporting  Continue to follow ASX disclosure rules regarding material items.  Consider adopting TCFD disclosure recommendations as appropriate.

Table 1: Climate Change Risks and Opportunities



### **ENGAGING WITH OUR STAKEHOLDERS**

We are committed to early, active and continuous engagement. We rely on strong and open dialogue with our stakeholders to access resources, obtain and maintain our regulatory and social licence to operate, as well as deliver benefit to our communities.

Our stakeholders are those people or organisations who are directly or indirectly affected by, or have an interest in, our business. We prioritise stakeholders based on their ability to impact our business and our ability to impact their lives or activities. Significant stakeholders are our employees, local communities, native title claimant groups, suppliers, contractors, shareholders governments, NGOs and investor bodies.

During the year, we undertook extensive stakeholder research with the aim of identifying potential socio-political issues, enhancing our stakeholder relationships and quantifying and tracking changes to relationship quality, social licence to operate and reputation. Pleasingly, this research showed that many stakeholders rate the quality of relationships with Sandfire as good and grant us a high level of social licence to operate. We believe this shows we have established trust with our stakeholders. However, we understand that this is not static and we must continue to engage with stakeholders openly and appropriately.

The stakeholder research also uncovered that many community stakeholders perceive themselves as economically dependent on Sandfire, which presents a risk that we may leave them vulnerable when we eventually leave community. Our intention is for communities to be in a better position as a result of our presence and we have identified opportunities to work collaboratively with community groups to provide long-lasting benefits. As a result of this research, Sandfire has identified opportunities to improve our stakeholder engagement strategy and plans.

We regularly engage stakeholders through a variety of mechanisms to understand their needs. We require that each of our Business Units have a stakeholder engagement plan in place for operations and active explorations sites. This ensures we map all our stakeholders, the level of impact we have on them, and how we should engage with them. Our Business Units report progress against their engagement plans to Sandfire's Sustainability Management Committee. The management committee is responsible for ensuring that we manage relationships in a consistent and accountable way. This approach is overseen by the Board's Sustainability Committee.

For information about our stakeholder groups and engagement mechanism please see <a href="http://www.sandfire.com.au/images/Our\_Stakeholders.pdf">http://www.sandfire.com.au/images/Our\_Stakeholders.pdf</a>.

RESPECT AND ACCOUNTABILITY
SANDFIRE RESOURCES SUSTAINABILITY REPORT 2018

<sup>&</sup>lt;sup>7</sup> To view our CDP response, you are required to create an account free of charge on the CDP website (https://www.cdp.net/en).

# **Connecting and inspiring**

As a part of regional Western Australia, we see an opportunity to connect remote communities to the wider world and inspire individuals to succeed in their education and careers. Our passion for this goal is not without its challenges. Sandfire's DeGrussa operation is relatively remote, located 150kms away from the nearest town of Meekatharra and 134kms away from the Yulga Jinna Remote Aboriginal Community. The DeGrussa workforce is predominantly fly-in-fly-out from Perth with accommodation provided on site.

This means that our people do not frequently pass through the communities. However, distance from the nearest community has not prevented us from establishing a presence and being involved. We see the value in forging strong relationships as this leads to a better understanding of community needs and also facilitates a sense of connection between our people and these local communities.

For remote communities, exposure to our people and the sharing of ideas, experiences and ambitions that naturally flow from these interactions can have a powerful impact on lives. This has been an important aspect of our approach to stakeholder engagement and community investment activities.

Historically the majority of our community engagement activities have been undertaken by a handful of people. The importance of community engagement and development was not always well understood broadly among our workforce. In the past 12 months, we have attempted to connect our corporate giving and community participation activities to further engage our people.

We believe that working for a company that is socially responsible can improve our people's working lives and enhance their regard for Sandfire. To foster this connection we invited representatives from community to talk to our people about the value our contribution and participation brings. We also increased communication about our activities and encouraged our people to visit the communities. Our relationship with our community partners goes beyond providing financial support and our people have the opportunity to volunteer their time both during and outside of work throughout the year. See the case study on page 27.

Sandfire has a number of partnerships which support children in our communities by increasing their engagement with education and showing where it can take them as well as breaking down some of the barriers to education. This support resulted from discussions with the Meekatharra District High School (MDHS), where the need to raise attendance and to provide more opportunity for young people was identified. Sandfire continues to work closely with the school and local community action groups to ensure our current support addresses community needs. This year, Sandfire began engaging with the Meekatharra Aboriginal Reference Group (MARG). This group is chaired by the Department of Communities and is comprised of local leaders and representatives of service provides within the community. MARG's priorities are:

- drug and alcohol awareness
- education
- job training and employment opportunities
- women's health
- men's health.

Through engagement with this group we are able to understand the priorities of the community and how our support can assist other sections of community in addition to children's education. At the end of the year we were in discussion with MARG and service providers on potential partnerships to assist with women's health.

## **CASE STUDY**

# **Supporting Shooting Stars**

This year marked the second year of our partnership with Shooting Stars, an initiative of Netball WA and Glass Jar which uses netball as a vehicle to encourage greater engagement and school attendance by young Aboriginal women living in WA's remote communities and regional towns.

Sandfire's support funds the employment of a program co-ordinator based at the Meekatharra District High School (MDHS). At the close of the 2017 calendar year, Sandfire made the decision to increase and extend funding following an impressive first year. This additional support allowed Shooting Stars to employ a young Aboriginal woman from community providing a role model for the students in the program.

Through this partnership, we have built relationships with Shooting Stars staff and the participants. This has allowed us to get involved in different activities including:

- In December 2017, Shooting Stars celebrated the achievements of the participants at an awards night. This was an important moment to reflect on their dedication throughout the year and taking pride in how far they had come. We arranged a fundraiser to buy clothes and shoes for the awards night and our people travelled from Perth and DeGrussa to MDHS to lend a hand to do the girls' hair and makeup.
- In April 2018, Shooting Stars held a Midwest carnival at MDHS. Our people volunteered their time umpiring, keeping score and helping out to make the day run smoothly.
- In June 2018, Shooting Stars and Sandfire Resources hosted a networking event in conjunction with Women in Mining WA. The theme of the event was the power of partnerships and we showcased the importance and benefits of working together to respond to community needs.

We have the opportunity to meet the young women in the program and to share their stories by getting involved. This gives them exposure to people from outside of community, to hear about different career journeys and to be confident talking to a wide range of people. We believe this is a sustainable partnership model and we look forward to working with Shooting Stars in the years to come and following the young women as they become future leaders.





# SUPPORTING **ECONOMIC** DEVELOPMENT

We acknowledge that our success supports the economic development of individuals and communities and we aim to maximise benefits and minimise negative impacts of our economic influence. Our vision is to create sustainable, enduring value for our communities that continues after our activities cease.

### **ECONOMIC DEVELOPMENT**

We have the ability to impact the local and regional economies around our operations and we aim to create value that will go beyond our life of mine whilst avoiding creating a legacy of dependence. We contribute to economic development through a variety of methods. Our approach includes local procurement and employment as well as community investments and partnerships. We also contribute through our payment of taxes and royalties to government. By engaging with our community stakeholders including community groups and local governments, we are able to assess and modify our approach to supporting regional economic development.

In FY2018 our direct economic contribution consisted of:

- revenues from sales of our products \$606.7 million
- · taxes payments to state and federal government - \$63.4 million
- royalties to native title groups of the land in which we operate - \$3.5 million
- royalties to Western Australia state government - \$29.9 million
- community investments and partnerships, including in-kind donations - \$600,000
- employee related expenses including salaries paid to employees - \$40.1 million
- payments to our contractors and suppliers -\$338.3 million.

# HIGHLIGHTS

92.6% of our employees live in **Western Australia** 

Approximately 96% of goods and services were purchased within Australia

**Exceeded our target for donations** to community

50% of community donation spend went to local partnerships



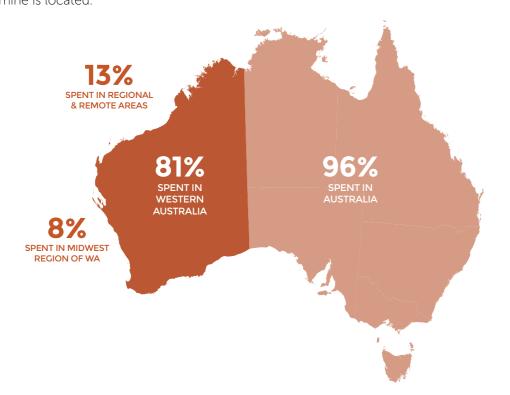
#### **Procurement**

We recognise that one of the biggest contributions we can make to regional economies is through the procurement of local goods and services. This has the potential to create economic multipliers and boost supplier capacity.

In FY2017, we made a commitment for eight per cent of our procurement spend to be in regional areas within Australia. Based on our performance in FY2018, we plan to increase this target to 10 per cent in FY2019. Regional areas are those towns that lie beyond the capital cities. In addition, we have aimed to prioritise engaging with contractors and suppliers located in the Midwest economic region<sup>8</sup> within Western Australia as this is where our DeGrussa mine is located.

Of the total payments<sup>9</sup> to our contractors and suppliers in FY2018:

- 96.5 per cent was spent in Australia
- 81 per cent was spent in Western Australia, where our operation and head office is based and where the majority of our service contracts
- 13 per cent of total cash payments was spent in Australian regional and remote areas
- 8 per cent was spent in the Midwest region of Western Australia where DeGrussa is located.



#### Monty

In FY2018, Sandfire worked to bring Monty into operation with construction of the site and the start of development. See page 32 for more detail. Thirty-eight per cent of spend attributed to Monty was on contractors from the Midwest economic region.

This was bolstered by the contract that was awarded to the Yagahong Alliance for the civil construction work. The Alliance is a joint venture between Central Earthmoving and the Yugunga-Nya People. Central Earthmoving is headquartered in Geraldton in the Midwest region and the Yugunga-Nya People are the traditional owners of the DeGrussa project area.

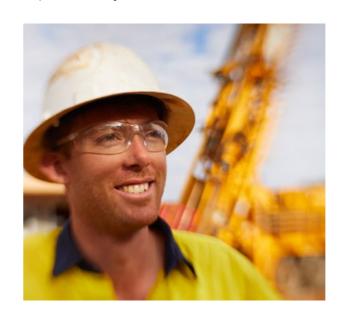
# **Employment**

Our total workforce at 30 June 2018 was approximately 488 including 245 permanent contractor personnel who work at the DeGrussa mine. Our direct workforce is 243, a 6.5 per cent increase on 30 June 2017.

Most of our direct employees are drawn from Western Australia with 1.6 per cent residing in the Midwest Economic region in which our mine is located in, 91 per cent in Perth and another 7.4 per cent living elsewhere in Australia. Our DeGrussa workforce is predominantly fly-in flyout from Perth. The nearest town to DeGrussa is Meekatharra, located 150kms south of our operation with a population of 1,067<sup>10</sup>. For safety reasons we prefer workers from Meekatharra to drive in and stay on site for their roster.

Contractors provide services at our DeGrussa operation and at our exploration sites, and consultants supplement expertise in key areas of our operations. We have several long-term commercial agreements with contractors who undertake critical components of our operation including:

- our underground mining contractor provides labour to undertake mining operations
- our catering and village services contractor employs cleaners, catering staff, maintenance personnel and administration staff
- our haulage, freight and employee transport requirements are contracted out to specialists
- drilling and shutdown maintenance work is performed by contractors.



# **Community investment**

We contribute to communities through sponsorships and in-kind donations. Our Donations, Sponsorship and Partnership Policy, available at http://www.sandfire.com.au/ sustainability/sponsorship-quidelines.html, outlines our approach to community investment.

Our preference is to support programs that have benefits in our host communities that will last after our operations have ceased and that will not create a legacy of dependency.

In FY2018, we invested over \$600,000 into community programs and partnerships, including direct funding and in-kind donation of time and resources.

Recipients of community funding can be found at http://www.sandfire.com.au/sustainability/ community.html

A potential negative impact of our presence in local communities is financial dependency. In FY2017 we strategically set out to ensure that the money we spent in community was going towards initiatives that would have long term value and we prioritised partnerships.

In FY2018, half of our investment into community went to partnership agreements. These agreements have clear objectives and key performance indicators and are focussed on bringing long term benefit to community. We hope that our support will allow these organisations to continue to operate if and when we leave.

In FY2019, we will be establishing a mine closure committee. This committee will be charged with overseeing all aspects of mine closure. This includes consideration of the impact to our workforce, our environmental obligations, how we will exit community when the mine closes and how we can continue support. The committee will work with community stakeholders to ensure our approach to mine closure is consistent with their priorities and vision for the future. This will allow us to manage the socio-economic risks and impacts of mine closure, which is one of our key responsibilities.

<sup>&</sup>lt;sup>8</sup> the Midwest Economic region of Western Australia spans 478,000 square kilometres from Green Head to Kalbarri and more than 800km inland to Wiluna in the Gibson Desert http://www.drd.wa.gov.au/regions/Pages/Mid-West.aspx

<sup>9</sup> We determine our procurement spend by cash paid to contractors and suppliers in economic regions of Western Australia, metro and non-metro areas across Australia. These regions are defined by their postcode. This has some limitations: (i) It is based on cash paid to contractors and suppliers so will differ from the total paid to contractors and suppliers which is calculated on an accruals

<sup>(</sup>ii) Postcodes of contractors and suppliers are recorded in our accounting system based on head office address. This might not accurately reflect the economic benefits of purchasing from a company that has multiple sites.

<sup>&</sup>lt;sup>10</sup> http://quickstats.censusdata.abs.gov.au/census\_services/getproduct/census/2016/quickstat/LGA55250?opendocument



# EXPLORATION AND FUTURE DEVELOPMENT

Since we discovered DeGrussa, Sandfire has remained steadfast in its conviction that the Greater Doolgunna region, the 6,588 square kilometre tenement package surrounding DeGrussa, has the potential to yield further high-grade mineral discoveries. The Monty discovery was the first significant orebody comprising high-grade copper-gold mineralisation to be identified outside of DeGrussa.

Sandfire has a significant ongoing exploration commitment within the Greater Doolgunna region. Sandfire is focused on building a robust project pipeline from early stage to development assets. In addition to our own exploration initiatives in Queensland and New South Wales we have invested in a portfolio of exploration joint ventures and initiatives in prospective mineral provinces in Australia and overseas.

As we approach the end of the visible mining inventory at DeGrussa (currently defined to 2022), this impressive suite of growth initiatives – incorporating our production, development, exploration and business development assets both in Australia and internationally – is designed to underpin Sandfire's long-term financial success to ensure we can continue to deliver growth and prosperity in the regions in which we operate. Our Board and GMT regularly review our project pipeline to ensure we lay the foundations for long term success.

# **Monty Copper-Gold Mine**

The Monty deposit, discovered in June 2015, is a new high-grade satellite mine, located 10 kilometres east of DeGrussa. The Western Australian Department of Mines and Petroleum granted Sandfire a mining lease on 30 March 2017.

Over the past twelve months, positive progress has been made with underground development well advanced and first ore production on track to occur before the end of calendar 2018.

# Key Information

- Maiden Ore Reserve for Monty of 80kt copper at an average grade of 8.7 per cent and 42koz gold at 1.4 grams per tonne.
- Initial ore production life of 30 months supplementing the DeGrussa feed to the mill.

# **Doolgunna region and Australia**

Exploration continued during the year both in the Greater Doolgunna region near the DeGrussa and Monty operations and across our extensive portfolio of gold and base metals exploration projects along the Australian east coast.

During the year, encouraging results were returned from the Morck Well JV area at Doolgunna, and a multi-pronged exploration campaign is continuing along this corridor with a view to discovering additional Volcanogenic Massive Sulphide (VMS) deposits.

# International business development (Sandfire Ventures)

Sandfire acquired cornerstone shareholdings in Adriatic Metals PLC (ASX: ADT), White Rock Minerals (ASX: WRM) and unlisted exploration company, Andes Resources Ltd, providing exposure to compelling new growth opportunities in Bosnia-Herzegovina, Alaska, and Colombia respectively.

In these cases, Sandfire completed substantial due diligence not only in relation to each of these companies' assets, but also to make sure we were partnering with the right people to ensure that any future project development will be undertaken in accordance with Sandfire's sustainability goals.

# **Research and development**

Sandfire, through collaborative research studies, is also investigating innovative ways to unlock the economic value of oxide stockpiles at DeGrussa, which contain an estimated 35,000 tonnes of copper and 84,000 ounces of gold.





32 SUPPORTING ECONOMIC DEVELOPMENT



# BUILDING A SAFE AND SUPPORTIVE WORKPLACE

We place the highest emphasis on providing a safe and inclusive workplace. We aim to enable all our employees to develop the skills they need to reach their potential in our organisation.

## **KEEPING OUR PEOPLE SAFE**

## Safety

Our ultimate priority is for no fatalities or serious incidents to occur. In FY2018, we had no work-related fatalities or serious injuries but experienced 10 recordable injuries. Consequently, we did not meet our target to reduce our total recordable injury frequency rate per million hours worked (TRIFR) to 4.5. At the end of the reporting period, Sandfire's TRIFR was 7.1, compared to 5 in the previous year.

The majority of the injuries were to contractor personnel at DeGrussa and consisted mainly of injuries to hands, fingers and backs. Although none of these related to our principal hazards, (those risks that have significant fatality risk), even one injury is too many, and our performance is not acceptable to us.

We identified manual handling as a key contributor to the types of injuries experienced. As a result, we focused on manual handling in our leader's safety observation program<sup>11</sup>. In addition, our Safety Essentials Program, which is mandatory training for all who work on our site, has an emphasis on manual handling.

We treat all workers the same, no matter whether they work for us or for one of our contractors. Approximately 75 per cent of our hours worked are executed by contractors, typically performing higher-risk activities. Sandfire places

# HIGHLIGHTS

O fatalities and O serious injuries

However TRIFR has increased to 7.1 as a result of an increase in injuries

94% of our employees undertook unconscious bias training

Teaching people to be aware of their ingrained bias

Continue to exceed industry average for female representation

strategic focus on contractor relationships and management, recognising the key role contractors play in our health and safety performance. See the contractor safety case study on page 38. Sandfire continued to work closely with our contractors on improving safety throughout the year.

We are confident that our program of assurance which ensures our principal hazards are controlled and the proactive safety measures we undertake will reduce our injury rate in FY2019.

<sup>&</sup>lt;sup>11</sup> Sandfire's leader's safety observation program is a process where leaders engage with personnel in the field to identify at-risk behaviours and acknowledge positive behaviours.

# **Health and wellbeing**

We recognise that there is more to health and safety than just preventing injuries. Our people need to be fit, healthy and ready to perform work. Our priority is that our workforce is physically conditioned and provided with an environment that will allow them to undergo work tasks to the best of their ability.

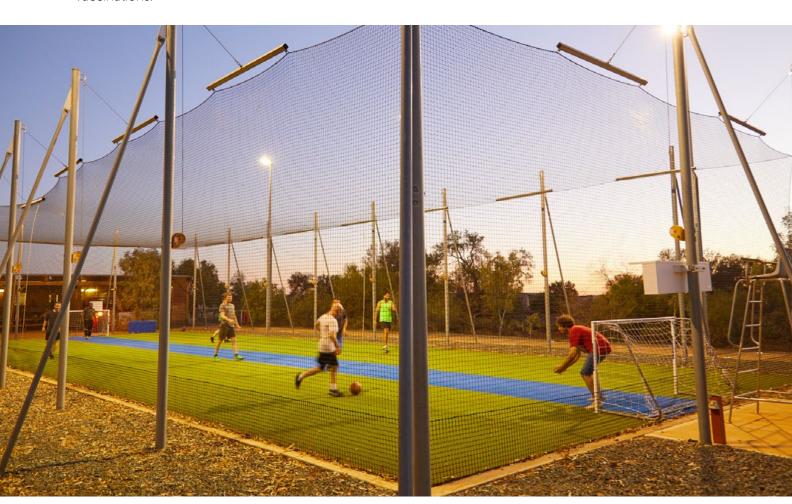
It is a requirement of Sandfire's Health and Safety Management System (HSMS) that personnel are assessed for their fitness for work and the health and hygiene hazards and their associated risks are understood, described and effectively managed.

Sandfire undertakes a DeGrussa health risk assessment, which identifies the health hazards our workforce is exposed to and describes how these will be controlled.

We also have systems in place to promote healthy lifestyles and ensure fitness for work. These include having a gym, sports courts and a walking track on our DeGrussa site, working with our catering contractor to provide healthy food choices and education, and annual walking challenges. We also offer regular skin cancer checks and flu vaccinations.



We are conscious that fly-in, fly-out work and the labour intensive conditions on mine sites can be a challenging work environment both personally and professionally. Sandfire is committed to fostering a supportive culture and provides ongoing mental health awareness training to all our employees. This program is aimed at raising awareness and understanding of mental health issues and to reduce their stigma. In addition, our Employee Assistance Program (EAP) is a service available to all employees, contractors and their immediate family members to help them with work and personal difficulties that may arise. The EAP is an early intervention initiative that provides professional and confidential counselling.





# Our systems for managing health and safety

The Sandfire Board has ultimate responsibility for overseeing Sandfire's health and safety management system (HSMS). To execute these duties the Board requests assurance from each Business Unit that identified critical risks are effectively managed and for evidence of conformance to the HSMS, which is reviewed annually

Based on AS/NZS 4804:2001, this HSMS covers everyone who performs work at any of our sites, including contractor personnel. The HSMS identifies 12 elements that support the goals of Sandfire's occupational health and safety policies (available at <a href="http://www.sandfire.com.au/investor/governance.html">http://www.sandfire.com.au/investor/governance.html</a>). These elements outline the expectation of the required performance in key areas of health and safety management and have associated standards.

Sandfire undertakes a program of monitoring, auditing and reviewing to ensure effectiveness of the HSMS, including a program of both internal and external audits. Results of this process are reported to stakeholders. Details of an external audit undertaken this year can be seen in the case study on page 40.

Sandfire encourages active participation in the development, implementation and evaluation of

Sandfire's HSMS. This is managed in accordance with Element 11 - Communication and Participation, and its associated standards which ensure systems are in place to support effective communication of safety information, that all personnel are aware of the processes for raising and resolving safety issues, that safety information is collated, reviewed and communicated and that activities and initiatives are developed to encourage communication and participation in safety.

Our people also participate in health and safety committees. Sandfire's Corporate Health and Safety Committee is comprised of the Business Unit Managers. The committee meet at least quarterly and a non-executive director is invited to attend. In addition, each permanent contractor or employee workgroup must have a safety representative elected by peers to represent them in discussions with management on occupational health and safety matters. These representatives are registered with the Department of Mines, Industry Regulation and Safety (DMIRS).

Sandfire provides health and safety training in accordance with Element - 10 Competency and Behaviour and associated standards. Training includes as a minimum, inductions, mobile equipment operating training, standard work practice training, and health and safety awareness training.



# **CASE STUDY**

## **Contractor Safety**

contracting entity who performs high risk work can mobilise to our operational or exploration sites, they provide Sandfire with detail of their Health and Safety Management Plan (HSMP). regular review and audit.



# **CASE STUDY**

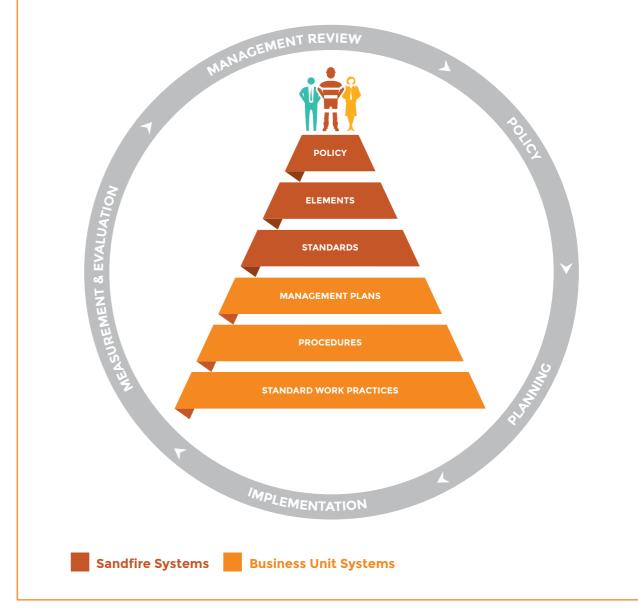
# **Sandfire Integrated Management System**

In FY2018, Sandfire commenced work on developing the Sandfire Integrated Management System (SIMS). This work will be completed in FY2019 and the SIMS will be implemented across the business.

Health, safety, environmental and sustainability management across Sandfire is the responsibility of all levels of the organisation and will be achieved through implementation of

The SIMS forms part of the overall management system which includes organisational structure, planning activities, responsibilities, practices, standards, processes and resources for developing, implementing, achieving, reviewing and maintaining the Occupational Health and Safety Policy, Health and Wellbeing Policy, Environmental Policy, Sustainability Policy, and managing the health, safety and environmental risks associated with the business.

The SIMS reflects the principles in AS/NZS 4804:2001 Occupational Health and Safety Management Systems and ISO 14001:2015 Environmental Management Systems, and integrates the continuous improvement cycle.





## CASE STUDY

Sandfire's Health and Safety Management System Audit

In FY2018, we engaged a third party to audit compliance with Sandfire's 12 HSMS standards. We aim for Sandfire's safety systems to be simple and easily understood by our people so that they do what they are intended for – in keeping people safe. The audit was designed to help us determine whether our systems are working, providing us with invaluable insights for how we can improve. The key recommendations were to reinforve safety within Sandfire's leadership program (see page 43) and to revive the visibility of Sandfire's safety management system within the workforce. The recommendations will be worked through in FY2019 and we will undertake internal audits to check they have been implemented.

# SANDFIRE PEOPLE

# Attracting and retaining the best people

Our people are our number one asset and we aim for Sandfire to be an organisation where people want to work. Our focus is on attracting and retaining experienced and skilled talent who share our values.

Since 2017, the external landscape has shifted, with the labour market tightening as a result of an upswing in the mining sector as well as the pickup of other industries elsewhere in the country, which have attracted former mining industry workers. Additionally fewer people are enrolled in mining related disciplines at university. This has resulted in a skills shortage which has the potential to impact both retention and attraction. Sandfire is actively trying to address this and assist with attracting people to the industry by supporting scholarships and promoting the benefits of working within the industry.

From an internal perspective, we have a visible mine life at DeGrussa which takes us to 2022. We are working to extend this mine life but closure

is a reality for which we must prepare. We are also poised for growth both within Australia and internationally so it is essential for us to focus on retaining top talent and the key roles we need within the organisation. This will include identifying the skill sets we require to support the business.

The strategies we have in place to attract and retain talent include:

- paying competitive salaries. This is reviewed annually to ensure we remain competitive
- offering salary continuance to permanent employees
- supporting external and internal training opportunities to strengthen individuals experience whilst also adding value to the business
- providing flexible working arrangements where possible such as job share, part time, fixed term and casual working arrangements
- providing our people with consistent, ongoing, relevant and clear communication.

# Risk, hazards and investigation

Our safety system is built around preventing fatalities and serious incidents by identifying principal hazards and implementing controls to reduce the risks arising from those hazards. Principal hazards are those hazards that have a significant fatality risk.

So that our workforce understand how to effectively identify and control hazards in their workplace, we require our people to be competent in these areas and to undertake regular training.

A suite of policies and programs govern our approach to hazard identification, risk assessment, and incident investigation. These include Sandfire's Risk Management policy available at <a href="http://www.sandfire.com.au/images/Risk\_Management\_">http://www.sandfire.com.au/images/Risk\_Management\_</a>
Policy.pdf and our internal documents including our HSMS, Health and Safety Management Plans, Risk Management Standard, Hazard and Identification Control Standard and Incident Management Standard.

Occupational safety risk assessments are completed and reviewed on an annual basis. This is a formal process involving a team which allows us to identify and evaluate risks and hazards and determine appropriate methods to eliminate or reduce the risk or hazards.

Sandfire has a number of processes to systematically identify work-related hazards and to assess risks on a routine and non-routine basis.

Incident management is a key component of safety risk management. It identifies failures in processes and practices. It is a requirement that all incidents are reported regardless of their severity. Sandfire expects timely reporting and accurate classification of incidents to determine an appropriate level of investigation through analysis of causal factors, an understanding of the potential outcomes and the assignment of actions to ensure that improvement opportunities are implemented.



4.0



In FY2018, we trialled our first job share arrangement on our DeGrussa site. Two of our people from our maintenance department came up with the arrangement as one has a small farm he runs and the other wanted to spend more time with his family. The two men approached management with the proposal to job share and made a commitment to cover each other's leave as well as both be available for shutdowns on site. Having experienced and familiar people working on our shutdowns is a benefit to Sandfire as it ensures they are undertaken efficiently and safely

The trial has been a success and is proving to be beneficial to both the men involved and to Sandfire. It's a great example of a flexible offering for a demographic that would not typically apply for job sharing. It shows that it can be done.

### **Setting our people up for success**

Talent development is a key success factor in achieving our strategy and delivering results. As such we are committed to investing in and developing our pipeline of talent to drive our business forward today and into the future. We are committed to developing our people so they are able to perform to the best of their ability at Sandfire and take the perspective that this will support their long-term career development.

In our last employee engagement survey we found a perception that there is no room for growth within the company due to its size and visible mine life. This is a perception that we have earnestly been trying to change within the business. We are actively working to extend our operations in the Doolgunna region, both through exploration and extracting more value from the existing DeGrussa resource and we are also recommencing our leadership training in FY2019. We hope these activities will begin to change perceptions.

BUILDING A SAFE AND SUPPORTIVE WORKPLACE

During the year, we were able to offer secondments to two of our geologists to work on the Black Butte project in the United States. This has been a great opportunity for our people to immerse themselves in the project development phase and provide shared learnings for Sandfire and Sandfire America.

### **Training and development**

In FY2018, eight people were accessing Sandfire's further education support, which allows employees to access sponsorship of up to 75 per cent of course fees as well as dedicated study leave. To date over 26 people have undertaken further education through our scholarship. This has proved to have benefits for the individual and for the company. Having our people undertake further education exposes them to new ideas and learning which they bring back to the workplace while assisting them to achieve their career goals. In addition it has increased retention and provided opportunities for movement and promotion within the company.

### **CASE STUDY**

# Leadership development training

We are committed to developing our people to achieve their potential and to help them achieve their goals. We believe that cultivating keen, engaged leaders who can help perpetuate our culture and our values is a critical part of ensuring our success. In FY2019, we will recommence our leadership development program. This will include a full program for new leaders who did not undergo the initial training and a refresher for those who participated in 2015 and 2016. It is expected that this program will:

- explore what it means to be an effective leader
- enable our people to develop their leadership skills
- embed a consistent leadership culture across the business.

### **DIVERSITY AND INCLUSION**

Sandfire is committed to providing a work environment where everyone is treated fairly and with respect. We value a diverse and inclusive workplace and believe that everyone who works for us should have equal opportunity to reach their full career potential. We believe that a workforce with diversity will:

- broaden the pool of high quality employees through recruitment, development and promotion
- support employee retention
- encourage greater innovation, enhanced work practices and productivity
- demonstrate socially and economically responsible governance practice.

Our approach is led by our Diversity and Inclusion policy available on our website at <a href="http://www.sandfire.com.au/investor/governance.html">http://www.sandfire.com.au/investor/governance.html</a>. Sandfire's diversity committee, chaired by CEO Karl Simich, was established in FY2017 to help the business embed a culture of diversity and inclusiveness. During the year the committee established a diversity strategy, which supports Sandfire's objectives to improve female representation, foster employee engagement, ensure people are living Sandfire's values and provide employment for Aboriginal people.

The key focus for the past twelve months has been on:

• Increasing engagement, by providing quarterly updates to the management team on diversity

- and inclusion metrics including recruitment, turnover, promotions, training and further education as well key initiatives.
- Reviewing our job adverts for bias and looking for ways to attract a broad range of people.

In addition, we addressed the recommendations from a gender status review conducted by a third party in in FY2017. This included a review of our policies and evaluation against the Workplace Gender Equality Agency's<sup>12</sup> gender equality diagnostic tool (WGEA diagnostic tool)<sup>13</sup>. These results were communicated in our FY2017 Sustainability Report and in FY2018 we:

- Conducted a gender pay equity review which compared roles to the industry resulting in some adjustments to salary.
- Raised visibility of promotions and resignations by reporting quarterly to management. This was a response to the finding that our promotions of women were lower and our turnover was higher than the industry average.

We will use the WGEA tool each year to measure the effectiveness of our approach to diversity and inclusion.

Our focus for next year is to improve female representation (22 per cent as at 30 June 2018), as well as review female representation at all levels in the business and implement action plans for each area.

SANDFIRE RESOURCES SUSTAINABILITY REPORT 2018

<sup>&</sup>lt;sup>12</sup> The Workplace Gender Equality Agency is an Australian Government statutory agency created by the Workplace Gender Equality Act 2012. The Agency is charged with promoting and improving gender equality in Australian workplaces.

<sup>&</sup>lt;sup>13</sup> Gender diagnostic tool available as part of the WGEA' 'Gender strategy toolkit' https://www.wgea.gov.au/lead/building-gender-equality-strategy



# **ABORIGINAL ENGAGEMENT**

Aboriginal people are among Sandfire's key stakeholders, as employees, local community members and custodians of the land where we operate. We actively engage with our Aboriginal stakeholders through open and constructive dialogue and aim to maintain strong and mutuallybeneficial relationships. We acknowledge and respect the rights and culture, as well as the connection to country, language and traditions of the different Aboriginal native title groups near our operations and exploration projects.

# **Employment**

At Sandfire, we recognise the right to economic inclusion of Aboriginal people and we are committed to increasing employment opportunities across our workforce.

Our goal has been to grow and retain our Aboriginal workforce. We have set a target for five per cent of our total workforce to be Aboriginal year-on-year. This year we have achieved this for the fourth year in a row, with total participation in our workforce at 7.4 per cent. As a result, we have adjusted our target to seven per cent for FY2019 and beyond.

We ask the contractors who are the biggest employers on our site to help us achieve this, as they have the ability to offer a large variety of roles. Contractors whose personnel represent a larger proportion of the workforce are contractually obligated to reach a minimum of five per cent Aboriginal employment.

Sandfire employs a fulltime Aboriginal Liaison Co-Ordinator who assists Sandfire and our contractors to engage Aboriginal people within our community and is responsible for onsite mentoring of Aboriginal employees.

# **Native Title Group Engagement**

Regular engagement with native title groups helps us to develop strong working relationships and protect culturally significant or sensitive areas by taking appropriate measures to mitigate potential impact risks.

Sandfire's DeGrussa operation, the Monty project and Australian exploration are on land that:

- is subject to 11 native title claims
- has five determined native title claims.

There are wide-ranging Cultural Heritage Protection Agreements and Land Access Agreements in place that protect cultural heritage sites and can offer opportunities for employment, education and commercial contracts.

We have the following agreements in place:

- Two Land Access Agreements in WA (for mining) 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 Settlement, Consultation and Heritage Deed (for exploration) with the Nharnuwannga 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 (for exploration) in Queensland with Yulluna Native Title Determination and the Mitakoodi Mayi People. These provide for heritage surveys.
- One heritage agreement (for exploration) with the Wajarri Yamatji Native Title Claimant Group (WA). This provides for heritage surveys.
- One heritage agreement (for exploration) with the Gingirana Native Title Claimant Group (WA). This provides for heritage surveys; and



• Six Heritage Agreements (for exploration) with the Yugunga-Nya Native Title Claimant Group (WA). These provide for heritage surveys.

Sandfire has completed over 85 cultural heritage surveys across its projects in Australia while engaging with the relevant native title groups. During the reporting period, we undertook eight cultural heritage surveys.

We hold bi-annual Liaison Committee meetings with the Yugunga-Nya people, who are the recognised native title claimant group for the land on which the DeGrussa mine is located. These meetings are an open discussion on employment, education and training and commercial opportunities, as well as any heritage and environmental concerns that the group may have in relation to our activities.

We have similar discussions with the Gingirana people who are a recognised native title claim group on certain tenements adjacent to the DeGrussa mine. We also hold annual meetings with the Jidi-Jidi people about mutually beneficial employment, education, training and commercial opportunities on their claim group land on which we explore or may explore.

Sandfire hopes that a legacy of its operations in the region will be greater opportunities for Aboriginal people, including education and employment. In support of this aim, we established scholarship funds for the Yugunga-Nya and Gingirana People. The scholarships provide for public or private school education, TAFE courses, university courses and programs and sporting programs where the applicant shows particular aptitude for a sporting endeavour.

# **Relationship development**

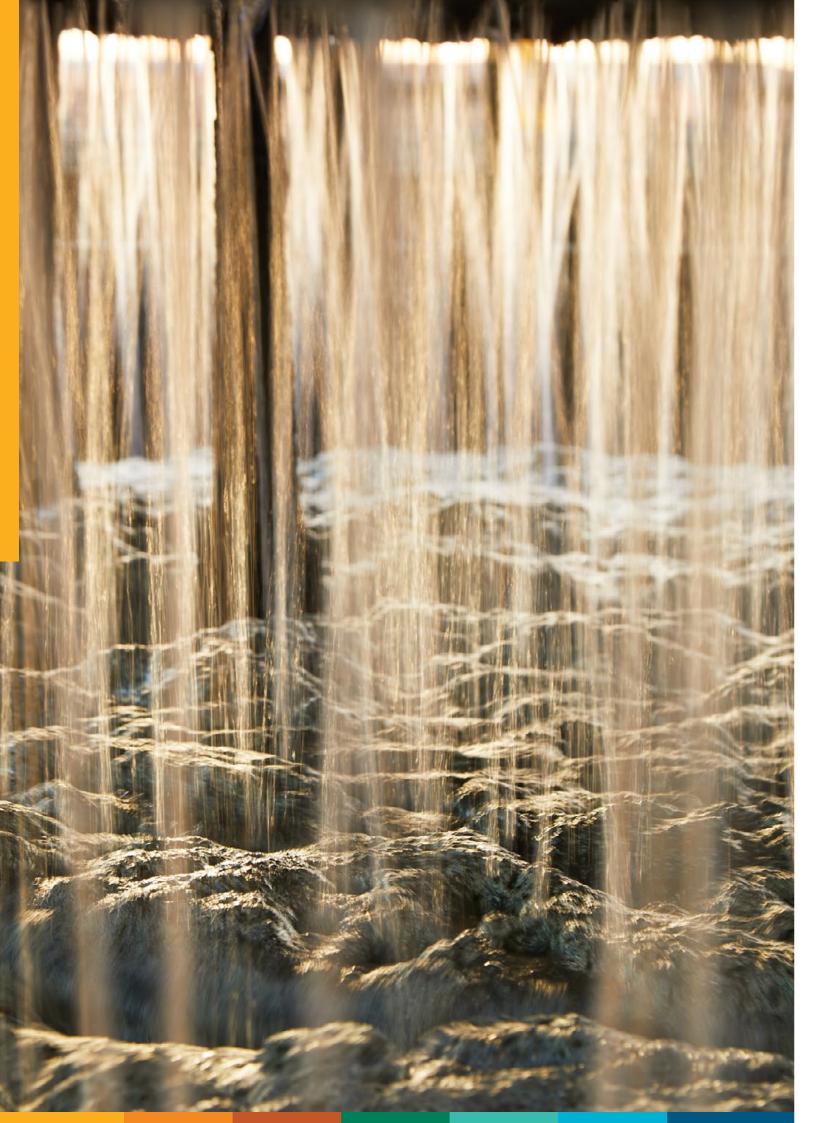
As well as the opportunities provided through our native title agreements, we see significant value in investing in programs which benefit the wider Aboriginal community in the areas in which we operate. This includes investing in programs to improve educational outcomes for young Aboriginal people. Through these investments we are able to form connection with community.

In the past twelve months, Sandfire has engaged with the Meekatharra Aboriginal Reference Group (MARG). This is a committee comprised of local Aboriginal leaders and human service providers with the aim for achieving community-driven outcomes. We believe engagement with MARG has allowed us to build relationships with a wider group and understand what the community is working to achieve and how we can contribute.

#### **Cultural awareness**

All Sandfire employees are required to undertake face-to-face cultural awareness training. This education is to embed understanding of Aboriginal culture and aims to strengthen positive engagement with Aboriginal people across our business and in communities. By strengthening our relationships, Sandfire can in turn better understand and ensure the protection of local Aboriginal culture.

BUILDING A SAFE AND SUPPORTIVE WORKPLACE



# OPERATING RESPONSIBLY

We undertake our work in a manner that respects and supports people and the environment by minimising negative impacts and supporting positive outcomes. We aim to avoid, reduce or mitigate negative environmental impacts at every stage of the mining life cycle.

### **WATER**

Water is a precious shared resource.

The mining industry is a significant water user; minerals extraction, processing and further refining are water-intensive processes. This can have an impact on access to water. Furthermore, the impact of mining has the potential to affect waterways and aquatic life if not managed well.

Sandfire uses water in all aspects of our operations; to mine and process our copper concentrate, to suppress dust caused by our activities and to ensure the health and wellbeing of our workforce. Our operation relies on our ability to source water without negatively impacting supplies by our use.

Sandfire's water activities are regulated by the West Australian State Government through operating licences and approvals which have set quality and quantity thresholds. Sandfire reports to regulators on water abstraction and discharge. Our water usage during the year has been within the limits set within our licences.

Our water use is managed in accordance with Sandfire's management system and plans. These have been developed based on our regulatory and licence requirements as well as Australian Standards.

We provide additional reporting on metrics and strategy through our annual sustainability report in an effort to provide stakeholders with transparent disclosure on how we manage water. Reporting on metrics can be found in our Data Tables on page 58.

# HIGHLIGHTS

No fines or sanctions

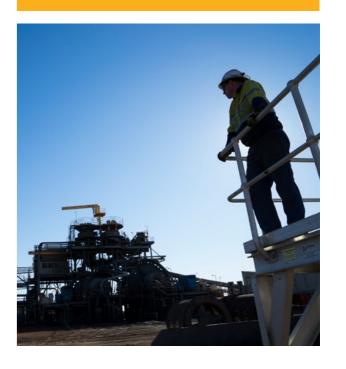
We continued to operate within our licence conditions

Solar consistently provided power to DeGrussa

Accounted for 17.2 per cent of our total energy needs on site

We abated over 12,959 tonnes of CO-2e in FY2018

And offset 4.8 million litres of diesel



DeGrussa and Monty are located in a semi-arid area with an annual average rainfall of 230mm. This area is within the East Murchison Groundwater Management area which covers a significant portion of Western Australia. There are no declared water reserves or proposed water supply catchment areas or groundwater protection areas located within the area.

With no permanent surface water, DeGrussa's predominately sources water from groundwater. Our approach is to limit water withdrawal from aquifers as much as possible. Once groundwater enters the circuit, we aim to increase the efficiencies in the use of water by reusing and recycling wherever possible. Where there is excess water which cannot be reused we ensure that water is discharged to the environment in a responsible manner.

Sandfire has an adequate source of water for its operations and the area is not considered to be in an area of water stress. Our assessments do not foresee any significant changes to the availability of water in the region.

Sandfire maintains a water balance model which tracks the flow of inputs and outputs into the DeGrussa water circuit. This allows us to ensure we are operating with the requirements of our licences. Over the past few years we have continued to refine this model to give us a better understanding of our usage. Next year we will establish a water management strategy, which will take a whole of site based approach to ensure water is being used as efficiently as possible.

## **Water withdrawal**

In FY2018, our water withdrawal was 1,288 ML to support mining operations. This represents a 5.4 per cent increase since last year but remains within our licence conditions.

Sandfire regularly monitors the potential impacts of water withdrawals to groundwater dependent ecosystems (GDEs) subterranean fauna and vegetation. Our operations are not currently impacting on GDEs.

In FY2017, we installed additional monitoring bores at several sites across DeGrussa and Monty

to provide a more regional view of the potential impacts on local and regional groundwater systems. The results of the 2018 analysis will be summarised in the 2018 Annual Aquifer Review, and the Annual Environmental Report which are provided to the WA Department of Water and Environmental Regulation in March 2019.

# Water reuse and recycling

Sandfire seeks to maintain as much water in circuit as possible and therefore aims to reuse and recycle water where possible. We achieve this by recirculating water from our tailings storage facility (TSF). Water is required to process copper ore and this process produces a slurry waste product, known as tailings, which is typically a mixture of finely ground solids, process water and residual reagents. In previous years, the TSF has had high water levels and Sandfire implemented practices to return this water to be used in the processing plant. This assists us to dry out the TSF so it can eventually be reclaimed. In addtion, to enable safe underground mining operations, Sandfire dewaters its operation and reuses this water for drilling, mineral ore processing and dust suppression.

# Water discharge

Excess water that cannot remain in circuit is returned to the environment under our licence conditions. The groundwater at Sandfire's operations is fresh to brackish and only requires minor treatment prior to discharge to the environment however, process water is not discharged to the environment.

Prior to FY2018, Sandfire discharged to one location on site which is classed as an ephemeral water course. Over time, we found through our monitoring this had negative impacts as it saturated local trees causing some to die. After consulting with regulators we received approval to add an additional discharge point. This was installed last year and will allow DeGrussa to rotate the discharge location and reduce the risk of water ponding and soil saturation, which can result in vegetation stress.

In FY2018, Sandfire discharged 116 ML of water to the environment under our licencing conditions, which is a 37 per cent decrease since FY2017.



# **CASE STUDY**

### **Water at Black Butte**

Protecting the Smith River Valley watershed at Black Butte is the top priority for both Sandfire America and the project's stakeholders. The project is located north of the town of White Sulphur Springs and 19 stream miles from the confluence of Sheep Creek and the Smith River.

Protecting water resources was a key consideration when planning the layout of the mine openings and facilities. Sandfire America undertook exhaustive testing to wholly understand the deposit and design the safest and most efficient mine in Montana's history. As a result, the cemented tailings facility will be located one mile off Sheep Creek, out of the valley, in a saddle of Sawmill Hill. The mine tunnel entry will be 200 feet above the water level and all mine openings will be located above sea level. This is to prevent water from leaving the mine and mixing with creek water.

Sandfire America has been gathering and analysing hydrological baseline information for six years to support a robust hydrologic model. The project's 78 monitoring stations include monitoring wells, piezometers, pump test wells, and stream flow and water quality monitoring sites. Sandfire America has committed to providing access to this monitoring data in an effort to be transparent.

Once in operation, all groundwater from the mine and surface water from precipitation will be collected, monitored, tested and treated before it is placed back into the ground water system through an underground alluvial system with zero discharge to surface waters. A reverse osmosis water treatment plant will be constructed on site for the duration of the mining operation and will remain there as long as needed. Water that is not consumed through the milling process will also be treated and returned to the groundwater system through an underground alluvial system.

OPERATING RESPONSIBLY



# **WASTE**

# Mineral waste management

Mining and processing our copper concentrate produces waste by-products in the form of tailings and waste rock. These are Sandfire's two largest waste products, although our operations also produce other waste including hazardous and non-hazardous material. We are committed to the responsible management throughout the life of the operation from feasibility to post-closure.

We endeavour to manage mineral waste in a way that effectively mitigates environmental, public health and safety, and community impacts while maximising the long-term security of the tailings facility and sustainable land use options.

To manage the potential negative impacts associated with waste rock and tailings disposal, we implement appropriate strategies during project development, operations and mine closure preparation. These are led by our environmental policy and our waste rock and tailings management standards.

Tailings are a slurry like material which consist of powdered rock and water. This is the leftover material from the process of extracting copper concentrate from ore. These are produced throughout the life of mine and are mixed with a cement and used as paste backfill underground or stored in surface disposal at the DeGrussa tailings storage facility (TSF).

The TSF is housed within an integrated waste landform (IWL). This design significantly reduces the likelihood of a collapse or failure. The TSF is lined with a thick clay liner and a high-density polyethylene liner sealing to prevent seepage.

Sandfire undertakes a program of monitoring to ensure we are appropriately managing mineral waste. Our tailings management plan is reviewed annually by specialist engineers. This is undertaken in accordance with Department of Mines, Industry Regulation and Safety and the Australian National Committee on Large Dams. The reviews cover

aspects of groundwater monitoring, geotechnical stability and tailings management practices.

Waste rock is the rock which has minerals in concentrations too low for economic recovery and is removed in the process of extracting ore. Sandfire has aimed to reuse the waste from DeGrussa and Monty where possible, for example in the construction of roads. Waste rock that cannot be repurposed is placed in the waste rock dump. The waste rock dumps will be re-contoured and re-vegetated to provide long term stabilisation of the material.

Potentially acid-forming (PAF) waste rock at the Monty project will be returned to underground so that no PAF waste will remain on the surface when mining ceases. This management approach, approved by regulators, will assist us to achieve our mine closure objectives and nominated post-closure land use, while also reducing closure costs.

### Other waste

Our most significant streams of non-hazardous waste include glass, plastic, steel, cardboard and aluminium, which are all recycled. General household waste is diverted to both on and off-site landfill.

Hazardous waste generated on site includes oils, tyres, grease, batteries and hydrocarbon contaminated waste. These are disposed of at a licenced waste provider.

In FY2017, we set a target to reduce the amount of waste going to landfill. We have been working to educate our workforce to minimise waste generation and looking for ways to reduce the amount of waste that ends up in landfill. During the year we commenced recycling of all PVC. This has resulted in the diversion of over two tonnes of PVC from landfill over the period. We also identified food waste as an area for action. We are working with our on-site caterer, Sodexo, on ways to reduce the amount of food waste generated.



### LAND

We understand that our activities have an impact on natural capital in our immediate and surrounding areas of operation. We therefore recognise the importance of managing land in a sustainable manner. We aim to protect and preserve areas of ecological importance or biodiversity sensitive areas, prevent land degradation and return disturbed land through mining and exploration to a stable and productive condition.

To achieve this, Sandfire seeks to reduce our footprint and operates in areas with the lowest impact to the environment. Sandfire areas of operation have been identified by the Department of Biodiversity Conservation and Attractions (DBCA) as proposed conservation parks. This land is currently classed as unallocated crown land and Sandfire is currently working with DBCA to understand when the area will be legally gazetted as a conservation park.

Sandfire aims to minimise land degradation and maximise habitat protection by:

- baseline biodiversity assessments
- exploration and mine planning
- regulatory permitting
- operational controls in line with our environmental manage system that include monitoring, training, inspections, checking and corrective action
- progressive rehabilitation
- mine closure planning.

The land use impacts of Sandfire's operations are managed in accordance with our regulator licences, Environmental policy, Environmental

Management System, Biodiversity Management Plan and our Landform and Rehabilitation Standard.

Prior to new projects commencing, baseline flora and fauna studies are conducted. The results of these studies provide input into planning of infrastructure location to ensure areas of significance are avoided.

Sandfire has a land clearance permitting system at its operations, where all clearing must be approved before being undertaken. This ensures that all land disturbance is checked against regulatory approvals, soil and vegetation characteristics are recorded, priority plant species and avoided and growth mediums such as topsoil are stockpiled for future rehabilitation.

Throughout the life of mine and after exploration activities, Sandfire undertakes progressive rehabilitation of areas as they become available.

Sandfire plans for mine closure throughout the life cycle of its operation. This allows for proactive forward planning and design to improve closure outcomes and minimise costs. In FY2018, we commenced a rehabilitation trial on the TSF using four different methods. This will enable us to obtain knowledge on the available option to achieve our closure objectives.

Through our periodic monitoring of land disturbance, impact on biodiversity and rehabilitation progress, we are able to adjust our management approach to land stewardship as necessary.

OPERATING RESPONSIBLY

### **CASE STUDY**

# **Monty Copper Project**

In the past year, Sandfire has been working to bring the Monty project into operation. This project was subject to a revised approvals process which took a risk based approach. As part of the process, outcomes and performance measures were agreed to by both Sandfire and the regulator. This resulted in project specific commitments being established in regards to land degradation and habitat measurement.

Sandfire determined a disturbance envelope based on studies undertaken to avoid:

- ephemeral drainage line and associated fauna habitat
- Aboriginal heritage sites identified during the archaeological survey of the Monty project area
- priority species of Euphorbia sarcostemmoides
- breakaway habitats

# **CASE STUDY**

# **Pit Lake Study**

In FY2019, Sandfire will contribute to a study initiated by ChemCentre on Mine Pit Lakes – their characterisation and assessment for in-situ metal recovery opportunities and cost effective environmental management. This study is a collaboration involving CSIRO and WA government agencies including the Department of Mines, Industry Regulation and Safety (DMIRS) and Department of Water and Environmental Regulation (DWER).

Pit lakes form when an area previously used for surface mining fills with water through rainfall or natural seepage. This can potentially release metals from the walls and floors into the water. These metals may have the potential to impac wildlife and when they exist close to communities, the pit lakes could potentially affect groundwater supplies. The study aims to understand the conditions in which this takes place to develop confident, long term predictions. It is hoped that the tools developed through the study will have use in mine planning and environmental approvals processes. Further information about the study can be found on ChemCentres's website<sup>14</sup>

Sandfire will provide historical data and undertake geological and water sampling of the Thaduna pit<sup>15</sup> as part of this project. The water sampling will include depth measurements, quality analysis and examine biological and aquatic ecology. We envisage this study will provide us with insights into responsible mine closure.





# CASE STUDY

### **Aerial Drones**

Sandfire purchased an unmanned aerial vehicle (UAV) to assist collect vegetation information across the DeGrussa and Monty projects. This monitoring will give Sandfire an accurate picture of rehabilitation performance when combined with traditional survey methods.



<sup>&</sup>lt;sup>14</sup> http://www.chemcentre.wa.gov.au/Research-Development/Mine-Pit-Lakes-Study

<sup>15</sup> The Thaduna mine was discovered by prospectors in 1941 and small scale production continued until 1953 followed by open cut mining and trial underground mining intermittently from 1955 to 1971. A flotation plant operated from 1962 to 1971 and produced copper additives for fertilisers. The mine recorded production of 30,290 tonnes at 8.7% Copper ("Cu"). There remain stockpiles of 48,400 tonnes at 2.74% Cu and tailings of 20,500 tonnes at 3.5% Cov.

### **ENERGY AND CARBON**

# **Energy use**

Mining is an energy intensive industry. Our DeGrussa Project uses large quantities of diesel fuel in its underground operations and in transporting our raw materials, waste rock and concentrate. Due to DeGrussa's remote location, diesel generated electricity consumption is also essential for our mineral processing facility. The use of fuel results in the release of greenhouse gases, which contributes to global warming and climate change.

Our energy use during FY2018 was 1,289,047 gigajoules which is a slight increase (5 per cent) on FY2017 due to the construction of the Monty operation. Diesel continues to be the main energy source at DeGrussa, however, this year our solar power facility provided 17.2 per cent of our site's energy requirements which we consider significant. This was a pleasing result and we are making progress towards our target of 20 per cent of energy usage at DeGrussa to be from solar.

In FY2018, our energy requirements increased as we developed the Monty project. This work included construction of the site including roadworks, buildings and supporting infrastructure as well as development of the underground mine.

We expect that our total energy requirements will further increase once operations at Monty commence and mining depth increases. In addition, we will haul ore from Monty to DeGrussa for processing, requiring more energy use.

To manage our greater energy demands, we are looking to capitalise on our investment in solar power, minimise unnecessary operation

of equipment and be more strategic in our use of cars, trucks and heavy machinery to increase efficiency. Our management team continually strives to identify areas for improvement and new opportunities to reduce energy use.

#### **Emissions**

Sandfire's total Scope 1 and Scope 2 greenhouse gas emissions for FY2018 were equivalent to 85,193 tonnes of carbon dioxide - a 2.4 per cent increase in total emissions since last year. This can be attributed to the work at Monty.

In our FY2016 report, we made a commitment to reduce our emissions intensity by ten per cent, using FY2016 as our base year as this year represented steady state operations. In FY2016 our emissions intensity was 55 kilograms of CO2-e per tonne of ore processed. In FY2018, our emissions intensity was 52, representing a 5.4 per cent reduction in emission intensity. We will continue to work to achieve the 10 per cent reduction each year.

We anticipate our total emissions profile will change once production from Monty commences. This will require us to be more innovative in our approach to reduce the emissions intensity of producing ore at DeGrussa. At the end of the reporting period we were working with our solar project partners to increase the utilisation of the solar project. Our use of solar has abated 12,959 tonnes of carbon dioxide and saved 4.8 million litres of diesel in FY2018.

During the period, we met our ongoing reporting commitments under the National Greenhouse and Energy Reporting Scheme and National Pollutant Inventory, and we participated in the Carbon Disclosure Project for the fourth consecutive year.



# Emissions modelling for life of mine

In FY2018, we undertook a study to model future emissions of our DeGrussa and Monty operations for life of mine based on our expected energy requirements. This was identified in FY2017 as a mitigative control to the risk of regulatory changes within Australia including whether we would trigger the Australian government's Safeguard Mechanism<sup>16</sup>. The study found that based on current knowledge we are unlikely to trigger the Safeguard Mechanism however, this will continue to be monitored. In addition, the study aimed to provide insight into our emissions profile with the inclusion of Monty and the use of solar. We intend to update this model every year with current information about our operations and any regulation changes. Along with future projections, the model will help us see the effectiveness of measures implemented to reduce emissions.

The study also looked at two alternate scenarios: one being what our emissions intensity would have looked like without the solar project and one with solar but without Monty. We found that in the first scenario, our emissions intensity would have likely increased to nearly 70 kilograms of CO2-e per tonnes of copper produced, while in the second scenario we would have achieved our emissions intensity reduction target this year.



 $<sup>^{16}\</sup> http://www.cleanenergyregulator.gov.au/ERF/About-the-Emissions-Reduction-Fund/the-safeguard-mechanism$ 

OPERATING RESPONSIBLY
SANDFIRE RESOURCES SUSTAINABILITY REPORT 2018

GRI STAN	DARD	DISCLOSURE	REFERENCE OR RESPONSE	OMISSIONS	REASON FOR OMMISSIONS	SDGS	ASSURED (Y/N)	REFERENCE (PAGE)
GENERAL DIS	SCLOSURE	S						
GRI 102: General Disclosures	102-1	Name of the organisation	Our business - Business overview				Υ	5
	102-2	Primary brands, products and services	Our business - Business overview				Υ	5
	102-3	Location of headquarters	Our business - Business overview				Υ	5
	102-4	Location of operations	Our business - Business overview				Υ	5
	102-5	Ownership and legal form	Our business - Business overview				Υ	5
	102-6	Markets served	Our business - Our copper concentrate				Υ	6
	102-7	Scale of the organisation	Supporting economic development - Economic development (net sales) - Exploration and future development (Total operations) Appendix 3 Data tables - (total employees)				Υ	29, 32, 64
	102-8	Information on employees and other workers	Appendix 3 Data tables				Υ	64
	102-9	Supply chain	Our business - Our supply chain				Υ	6
	102-10	Significant changes to the organisation and its supply chain	No significant changes in the reporting year to the organisation or its supply chain				Υ	-
	102-11	Adoption of the precautionary approach	Whilst our risk management processes do not explicitly address this, in practice, we observe the precautionary principle in our management approach				Υ	-
	102-12	External initiatives	Sandfire supports the intent of the AICD's 30%club Sandfire's sustainability strategy aims to contribute to the achievement of the UN SDGs			17. Partnerships for the goals	Y	-
	102-13	Memberships of associations	Our business - External memberships			17. Partnerships for the goals	Υ	7
	102-14	Statement from senior decision maker	Chair and CEO Address				Υ	3
	102-16	Values, code of conduct and code of ethics	Our business - Values Respect and accountability - Our values - Code of conduct				Υ	5, 23
	102-18	Governance structure	Our sustainability priorities - How we govern sustainability				Y	12

# **APPENDIX 1 - GRI INDEX**

GRI STANDARD	DISCLOSURE	REFERENCE OR RESPONSE	OMISSIONS	REASON FOR OMMISSIONS	SDGS	ASSURED (Y/N)	REFERENCE (PAGE)
GENERAL DISCLOSURES	5						
102-20	Executive-level responsibility for economic, environmental, and social topics	Sandfire's Board has ultimate responsibility for economic, environmental, and social topics				Y	-
102-30	Effectiveness of risk management processes	Refer to our Corporate Governance Statement available at http://www.sandfire. com.au/investor/ governance				Υ	-
102-32	Highest governance body's role in sustainabilty reporting	Table of contents				Υ	2
102-40	Stakeholder groups engaged	Respect and accountability - Engaging with our stakeholders				Υ	25
102-41	Collective bargaining agreements	All direct employees are employed on individual contracts in line with National Employment Standards. Sandfire has no collective bargaining arrangements				Y	-
102-42	Identifying and selecting stakeholder groups	Respect and Accountability - Engaging with our stakeholders				Υ	25
102-43	Approach to stakeholder engagement	http://www.sandfire. com.au/images/Our_ Stakeholders.pdf.				Υ	-
102-44	Key topics and concerns raised	http://www.sandfire. com.au/images/Our_ Stakeholders.pdf.				Υ	-
102-45	Entities included in the consolidated financial statements	Please see our FY2018 Annual Report http:// www.sandfire.com. au/investor/reports/ annual-reports.html				Y	-
102-46	Defining report content and topic boundaries	Reporting What Matters - Our material issues				Υ	17
102-47	List of material topics	Reporting What Matters - Our material issues				Υ	17
102-48	Restatements of information	Water discharge in FY2017 was amended as a result of assurance activities				Υ	-
102-49	Changes in reporting	New material issues in FY2018 are: Transparency, Connect and inspire and Aboriginal engagement. All FY2017 material topics are covered in this year's list.				Υ	-
102-50	Reporting period	FY2018				Υ	-
102-51	Date of most recent previous report	FY2017				Υ	-
102-52	Reporting cycle	Annual				Υ	-
102-53	Contact point for questions	Table of contents				Υ	2

GRI STAND	DARD	DISCLOSURE	REFERENCE	OMISSIONS	REASON FOR	SDGS	ASSURED	REFERENCE
			OR RESPONSE		OMMISSIONS		(Y/N)	(PAGE)
MATERIAL TO TRANSPAREN		_	_	_	_	_	_	_
TRANSPAREN	102-54	Claims of reporting in accordance with the GRI Standards	Table of contents				Υ	2
	102-55	GRI content index	Appendix 1 GRI Index				Υ	56
	102-56	External assurance	Table of contents				Υ	2
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Reporting what matters - Our material issues Respect and accountability - Our commitment to transparency				Υ	15, 9
	103-2	The management approach and its components	Respect and accountability - Our commitment to transparency				Υ	9
	103-3	Evaluation of the management approach	Respect and accountability - Our commitment to transparency				Υ	9
REGIONAL EC	ONOMIC	DEVELOPMENT						
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Reporting what matters - Our material issues Supporting economic development - Our aim				Υ	17, 29
	103-2	The management approach and its components	Supporting economic development - Economic development - Procurement			8. Good jobs and economic growth	Υ	29, 30
	103-3	Evaluation of the management approach	Supporting economic development - Economic development				Υ	29
GRI 201: Economic Performance	201-1	Direct economic value generated and distributed	Supporting economic development - Economic development	"Operating costs Payments to providers of capital"		8. Good jobs and economic growth	Υ	29
GRI 204: Procurement Practices	204-1	Proportion of spending on local suppliers	Supporting economic development - Procurement			8. Good jobs and economic growth	Υ	30
VISIBLE MINE	LIFE AND	FINANCIAL DEPENDENCY						
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Reporting what Matters - Our material issues				Υ	17
	103-2	The management approach and its components	Supporting economic development - Community investment				Υ	31
	103-3	Evaluation of the management approach	Supporting economic development - Community investment				Υ	31
EXPLORATION	N, FUTURE	DEVELOPMENT						
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Reporting what Matters - Our material issues				Υ	17
	103-2	The management approach and its components	Supporting economic development - Exploration and future development				Υ	32

# **APPENDIX 1 - GRI INDEX**

GRI STAND	ARD	DISCLOSURE	REFERENCE OR RESPONSE	OMISSIONS	REASON FOR OMMISSIONS	SDGS	ASSURED (Y/N)	REFERENCE (PAGE)
MATERIAL TO	PICS							
EXPLORATION	N, FUTURE	DEVELOPMENT						
	103-3	Evaluation of the management approach	Supporting economic development - Exploration and future development				Υ	32
WATER								
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Reporting what Matters - Our material issues Operating responsibly - Water				Υ	17, 47
	103-2	The management approach and its components	Operating responsibly - Water - Water reuse and recycling - Mineral waste management				Y	47, 48, 50
	103-3	Evaluation of the management approach	Operating responsibly - Water - Water reuse and recycling - Mineral waste management				Y	47, 48, 50
	103-3	Evaluation of the management approach	Operating responsibly - Water - Water withdrawl - Mineral waste management				Υ	47, 48, 50
GRI 303: Water	303-3	Water withdrawal	Appendix 3 Data tables			6. Clean water and sanitation	Υ	64
	303-4	Water discharge	Appendix 3 Data tables			6. Clean water and sanitation	Υ	64
	303-5	Water consumption	Appendix 3 Data tables				Υ	64
LAND								
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Reporting what matters - Our material issues Operating responsibly - Land				Υ	17, 51
	103-2	Evaluation of the management approach	Operating responsibly - Land				Υ	51
	103-3	Evaluation of the management approach	Operating responsibly - Land				Υ	51
GRI sector disclosures	MM1	Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	Appendix 3 Data tables			15. Life on land	Y	64
	MM2	Sites requiring biodiversity plans	Sandfire does not have any sites requiring biodiversity plans				Y	-
WASTE MANA	GEMENT							
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Reporting what matters - Our material issues Operating responsibly - Mineral waste management				Υ	17, 50
	103-2	The management approach and its components	Operating responsibly - Mineral waste management			13. Climate action	Υ	50

GRI STAND	ARD	DISCLOSURE	REFERENCE OR RESPONSE	OMISSIONS	REASON FOR OMMISSIONS	SDGS	ASSURED (Y/N)	REFERENCE (PAGE)
MATERIAL TO	PICS							
WASTE MANA	GEMENT							
	103-3	Evaluation of the management approach	Operating responsibly - Mineral waste management				Υ	50
GRI 306: Effluents and waste	306-1	Total water discharge by quality and destination	Appendix 3 Data tables				Υ	50
	306-2	Waste type and disposal method	Appendix 3 Data tables			12. Responsible consumption and production	Y	64
	306-3	Significant spills	Appendix 3 Data tables			14. Life below water/15. Life on land	Υ	64
GRI sector disclosures	ммз	Total amounts of overburden, rock, tailings, and sludges and associated risks	Appendix 3 Data tables				Y	64
ENERGY AND	CARBON							
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Reporting what matters - Our material issues Operating responsibly - Energy and carbon				Y	17, 54
	103-2	The management approach and its components	Operating responsibly - Energy and carbon			13. Climate action 7. Affordable and clean energy	Υ	54
	103-3	Evaluation of the management approach	Operating responsibly - Energy and carbon				Υ	54
GRI 302: Energy	302-1	Energy consumption within the organization	Appendix 3 Data tables			13. Climate action	Υ	64
	302-3	Energy intensity	Appendix 3 Data tables			13. Climate action	Υ	64
	302-4	Reduction of energy consumption	Appendix 3 Data tables			13. Climate action	Υ	64
GRI 305: Emissions	305-1	Direct (Scope 1) GHG emissions	Appendix 3 Data tables			13. Climate action	Υ	64
	305-3	Other indirect (Scope 3) GHG emissions	Appendix 3 Data tables			13. Climate action	Υ	64
	305-4	Greenhouse gas (GHG) emissions intensity	Appendix 3 Data tables			13. Climate action	Υ	64
	305-5	Reduction of greenhouse gas (GHG) emissions	Appendix 3 Data tables			13. Climate action	Υ	64
CONNECT AN	D INSPIRE							
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Reporting what matters - Our material issues Respect and accountability - Connecting and inspiring				Υ	17, 26
	103-2	The management approach and its components	Respect and accountability - Connecting and inspiring			10. Reduced inequalities	Υ	26
	103-3	Evaluation of the management approach	Respect and accountability - Connecting and inspiring				Υ	26

# **APPENDIX 1 - GRI INDEX**

GRI STAND	ARD	DISCLOSURE	REFERENCE OR RESPONSE	OMISSIONS	REASON FOR OMMISSIONS	SDGS	ASSURED (Y/N)	REFERENCE (PAGE)
MATERIAL TO	PICS							
ABORIGINAL I	ENGAGEM	IENT						
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Building a safe and supportive workplace - Aboriginal engagement				Υ	44
	103-2	The management approach and its components	Building a safe and supportive workplace - Employment - Native Title Group Engagement - Relationship development - Cultural awareness			10. Reduced inequalities	Y	44
	103-3	Evaluation of the management approach	Building a safe and supportive workplace - Aboriginal engagement				Υ	44
SANDFIRE PE	OPLE							
GRI 103: Management Approach	103-1	Explanation of the material topic and its Boundaries	Reporting what matters - Our material issues Sandfire people - Attracting and retaining the best people - Setting up our people for success - Diversity and inclusion				Υ	17, 41, 42, 43
	103-2	The management approach and its components	Building a safe and supportive workplace - Health and wellbeing - Our systems for managing health and safety - Risk, hazards and investigation Sandfire people - Attracting and retaining the best people - Diversity and inclusion				Υ	36, 37, 40, 41, 43
	103-3	Evaluation of the management approach	Building a safe and supportive workplace - Our systems for managing health and safety				Υ	37
GRI 401: Employment	401-1	New employee hires and employee turnover	Appendix 3 Data tables				Υ	64
GRI 403: Occupational Health and Safety	403-8	Workers covered by an occupational health and safety management system	Appendix 3 Data tables			3. Good health and wellbeing	Υ	64
	403-9	Workers with high incidence or high risk of diseases related to their occupation	Building a safe and supportive workplace - Safety Appendix 3 Data tables			3. Good health and wellbeing	Y	35, 64
	403-10	Work-related ill health	Appendix 3 Data tables			3. Good health and wellbeing	Υ	64
GRI 404: Training and education	404-1	Average hours of training per year per employee	Appendix 3 Data tables				Υ	64

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GRI STAND	ARD	DISCLOSURE	REFERENCE OR RESPONSE	OMISSIONS	REASON FOR OMMISSIONS	SDGS	ASSURED (Y/N)	REFERENCE (PAGE)
MATERIAL TO	PICS							
SANDFIRE PE	OPLE							
	404-2	Programs for upgrading employee skills and transition assistance programs	Building a safe and supportive workplace - Training and development	Transition assistance programs			Y	42
	404-3	Percentage of employees receiving regular performance and career development reviews	Appendix 3 Data tables			8. Decent work and economic growth	Υ	64
GRI 405: Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	Appendix 3 Data tables			5.Gender equality	Y	64
GRI 406: Non- discrimination	406-1	Incidents of discrimination and corrective actions taken	Appendix 3 Data tables			8. Decent work and economic growth	Υ	64

# **APPENDIX 2 - GLOSSARY**

TERM	DEFINITION
Group Management Team (GMT)	Comprised of the following members; Chief Executive Officer, Chief Operating Officer, Chief Financial Officer, Chief Commercial Officer and Chief Exploration and Business Development Officer.
Integrated waste landform (IWL)	The waste rock dump and the tailing storage facility are one facility known as an integrated waste landform. The waste rock dump surrounds the tailings storage facility.
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.
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 claimant 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.
Potentially acid forming (PAF)	A characterisation of waste rock that has the potential to be acid forming.
Principal hazard	Principal hazards are potential fatality risks.
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 retaining embankment to store tailings 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.
Waste Rock	Waste rock is material that contains minerals in concentrations considered too low to be extracted at a profit.

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### **APPENDIX 3 - DATA TABLES**

Please see our website for the Data Tables appendix.

http://www.sandfire.com.au/images/sustainability\_report\_2018.pdf

### **APPENDIX 4 - 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 provide independent limited assurance of its 2018 Sustainability Report ("the Report"). This Assurance Statement applies to the related information included within the scope of assurance described below.

This information and its presentation in the 2018 Sustainability Report are the sole responsibility of the management of Sandfire. Bureau Veritas was not involved in the drafting of the Report. Our sole responsibility was to provide independent assurance of the accuracy of information included. This is the second year in which we have provided limited assurance over the Sandfire Sustainability Report.

#### Scope of Assurance

Sandfire requested Bureau Veritas to verify the accuracy and assure the material disclosures, both qualitative and quantitative, presented in the Report. The Report was prepared in accordance with the GRI Standards (2016 and 2018): Core option and selected material aspects from the Mining and Metals Sector Disclosures from GRI G4. The complete list of assured elements is referred to within the GRI Content Index of the Report.

The scope of work was limited to the data, related to the activities of DeGrussa mining operations in Western Australia, exploration sites in Australia and offices, available at the Corporate Head Office in Western Australia, for the period of 1st July 2017 to 30th June 2018.

### Methodology

As part of its independent limited assurance, Bureau Veritas undertook the following activities:

- Interviews and follow-up communication with relevant personnel;
- 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 from mining and exploration activities.

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.

Our assurance process is aligned with and informed by Bureau Veritas' standard procedures and guidelines for external verification of sustainability reports, GRI Sustainability Reporting Standards 2016 and 2018, GRI G4 "Mining and Metals Sector" Disclosures and the International Standard for Assurance Engagements (ISAE) 3000.

#### Our findings

On the basis of our methodology and the activities described above, we provide limited assurance that:

- Nothing has come to our attention to indicate that the reviewed statements within the scope of our verification are inaccurate and the information included therein is not fairly stated; and
- It is our opinion that Sandfire Resources NL has established systems for the collection, aggregation and analysis
  of relevant information and quantitative data.



Move Forward with Confidence

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## **APPENDIX 4 - ASSURANCE CERTIFICATE**



#### Evaluation against the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards)

Sandfire's 2018 Sustainability Report has been prepared in accordance with the GRI Standards (2016 and 2018): Core option and selected material aspects from the Mining and Metals Sector Disclosures from GRI G4, including appropriate considerations of the reporting principles, profile disclosures, management approach disclosures and performance

Bureau Veritas' evaluation of Sandfire's 2018 Sustainability Report included cross checking the GRI Content Index against all the reference documents.

### **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 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 2018 Sustainability Report.

#### Statement of independence, impartiality and competence

Bureau Veritas is an independent professional services company that specialises in Quality, Health, Safety, Social and Environmental management with almost 200 years history in providing independent assurance services.

Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff 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 Resources NL, its Directors or Managers beyond that required of this assignment. We have conducted this assurance independently, and there has been no conflict of interest.

The independent assurance team has extensive experience in conducting assurance over environmental, social, security, safety, health and ethical information, systems and processes, and through its combined experience in this field, an excellent understanding of Bureau Veritas standard methodology for the Assurance of Sustainability Reports.

Bureau Veritas Australia Pty Ltd 02<sup>nd</sup> October 2018

Jeremy Leu









# SANDFIRE RESOURCES NL

Level 1, 31 Ventnor Avenue, West Perth WA 6005
T: +61 8 6430 3800 F: +61 8 6430 3849 E: admin@sandfire.com.au SANDFIRE.COM.AU

