

AZTOY

WE STRIVE TO MEET AND EXCEED THE EXPECTATIONS PLACED UPON US

### SUSTAINABILITY REPORT

JULY 2021 - JUNE 2022



# **CONTENTS**

Sustainability Principles	4
Our Focus	6
Who we are	8
What we do	9
Governance and Strategy	10
Governance Structure	13
Sustainability	13
Risk Management and System Control – Operational	13
Critical Control Program	14
Audit and Assurance System	14
Risk Management and System Control – Financial and Legal	15
Risk Management – Ethics	16
Risk Management and System Control – Cyber	16
Strategy	17
Environmental	18
Flora and Fauna	21
Waste Management	22
Water Management	23
Reject Materials from Processing	23
Rehabilitation of Subsided Land	24
Managing Emissions	25
Emissions Reduction	25
Repurposing	27
Ironbark No. 1 Mine Development	28
Social	30
Indigenous- Barada Barna	33
Safety	33
Safety Performance	34
Hygiene	35
Labour Practices	36
Workforce Skills Development	36
Deputy (ERZC) Development Program (Certificate IV in Coal Mining)	37
Transition to Ironbark No.1	37
Mature Age Apprenticeship Program	37
Apprenticeship Program	38
Vacation Student Program	38
Management and Leadership Program	38
Workforce Diversity	39
Economic	40
Tenement Portfolio	43
Cornerstone Operations and Projects	44
Future Opportunities and Growth	47



Market Assessment and Revenue Certainty

Efficient Capital Allocation

Operational Efficiency

48

49

# SUSTAINABILITY PRINCIPLES

FITZROY 2022 SUSTAINABILITY REPORT



### **OUR FOCUS**

**BRIAN MACDONALD CHIEF EXECUTIVE OFFICER** 

I'M PLEASED TO PRESENT THE THIRD ANNUAL FITZROY SUSTAINABILITY REPORT. WHILST NOT REQUIRED FOR A PRIVATELY OWNED BUSINESS, WE BELIEVE THAT PUBLISHING THIS REPORT EACH YEAR IS A DEMONSTRATION OF OUR COMMITMENT TO, AND FOCUS ON. SOUND SUSTAINABILITY PRINCIPLES.

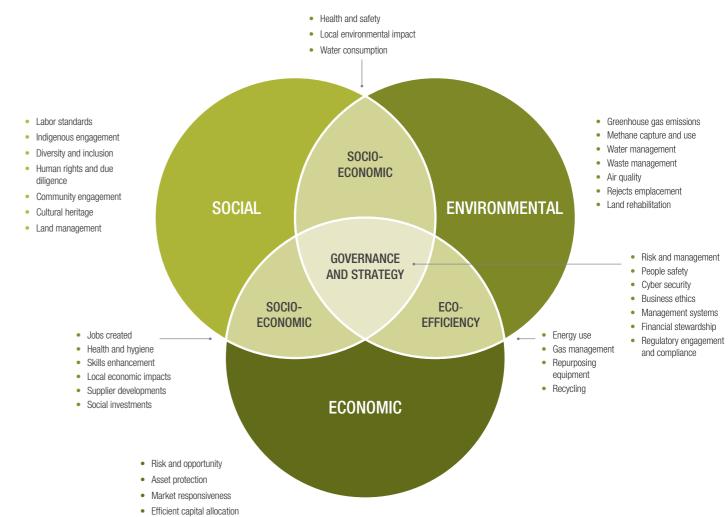
The year 2021/2022 was another year of exceptional challenges with the ongoing impact of the COVID19 pandemic, global trade tensions and supply chain problems plus the new and evolving situation in Europe following the Russian invasion of Ukraine. Each of our teams responded to these unexpected pressures with resilience and innovation to ensure we met each of the challenges and ended the year in a stronger position.

Looking forward, we recognise that to be a sustainable

long-term business we must continually evolve and develop to meet the expectations of our workforce and society. This involves being aware and responsive to the environmental and social demands placed on all contemporary businesses. Our commitment extends to taking the time each year to publish our annual Sustainability report. The process of developing the annual report each year is an excellent tool to reflect on our activities over the past year and recommit to our sustainability principles and strategy.







- Cost control
- Growth profile

This year we have developed the visual representation of the Fitzroy Sustainability Principles which illustrates the multiple demands and expectations placed upon us. The diagram also illustrates that each of our principles overlap and that each requires complete focus and good practice to deliver a truly sustainable business. A failure to achieve in any of these areas can lead to overall poor performance.

Our business employs subject matter experts in each of these disciplines to guide and manage our performance. Through our leadership teams, company policies and compliance systems we manage, monitor and report on all aspects as an ongoing function of our operation. Our analysis of major expenditures or new commitments are always assessed through this lens.

At the core of our business we mine coal. We are proud of our business and to be a key raw material supplier to the

#### FITZROY SUSTAINABILITY PRINCIPLES

global steel industry. Our metallurgical coal products and the global steel industry are essential to support modern life and necessary for so many items from transport, construction and even medical equipment.

We strive to be a responsible and respected employer and community member and prioritise the health and safety of our employees together with maintaining the highest regard for our environment. However, we are realistic and understand the external pressures upon our industry and that we must contribute to the global transition to a lower emission economy. At Fitzroy we embrace this challenge and blend these imperatives into our uniquely Fitzroy approach to business.

I hope you enjoy reviewing our performance over the last year and that you can see the evolution that is occurring across the business.

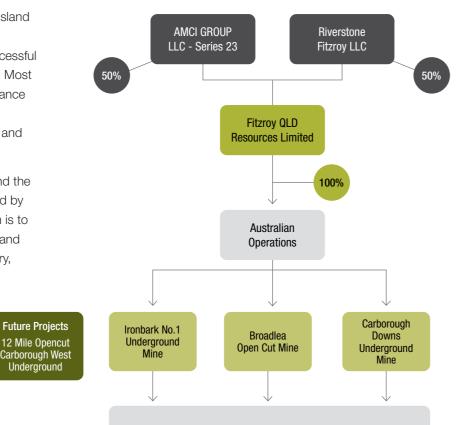


### WHO WE ARE

Fitzroy is a privately-owned producer of Queensland metallurgical coal. The company is owned by investors with significant experience and a successful track record of investing in coal and resources. Most importantly, our owners understand the importance of investing in health, safety and environmental management systems, risk management tools and development programs for Fitzroy's people.

Our owners and our Executive Team understand the need to meet the operating standards expected by the community in which we operate. Our vision is to meet and exceed expectations by responding and adapting to the critical issues facing our industry, our economy and our world.

The following structure diagram depicts our broad ownership structure together with Fitzroy's existing operations and some of the future projects that have been identified.



Central Processing Facility and Rail Loadout

### WHAT WE DO

Fitzroy produces high quality metallurgical coals from the Rangal Coal Measures in Queensland's Bowen Basin. Metallurgical coal is used in the steel making industry to produce coke which is a porous solid composed mainly of carbon and ash and is formed when the coal is heated to drive off volatile matter. Good quality coke is hard, has a high strength and is mainly used in blast furnaces that produce iron. Iron is then used to produce steel and a range of other products. Currently there is no whole scale substitute for coal or coke in the steel making process.

Steel is one of the pillars of modern civilization and is the most widely used metal, forming a critical component in



such diverse applications as commercial and residential buildings, medical equipment and all forms of transport. While the world seeks to significantly increase the use of renewable electricity, these facilities will require large quantities of steel for their construction. For example, a single, small 5Mw wind turbine requires approximately 800 tonnes of steel for its foundations, tower, rotor and nacelles.

Fitzroy's products contribute to the global steel production and to the construction of renewable energy facilities by providing good quality coals which are low in impurities with good coking properties.

# SUSTAINABILITY PRINCIPLE GOVERNANCE AND STRATEGY



#### **GOVERNANCE AND STRATEGY**



- Market responsiveness
- Efficient capital allocation
- Cost control
- Growth profile

Governance and strategy are the central foundation of how we operate. Our Executive Team develop and implement risk management tools which are endorsed by our Board to effectively manage the social, environmental and economic drivers of our operations.

Our business model is founded on transparency, fairness, integrity and accountability. These values underpin every

relationship we have and they characterise our interactions with stakeholders, including the community, regulators and our workforce. We are committed to operations that are compliant with regulatory requirements and free from corruption. We pursue exemplary ethical standards across all facets of our business. We are proud that ethical business practices are a primary component of Fitzroy's culture.

### **GOVERNANCE STRUCTURE**

The Fitzroy group is managed by the Board of Directors comprising representation from each of the owners. Authority is delegated to the Australian subsidiary boards and Executive leadership team in Australia which provide skilled and experienced personnel with a wealth of industry knowledge. A fundamental principle within Fitzroy is the commitment of the Board and management to ensure compliance with all regulatory requirements and the highest ethical standards across all facets of our business. Regular internal reporting to the Board provides a comprehensive

### **SUSTAINABILITY**

The purpose of our governance structure is to ensure we have an economically viable business which meets or exceeds its obligations in respect of health & safety, hygiene, environment, legal and financial regulations and the social expectations of our employees and community. These demands are all interrelated and require integrated responses. Outlined below are the major governance structures that ensure we deliver on these commitments.

## **RISK MANAGEMENT AND SYSTEM CONTROL - OPERATIONAL**

Pragmatic and timely risk management is critical to our business's success and underpins our approach to all activities, including sustainability. It is by managing our risks effectively that we provide safe work environments for our people, cultivate long lasting value for our communities, minimise our impact on the environment, maintain our assets to the highest standards and interact positively with our stakeholders. Our approach to risk management is agile, yet robust and we are diligent in identifying, evaluating, controlling, and mitigating our risks.

Fitzroy has a Risk Management methodology that defines the process for the identification of sources of risk,

#### **GOVERNANCE AND STRATEGY**

update of the performance in all key areas of safety, environment, financial and operational. At the highest level, our compliance is monitored each year by external audits commissioned by the owners to review ESG, legal compliance and cyber security.

Internally, management also commissions external audits each year across the breadth of regulated activities to assess compliance with our obligations and to obtain feedback about improvements that could be made.



assessment of risk with a known criteria and implementation of controls, where risk is at an unacceptable level. The methodology for the identification, assessment and implementation of opportunities has been added.

The risk management methodology meets the obligations of:

- » Qld Coal Mining Safety and Health Act s 29 31 and Regulation cl 6 and Qld Recognised Standard 02 -Control of risk management practices.
- » Qld Work Place Health and Safety Regulations cl 32 37; and
- » Site Specific Environmental Authority.



### **CRITICAL CONTROL PROGRAM**

The Material Risk Standard has been in place at Fitzroy for the last two years, in conjunction with the Critical Control Management (CCM) Checklists, which are completed as part of the annual schedule.

To continually improve the process Fitzroy has made the commitment to embark on a review of the identified critical controls. We are in the process of partnering with the University of Queensland to undertake this work over the next two years and look forward to the engagement that this will generate with all levels of the workforce and subject matter experts.

The Coal Face Critical Controls are a set of simple, nonnegotiable rules in relation to fatal risk. The Coal Face Critical Controls are the minimum fatal risk control requirements that shall be considered by all Coal Mine Workers for every operational task they complete. The Coal Face Critical Controls were integrated into Fitzroy's TAKE 5 books to ensure that all personnel consider all forms of fatal energy sources prior to starting a task.

Fitzroy's non-negotiable safety expectations are in place to further support the TAKE 5 and Coal Face Critical Control implementation. These behavioral expectations have been set by the Fitzroy Executive team to establish the safety and health of our workers as our number one priority.

#### AUDIT AND ASSURANCE SYSTEM

Fitzroy has in place a robust auditing and assurance process for its operations to ensure legal compliance with relevant legislation and to evaluate the effective implementation of documented control strategies. Common audit themes include International Organization for Standardization (ISO) 9001, ISO 14001, AS/NZS 4801, OHSAS 18001, Operational Control, and Safety, Health and Environmental effectiveness audits.

In FY22, Fitzroy undertook several external audits of the operations Safety and Health Management System to verify legal compliance and control effectiveness. Specifically, these included:

- » An external compliance audit in February 2021 focused on gas monitoring, ventilation, methane drainage, explosions, toxic/irrespirable atmospheres and outburst.
- » An external compliance audit was conducted on mobile plant interactions.
- » An internal compliance audit was completed on the use of polymeric chemicals at the operations; and
- » An internal audit was undertaken on the gas monitoring systems.

Material risks for Fitzroy have been defined from our baseline risk register. Each material risk has been included into the "Fitzroy Material Risk Standards" booklet. Fitzroy Material Risk Standards contain the minimum expectations and requirements for managing the system, equipment and competency associated with each material risk at each operational site. The Material Risk Standard has been incorporated into the audit and assurance framework with audit outcomes discussed with Fitzroy's site management team.

## **RISK MANAGEMENT AND SYSTEM CONTROL –** FINANCIAL AND LEGAL

As in every facet of our operations, Fitzroy has in place robust systems and controls to ensure compliance with corporate regulation around taxation, corporate governance, employment practices, and ethical practices. We are committed to meeting our legislative obligations and have a goal of zero regulator interventions. In addition to the state and federal laws, we operate our sites under Environmental Authorities issued by the QLD Department of Environment and Science. Fitzroy monitors changes in legislation that might impact our business and regularly reviews compliance against applicable legislation. The Corporate Legal compliance register is maintained annually and reviewed by external lawyers to assist, identify and implement additions or amendments that are required.

#### **GOVERNANCE AND STRATEGY**



Compliance is achieved through training, embedding controls and procedures in the commercial systems, segregation of duties, monitoring of performance and financial results against approved budgets, oversight and control of external commitments and payments. Our financial accounts and statements are audited annually by tier 1 accounting firms with separate audits conducted in both Australia and the UK. In addition, a number of our external stakeholders' commission audits of our compliance with those obligations providing external and internal confidence that we are meeting our expectations.

### **RISK MANAGEMENT - ETHICS**

Delivering upon our Sustainability Principles requires our expectations to be clear and understood by all people engaged in our business. Our Operating Philosophy demonstrates our underlying business ethics and this philosophy is clearly displayed at our operations. Each new entrant to the business is provided with a copy of the Operating Philosophy and Code of Conduct.

Demonstration of our ethics through visible leadership and open communication with our workforce reinforces these expectations and provides the ability for feedback and ongoing improvement. We also provide tools for feedback through escalation of concerns through the management hierarchy or confidential and anonymous submissions via our Whistleblower email tool.



The Fitzroy Group produces steelmaking coal from assets situated in the world-renowned Bowen Basin of Central Queensland.

We know that to be sustainable, we need to safely produce and reliably deliver coal to our customers for the lowest possible unit cost.

o deliver our objective, we will conduct ourselves in accordance with the following:

- We each do what we say we are going to do
- We deal with each other honestly and with respect
- We work with our people to ensure they are safe, so they go home healthy and unharmed from their work activities
- · We want our people to be rewarded fairly for their efforts
- We want our people to believe they have a future with the company and that they can
  personally grow within the business

## **RISK MANAGEMENT AND SYSTEM CONTROL - CYBER**

Cyber security and threats continue to increase in frequency and severity across the globe. Fitzroy invests heavily in IT infrastructure and support services to provide protection for our systems and hardware against these external threats and maintain data security. Our investment in digital technologies was invaluable in managing the COVID challenges as many employees were able to seamlessly migrate to remote work with no loss of engagement with the operations. An Executive sub-committee coordinates the IT strategy across all areas to deliver new technologies and tools to the coalface as well as enhancing our remote operations capability.



Additional layers of system protection have been added during 2022 which provide real time monitoring and alarms to identify unauthorised access attempts or system outages. Additional team members have been added to our IT group so that we can continue to develop our strategic digital platforms while at the same time providing the service levels required. Critical hardware has been renewed and upgraded, with several layers of redundancy incorporated into the architecture. Similarly, layers of firewalls and multi-factorial authorization tools are installed to provide security of data and systems.

## STRATEGY

Sustainability encompasses the expectation of an ongoing level of activity to deliver social outcomes for our workforce and our community. At Fitzroy we continually review our strategy to ensure economic viability through the optimum use of our resources. Our planning horizons are necessarily long term as exploration and evaluation of resource projects is multi-faceted and needs to incorporate numerous studies and engagements with regulators and communities before financial commitments can be made.

Our exploration team operate within this long-term horizon and work closely with our environmental experts to ensure that all considerations are addressed. These activities are



#### **GOVERNANCE AND STRATEGY**

coordinated and reflected into our long-term financial models that are used to evaluate alternatives and drive the right strategic directions.

Regular communication sessions across the leadership team discuss future projects and work programs to bring together the full set of internal skills to consider each project. A feature of Fitzroy operations is our internal skill set which can deliver projects quicker and most cost efficiently than most of our competitors. This is a strategic advantage that helps support our sustainable operation. See the case study on Ironbark development on page 28 which illustrates our sustainability principles in action.

# SUSTAINABILITY PRINCIPLE ENVIRONMENTAL

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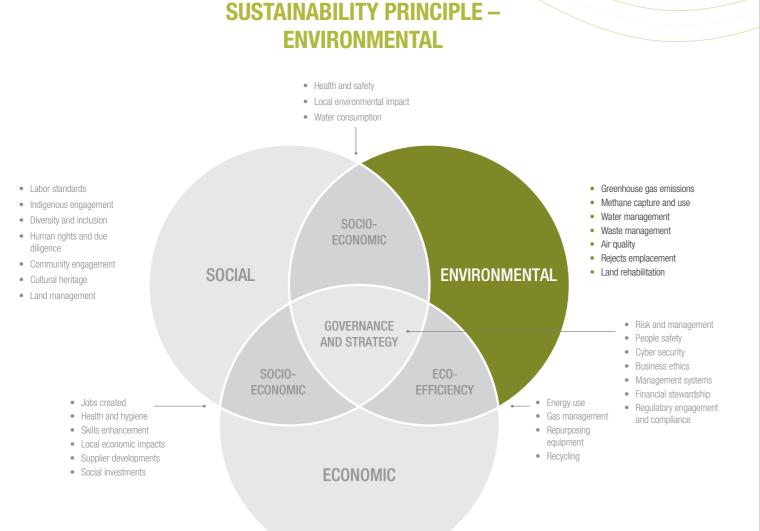
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FITZROY 2022 SUSTAINABILITY REPORT

MILL MALLANDA



- Risk and opportunity
- Asset protectionMarket responsiveness
- Efficient capital allocation
- Cost control
- Growth profile

Environmental management determines the way that we operate is locally focused and encompasses the impact on land and water from our activities. Traditionally, environmental management has focused on ensuring that any direct impacts from our operation are minimized, however our increasing focus is to positively contribute to the environment by minimizing consumption, reducing emissions and optimizing our recycling of water and waste.

### **FLORA AND FAUNA**

Protection of our environment includes knowledge of, and management tools for care of our flora and fauna. During 2022, members of the Fitzroy Environmental Team undertook a two-day Spotter-Catcher course at the local Coppabella Community Hall. The course was targeted at improving fauna identification, handling, and relocation skills. The course also covered the Spotter-Catcher QLD legislative requirements (permitting), First Aid response and animal scat/track investigation.





The environmental team also ensure that due consideration is given to flora and fauna during our exploration programs and project development planning. Specialist personnel are engaged to boost the team when required and can include botanists, biologists and hydrologists. Before commencing development of any proposed new project or extension to existing operations, a full impact assessment is conducted commencing with a full survey of existing flora and fauna to understand the species that exist and may require protection or management.





### WASTE MANAGEMENT

Waste is an inevitable result of business activities, from exploration through to production and closure. Sustainable waste management is a key component of business planning and forms a primary pillar of our operations.

Operational sites are required to minimise waste production by encouraging appropriate recycling, reusing and refurbishing opportunities. Waste management is conducted in accordance with the International Council of Mining and Metals (ICMM) principles through promoting communication and providing transparency of relevant waste management data and eco-efficiency indicators to interested stakeholders. Waste is segregated where possible and collected for offsite recycling or disposal by reputable thirdparty contractors. Fitzroy is committed to minimising the impact of waste on the environment and the community through the adoption of appropriate waste management principles. The waste management hierarchy and principals of the Waste Reduction and Recycling Act 2011, as seen to the right, and requirements of the environmental authorities are the foundation of the Waste Management Plan.

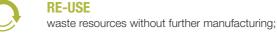
During the latest financial year, Fitzroy generated a total of 1735 tonnes of waste, of which 494 tonnes was recycled (26.5%). Fitzroy has seen a slight increase in total waste generated from our operational assets. This is an expected result due to the construction and commencement of mining operations at our Ironbark No.1 operation. Fitzroy has still been able to maintain a similar ratio between waste sent to landfill and waste sent to recycling facilities.



unnecessary resource consumption;



REDUCE waste generation and disposal;





RECYCLE waste resources to make the same or different products;



TREAT



waste before disposal, including reducing the hazardous nature of waste;



DISPOSE

of waste only if there is no viable alternative.



### WATER MANAGEMENT

Fitzroy's operations are located in sub-tropical Queensland where rainfall deluges are not uncommon and therefore water management across our sites is a critical focus for our team of environmental scientists. Regular survey and inspection of landforms is essential to ensure that the water flows retain the design functionality. Monitors are located in key observation points to trigger response actions when required.

Pumping systems are located at various locations to protect



### **REJECT MATERIALS FROM PROCESSING**

The Coal Handling and Preparation Plant (CHPP) uses a flotation system to separate rock and waste material from the coal. The Fitzroy raw coals have a low inherent ash composition with a relatively high average yield of product from raw feed of 78%. The remaining 22% of waste material, or rejects, is extracted by the using a floatation process. Unlike most coal mine operations, Fitzroy's operations do not involve any coal tailings facilities or dams to handle the rejects. A conscious decision was made to invest initial capital in dry reject technology to avoid environmental and safety risks and incidences that have

key assets from water ingress and to move water volumes to the appropriate storage locations.

Whilst managing water inflows is a key activity, just as importantly we have an active water recycling program to minimize the consumption of fresh water. The Coal Handling and Preparation Plant utilizes 100% recycled water in its processing and mine affected water is applied for on-site uses wherever possible.

occurred at other sites as a result of failed tailings dams. The Dry Reject Emplacement Area (DREA) forms part of the CHPP Hub and reject waste from the CHPP transferred to the DREA where it is spread, dried and compacted. The rejects are used to construct a stable land- form at the DREA, which is routinely reviewed to meet its design, through monthly compaction testing, annual RPEQ inspection, and quarterly as built surveying.

All runoff from the facility is directed to a 555ML sediment dam via a purpose-built drainage system to protect the receiving environment.



### **REHABILITATION OF SUBSIDED LAND**

Fitzroy prioritises sustainable stewardship of the land that we interact with as part of our operations. We develop and implement robust closure and rehabilitation strategies to leave assets as enduring community and environmental resources following the completion of production activities. Fitzroy has published a Rehabilitation Management Standard which provides guidance and direction for Fitzroy on the minimum rehabilitation requirements for Fitzroy's mining operations. The Standard identifies the relevant legislative/statutory requirements as well as Fitzroy's corporate rehabilitation expectations. The Standard is applicable over the life cycle of the Operation (i.e. from planning through to mine closure).

We consider Fitzroy's reputation, community values, regulatory obligations and financial matters when optimising closure and rehabilitation approaches. This robust approach ensures that we will exceed the expectations of our stakeholders every time we close an asset.

In response to implementation of the Mineral and Energy Resources (Financial Provisioning) Act 2018, Fitzroy has commenced work towards transitioning to the preparation of a Progressive Rehabilitation and Closure Plan (PRC Plan). The main purpose of a PRC Plan is to ensure that land disturbed by mining activities is rehabilitated so that it is demonstrated to be safe, stable, does not cause environmental harm, and is able to sustain an approved post-mining land use. The PRC plan consists of two parts: the rehabilitation planning, which contains the details and methodology for rehabilitation; and the rehabilitation and closure schedule or milestones. Fitzroy prioritizes progressive rehabilitation across all of our assets. We actively integrate our rehabilitation planning process in our mine plan with the aim to increase the amount of rehabilitated land. Overall, Fitzroy has actively rehabilitated 861ha over our Broadlea North and Carborough Downs Assets. Fitzroy is actively undertaking rehabilitation activities at the Carborough Downs asset which will see a further 127ha of rehabilitation completed during 2022.

Since the Queensland Government introduced the Progressive Rehabilitation Closure Plan legislation, Fitzroy has been actively working towards meeting these Closure commitments. Insitu Trials were installed in 2021 on our Dry Emplacement Reject Area to qualitatively assess three potential cover options. The results from the Trial indicate a suitable capping layer of 1m of Cap Rock and 0.2m of Soil.

A number of other closure related studies have commenced directly assessing the stability of our existing and planned rehabilitation. We are collaborating with a number of professionals who are evaluating our strategy for returning the land to a safe, stable and non-polluting environment.

Fitzroy has always been a strong proponent of progressive rehabilitation and works toward achieving a post mining land use of grazing with an approved and implemented rehabilitation management plan. Carborough Downs PRC Plan is nearing completion with submission in November 2022. Ironbark No.1 and Broadlea PRC Plans are also underway with submissions to be completed in 2023.

### MANAGING EMISSIONS

Fitzroy acknowledges the impact environmental management has on our changing climate and attitudes towards the coal mining industry. We therefore regard environmental management as a major component of the business sustainability and consider environmental objectives as part of all business decisions. A focus on environmental outcomes is integral to the way we operate. Business strategies are developed with greenhouse gas emissions and energy use forming a key priority. Fitzroy monitors annual emissions quantities and energy usage and reports under the National Greenhouse and Energy Reporting (NGER) Act 2007. The NGER Act is the national framework for reporting of energy consumption and carbon emissions.

Together with the reporting obligations under the NGER Act 2007, the safeguard mechanism provides a framework for Australia's largest emitters to measure, report and manage

	2018	2019	2020	2021	2022
Total Scope 1 & 2	282545	477645	775001	788103	1,006,669
ROM	2895485	3297558	2799098	4558840	3582205
Intensity/ROM	0.10	0.14	0.28	0.17	0.281019
Total energy	541152	562638	637282	731705	1438532
Total energy/ROM	0.1868951	0.1706226	0.2276741	0.1605025	0.401577

### **EMISSIONS REDUCTION**

Fitzroy are committed to making genuine efforts to reduce greenhouse gas emissions. We have commenced proactively flaring across our operations with the commitment to flare 100% of gas pre-drainage at our Ironbark No.1 operation. The commitment to flare predrained methane will reduce the Operation's emissions.

The Carborough Downs Mining Leases are overlapped by Petroleum Lease (PL 223) which is held by CH4 Operations Pty Ltd (Arrow Energy). A Co-Development Agreement and Coordination Arrangement is in place with the Petroleum their emissions. It does this by encouraging large facilities, whose net emissions exceed the safeguard threshold, to keep their emissions at or below emissions baselines set by the Clean Energy Regulator.

Corporations that use energy above the thresholds are required to submit an annual report to the Commonwealth government detailing their total energy consumption and Scope 1 and 2 carbon emissions

During FY22, Fitzroy was requested to undertake an External Audit by the Clean Energy Regulator. The Audit period was for FY2021. The initial audit report has been completed and submitted to the Clean Energy Regulator. The audit process was an excellent tool to assess our compliance with no major deficiencies identified and a number of process improvements adopted following suggestions from the auditor.



Lease Holders that provides the framework for the mutually beneficial development of coal mining and coal seam gas extraction within the overlapping area.

Under current agreements between the parties, the Petroleum Lease Holders have first right to coal seam gas produced from the overlapping operations. The current Co- ordination Agreement between the parties provides for, among other things, the commercial utilisation of coal seam gas. By this means, Fitzroy is able to convert a greenhouse gas emitting waste product into a commercial fuel source for other industries in the Moranbah and broader region. Fitzroy continues to seek to maximise these waste gas utilization projects across the business.

Mining at Carborough Downs Mine is currently within the Leichardt seam where the virgin gas content is in excess of the outburst threshold limit. As a result, Carborough Downs utilises a combination of surface to in-seam drilling (SIS) and underground in-seam drilling (UIS) to drain the gas below outburst threshold limits prior to mining. Surface to in-seam drilling is the primary means of gas drainage at Carborough Downs mine.

A pipeline gathering network has been installed to connect SIS gas wells and to deliver this coal seam gas to an onsite compressor station. The compressed coal seam gas is then transferred via a pipeline to the Moranbah Gas Processing Facility for domestic gas distribution.

Coal mine waste gas is a substantial portion of the overall company emissions profile. Fitzroy is actively pursuing additional Coal Seam Gas Utilisation Projects across the underground operations with a goal to identify individual technologies that maximise the capture of waste coal seam gas prior to emitting to the atmosphere and utilising the gas as a fuel source.

A pilot project is currently underway at Carborough Downs to capture the seam gas using In Seam drainage methods and collecting it for commercial supply into the regional industrial gas network. A Pre-feasibility study has commenced into the potential to maximise the coal seam gas utilisation at the Ironbark No. 1 operation. Indications are that it may be viable to utilise the collected coal seam gas as the fuel source for onsite electricity generation. The scale of the project would be sufficient to supply the electricity needs of the Ironbark No. 1 operation and supply surplus power to the regional Electricity Network. Projects such as this have the potential to directly reduce Scope 1 emissions, replace Scope 2 emissions and create carbon. Further development work is underway in identifying credits for the future opportunities to collect coal mine waste gas in Compressed Natural Gas facilities and transport to end users utilising virtual pipelines.

This mutually beneficial gas offtake arrangement between Carborough Downs and the overlapping Petroleum Lease holders greatly reduces the greenhouse gas emissions being vented to the atmosphere from underground coal mining operations. The agreement facilitates the best resource use outcome with respect to coal mining operations and incidental coal seam gas mining under the Mining Lease and Petroleum Lease within the overlap area. It also regulates the carrying out and development of coal mining and coal seam gas production in a way which is in the public interest, safe, efficient and environmentally sustainable. The volumes of gas provided to Arrow are included below.

Year	Gas Flow	Units
2020	21,520,852	SCM
2021	21,316,801	SCM
2022	6,577,487	SCM

### REPURPOSING

As an industry, mining is very capital intensive with large expenditures on equipment a key feature. In our underground operations we operate a 300m wide longwall machine supported by a large fleet of specialized mobile machines including continuous miners, roof bolters, road headers and shuttle cars. Each of these machines comprises a robust steel frame controlled through specialized, intrinsically safe electronic and hydraulic systems. The machines are expensive and are often imported from overseas suppliers.

Fitzroy takes a unique approach to equipment acquisitions and seek to source secondhand equipment from other operations in Australia that can be overhauled locally and put into service at a much lower cost. The machines we



have acquired are originally constructed by reputable, industry recognised manufacturers and are fully overhauled to meet all of the stringent regulations applying to electrical equipment and underground mining. A fully overhauled machine is virtually a new machine and just as effective. This unique Fitzroy approach delivers on our core sustainability principles by:

- » recycling existing equipment and eliminating consumption of resources required for new construction
- creating employment opportunities for local business to undertake the overhaul work
- » reducing cost and satisfying our requirement to be economically efficient

### **IRONBARK NO. 1 MINE DEVELOPMENT** AN EXAMPLE OF FITZROY SUSTAINABILITY PRINCIPLES

#### BACKGROUND

The Ironbark No. 1 deposit (formerly known as Ellensfield) was identified by exploration over 20 years ago and has been the subject of several detailed studies. Under the stewardship of former owners, evaluations of geology, coal quality and potential development options were undertaken with capital expenditures estimated for the project construction which exceeded \$A800m in 2009. From 2009 through to 2013 an Environmental Impact Study was completed for the project and further exploration completed. The development of the project stalled when the former owners decided to exit their Australian assets.

Ownership of the project transferred to Fitzroy in late 2016 and the project economics and development options were revisited. Fitzroy applied for and was granted the Environmental Authority and Mining Lease in late 2018.

A revised development strategy was adopted by Fitzroy in 2021 which delivers on all of Fitzroy's Sustainability Principles. Innovation in project development methodology, infrastructure sharing, refurbishing and repurposing of old equipment all contributed to an extremely cost effective project that delivers job security for employees, employment opportunities for the community, a low environmental impact, reduced greenhouse emissions and viable long term growth for the business.





The construction of Ironbark No.1 is progressing well. The all-weather surface roads are in the process of being constructed and the drifts are 2 months from reaching the seam. An exciting milestone up ahead for the team.





Ironbark No.1 coal mine site is starting to take shape! Our team has taken a site from a paddock to a well-advanced mining operation, driving the drifts in just 4 short months.



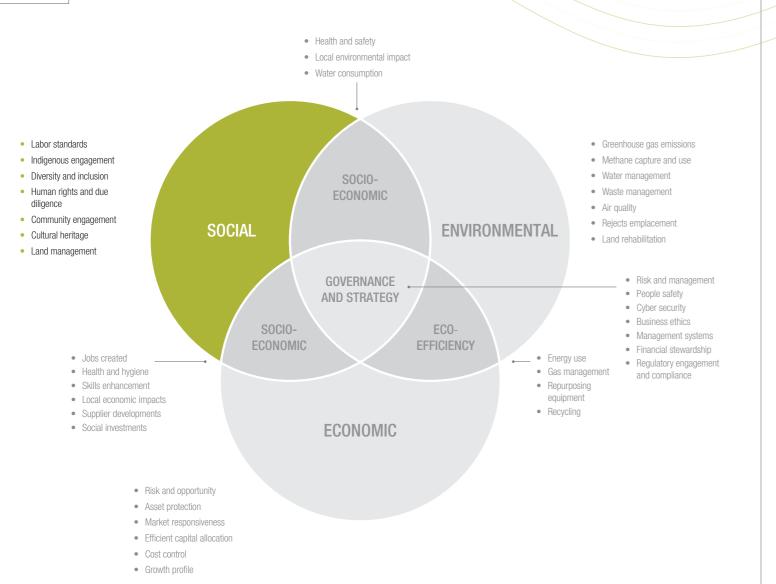


First Coal! Congratulations to the Ironbark No.1 team and the wider Fitzroy Mining Operations business. A momentous occasion for all; first coal achieved on budget and in record time.

> A birds eye view of our new Ironbark No.1 Project. This week marks the commencement of our first development crews starting work.

# SUSTAINABILITY PRINCIPLE SOCIAL

FITZROY 2022 SUSTAINABILITY REPORT



Our social obligations extend to our workforce and their families, the community in which we operate, the traditional owners of our lands and the broader community that benefits from our economic contribution. We create

employment and career opportunities, we care for the safety, health and hygiene of our people and we develop positive interactions with local landowners and communities.

### **INDIGENOUS – BARADA BARNA**

The Barada Barna people received Native Title determination in 2016 over their traditional lands which cover approximately 3229 square kilometers and are banded between the Connors Range in the east, Middlemount in the south, Peak Ranges in the west, and Lake Elphinstone in the north.

Fitzroy enjoys a constructive relationship with the Barada Barna people, as the Traditional Owners of the land upon which we operate and seeks to develop this relationship further in the future. Together with Barada Barna we have

### SAFETY

Fitzroy remains committed to preventing all potential injuries and occupational illnesses from activities undertaken. The health and safety of employees, contractors and communities is critical to ensure a sustainable business.

Health and safety performance is a primary indicator of the overall health of the business and is reflected in several lead and lag indicators which are tracked on a daily/weekly/ quarterly basis throughout our operations.

In the FY 2022 there was a continual focus on High Reliability Organisation Principals such as Chronic Unease and Work Imagined Vs Work Done as well as the conventional health and safety indicators. Lead and Lag indicators reporting included:

#### LEAD

Hazards Reported vs Incidents Reported

Number Job Step Analysis (JSA)s that led to Safe Work Instruction (SWI) creation

#### Critical Control Compliance

Job Safety Observation (JSO's) with a focus on areas of concern through injury taxonomy and process department

Statutory work order compliance

Job Safety Observations (JSO's) with a focus on areas of concern through injury taxonomy and process department

TAKE 5 compliance

Statutory work order compliance

developed Cultural Heritage Management Plans (CHMPs) for the Carborough Downs, Broadlea and Ironbark No.1 projects. We recently engaged Barada Barna to conduct further cultural heritage surveys at our Carborough Downs, Carborough Downs South, Broadlea and Ironbark No.1 projects and to provide cultural awareness training for the leadership team at our operational assets.

We recognise our legal obligations in respect of the Native Title and comply with all requirements in respect to our mining activities.



#### LAG

Number of serious accidents and fatalities

12 month mowing average (12MMA) total; recordable injury frequency (TRIF) and lost time injury frequency (LTIF)

High Potential Incidents (HPI) number and frequency rate

Total Injury Frequency (TIF)

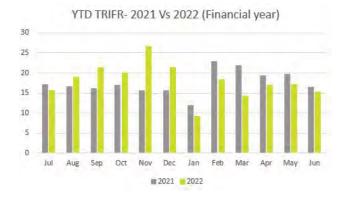
Overdue actions from incidents, audits or inspections;

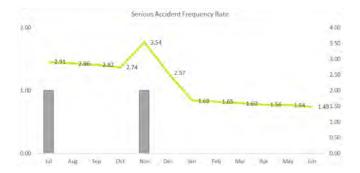
Total Injury Frequency (TIF)

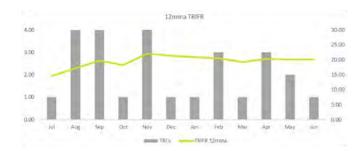
Occupational hygiene monitoring and exceedances above occupational exposure limits

### SAFETY PERFORMANCE

The Fitzroy mining operations initially experienced an increase in the YTD Total Recordable Injury Rate (TRIFR) when compared with 2021. As a result, Fitzroy's senior leadership focused the operations on improving hazard awareness and personal risk management when Coal Mine Workers were conducting operational tasks. The outcome was an overall decrease in the TRIFR for the financial year. The Serious Accident Frequency Rate (SAFR) has continued to decrease with no Serious Accidents from the January 2022 to June 2022 reporting period.







Fitzroy responded to the High Reliability Organisations (HRO) research and adopted some of the principals, which have been integrated into the Health, Safety, Compliance and Training Strategy for 2022 – 2023.

Our operations have continued to develop high-level strategies in relation to creating a reporting culture. This included a deep dive into incident and hazard reporting data base conducted by Dr. Sean Brady (Author of the Brady Review) with a hope to take a holistic view of the health of Fitzroy's controls that prevent material unwanted events.

The Project included:

- » Digitising critical control activity findings from 2020-current
- » Categorising 2020/21 investigations using ICAM analysis codes
- » Review of related Material Unwanted Event Bowties for causal lines and control
- » Analysis of critical controls, high potential incident investigations, hazards and incidents
- » Report on ICAM quality findings and recommendations

The data was analysed using a range of data analysis tools and the Critical Controls Audit findings.

Fitzroy's Health, Safety, Training and Compliance Strategy FY 2022 – 2023 has some key projects that will enable the business to continuously improve and ensure that the digital medium is integrated into how we work.

Some of the tangible enablers across the business that continue to be an ongoing project is the introduction of the Controlled Document Management System (CDMS). This will enable the Safety Health Management System (SHMS) to move away from a largely paper-based system, that is manually uploaded to the Intranet to provide access to all personnel.

The Learning Management System (LMS) which is used across sites to ensure authorisations, competencies and how training is managed has been reconfigured to ensure coding realignment. Furthermore, in order to make transition across sites easier, changes have been made in how contract partners interact with the portal. There has been significant work undertaken to digitalise the current personnel training records for easier access and to ensure that legal retention obligations are met.

To contribute to the health and wellness of our people functional capacity reviews were conducted of the underground roles. This program was instigated to ensure that a thorough understanding of a person's interface with equipment and tooling was understood to manage potential occupational risks effectively e.g. weight of components, forces required to undertake tasks.

This underpinning analysis then helped inform the introduction of pre-employment functional assessments to ensure that applicants were able to undertake the inherent requirements of their role.

### **HYGIENE**

As part of ensuring good hygiene conditions for our workforce, Fitzroy maintains compliance with the Coal Mining Safety and Health Act 1999, the Coal Mining Safety and Health Regulation 2017, Recognised Standard 14: Monitoring Respirable Dust in Coal Mines and Recognised Standard 15: Underground Respirable Dust Control, to control exposure to dust.

As part of this focus on dust and hygiene Fitzroy has an internal Occupational Hygiene committee which is a working group comprised of superintendents, technical experts, and coal mine workers to progress innovative solutions and emerging issues identified for controlling airborne dust. Baseline exposure assessment has been completed for each similar exposure group (SEG) and the requirement for on-going exposure monitoring has been determined and implemented.

Areas of significant improvement in controlling potential occupational exposure to dust were:

- » Addition of poly-block sprays to continuous miners
- » Redesign of the foaming units' storage tank to minimise fill times and aid in ergonomics



- » Re-design of the scrubber unit in Bord and Pillar
- » Complete removal of workers from the tube side of the Miner during stone drivage

In 2022, our Carborough Downs operation celebrated success, recording zero Diesel Particulate Matter (DPM) exceedances during the past three Longwall (L/W) moves, historically throughout the QLD Coal Mining Industry this has been the similar exposure group (SEG) with the greatest risk of exposure to DDPM.

During the year, our Health and Safety team provided a presentation to Resource Safety and Health Queensland (RSHQ) highlighting the journey we have taken to reduce the production of airborne contaminants. Examples of improvements have been changing out engine packages in underground vehicles to a lower DPM producing engine specification (Predator engine), purchase of lower emission diesel fuel and the requirement to risk assess each longwall move separately for potential exposure.

### LABOUR PRACTICES

The Fitzroy team is comprised of dedicated employees working in an open, inclusive and transparent environment across Operations. Our commitment to safe and efficient mine operations is attributed to the substantial increase in the workforce which has risen from 177 permanent employees when we took over the business to 495 permanent employees as of June 2022.

The growing permanent workforce, alongside the contractor base, reflects an organic and robust workforce, equipped to tackle the challenging landscape presented by the Australian resources sector and the new norms presented in the aftermath of global pandemics.

In the last Financial Year, Fitzroy has boosted its employee base by 194 permanent employees in response to meet the labour demands of new projects coming online, these include Ironbark No. 1 and Broadlea.

Fitzroy monitors the labour performance of the business through key indicators including:

- » Absenteeism rates;
- » Employee turnover rates.

Turnover saw an incline from February 2022 onwards in the FY2022. With the increase in headcount, the increase in turnover was offset by the increased headcount of the workforce resulting in an average of 1.09% and an average of 4 employees per month. Between December to January, monthly turnover doubled and has steadily increased through to the end of June.

During the year, the existing Enterprise Agreements (EAs) set for the employment terms and conditions for the Coal Mine Workers and the Underground Shift Supervisors (Deputies) both expired. The company and its workforce, through their union representatives, successfully negotiated replacement EAs which were subsequently approved by the Fair Work Commission. These processes were constructive and collegiate and reflect the strong relationship that the company seeks to maintain and foster with all of its employees.

## WORKFORCE SKILLS DEVELOPMENT

Fitzroy's people are our greatest asset, and we pride ourselves on attracting and retaining talent. At Fitzroy, we fundamentally believe that the success of our business is driven by the team. This is reflected in Fitzroy's culture, and has can be mirrored in our employee's length of service with a total of 22% of employees having over 10 years of service and the average length of service being 4.4 years.

We pride ourselves on developing our skills by regularly providing opportunities to participate in high quality training programs and facilitating study assistance programs to upskill our workforce. Fitzroy has a commitment to succession, planning and providing opportunity to its workforce.

Prior to the end of the FY22, Fitzroy established the Vacancy Risk Assessment tool to identify employees who have potential to be future leaders and core contributors to Fitzroy's future. The tool can also be used to identify the risk to the business if a position is to be vacated through resignation or termination. The tool was created to aid managers in reviewing their department, its current labour capacity, and future needs. This tool will be used to identify which employees have succession planning capabilities and enable Fitzroy to identify the support required to upskill and develop those individuals. Budgetarily, this tool will be used in conjunction with the departments learning and development fund.

## **DEPUTY DEVELOPMENT PROGRAM** (CERTIFICATE IV IN COAL MINING)

Fitzroy's commitment to its future leaders and the sustainability of our industry is embedded in the ERZC Development Program. Due to statutory requirements as well as the importance of the role in driving a safe and productive outcome, the program is fundamental in underpinning future growth and statutory compliance for efficient mine operations. Of those selected in the program, 3 completed their studies and 1 has undertaken a deputy role within the organisation.

Fitzroy is steadfast in continuing its commitment to

## **TRANSITION TO IRONBARK NO.1**

With additional Fitzroy projects coming online, including Ironbark No.1 and Broadlea Open Cut recommencing operations, FY22 instigated the first transition of the workforce to other sites within the complex. A measured approach to manning Ironbark has been taken, with people resourcing increasing as Ironbark transitions from a project to an operation. As the operation matures and the pit hits first coal, additional people resourcing will be transitioned to the site.

Broadlea Open Cut is resourced predominately through a contracting company, with the site's Senior Leadership Team being Fitzroy employees

### MATURE AGE APPRENTICESHIP PROGRAM

In response to a skilled trade labour shortage felt across the resource industry, Fitzroy initiated its Mature Aged Apprentice Program selection process during FY22, seeking to offer experienced coal mine workers and permanent staff the opportunity to complete a mechanical or electrical mature aged apprenticeship. The rigorous selection process included psychometric testing and panel interviews with key

providing opportunity and developing its workforce. Expressions of Interest have commenced for the next intake of candidates for both the Deputy and Undermanager programs for those workers committed to upskilling and taking on further study. The selection process will see the implementation of psychometric testing, panel interview process and behavioral and safety reviews of each candidate. The volume of applications and interest received from the workforce thus far indicates a robust interest from the workforce in personal and professional development.



stakeholders in the Maintenance & Engineering Department to identify applicants that would best suit each trade function. Committed to 'growing our own' skilled workforce, the program has identified nine employees- five mechanical and four electrical- who were successful in obtaining an apprenticeship. The program is anticipated to commence Mid-January 2023.

### **APPRENTICESHIP PROGRAM**

In collaboration with MRAEL, Fitzroy went to market for its first apprentice intake targeting external applicants with the opportunity to complete a trade in an entry level position into underground coal mining. A large volume of applications were received, demonstrating the reputation Fitzroy has within the Bowen Basin as an employer of choice. All applicants underwent a measured selection process with preliminary testing including psychometric testing and pre-

**VACATION STUDENT PROGRAM** 

The Vacation Student Program was implemented in FY22 and completed its first intake, with two students joining Carborough Downs Coal Mine. The program was initiated with the intent to provide engineering students the opportunity for industry experience indicative of the student's university arrangements, the program took place over twelve weeks allowing exposure to mining operations, networking opportunities, relevant professional training and coaching through a buddy system.

The program's objective was to provide university students with a deep practical understanding of the underground coal mining environment and exposure to the three production screening interviews by MRAEL. Shortlisted applicants then underwent panel interviews on site and underground visits.

The successful candidate was a school leaver with a keen interest in both underground coal mining and completing a mechanical trade. The trainee commenced on the maintenance crew as a mechanical apprentice and will rotate through all departments enabling exposure to all areas of the business over the four-year period.

methods utilised in Queensland underground coal. The program saw two engineering students rotate through Bord & Pillar, Longwall and Development during their twelve-week program.

The program recognized one candidate with aptitude to take on additional site work during additional vacation periods throughout the university calendar year. Studying a Bachelor of Engineering, majoring in Mechanical and Biomechanical science, the successful candidate has since returned to help the Ironbark No.1 team and continues to stay connected with his program mentor in a professional capacity.

### MANAGEMENT AND LEADERSHIP PROGRAM

Fitzroy invested in its future leaders through the 'Dare to Lead' program initiated in 2021. The program identified eight employees across various departments who had stepped into leadership roles to undertake a Certificate IV in Leadership and Management. The purpose of the program is to aid new leaders and those employees exemplifying leadership qualities in their role to hone their skills and knowledge in order to develop into strong leaders for Fitzroy's future. Fitzroy will continue to identify, mentor and develop employees who show an aptitude for becoming leaders.



## **WORKFORCE DIVERSITY**

Fitzroy prioritises diversity and inclusion as a core component of a successful and resilient business by ensuring that we always select the best candidate for a role. We foster and promote an open,transparent culture, which respects people's differences and where every member of the team is empowered to be themselves in the workplace. Our workforce is drawn from many nations, cultures and ranges of experiences which enriches the skillsets across all levels of Fitzroy.

- » Workforce age composition
- » Employee gender diversity
- » Women in Leadership Roles
- » Women in Non-Traditional Roles

Workface age composition has seen a shift in FY22 when compared to the previous financial year, with a rise in both the 20-29 and 30-39 age demographics and a decrease in the 40-49, 50-59 and 60+ age brackets.

As of July 2022, women comprised approximately 5.9% of the Fitzroy workforce, a slight increase from previous reporting (FY 2021) period of 5.4%. Fitzroy's female workforce has representation in both surface and underground, from the Executive Leadership, Management, Superintendents through to Underground Coal Mine Workers.

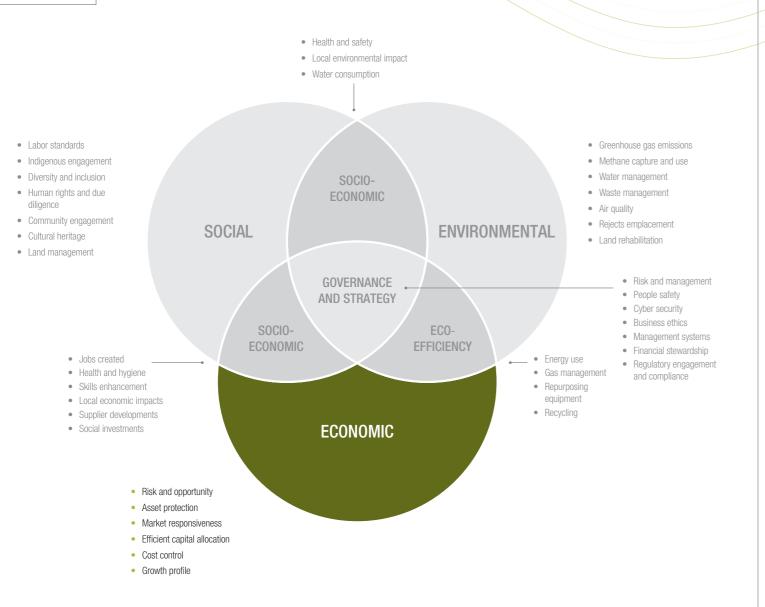
This representation extends to Women in Non-Traditional roles on site. Roles typically considered "male roles": occupied by females include: Experienced Electrical Tradesperson, Technical Services Superintendent, Maintenance Planners.

Bringing women into non-traditional roles strengthens workplace culture, reinforcing the commitment Fitzroy takes to inclusion and opportunity.



# SUSTAINABILITY PRINCIPLE ECONOMIC





Fundamental to a sustainable business is the need to be economically viable. Viability requires us to manage our operations efficiently, maintain our social and regulatory licensing – and ensure that there is a foreseeable market for our products. We understand the global push to reduce emissions and the drive to eliminate fossil fuels. However, at the present time there is no large-scale alternative to metallurgical coal in the steelmaking process.

In 2021 global crude steel production was 1,950 million tonnes and it usually requires approximately 800 kilograms

of coking coal to produce each tonne of steel. While the annual demand for steel will vary from year to year in response to economic and other impacts such as the war in Ukraine, it is expected that for the foreseeable future demand will continue to increase as developing nations increase their per capita steel consumption. This ongoing and increasing demand for steel will sustain the need for metallurgical coal well into the foreseeable future.

#### **TENEMENT PORTFOLIO**

Fitzroy has established a portfolio of highly prospective tenements, centrally located in the world-renowned Bowen Basin, a premier location for the production of coal. The regionally significant tenement package totals ~95,000 hectares and consists of a combination of Mining Leases, Mineral Development Licences and Exploration Permits for Coal with resources in both the Rangal Measures and Moranbah Measures. All tenements are in good standing with rehabilitation and exploration expenditure obligations managed and maintained in line with relevant legislation.

Fitzroy's tenements are positioned within close proximity to Queensland's world class, low cost supply chain. The Fitzroy operations utilise the Goonyella rail system to transport coal approximately 160km to the Port of Hay Point, approximately 30km south of Mackay, where the metallurgical coal products are exported through the Dalrymple Bay Coal Terminal to a range of global customers. The infrastructure network is highly regulated, is well maintained, and is utilised by some of the world's premier mining companies and operated in 'line with social and regulatory expectations.

Fitzroy seeks to maximise the utilisation of its key infrastructure by employing a "CHPP Hub" strategy. Run of mine coal production is transported to a centrally located Coal Handling and Preparation Plant and train loadout facility, enabling Fitzroy to minimise its operating footprint and maximise asset utilisation.

Fitzroy's centrally located asset base and tenement package, its strong local presence and access to global capital markets provides a unique platform for us to pursue growth opportunities, either via development of its own internal projects or selective merger and acquisition activity.

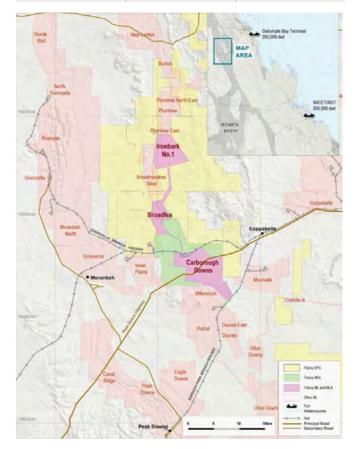
In terms of obligations, the Fitzroy Tenement Management Plan (TMP) has been introduced to effectively control and manage the activities associated with the management of tenements and ensure we comply with tenement obligations as required by the Mineral Resources Act 1989.

The Tenement Management Plan defines how tenement related tasks and obligations are tracked and actioned to safeguard against loss of tenure, fines and native title issues.

A summary of Fitzroy's current tenements is set out to the right.

#### ECONOMIC

	Licence Number	Area (ha)		
	ML 70338	245		
	ML 70339	2,657		
	ML 70340	1,754		
	ML 70345	1,385		
Mining	ML 70374	470		
Lease (ML)	ML 70375	100		
	ML 700024	3,379		
	ML 70482	5		
	ML 70484	2		
	MLa 700067*	706		
Mineral Development Licence (MDL)	MDL 354	1,575		
	MDL 359	5,614		
	MDL 384	77		
	MDL 3046	76		
	EPC 667	10,802		
	EPC 675	3,495		
	EPC 719	1,907		
	EPC 722	29,259		
Exploration Permit Coal	EPC 858	4,132		
(EPC)	EPC 951	15,912		
	EPC 952	7,931		
	EPC 1036	1,272		
	EPC 1052	1,589		
	EPC1146	3,810		



### **CORNERSTONE OPERATIONS AND PROJECTS**

#### Carborough Downs Coal Mine



#### LOCATION

Centrally located in the heart of the Bowen Basin, 30 km from Moranbah. Accessed via the Peak Downs Highway

#### STATUS

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Fully permitted and operating

#### **EXPLORATION**

Extensive exploration underpins JORC compliant reserves of 30.9Mt and Resources of 205.0Mt

#### **MINING METHODS** Underground longwall and development Bord and Pillar.



PRODUCT

100% metallurgical coal (80% HCC: 20% PCI) Well established products with geographical distribution and wide acceptance.



#### LOGISTICS

ROM coal overland conveyor to CHPP Hub.

Product coal railed via Goonyella Branch Railway and exported via DBCT.



#### HUMAN RESOURCES

~80% of Carborough Down's 500 strong workforce live in the greater Mackay Region.

All EBAs current – most recent EA voted up first go.

### **CORNERSTONE OPERATIONS AND PROJECTS**

#### Ironbark No. 1 Project





**MINING METHODS** Bord and Pillar (1 Year) Longwall (15 Years)



PRODUCT

Predominantly metallurgical coal (potential to optimise product strategy to maintain 100% metallurgical coal production).



#### LOCATION

~28km north of Carborough Downs CHPP. Heavy vehicle access via existing Broadlea Mine road (and existing third party haul road)



#### STATUS

Mining Lease granted on 29th October 2018 Construction commenced early 2022 First coal achieved in September 2022



#### EXPLORATION

Extensive exploration database including 3D seismic coverage over the entire LOM plan >600 drill holes exceeding 180km of drilling



#### LOGISTICS

ROM coal will be trucked to existing CHPP Hub.

Product coal railed via Goonyella Branch Railway and exported via DBCT.



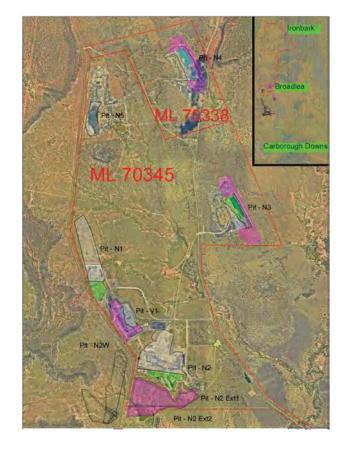
#### HUMAN RESOURCES

~360 people at full production.

Shared resources with Carborough Downs for support functions.

### **CORNERSTONE OPERATIONS AND PROJECTS**

#### **Broadlea Project**



#### LOCATION

~9km north west of Carborough Downs CHPP. Heavy vehicle access via existing Broadlea Mine road

#### T STATUS

Fully permitted and operating

#### EXPLORATION

Extensive exploration underpins further expansion opportunities, both within and outside of permitted MLs



#### MINING METHODS Opencut truck and excavator.



PRODUCT Approximately 45% metallurgical coal (45% SHCC:55% TH).



#### LOGISTICS

ROM coal truck hauled to CHPP Hub. Product coal.

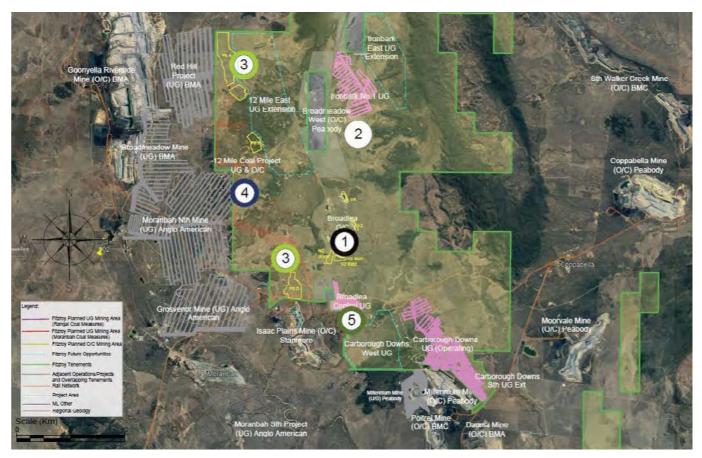
Product coal railed via Goonyella Branch Railway and exported via DBCT.



#### HUMAN RESOURCES

Contract operation operated by Goldings Pty Ltd. ~110 strong. FUTURE OPPORTUNITIES AND GROWTH

With approximately 95,000 hectares of tenements Fitzroy's portfolio represents a regionally significant position in the centrally located Bowen Basin. Fitzroy's asset base and tenement package, together with its access to global capital markets provides a unique platform for us to pursue growth opportunities.





As	set	Broadlea	Ironbark No.1	12 Mile	12 Mile	Broadlea Central
Ra	ink	2	1	4	3	5
Sta	itus	ML	ML	EPC	EPC	MDL
Ту	pe	OC	UG	0C & UG	UG	UG
Met	thod	T&S	LW, B&P	DL, T&S	LW	B&P
Mine	e Life	6 years	15 years	>20 years	>40 years	~8 years
Reso	urces	292Mt	362Mt	584Mt	1,700Mt	14Mt
Existing (	CHPP/TLO	Yes	CHPP upgrade required	Yes, subject to timing	Unlikely	Yes, subject to timing
Potential Coal Type	HCC					
	SHCC					
	PCI					
	Thermal					
	Rangal Measures					
	Moranbah Measures					



LW - Longwall

B&P - Bord and Pillar

### MARKET ASSESSMENT AND REVENUE CERTAINTY

To ensure a long-life sustainable business, Fitzroy needs to ensure an ongoing and economically viable market for its products. It is acknowledged that the market for coal products face headwinds from the concerns about climate change and the global transition to a lower emission economy. These challenges cannot be ignored and are a key focus for the Board and senior management. Fortunately, Fitzroy has resources of good quality metallurgical coals which are low in impurities and are sought after by the global steel industry.

Longevity of the Fitzroy operations depends upon the future demands for steel in the global economy, and the development of alternative production techniques that would replace metallurgical coal. Analysis of historical steel consumption throughout the world shows that as the level of economic development of a country grows, so too does the level of steel intensity or the per capita consumption.

The chart below illustrates per capita steel consumption during 2020 which was sourced from the World Steel Association. Developed nations such as the EU, USA and Japan consume 250 – 400kg per capita per annum. In contrast, consumption in developing countries and regions is significantly lower at 74kg/capita in Central and Southern America, 27kg/capita for Africa and 64kg/ capita in India. Lifting the standard of living for people in these countries and regions will require significant steel consumption and support or increase existing global production levels.

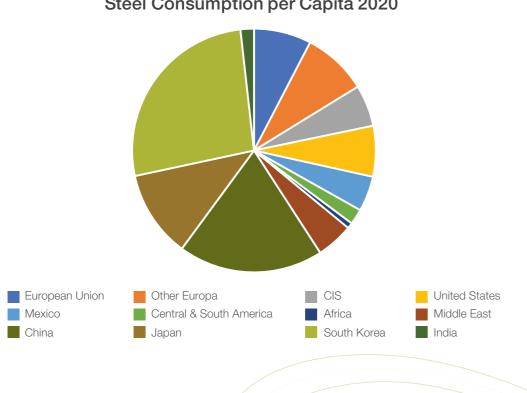
The Australian Department of Industry, Science, Energy and Resources projects Australia to be sustained for the foreseeable future at 190M tonnes per annum dependent on production levels which can be adversely affected by seasonal rains and weather conditions. In relation to the sustainability of this market, whilst demand appears to be stable or growing, future supply sources are limited. Existing high-quality resources of export metallurgical coals from Canada, USA and Australia are being consumed and it is increasingly difficult to locate or secure mining approvals for replacement supply.

Fitzroy believes that the fundamental criteria for a sustainable market for our coals exist and will underpin the growth and longevity of the Fitzroy business.

### **EFFICIENT CAPITAL ALLOCATION**

Mining and particularly the coal industry are highly capital intensive. The infrastructure required to access, extract and process our resources needs to be large scale, robust and safe. With a large portfolio of existing assets and growth opportunities, the demands for capital expenditure are significant within Fitzroy. However, reflecting the key principal of ensuring that we must be economically viable to ensure sustainability, all opportunities are reviewed and tested against the company's strategic goals and conservative macro assumptions.

A feature of Fitzroy's capital allocation process is the willingness to be innovative and to consider alternative solutions to the conventional approach. For example, a deliberate strategy of the company is that, where possible, a re-use and recycle approach is adopted to the replacement of items of equipment as those items reach the end of their periodic in-use cycles. Equipment in this context undergoes a comprehensive overhaul and refurbishment, as opposed to being acquired from new. This strategy has been further extended to the



#### Steel Consumption per Capita 2020



procurement processes for additional equipment required for the business, whereby a substantial amount of used or "second-hand" equipment has been sourced and acquired also instead of acquiring this equipment as new items. These used equipment items also undergo comprehensive overhaul activities.

The benefits of a re-use and recycle strategy in lieu of newly built items vis-à-vis sustainability outcomes are well documented elsewhere. Of importance in the Fitzroy context are tangible benefits including a significant reduction of energy consumed in the supply of equipment by deploying this approach versus newly built items, and a substantial increase in the amount of local employment by deploying this approach versus newly built items (which are almost always imported into Australia from elsewhere). There are also spin-off benefits in the need for ancillary localized services including software development and for equipment component refurbishments which also contribute to the overall benefits of this approach versus the purchase of newly built items.

### **OPERATIONAL EFFICIENCY**

The resources and in particular the coal mining industry is a mature and highly cyclical industry, with the market price realizations for the commodities changing rapidly in response to changing supply and demand market dynamics. These changes can have material impacts on businesses engaged in supplying these end market customers, both positive and negative, depending upon the circumstances. In addition, the risks associated with the mining of coal can be highly variable depending upon the geological setting of the coal reserve and the prevailing weather patterns that exist at the time of mining. The risks involved with underground mining operations are further exacerbated due to the nature of the mining environment.

To sustainably operate a business in view of these circumstances requires a business to be diversified in the sources of its coal production, efficient in its mining operations, and resilient to the prevailing geology and weather risks.

Fitzroy's business has been restructured in the recent few years to provide an increasing degree of resilience in respect of these factors. Several new mining districts have been developed in recent years, each of which deploy differing mining methodologies. Taken together, these changes have diversified the overall business away from what was previously a dominant underground mining business deploying the longwall mining method in one mining district. The business is continuing to diversify further in this regard, and it is now characterized by deploying both bord & pillar methods and longwall methods in its underground operations, and also deploying truck and excavator mining methods in its open cut operations. This has significantly enhanced the capability of the business to withstand the prevailing inherent risks.

This increased level of diversification of the operations also allows the business to variably respond to the changes that it faces from time to time, including flexibly expanding one area of the business in response to changes that may affect another area.

Notwithstanding the above, Fitzroy's management recognizes the need to always maintain a high level of vigilance in the conduct of its operations with a high degree of cost control and accounting for expenditure and for the supply of goods and materials, with reducing waste throughout the business being of particular focus.

The ability to offer sustainable ongoing employment to its personnel, and to continue to support the suppliers and sub-contractors and other providers of goods and services to the business, is greatly enhanced by the actions of Fitzroy in the above endeavors.



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