

# 2022 ESG Report

ASX Announcement

21/11/2022

Liontown Resources Limited (**ASX:LTR**) today releases its 2022 ESG Report.

Shareholders can download a copy from the Liontown website [www.ltresources.com.au](http://www.ltresources.com.au).

## ENDS

This announcement dated 21 November 2022 has been authorised for release to the ASX by the Board of Directors.

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### About Liontown Resources

Liontown Resources (ASX:LTR) is an emerging Tier-1 battery minerals producer. Our aim is to be an ESG leader and a globally significant provider of battery minerals for the rapidly growing clean energy market. As we transition from explorer to producer, we are committed to incorporating the right approach and foundation from the outset and ESG principles underpin all decisions. We currently control two major lithium deposits in Western Australia and aim to expand our portfolio through exploration, partnerships and acquisitions. In addition, we look to participate in downstream value-adding where control of the deposit provides a strong competitive advantage.



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**FY22 Environment,  
Social and Governance  
Report**



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Aerial image of accommodation  
village at Kathleen Valley.  
Photograph: Tony McDonough

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# 01.

## Message from Tony Ottaviano

Managing Director and Chief Executive Officer

Our inaugural ESG report was delivered in 2021 concurrent with the release of the Definitive Feasibility Study for our flagship Kathleen Valley Lithium Project, reflecting our fundamental commitment to incorporating the 'right approach' and foundations from the outset.

Much has happened during the past year, with Lontown securing project funding for the development of Kathleen Valley, signing binding offtake agreements with a group of Tier-1 global customers who value our high ESG credentials, announcing a Final Investment Decision, obtaining all key development approvals and commencing construction at site.

I am delighted to say our ESG progress has been equally as rapid, reinforcing our vision to be an ESG leader and a globally significant provider of battery minerals for the rapidly growing clean energy market.

To achieve this vision, we are committed to developing natural resources responsibly, in a way that creates social, environmental and economic value. Central to this is our landmark Native Title Agreement, signed in November 2021 with the Tjiwarl People, the Traditional Owners of the land on which we are developing the Kathleen Valley mine.

Liontown has a close and collaborative relationship with the Tjiwarl which we believe sets a new benchmark for the mining industry in Western Australia in recognising and protecting heritage and Country. We greatly value the partnership we have established with them.

We recognise that we cannot be successful without a strong and genuine commitment to ESG. This report summarises the enormous amount of work we have done during the past year as we continue our transition from explorer to producer.



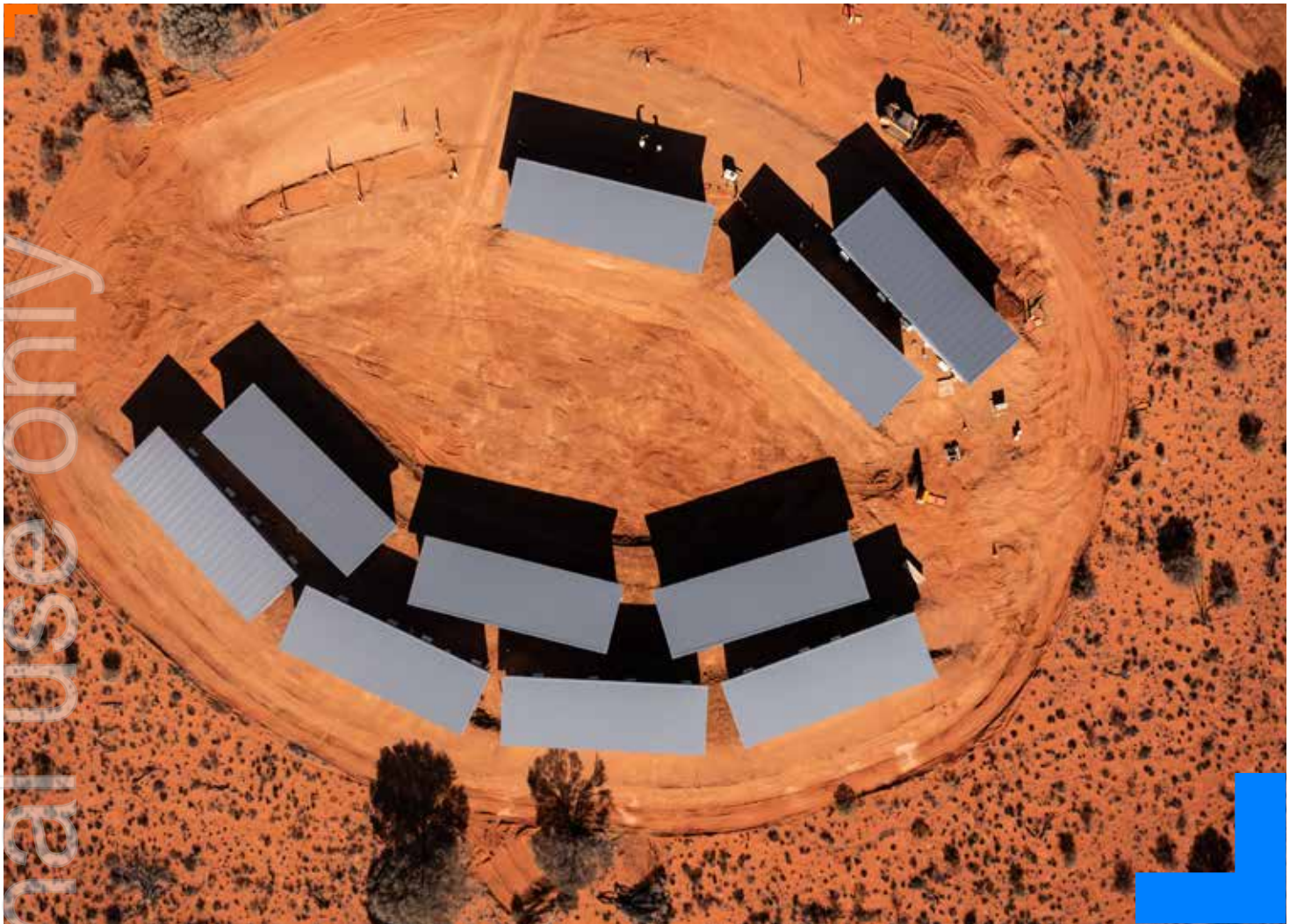


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It is a great privilege to introduce Liontown's 2022 Environmental, Social and Governance (ESG) Report which outlines the substantial progress we have made in developing and delivering our world-class ESG framework that will guide our growth."





## Macro Environment

The recent volatility in the global political and economic environment has not lessened the imperative to decarbonise the global economy.

The global energy transition and especially the rapid electrification of the transportation sector will require significant growth in new lithium supply and Lontown is ideally placed to play a leading industry role.

Driven by geopolitical considerations and end-customer values, minerals purchasers are increasingly focused on the quality of their supply chain. They are seeking minerals from safe and reliable jurisdictions, produced under the very best ESG standards. The offtake agreements that we secured during the year with Tesla, LG Energy Solution and Ford are a direct outcome of Lontown's commitment to ESG principles and practice. Gone are the days where supply is agnostic to location and extracting lithium to the very best ESG standards, being cognisant of labour and traditional owner standards, is becoming crucial to our customers and stakeholders' selection requirements.

We see our role in the global battery supply chain as initially being through the delivery of spodumene concentrate to our Tier-1 customer base, with some reserved for sale in the spot market. Once our concentrate business is established, we will potentially seek to move up the value curve by developing downstream processing capability.

Finally, we are embarking on a major construction project at a time of significant labour shortages in Western Australia, global supply challenges and international inflation. Within this challenging context, we need to successfully deliver our project while never compromising on safety or our underlying commitment to achieve excellent outcomes.

*Accommodation village under construction at Kathleen Valley.  
Photograph: Tony McDonough*



## ESG Strategy

We appointed an ESG Manager during the year with a focus on:

- Leading critical ESG initiatives across the Company and making significant progress on the development of our ESG roadmap;
- Detailed evaluation of climate-related risks and opportunities and establishing a pathway for the Kathleen Valley mine to target net-zero emissions by 2034;
- Establishing systems and procedures for environmental management; and
- Commencing the intensive task of self-assessment against the draft Initiative for Responsible Mining Assurance (IRMA)-Ready Standard.

## Performance and Achievements

While our ESG achievements for FY22 are covered in detail in this report, I would like to briefly highlight some of the more significant areas of progress:

## Safety

Ensuring everyone returns home safely every day is the most fundamental commitment we can make and one for which I feel personally responsible. My personal commitment to 100% safety will set the tone for the rest of the organisation. No incident is too small to report and to learn from and all employees, contractors and partners need to feel able to speak up when they see risks and hazards.

Our focus during the year has been on ensuring that we have safe work practices before we move into the construction phase supported by a more formalised safety management system.

We are currently implementing Safety, Risk, Learning and Sustainability software with real-time visibility to proactively manage health and safety matters.

We have appointed an Employee Assistance Provider to support employees and their families 24 hours a day, 7 days a week, which is currently being rolled out across the Company.

## Decarbonisation

The lithium raw materials we will produce represent a critical input to global decarbonisation efforts. At the same time, it is our responsibility to produce lithium with the lowest possible carbon footprint.

We are making a significant upfront capital investment via our energy partner Zenith Energy to ensure that at least 60% of our start-up energy requirements will come from renewable energy sources. In September 2022, we were pleased to award the contract to Zenith Energy for the supply of power to Kathleen Valley for what is currently expected to be the largest off-grid wind-solar-battery storage hybrid power station for a mining project in Australia. Our ambition is to achieve net-zero emissions by 2034.

## Materiality Assessment

During the year, we completed an ESG materiality assessment, with input from key stakeholders including the Board, investors, shareholders, customers and employees. The process has defined our most material focus areas, which are areas that are inextricably linked to our ESG strategy and performance.

## Governance

The Board Skills Matrix was updated for FY22 to include ESG strategy, with the core competency addressing overarching strategic ESG knowledge and formulation, as well as the implementation and assessment of ESG strategy.

## Diversity

‘Given our rapid transformation from an explorer to mid-tier mine developer, Liantown established its first formal goals for gender diversity on the Board in June 2022.’

We have a firm belief that diversity will enhance our culture and performance, helping us to recruit, retain and motivate exceptional people. Currently, 24% of our workforce is female. As we grow and attract the best talent we expect this proportion to continue to increase.

At Board level, in October this year, we were delighted to welcome highly respected lawyer Adrienne Parker to the Liantown Board as a non-executive Director, following the appointment of Jennifer Morris at last year’s AGM.

## Conclusion and Acknowledgements

This is a very exciting time for Liantown as we commence full-scale commercial construction at Kathleen Valley. Given the wonderful team we are assembling, I have every confidence that we can manage the macro and microeconomic challenges that we will inevitably face in the future.

I would like to acknowledge the support provided by the Liantown Board, led by our Chair, Tim Goyder, to help foster the development of a great culture within the Company where ESG considerations are not just front of mind – they are part of our DNA.

Led by our Chair, Tim Goyder, our Board members are highly engaged in Liantown’s sustainability programs and actively work with the Liantown team to understand and define the Company’s sustainability impacts. This collaboration helps to build an inclusive and consultative culture – which I believe is essential to excel in this area.

I thank the entire Liantown Team – our employees, our contractors and suppliers and our other partners and stakeholders – for their hard work to date and look forward to seeing them grow and flourish in the years ahead as our world-class project takes shape.

We have a unique opportunity to create a world-class, modern mining company – one that can contribute to making the world a better place.

I look forward to sharing in that exciting and enriching future with all our stakeholders. ■



## About this report

This report provides an overview of Environmental, Social and Governance (ESG) strategy and performance for Lontown Resources Limited (Lontown) for the period 1 July 2021 to 30 June 2022.



Contractors at Kathleen Valley site.  
Photograph: Tony McDonough

### Scope

This report includes information pertaining to active Australian tenements owned by Lontown Resources Limited (the parent entity) and its subsidiaries LRL (Aust) Pty Ltd and LBM (Aust) Pty Ltd as at June 30, 2022. It does not include information pertaining to Lontown's other subsidiaries, Lontown Resources (Tanzania) Ltd; Kathleen Valley Holdings Pty Ltd; LTR BM Pty Ltd; Buldania Holdings Pty Ltd or Buldania Lithium Pty Ltd.

The report is Lontown's second annual ESG Report. It should be read together with the Company's Annual Report for the year ended 30 June 2022.

This report has a specific focus on the Kathleen Valley Lithium Project as this is the Company's most advanced project. In future years, the report focus will change to reflect the activity of other assets within the Company's portfolio at that time.

### Reporting Disclosures

The report utilises the following sustainability standards, sector disclosures, frameworks and reporting recommendations:

- Global Reporting Initiative (GRI) Standards 2021
- GRI G4 Mining and Metals Sector Disclosures
- Sustainability Accounting Standards Board (SASB)
- Metals and Mining Sustainability Accounting Standard (Version 2021-12)
- The Task Force on Climate-related Financial Disclosures (TCFD)
- Sustainable Development Goals Framework (SDGs).

External assurance of the report has not been undertaken. Restatements of environmental data are noted in the Energy and Emissions Efficiency section of this report.

Questions regarding information contained within this report can be emailed to Clair Wilson, ESG Manager at [info@lntresources.com.au](mailto:info@lntresources.com.au) ■



## Materiality

During FY22, Lontown conducted a materiality assessment with the assistance of an external consultant. The assessment was conducted using the online questionnaire-based Materiality Assessment Tool (MAT) in combination with a series of interviews.

1. Work health and safety
2. Water use
3. Impact on biodiversity
4. Energy use - internal
5. Emission levels
6. Waste and hazardous materials management
7. Environmentally sustainable supply chain
8. Non-discrimination
9. Indigenous rights
10. Labour and management relations

The MAT was customised specifically for Lontown and included economic, environmental and people (including human rights) topics drawn from the Global Reporting Initiative (GRI) Standards 2021 and GRI G4 Mining and Metals Sector Standard.

Board members, investors, shareholders, customers and employees were interviewed as part of this process. Representatives from the Tjiwarl Aboriginal Corporation were also invited to participate in the materiality assessment, however, were unavailable to provide comment.

The MAT uses a statistical risk based analysis to determine the priority of topics based upon respondents' views on the likelihood of negative impacts, the severity of the potential impact, and addresses activities caused by the organisation and by entities throughout its business relationships.

The outcomes of this assessment have provided us with our most material topics for the FY22 reporting period. The identified issues are inextricably tied to the Company's ESG strategy.

### Material Topics

Our 10 most material topics in order of priority are listed above. These topics reflect the current status and focus of the Company and form the basis of content in this report. ■



## About Liontown

Liontown is an ASX200 company with a focus on battery minerals. Liontown aims to be an ESG-leader and a globally significant provider of battery minerals for the rapidly growing clean energy market.

### Where we Operate

Liontown is headquartered in Perth, Western Australia and owns lithium deposits in two locations in Western Australia – Kathleen Valley in the Northern Goldfields and Buldania in the Eastern Goldfields.

### Kathleen Valley Project

The Kathleen Valley Lithium is located approximately 680km north-east of Perth and 350km north-north-west of Kalgoorlie in Western Australia.

Liontown commenced work at Kathleen Valley in 2017.

Our world-class flagship Kathleen Valley Lithium Project is a Tier 1 project.

### Kathleen Valley Lithium Project

Table 01:

#### Ore Reserve Estimate (November 2021)

Resource Category	Tonnage Mt	Li <sub>2</sub> O %	Li <sub>2</sub> O T	Ta <sub>2</sub> O <sub>5</sub> ppm	Ta <sub>2</sub> O <sub>5</sub> T
<b>Underground</b>					
Proved	-	-	-	-	-
Probable	65.4	1.34	878,966	119	7,799
Sub-Total	65.4	1.34	878,966	119	7,799
<b>Open Pit</b>					
Proved	2.7	1.30	33,581	141	374
Probable	0.5	0.93	4,696	148	75
Sub-Total	3.2	1.21	38,277	142	449
<b>TOTAL</b>	<b>68.5</b>	<b>1.34</b>	<b>917,243</b>	<b>120</b>	<b>8,247</b>

Notes:

- Tonnages and grades are diluted and reported at Li<sub>2</sub>O cut-off grade of 0.5% (open pit) and 0.7-12% (underground) and use a US \$740/dmt FOB SC6.0 pricing assumption
- Tonnages and grades have been rounded

Table 02:

#### Mineral Resource Estimate (April 2021)

Resource Category	Million tonnes	Li <sub>2</sub> O %	Ta <sub>2</sub> O <sub>5</sub> ppm
Measured	20	1.3	145
Indicated	109	1.4	130
Inferred	27	1.3	113
<b>TOTAL</b>	<b>156</b>	<b>1.4</b>	<b>130</b>

Notes:

- Reported above a Li<sub>2</sub>O cut-off grade of 0.5%
- Tonnages and grades have been rounded to reflect the relative uncertainty of the estimate

### Buldania Project

The Buldania Project is in the Eastern Goldfields Province of Western Australia, approximately 600km east of Perth.

Liontown has actively explored the Buldania Project since early 2018 after acquiring 100% of the rights to lithium and related metals from Avoca Resources Pty Ltd (a wholly owned subsidiary of Karora Resources).

### Buldania Project, Anna Deposit

Table 03:

#### Mineral Resource (October 2019)

Resource Category	Million tonnes	Li <sub>2</sub> O %
Indicated	9.1	1.0
Inferred	5.9	1.0
<b>TOTAL</b>	<b>15.0</b>	<b>1.0</b>

Notes:

- Reported above a Li<sub>2</sub>O cut-off grade of 0.5%
- Tonnages and grades have been rounded to reflect the relative uncertainty of the estimate



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# Kathleen Valley Project

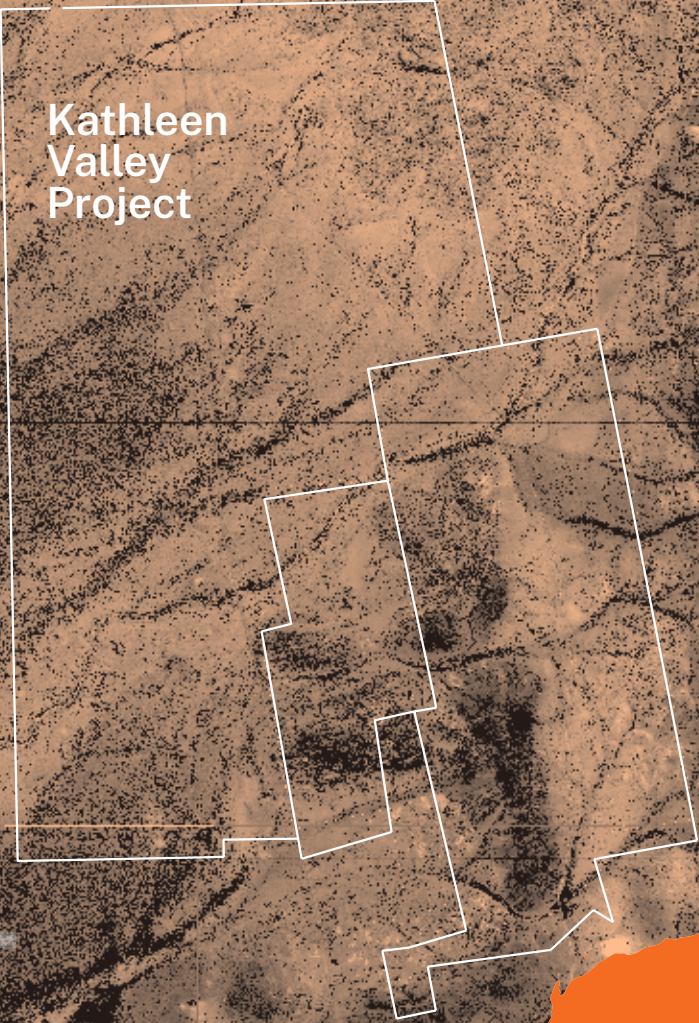




Table 04:

## Kathleen Valley Lithium Project

Project	Tenement No.	Registered Holder	Nature of Interests
Kathleen Valley	M36/264	LRL (Aust) Pty Ltd (wholly owned subsidiary of Liantown Resources Limited).	100% - nickel claw back rights retained by other party
	M36/265		
	M36/459		
	M36/460		
	M36/696	LRL (Aust) Pty Ltd	100%
	E36/879		
	L36/0236		
	L36/0237		
	L36/0255		
	L36/0256		
	G36/0052		
	L36/248	LRL (Aust) Pty Ltd	0% - pending application
	L36/250		
	L36/251		
	L53/253		
	L53/254		
	L53/255		
	L53/256		
	L36/0261		
	L36/0262		
	L36/0263		
	L53/0263		
	L53/0264		
	L53/0265		
	L36/0264		
	L36/0265		
	L36/0266		
L36/0267			
L36/0268			
L53/0266			
L53/0267			
Buldania	E63/856	Avoca Resources Pty Ltd	100% of rights to lithium and related metals secured by Lithium Rights Agreement
	P63/1977		
	M63/647		
	M63/676		0% - pending application
	E63/1660	LRL (Aust) Pty Ltd	100%
E63/2165	LRL (Aust) Pty Ltd	0% - pending application	
Toolebuc	EPM26490	Liantown Resources Limited	100% - Subject to conditional agreement to divest dated August 2022.
	EPM26491		
	EPM26492		
	EPM26494		
	EPM26495		
Monjebup	E70/6042	LBM (Aust) Pty Ltd	100%
	E70/6043		
	E70/6044		

Note: As at 30 June 2022 no mineral resource has been delineated at the Monjebup Project.



# Liontown

Tesla 5 year offtake agreement for 100-150ktpa concentrate



LG Energy Solution 5 year offtake agreement for 100-150ktpa concentrate



Ford Motor Company 5 year offtake agreement for 75-150ktpa concentrate



Native Title Agreement (NTA) signed with the Tjiwarl Native Title Holders



Implementation of Cultural Heritage Management Plan



Strong relationships built with regulators to facilitate approvals



Positive DFS  
Delivered a robust Definitive Feasibility Study (DFS) for a mine with an initial 23 year life



A\$460M+ capital raise and A\$300M Ford Funding facility leading to Final Investment Decision (FID) for Kathleen Valley



Self-assessment against draft IRMA-Ready Standard commenced



Early works proposal to de-risk the project secured



TCFD climate risks and opportunities analysis initiated

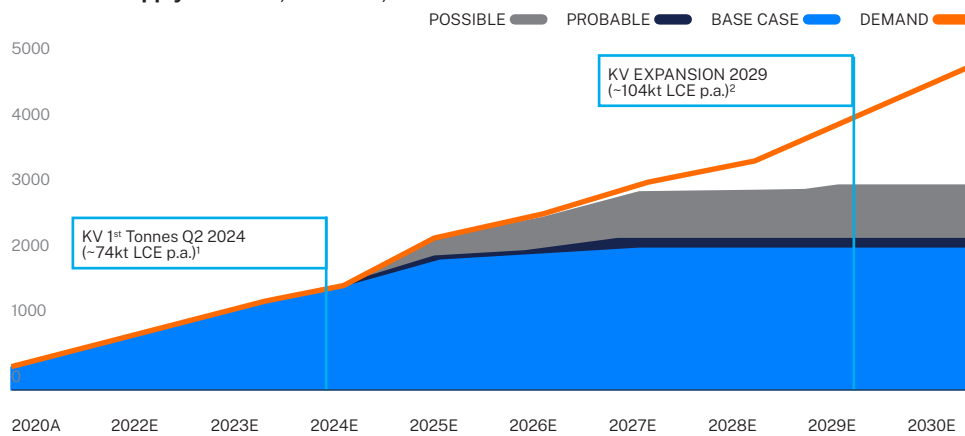


## Lithium Supply and Demand

The past 12 months was a breakthrough year for the lithium sector, with the price of all lithium raw materials hitting new all-time highs and spodumene concentrate achieving prices of up to US\$7,000 a tonne for SC6.0 product.

Figure 01

### Demand / Supply Forecast, 2020-30, kt LCE



Source: Source: Miners' Price Review Research Report © UBS 2022.

1. Based on production of 500kt SC6.0 per annum (Calculation: 500kt SC6 \* 6.0% Li<sub>2</sub>O \* 2.473 Conversion Factor = ~74kt LCE)
2. Based on production of 700kt SC6.0 per annum (Calculation: 200kt SC6 \* 6.0% Li<sub>2</sub>O \* 2.473 Conversion Factor = ~74kt LCE)

This breakthrough year compares against the US\$1,392 a tonne weighted average assumed in Liontown's DFS. These remarkable pricing outcomes are being driven by a considerable shortage of lithium raw materials through the supply chain and a growing recognition that demand will continue to grow significantly out to 2030 and beyond, requiring a significant investment in new sources of supply.

The projected market shortfall is anticipated to increase dramatically through 2030. It is very common for a greenfields project to take many years before the new supply enters first production as projects' globally face permitting, funding and delivery challenges.

Liontown has been able to capitalise on the massive influx of investment capital and interest in the burgeoning global lithium-ion battery and electric vehicle (EV) sectors and forge a clear path to becoming a significant supplier of battery minerals for the rapidly expanding clean energy market. ■

### International Energy Agency Battery Outlook

The International Energy Agency (IEA) notes that due to high demand, uncertain future supply, and difficulty of substitutability in battery chemistries, lithium prices have remained strong despite sharp drops in costs for other battery materials.

The demand for essential metals used in battery production has increased significantly because of the high demand for batteries. As a result, lithium prices climbed more than seven-fold between January 2021 and May 2022.

The record price increases for battery materials are the result of a confluence of factors, including supply chain pressures, soaring battery demand, and supply shortage unease.

The production difficulties brought about by the pandemic were exacerbated due to the under investment in new supply capacity during the three years before 2021, when metal prices were low, and this has contributed to supply restrictions.

Due to the depressed prices of lithium that preceded the pandemic, some companies postponed or even scaled back planned projects and expansions.

Looking forward, the extraordinary increase in demand for batteries is currently outpacing supply, and new mines have not been constructed quickly enough to keep pace with demand. The demand for lithium has nearly doubled since 2017, reaching 80 kt in 2021, with 47% of that demand coming from EV batteries, up from 20% in 2017 to 36% in 2020.

Source: International Energy Agency (IEA), *Global EV Outlook 2022: Securing supplies for an electric future*. p.142.



# 07.

## Lithium-ion Battery Value Chain

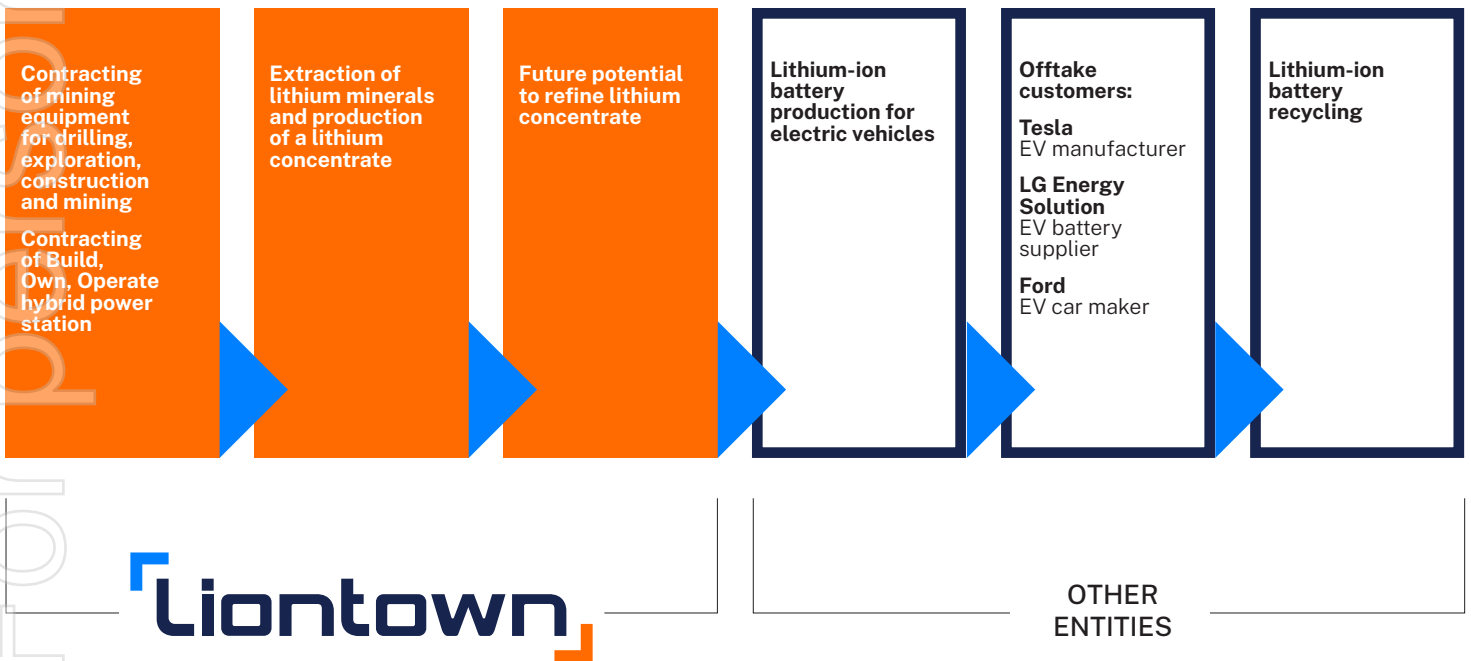
As the world pursues a lower-carbon future, lithium-ion batteries serve as a key enabler for EVs and other essential electronic devices. As demand increases, the global market for lithium-ion batteries is predicted to be worth billions by 2026.

An opportunity exists for Australia to build the whole battery value chain from mining of battery minerals to processing to battery active materials and, ultimately, cell manufacture.

Liontown's role in the global battery value chain will be significant through the delivery of our 6% (SC6.0) spodumene concentrate to global markets.

Spodumene concentrate will be extracted and processed into a higher grade concentrate and then further processed into a refined lithium product in our customer's plants and, ultimately, our planned lithium hydroxide refinery. The resulting feedstock will then be used as an input into lithium-ion batteries for EVs. ■

### Liontown's initial role in the battery value chain



## Kathleen Valley Lithium Project

The Kathleen Valley Project is one of the most significant new long-life lithium projects being constructed anywhere in the world. The initial 2.5 million tonnes per annum (Mtpa) project will deliver 500 kilotonnes per annum (ktpa) of SC6.0 spodumene concentrate to global markets, once the process plant reaches steady state, with a planned expansion to 4Mtpa/700ktpa of spodumene concentrate within six years. Significant development progress was made on the Kathleen Valley Lithium Project during the reporting period.

### Funding and Final Investment Decision

The completion of a A\$463 million capital raising secured the equity component of project funding and put the company on an incredibly strong footing to secure our customer offtakes and make a Final Investment Decision (FID). Three foundation offtake agreements (representing approximately 90% of Kathleen Valley's steady state SC6.0 production capacity of 500kta) have been signed with leading electric vehicle manufacturer, Tesla, major electric vehicle battery supplier, LG Energy Solution and global automaker, Ford.

The execution of a financing facility agreement with Ford in June 2022 for a A\$300 million debt facility on very attractive terms was a high-profile funding arrangement that has attracted global attention and ensured we have the funds for the development of Kathleen Valley.

In June 2022, the Liontown Board made the final investment decision to develop Kathleen Valley.

### Mine Readiness

In preparation for project delivery, Liontown continued to advance a series of significant contracts and agreements with established and reputable contractors (including Open Cut Mining, Engineering, Procurement and Construction Management (EPCM), Power Purchase Agreement, freight logistics and site mechanical and electrical installation. The construction scope has also advanced, and procurement for the remaining project activities is proceeding in accordance with the development schedule.

Critical, long-lead mechanical equipment for the process plant has been awarded, ensuring that the project will continue in accordance with the development schedule.

Additional effort has been expended to substantially finalise the engineering of the process plant and execute a value engineering study to optimise the design scope.

Continued efforts are being made to optimise underground mine designs and surface layout prior to the start of mining in CY2023.

The June quarter marked the beginning of a 25,000 metre grade control in-fill drilling operation for both planned open pits.







Kathleen Valley is without question a significant project. We have a huge ESG focus with native title and environmental aspects such as our large scale renewable hybrid power station, focus on minimising disturbance footprint which was integrated very early into the overall mine development.

When I joined Liontown just over two and a half years ago we had five people in the office plus our very capable field team. At the end of FY22 we had grown to 37 people, and we expect our team will grow significantly in the coming year. The quality of the people we've brought on board has been immensely satisfying as it takes a strong and focused team to get one of these projects into production.

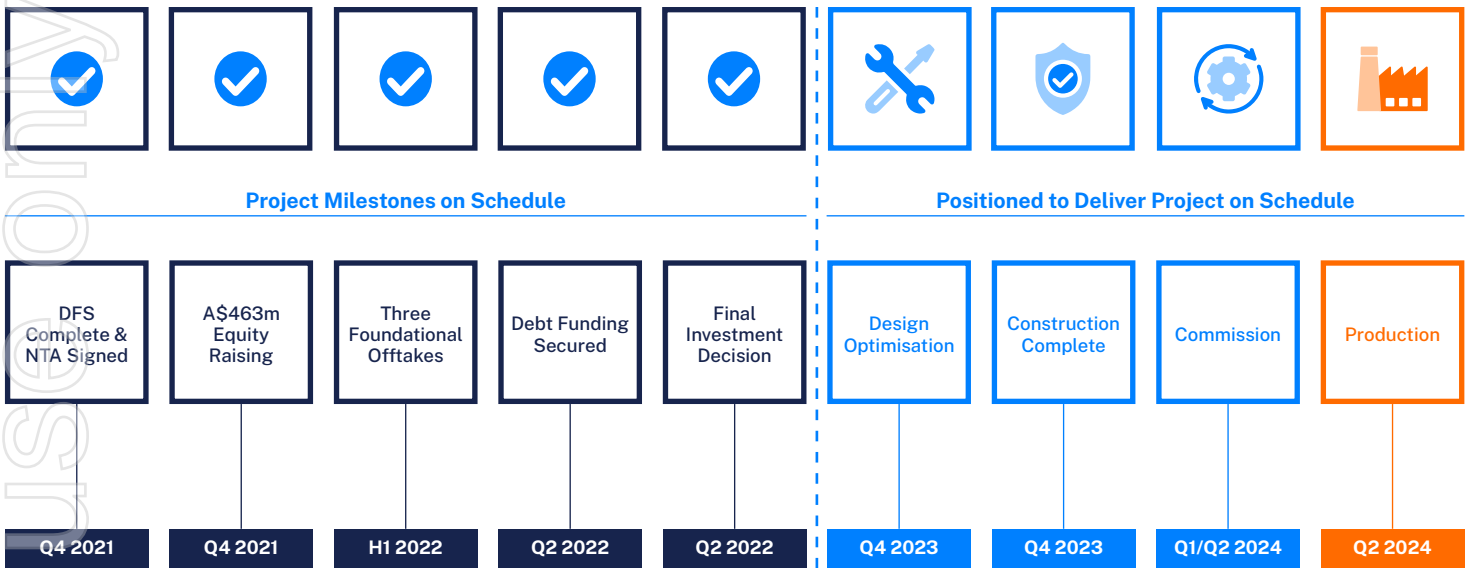
Seeing the company transition from an explorer with an amazing resource to what will be global lithium mine has already been quite a journey and definitely something that is far from finished with plenty of milestones to complete over the next 12-18 months.

**Adam Smits**  
Chief Operating Officer





### Kathleen Valley Site Design



### Construction

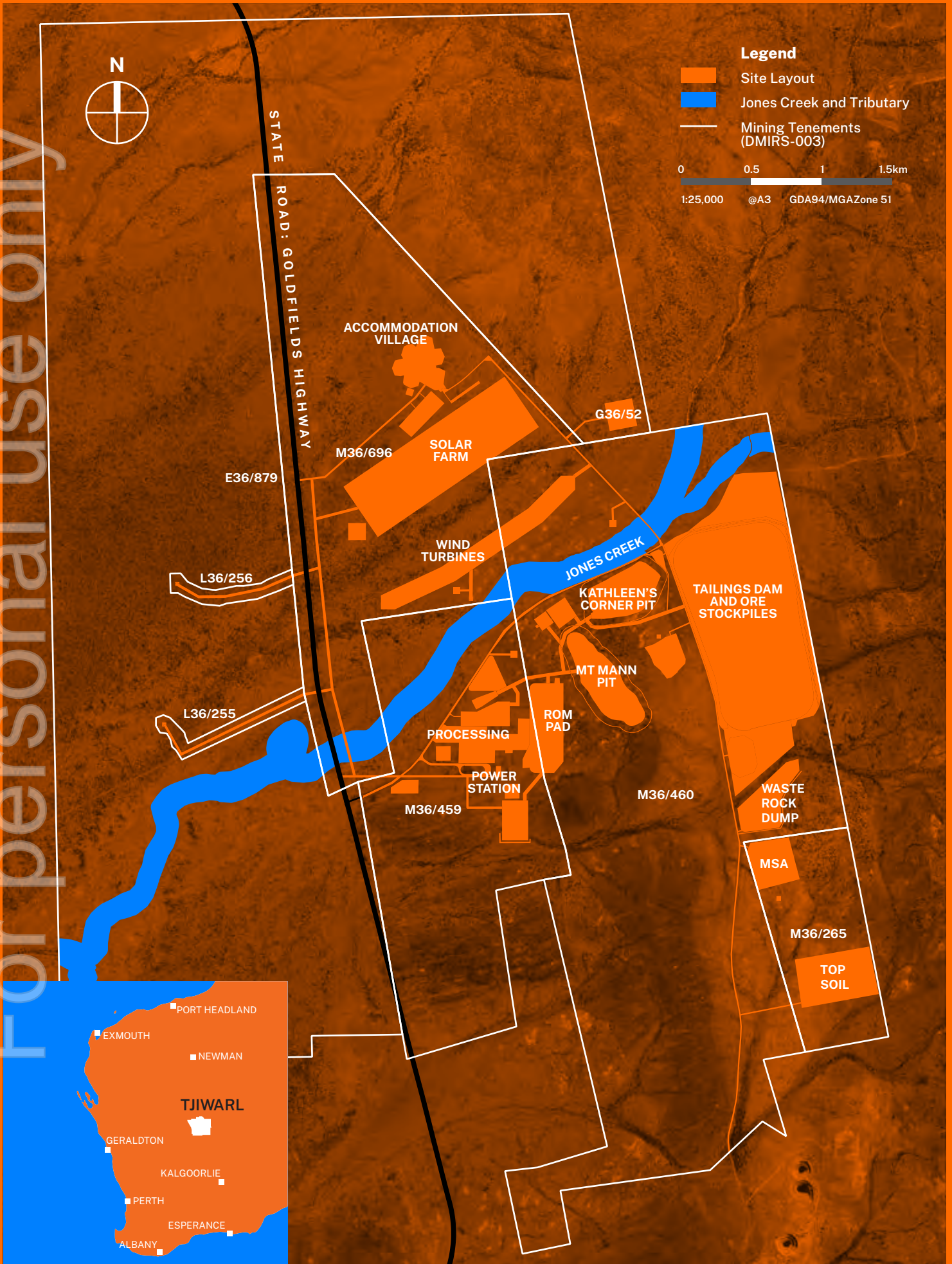
Following the award of the accommodation village contract, the design and layout was finalised and procurement to support the associated infrastructure was accelerated. Site works commenced in June following approval of a Small Operations Mining Proposal. The layout design of the 580 person camp was inspired by a key story from the Tjiwarl. The first 80 rooms are scheduled to be ready for occupancy in the fourth quarter of CY2022.

### Lithium Hydroxide Refinery

We remain committed to the potential for downstream processing based on the positive results of the Downstream Scoping Study (DSS) completed in November 2021. A downstream Pre-Feasibility Study (PFS), which will evaluate options for refined lithium concentrate to produce lithium hydroxide, is expected to be progressed further in CY2022/2023. ■



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Liontown is a growing company, and we have a beautiful opportunity to establish a scalable ESG foundation, positioning us for the enormous growth that we will experience during the next 12 to 18 months. Our early adoption of ESG into our overall business strategy assisted us with securing critical offtake agreements and positioned Liontown as a company that does what it says.

We want to excel and implement best practice within the organisation and become an industry leader in ESG.

We're not here to mess around.

The importance of ESG has been, and continues to be, embedded into our everyday thinking. ESG is not a nice to have. It is an expectation that has been supported by the Board who have set a standard for ESG excellence.

We're here to do ESG properly."

**Clair Wilson**  
ESG Manager





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# 09.

## Environmental, Social and Governance (ESG) Approach

### ESG Strategy

With the Kathleen Valley Project approaching construction, Liontown has increased its capacity considerably to build a mine that is not only a Tier-1 lithium asset on a global scale, but also an operation that is built on excellent ESG credentials.

As part of our commitment to consider ESG in every aspect of our development, in April 2022, Clair Wilson was appointed as ESG Manager to oversee our ESG program. Clair has led several critical ESG initiatives across our Company and made significant progress on the development of our ESG roadmap this year.

Liontown aims to be an ESG leader and a globally significant provider of battery minerals for the rapidly growing clean energy market. To achieve this, Liontown considers ESG at its core and ESG fundamentals are considered and integrated throughout all our activities.

This approach extends beyond our own operations to encompass our supply chain. Our successful offtake agreements with Tesla, LG Energy Solution and Ford are a direct outcome of Liontown's commitment to ESG principles and practice. In turn, throughout these offtake negotiations, a concerted effort will be made to sell our future lithium product to companies that can demonstrate their own ESG credentials.

Significant progress has been achieved and we will publish our ESG roadmap and detailed pathway mapping to net-zero in FY23.

Liontown has engaged external consultants to assist in identifying climate-related risks and opportunities and establishing a net-zero emissions pathway for the Kathleen Valley mine so that we can achieve our ambition of net-zero emissions by 2034. This is aligned with our commitment to comply with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) during the coming years.

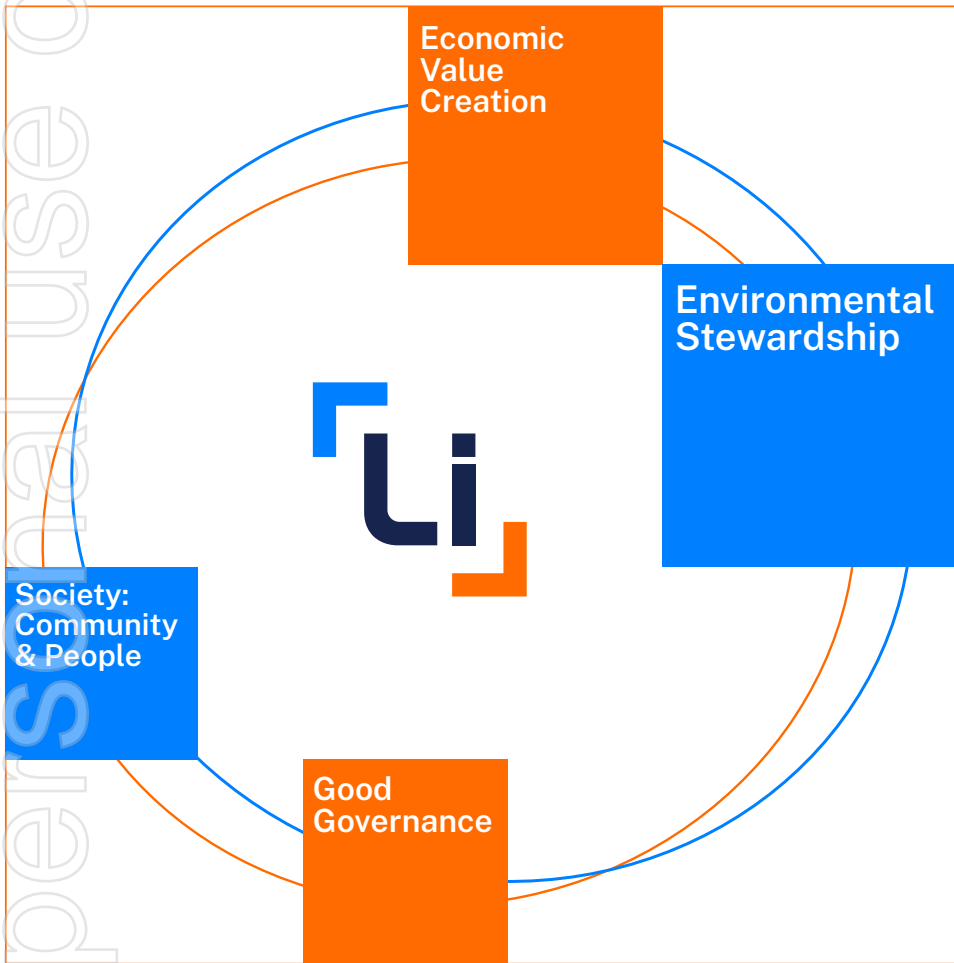
In addition, significant progress has been made in establishing systems and procedures for various aspects of environmental management.

Following on from the signing of the Tjiwarl Native Title Agreement (NTA) in November 2021 with the Tjiwarl Aboriginal Corporation (Tjiwarl AC or Tjiwarl), we continue to demonstrate our commitment to the Tjiwarl through the implementation of a Cultural Heritage Management Plan (CHMP) and ongoing engagement which will continue throughout the life of the mine.

Further, as part of our commitment to ESG, we have begun the intensive task of self-assessment against the draft Initiative for Responsible Mining Assurance (IRMA)-Ready Standard. The Standard is intended for exploration and development companies that are not yet operational. We will provide our recommendations on the draft standards to IRMA as part of the public comment process and will continue the process of self-assessment with the view to pursuing IRMA assurance in future years.

FY23 will see us consolidating our ESG activities and determining the additional activities required to ensure that we continue to follow our responsible business pathway.

**Our ESG Framework**



**ESG Governance**

Liontown has created a corporate governance framework that ensures the Company is managed appropriately to fulfil stakeholder expectations, regulatory requirements are satisfied, and the Company is managed responsibly.

Our Corporate Governance Statement describes the key components of our governance framework against the Corporate Governance Principles and Recommendations (4th edition), published by the ASX Corporate Governance Council. In accordance with our Risk Management Policy, we identify and control our significant exposure to social and environmental risks, including climate risks.

To identify potential business risks, including ESG risks, we conduct a variety of organisation-wide risk reviews.

When residual risk exceeds acceptable levels, new controls and risk mitigation methods are developed and implemented.





Liontown has set itself an ambitious target of becoming an ESG leader. Strong governance mechanisms are critical to ensuring the integrity of this strategy, with the ‘Liontown tone’ set from the top down. Our values encourage us to ensure sustainability is at the core of what we do, and that we have the courage to do the right thing, even when it may be the harder thing to do.

The Company has grown rapidly during the last 12 months and is constantly looking to improve all aspects of its governance. Our focus on improving the governance mechanisms we have in place and a desire to do things for the right reason and to do them well, has, and will continue to assist Liontown in achieving its ESG strategy.”

**Clint McGhie**  
Company Secretary

There are several significant environmental and social sustainability risks that could impact Liontown and the accomplishment of our strategic goals as a globally significant lithium company. We believe that our operations and overall business strategy cannot be successful without a substantial emphasis on ESG issues, which is why ESG is at the forefront of our decision making.

**Exposure to Environmental Risk**

To ensure that our operations do not unintentionally harm the environment, we are obligated to comply several laws, permits, approvals, and standards. We aim to conduct our business in a way that is environmentally responsible and sustainable through best-in-class management of environmental, including climate risks.

**Exposure to Social Risk**

We acknowledge that failure to manage stakeholder expectations may result in operational disruptions. We collaborate closely with the many stakeholders in the regions where we conduct business. Throughout the reporting period, we engaged in formal negotiations with the Tjiwarl AC, conducted multiple site heritage and archaeological investigations and executed a formal NTA for the Kathleen Valley Project.

**Policies and Charters**

In FY22, we conducted a comprehensive review of our charters and policies, incorporating ESG commitments and obligations into many of our underlying governance procedures. The following charters and policies will be updated in FY23 with clear ESG commitments:

- Board Charter
- Audit Committee Charter
- Risk Committee Charter
- Code of Conduct
- Risk Management Policy

In addition, in FY23 we will publish a Human Rights Policy and commence work on compiling a Sustainable Procurement Policy.

**Governance Structure and Composition**

The Board is accountable for Liontown’s overall corporate governance and performance. The Board has assigned corporate strategy and business management responsibilities to the Managing Director/ Chief Executive Officer (MD/CEO) and management team. The Board has developed a Board Charter that defines the Board’s and management’s respective duties and responsibilities, including those related to environmental and social risk.

The Board is responsible for providing leadership and oversight of Liontown’s management team. The Board establishes the Company’s mission and strategic objectives, and regularly monitors the management team’s progress in achieving these objectives. Liontown’s Chair does not hold a senior executive position within the Company.

During FY23, the Company will formally establish a Sustainability and Risk Committee..

Under the guidance of the MD/CEO, a bi-weekly Executive Management Committee meeting reports to the Board on its proceedings.

Detailed information about the composition and competencies of the Board, and its committees, is in Liontown’s 2022 Annual Report, available on the Company’s website.

**Board of Directors**

**Audit Committee**  
Comprised of three Board members

**Risk Committee**  
The full Board performs the function of this committee

**Nomination Committee**  
The full Board performs the function of this committee

**Remuneration Committee**  
Comprised of three Board members

**Our Board and Committees**

To ensure that the Board has the appropriate mix of directors with the required skills, expertise, relevant industry experience and diversity, the Board annually reviews the size and composition of the Board; identifies and assesses the necessary and desirable director skills and competencies using a Board skills matrix; and provides advice on the skills and competency levels of directors with the aim of enhancing the Board, including considering any training or development that may be required.

Non-independent Board performance questionnaires are distributed annually where members rank their own contribution to the Board and assess each other's performance.

Outcomes of the self-assessment are presented to the Chair and result in updates to the Board skills matrix, which is published in Liontown's annual Corporate Governance Statement, which is available on the Company's website.

In FY22, the Board skills matrix was modified to include an ESG Strategy category with the core competency addressing overarching strategic ESG knowledge and formulation, implementation and assessment of ESG strategy. In addition, the Board self-assessment questionnaire was updated with questions relating to ESG.

Further information about our approach to nomination and selection of members of the Board and its committees can be found in our Nomination Committee Charter and Corporate Governance Statement.

**Gender Diversity**

Due to the previous size and composition of Liontown in the prior reporting year, the Board had not previously established goals for achieving gender diversity by 30 June 2022.

Following Liontown's entry in the S&P/ASX300 in September 2021, the Board announced a goal to increase current female Board representation to 30% with a target date of 30 June 2024. As at 30 June 2022, 14% of Board members were female, up from 0% in 2021.

We acknowledge that diversity will add to our culture and performance, as well as help us recruit, retain, and motivate exceptional people to our team. We are dedicated to actively fostering diversity at all levels in our Company and will consider further measurable objectives in the future.

**Board Oversight of ESG Impacts**

Liontown's Executive Management team is responsible for developing, approving and revising our statement of values, strategy and policies according to their respective roles. The Board oversees all strategic initiatives and critical governance mechanisms and, following feedback to the Executive Management team, are, ultimately, approved by the Board. Liontown's ESG Manager is responsible for setting sustainability related goals and objectives.

The Board assigns responsibility for ESG impacts to our MD/CEO and Chief Operating Officer (COO) who, in turn, delegate the daily management of ESG to our ESG Manager. The MD/CEO and COO typically attend all Board meetings and receive direct feedback on ESG actions. A monthly report, which includes a section on ESG, is presented to the Board by our COO. This includes progress reporting on implementation of our decarbonisation pathway project.

The Board reviews the final draft of our ESG Report and a resolution is passed to publish the report. In FY22, following the release of our FY21 ESG Report, our external ESG consultant presented to the Board the key outcomes of the ESG reporting process, as well as the recommended next steps for advancing Liontown's ESG strategy. The presentation gave the Board an opportunity to be informed and engaged with the ESG reporting process and pose questions.

We consider our Board members to be particularly engaged and inquisitive about Liontown's sustainability impacts and Board members delve into areas that specifically interest them. The majority of the Board was present for the signing of the NTA with the Tjiwarl following an annual Tjiwarl community meeting in Leinster – one hour from Kathleen Valley. Various members of the Board attend shareholder events and present to various stakeholders through their respective networks.

In FY22, due to the frequency of key events, the Board met every four weeks to assess the Company's strategy, although typically eight to ten Board meetings are scheduled per year.

**Policies for Responsible Business Conduct**

Liontown's comprehensive suite of governance documents collectively address the Company's commitments for responsible business conduct.

The overarching mechanisms for ensuring responsible business conduct are the:

- ESG Statement
- Code of Conduct, and
- Statement of Values

Distinct policies that address our commitments to environmental and social responsibility are:

- Climate Change Policy
- Environment Policy
- Aboriginal Engagement Policy
- Health and Safety Policy, and
- Diversity Policy

The policies outline the due diligence mechanisms that the Company commits to ensure that each topic is managed according to best practice. Our clear risk-based approach to managing climate change and environmental risks, in addition to human health risks that may arise out of environmental degradation, support the precautionary principle. This principle essentially guides entities to take preventative action against environmental harm, even when scientific evidence is uncertain.

Our Aboriginal Engagement Policy specifically outlines the relevant doctrines on Indigenous People and human rights against which the policy should be upheld, and our Health and Safety Policy and Diversity Policy describe actions that we take to safeguard the rights of people.

The scope of all policies extends beyond Liontown employees to include contractors and suppliers. Policies are published on the Company's website and the Code of Conduct, Health and Safety Policy and Environment Policy are presented to new employees at site induction. Employees are required to sign off that they agree and understand the Code and/or Policy. All policies have been approved by the Board. A focus for FY23 will be to publish a Human Rights Policy and a Sustainable Procurement Policy.



We will also look to implement formal internal systems and processes to inform employees and contractors about our policies through the upload of all policies to the new company management system. Frequent and ongoing communications will ensure workforce remain informed on ESG progress and requirements.

**Conflicts of Interest and Anti-Corruption**

Liontown's Code of Conduct is the main governance mechanism for managing conflicts of interest. Our Anti-Bribery and Corruption Policy addresses conflicts of interest with relation to gifts, discounts and hospitality.

At each Board meeting, a register of interests is presented and reviewed and members indicate whether any amendments are necessary. Cross-board directorships are disclosed as part of the Annual Report process and directors advise if they hold shareholdings in other companies. Liontown does not have any controlling shareholders.

When choosing remuneration consultants, the Remuneration Committee considers any conflicts of interest and independence.

Specific details about all directors and their shareholdings are listed in Liontown's 2022 Annual Report, which is available on the Company's website.

**Compliance**

During FY22, there were no instances of non-compliance with laws and regulations.

**Communication of Critical Concerns and Grievance Mechanisms**

We encourage a culture of trust where employees are encouraged to speak up. In our relationships with employees, contractors, and suppliers, we continue to use informal grievance processes. As the company expands, the necessary mechanisms will be established and scaled proportionately.

During FY22, neither internal nor external stakeholders raised any critical concerns requiring communication to the Board.

Our Whistleblower Protection Policy serves as the formal mechanism for employees and contractors to raise issues of improper conduct. A range of regulatory authorities are listed to which reports can be made and Liontown's Company Secretary acts as an 'authorised officer'. Critical concerns are communicated to the Board via our MD/CEO.

Currently, internal issues are handled by a direct supervisor and escalated to management if they cannot be resolved before being presented to the MD/CEO. In the event of a grievance, an enquiry is conducted and a report with change management and grievance resolution plans is drafted.

To date, we have not published a formal conflict resolution procedure, however this is planned for FY23 and will be based upon the Fair Work Act model grievance procedure.

An Employee Assistance Program (EAP) planned for roll out in early FY23 will offer employee/employer conciliation services if required and staff engagement services will provide another forum for employees to raise grievances.

**Tjiwarl**

Our Tjiwarl NTA and associated subset agreements, such as a quarterly compliance report to the Tjiwarl and mechanisms under the Cultural Heritage Management Plan (CHMP), outlines how Native Title grievance mechanisms are managed. A NTA Roadmap will be formalised in FY23 to assist in the implementation of the agreement.

**Shareholders**

Annual General Meetings (AGM) provide an important forum for two-way communication between Liontown and its shareholders where attendees have the opportunity to discuss areas of concern or interest directly with the Board and Executive Management.

We actively engage and encourage shareholder participation at the AGM and variously scheduled events throughout the year. In accordance with section 250S of the Corporations Act 2001 (Cth.), the Chair of the Company's AGM provide shareholders with a reasonable opportunity to ask questions or make comments on the management of Liontown.

Members who are unable to attend the meeting but wish to exercise their rights may submit questions or comments prior to the AGM. When appropriate, these questions or comments will be addressed at the AGM. Results of the AGM are made available as soon as practical following the event.

For environmental grievances, the party can contact the Liontown representative or access various complaints mechanisms available through regulators.

**Remuneration**

Liontown's Remuneration Committee comprises three Board members and is responsible for advising and making recommendations to the Board regarding the remuneration framework, policy, vesting of awards and compensation arrangements for the non-executive and executive directors, executives and employees.

When determining remuneration levels, we establish competitive remuneration packages to attract and retain directors, executives, and staff of high calibre and to link a significant component of executive awards to the creation of shareholder value. In accordance with best practice corporate governance, the non-executive and executive remuneration structures are distinct and separate.

The Remuneration Committee may seek external assistance on remuneration policies and procedures to ensure it is well-informed when making compensation decisions. During the reporting period, the Committee consulted external advisors for remuneration benchmarking.

During FY22, Board and Executive Management compensation was not explicitly tied to ESG-related performance criteria, although environmental and safety objectives are grouped under an ESG performance category. During FY23, Key Performance Indicators (KPIs) for ESG-related activities will be established.

At the 2021 AGM, 82.49 % of shareholders voted in favour of the Remuneration Report for the financial year ended 30 June 2021.

Liontown's Remuneration structure, plan and performance for FY22 is outlined in the FY22 Annual Report, available on the Company website. Our Remuneration Committee Charter and Remuneration Policy outline how we structure remuneration for directors and the executive management team.

**Annual Total Compensation Ratio**

The CEO/MD of Liontown received an annual total remuneration that is 11.66 times greater than the median annual total compensation of all employees in FY22. Between FY21 and FY22, there was a considerable change in the Company's workforce characteristics.

In contrast to FY22, which saw the addition of a larger workforce as the Company transitioned from explorer to developer, Liontown's staff in FY21 was predominantly made up of executive level management. In future years, we will be able to compare the median percentage rise in remuneration for all employees to the percentage increase in our CEO/ MD's annual total remuneration.

**Membership of associations**

Liontown is a member of the Association of Mining and Exploration Companies (AMEC) in Western Australia. At June 2022, Liontown did not hold a strategic leadership position with AMEC.

**Policies and Charters**

Liontown's policies and charters are available on the Company's website at <https://www.ltresources.com.au/about/corporate-governance> ■

# 10.

## Safe Work Practices

Ensuring a safe work environment is a core values and a fundamental human right of anyone visiting one of our workplaces. Through a focus on safe work practices, including physical and mental health, our commitment is to send everyone home safe, every day.

Provision of a safe work environment extends beyond our employees and includes operational activities that may impact contractors, visitors entering the workplace, suppliers, neighbours (i.e. adjoining mining companies) and Aboriginal local communities.



These safe work practices are designed to deliver our perfect day where we safely produce exactly and only what we require.

Every day we search for, invent and deploy better ways of working. We see problems as opportunities to improve performance. Every process must be systematically improved to eliminate hazards and waste.

Our safety commitments are defined in our Code of Conduct and Health and Safety Policy, available on the Company website.

### Work Health and Safety Management System

During our exploration phase, our Work Health and Safety Management System (WHSMS) consisted of simple documentation of safety plans and activities on an as required basis. During FY23, as we transition to the construction phase, Safety, Risk, Learning and Sustainability software will be implemented using a staged approach to reflect the Company's work scope.

For example, as we commence mine construction relevant activities, risks such as radiation and explosives will be incorporated as required. In FY24, once mining commences, new relevant activities and related risks will be added to the management system. The system will be comprised of 16 elements and use the Plan, Do, Check, Act (PDCA) methodology.

The Work Health Safety Management System (WHSMS) is a legislative requirement of the Western Australian government for all mining companies prior to the commencement of mining operations following the release of the updated work health safety legislation in March 2022. The new Code of Practice: Mine safety management system (the Code) was released in June 2022 by the Department of Mines, Industry, Regulation and Safety (DMIRS) to which our WHSMS framework will align.

The Code is approved under section 274 of the Work Health and Safety Act 2020 (WHS Act) and is a practical guide to achieving the standards of health, safety and welfare required under the WHS Act and the Work Health and Safety (Mines) Regulations 2022 (WHS Mines Regulations) and the Work Health and Safety (General) Regulations 2022 (WHS General Regulations).

Liontown team members have attended training on the new Code, conducted by the peak industry associations and training provided by a third party provider. The Board has also been briefed.

The WHSMS will cover all (100%) workers (including contractors and other third parties), activities and workplaces under our control. All (100%) ongoing contractor companies will be audited monthly.

At this stage, the WHSMS is planned for audit in FY24, in line with the Code of Practice auditing requirements to take place every five years.







Safety is the first of Liontown's core values and remains a strong focus for our company as we rapidly grow. We are committed to building the solid foundations of a positive safety culture where everyone understands safety is the way we do things at Liontown, even when no one is watching.

Safety is non-negotiable, and no fatality or injury is acceptable; we must design safety risks out of our business at every level, in every process and every job. Our perfect day is where we safely produce exactly and only what we require. We aim each day for 100% safety, 100% customer service and 0% waste.

We want everyone to be empowered so that they can make decisions and speak up if they don't feel safe. No task is so important that we can't take the time to assess the hazards and risk to ourselves and others.

The new Work Health and Safety legislation that came into force in March this year has provided us with an opportunity to refocus our duties and responsibilities. Our safety management system is integral to the success of our business and relies on our leaders to be engaged, visible and proactive.

**Hayden Spencer**  
Work Health and Safety Manager



## Work Health and Safety Management System

### 4. ACT

Audit, assessment and review

Performance monitoring and measurement

Health and hygiene management

Incident and injury management

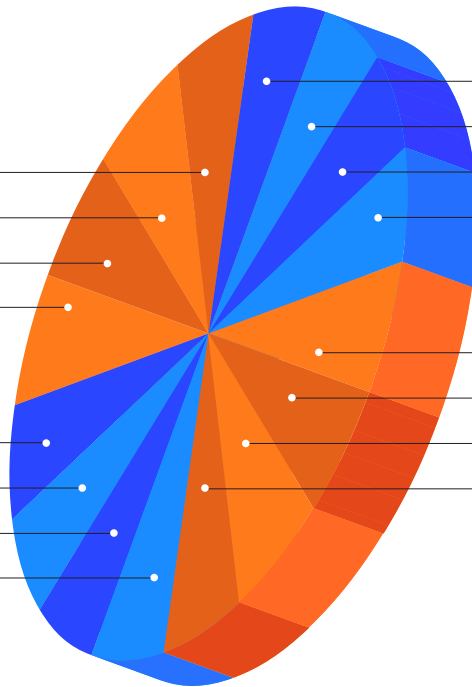
### 3. CHECK

Training, education and competency

Infrastructure, plant and equipment management

Systems of work

Emergency and crisis management



### 1. PLAN

Policy, leadership and culture

Legal, regulatory compliance and commitments

Document control and records management

Planning, improvement and resourcing

### 2. DO

Communication, consultation and involvement

Contractor and third party management

Hazard and risk management

Change management

## Workplace Hazards

Through risk assessments, Liontown has identified our current work-related hazards that pose a risk of high-consequence injury as vehicle accidents; mobile plant interactions, exposure to respirable dust and silica from drilling operations and noise. COVID-19 also poses a workplace risk.

Inhalable dust and respirable dust (and respirable silica) have been identified as hazards at Kathleen Valley based on preliminary personal air monitoring. While mineral fibres have been identified only rarely during the drilling program, the general morphology of the region ensures it remains a potential hazard onsite. A health and hygiene management plan has been prepared and includes the management of inhalable and respirable dust.

To mitigate and/or avoid the risk of vehicle accidents, we have implemented a journey management plan. To mitigate and avoid exposure hazards, controls include moving workers away from dust (isolation); watering down while drilling (engineering); implementation of procedures and management plans (administrative) and wearing of Personal Protective Equipment (PPE) such as masks.

These risk hazards are required by legislation to be reported to the regulator (DMIRS) via the department's Safety Reporting System (SRS).





## Managing Safety Risk

Safety risk management entails removing the risk to the greatest extent possible. If this is not possible, the risk must be mitigated to the greatest extent possible by the implementation of appropriate controls.

We take a detailed team approach to safety for the Kathleen Valley Project through annual, high-level corporate safety risk assessments, and, at our Kathleen Valley site, workers undertake a daily 'Take-5' job hazard analysis (JHA). In addition, area risk assessments are undertaken. Our corporate risk register is reviewed annually or in response to a safety incident. We employ Incident Cause Analysis Method (ICAM) and other forms of root cause analysis after an incident has occurred so that we can develop corrective actions to prevent and/or minimise the likelihood of a recurrence of the incident.

General safety inspections are undertaken, including inspections by supervisors on the workplace, equipment and pre-starts. To date, results have been manually recorded, however in FY23, reported hazard data will be built into our Safety, Risk, Learning and Sustainability software management system so that they are managed in acceptable timeframes.

The software will be progressively rolled out in FY23 and will track all lead indicators, for example, safety inspections and KPIs set around the indicators, and will be complemented by a learning management system that will deliver competency based training by skillset via module learning.

We have also conducted Hazard and Operability (HAZOP) workshops for Liontown's future processing infrastructure.

In line with our mine activity timeline, our first construction risk assessment (CRA) was undertaken in June 2022 through the auditing of contractors engaged for construction and will be performed monthly as mine construction progresses. A Safe Work Method Statement (SWMS) – a legislative requirement for high-risk construction activities has also been completed.

Due diligence processes are in place to ensure that if an incident occurs, a detailed review will take place. Contractor management includes qualification of each contractor and ongoing auditing of contractor safety systems. Hazard reports are completed by employees and contractors after identifying a hazard that needs to be rectified or controlled.

In addition, safety leaders conduct safety behaviour observations on workers through engaging with employees and contractors, recording observations and, commencing in FY23, these will be built into KPIs through identifying a minimum number of observations per week.

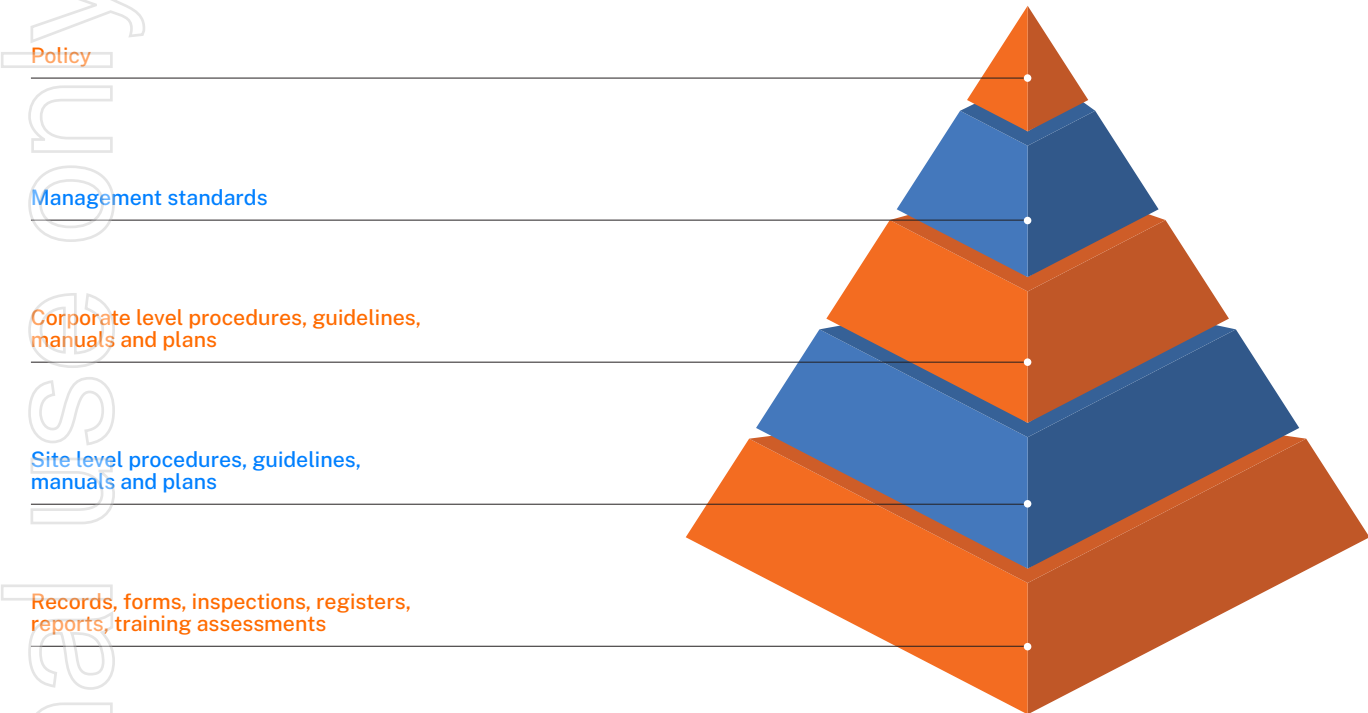
We also plan to incorporate the advanced bowtie risk assessment to capture both preventative controls and recovery methods.

A Hazard and Risk Management Plan is currently being drafted and risk management procedures for conducting Take-5s, JHAs and other safety activities are being drafted with a view to completion and approvals in the fourth quarter of CY2022. Principal Mining Hazard Management Plans – detailed management plans for serious safety mining hazards will be prepared as required.

Other key activities planned for FY23 are the development of the following procedures:

- Communication and consultation procedure
- Incident reporting and investigation procedure (currently under draft)
- Injury management procedure, and
- Change management procedure

## Safety Management Document Hierarchy



## Safety Training

During the reporting year, no topic specific safety training was undertaken, however, team members are trained in their specific tasks as well as completing compliance training including general inductions, cultural awareness, incident reporting and other relevant training.

General site and workplace inductions for new starters and site visitors, including contractors, are conducted online to inform and provide rules for basic safety topics. The induction training is reviewed regularly and, if hazards are reported and are ongoing, this training is updated to include the newly identified hazard. Written evidence of the site and workplace inductions is collected and stored for each worker.

We also participate in training conducted by industry associations such as the CME and AMEC, which disseminate safety information and provide workshop opportunities. This networking is critical for us to learn how other mining companies approach their safety strategies.

To maintain confidence in the skilled safety practices of our employees and contractors, we conduct Verifications of Competency (VOCs) in various areas of required skills at our mine site. High Risk Work Licences (HRWL) are also required for any activities covered under the Work Health and Safety (Mines) Regulations 2022 (WA) Part 4.5. High Risk Work, which includes the activities of our employees and workers.

Supervisors will be trained in their legislative responsibilities and duties and this training will be regularly scheduled as required.

A draft Training Management Plan is currently under review with implementation scheduled for FY23. This plan, together with a scheduled training needs analysis to determine required competencies for each role, will provide us with the safety tools required to not only meet legislated safety obligations but prevent harm to our employees and contracted workers.

All these activities are key to ensuring a strong safety culture at Liontown.

## Worker Health

Workers are protected under the Work Health and Safety Act 2020 (WA). Occupational health and hygiene monitoring will be conducted each quarter at a minimum to ensure workers are not exposed to hazards. Monitoring includes noise, dust, silica, hazardous materials, with the first sampling taking place at Kathleen Valley in FY22.

In FY23, we will instigate onsite medical personnel to provide medical services for both work and non-work related injuries or illnesses. This will include mental health support for all workers. We will provide access to a wellness advisor onsite at Kathleen Valley, who will provide training and education on topics such as healthy eating, fitness, finance management and other topics. In addition, a confidential EAP will be implemented.

Confidentiality of workers' personal health related information is extremely important. Any non-work related medical information is held by medical personnel only and is protected under the Privacy Act 1988 (Cth.) Worker's personal information is currently controlled via limited individual access to specific folders in our system. Once our Safety, Risk, Learning and Sustainability software is implemented, the system will include security roles and will track all users and information accessed.



Internal use only

Figure 02: LTIFR, MTIFR & TRIFR

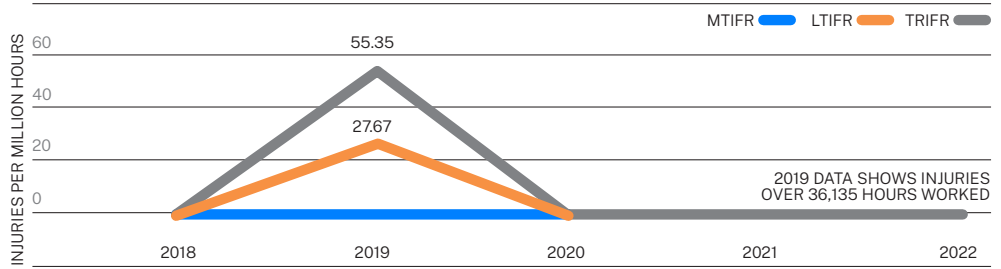


Figure 03: INJURY COUNT

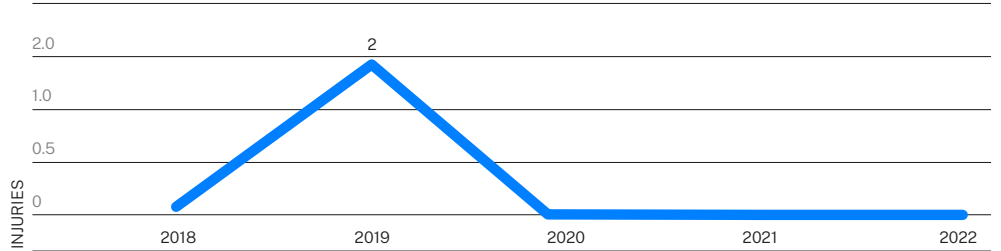
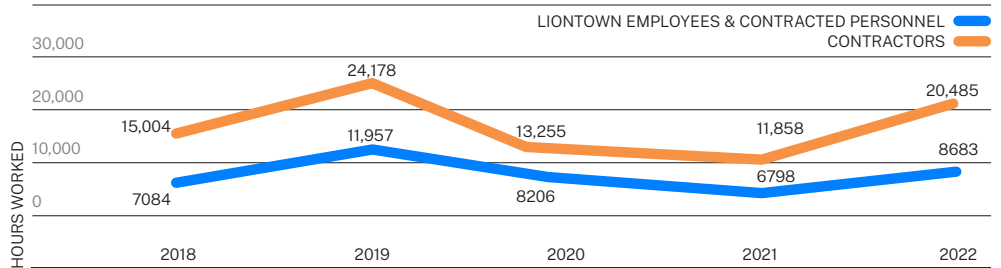


Figure 04: HOURS WORKED



**Safety, Risk, Learning and Sustainability software implementation**

The implementation of Safety, Risk, Learning and Sustainability software in FY23 will provide us with a streamlined system to track and escalate assigned actions including verification of actions; identify obligation audits; report lead safety indicators and display via dashboards to increase general safety awareness, and track lessons learned via a safety register. Internal and external audits are also planned and will be conducted using the software.

**Stakeholder Engagement**

Engagement around work health and safety is a priority that we place not only on our own workforce but throughout our supply chain. In FY22, our tender process for contractors was updated to include requirements for third parties to disclose their health and safety performance as part of the pre-qualification process against our safety management standards. Third parties either must meet or exceed our safety standards and, if they fail to provide evidence of acceptable safety standards, are required to adopt our management standards or improve their own safety standards within a specified timeframe.

Our Contractor and Third Party Management Plan is currently under review. The plan is occasionally extended to suppliers that go to the Kathleen Valley site, for example, if higher-risk equipment such as machinery is supplied. These third parties are informed of the safety audit process based upon their work scope and consulted on the work health and safety requirements that will impact their work. During FY23, a formal Contractor Management Plan will be implemented and third parties will be granted access to the new Safety, Risk, Learning and Sustainability software to enhance transparent reporting on safety impacts.

Team based risk assessments, such as jobs hazard assessments, occur onsite with both employees and contractors.

Liontown is currently not required to have a safety committee due to low workforce numbers, however, management meetings include discussion of employee and contractor safety at every meeting. In FY23, a formal onsite safety committee will be established. We do not currently engage with trade unions.

Internally, also planned for implementation in FY23 is a formal program to promote positive safety behaviours in addition to a Communication and Consultation Procedure.

**Our Performance**

In FY22, we formally set our safety Lost Time Injury Frequency Rate (LTIFR) target at <2.0. No fatalities have occurred and no workers have been excluded.

**FY23 Workplace Health and Safety Targets**

The following Workplace Health and Safety Targets have been set for FY23:

- Implement formal Work Health and Safety Management System (WHSMS)
- Build safety behaviour observations into formal KPIs
- Finalise incident reporting and investigation procedure (currently under draft)
- Develop a full suite of safety procedures and plans including:
  - Injury management procedure
  - Change management procedure
  - Contractor management plan
  - Communication and consultation procedure
- Instigate onsite medical personnel
- Implement Employment Assistance Program (EAP)
- Establish formal onsite safety committee
- Launch formal program to promote positive safety behaviours

**Policies**

Liontown's policies are available on the Company website at <https://www.ltresources.com.au/about/corporate-governance>





only



Water is a precious resource, particularly at Kathleen Valley in the Eastern Goldfields. Water is used in all aspects of mining, from mineral processing, dust suppression and potable water supply for camp and office use. Our use of water onsite must ensure we meet operational needs, recycle and reuse where possible to minimise waste, and not have an adverse impact on the surrounding environment, particularly Jones Creek which has cultural significance to the Tjiwarl.

To this end, we have employed non-traditional investigation techniques to undertake an especially targeted groundwater exploration program to reduce our onsite disturbance footprint. Initial desktop airborne geophysical analysis to identify potential water bearing structures, combined with an electromagnetic survey onsite to ground truth these structures, has so far led to new production bores being established that will service our operation's initial needs."

**Anne-Louise Vague**  
Environmental Superintendent





# 11.

## Water Sourcing and Use

Due to its scarcity, water is one of the most precious natural resources in Western Australia. It is also critical to the extraction of lithium at our Kathleen Valley mine. Without access to water of sufficient quality, it would not be possible to process our lithium. In contrast to other metals, such as gold and nickel, lithium production necessitates very 'clean' water.



Water is particularly significant to the Tjiwarl Native Title Holders, with Jones Creek, a seasonal stream, one of the group's main songlines, located in the Kathleen Valley project site.

Fractured rock aquifers will be used as the primary sources of water for the project. Jones Creek is not a project water source.

Changes in the Kathleen Valley site layout and potential changes to the availability of site water continue to be reviewed and assessed to determine whether the amended site layout will have an impact on surface water flows and where surface water controls need to be updated.

Water risks that need to be sensitively and proactively managed include the potential contamination of Jones Creek from surface water runoff from exploration, construction and mining activities, water wastage and potential dewatering of groundwater water supply. We must ensure that all employees and contractors understand these water risks and conduct their activities responsibly and these risks are incorporated into our site induction training.

A Water Management Plan is currently under development and will be completed in FY23. In addition, a water risk assessment will be undertaken in FY23 which will address parameters such as water stress. This plan will ensure we maximise our recycling of water where possible.

Our commitments to responsible water sourcing and use are outlined in our Environment Policy, Climate Change Policy, ESG Statement and NTA.

## Groundwater Exploration

During FY22, we actively progressed groundwater exploration at Kathleen Valley. We have already identified multiple sources of high-quality water. Multiple additional drilling targets have been located on our tenements and throughout the region, and we have submitted applications for a large number of water exploration tenements and potential pipeline corridors surrounding the project site.

Independent water consultants have provided advice on the location of water, the provision of data and infrastructure, recommendations for drilling sites and ground-based geophysics to complement desk-based research. Consultants are also analysing drilling and test pumping data to determine levels of sustainable water extraction.

In FY22, we initiated a substantial regional non-ground disturbing water exploration program on bore field leases in and around the Kathleen Valley site. During FY23, we will initiate groundwater exploration drilling. Extensive groundwater monitoring and modelling has been conducted and a groundwater monitoring network has been established.

This work was undertaken prior to the commencement of mining operations to examine environmental and fractured rock aquifer risks. The monitoring evaluates existing data and enables us to reassess based on the water drawdown response.

Uncertainty exists around how fractured rock aquifers will respond to groundwater extraction, in terms of how quickly the aquifers will recharge after bore pumping. A significant amount of work has been undertaken to determine the potential for negative impacts that may occur through groundwater extraction, however, this work indicates that impacts are quite localised. Studies undertaken have also shown that it is unlikely that there is groundwater dependent vegetation in these aquifers.

In FY23, telemetry will be enabled on all monitoring infrastructure within the Kathleen Valley Project footprint, granting us access to real-time data regarding changes in aquifer water levels and allowing us to gain significant monitoring efficiency. Similarly, production bores will have enabled telemetry infrastructure once drilling commences.

In FY24, after we have completed one year of monitoring and drawdown data, trigger limits will be imposed on water production bores. The monitoring will provide us with a risk mitigation measure, which is a legal requirement under the Western Australian government's Rights in Water and Irrigation Act 1914 (RIWI Act).

We commenced developing our groundwater operating strategy in FY22 and it is on track to be completed in FY23. In addition, a Catchment Management Plan will be developed in FY23.

## Jones Creek

We acknowledge the significance of Jones Creek to the Tjiwarl and have actively designed the Kathleen Valley mine to mitigate risks to Jones Creek and surrounding vegetation. We have ensured appropriate management and mitigation measures have been included in regulatory approvals and, when required, will detail these in the relevant management plan to reduce the potential to impact water levels and environment within and around Jones Creek.

Since March 2022, as part of our monitoring research, we have measured groundwater levels surrounding Jones Creek to establish baseline levels to ensure early identification of any potential adverse effects of groundwater drawdown on the creek from future operations.

We have been collaborating closely with the Tjiwarl to create monitoring procedures for Jones Creek and have proposed that Tjiwarl rangers receive training in this area, which we can help facilitate.

Baseline vegetation health studies have been conducted in the area adjacent to Jones Creek and will be complemented by an additional vegetation health study in FY23, prior to commencement of mine construction.

An external consultant has modelled the hydrology of Jones Creek to estimate the risk of flooding and its potential effects on the project and open pits. Modelling under present parameters for the 100-year Average Recurrence Interval (ARI) (1% Annual Exceedance Probability (AEP)) revealed that the 100-year ARI flood has no direct effect on the open pit under the current conditions. This modelling will be reviewed in FY23 as part of pit redesign works and updated as required.

## Tailings Storage Facility

The Tailings Storage Facility (TSF) has been designed in accordance with Code of Practice for Tailings Storage Facilities in Western Australia (DMP 2013) and ANCOLD Guidelines on Tailings Dam Planning, Design, Construction, Operation and Closure (ANCOLD 2019). It will be built under the supervision of a suitably accredited engineer and in accordance with industry standards and guidelines.

Due to the permeability of the subsurface ground below, the TSF design includes an impermeable high-density polythene (HDPE) liner that will be employed to maximise water recovery from the TSF. The HDPE liner will cover the full basin area and an underdrainage system, reducing seepage losses and increasing the amount of water recycled to the process plant. Due to the high permeability of the tailings, it is anticipated that the underdrainage system will play a significant role in water conservation and recovery.

## Water Recycling

We are working within the constraints of severely limited water availability, therefore water recycling from mining activities is a key priority. We intend to recycle as much water as possible to lower the mine's net water intake.

Water recycling will be maximised in the TSF, which will incorporate plastic lining to limit water loss and from paste filling processes. A TSF Guideline and Construction Management Plan will be developed in FY23.



In FY22, a polishing plant was incorporated at the wastewater treatment plant at the Kathleen Valley accommodation camp. This will enhance effluent treatment and enable the water from the sewerage facility to be used for irrigation and dust suppression. We will investigate alternative recycling opportunities for this class of water in FY23.

We have continued to update our water planning to reflect the processing and operational requirements as we approach the construction and mining phases at Kathleen Valley.

## Wastewater

Two wastewater treatment plants (WWTP) will be used for the project. The principal WWTP will be placed north of Jones Creek, close to the accommodation village. A secondary, smaller WWTP will be situated near the process plant.

The WWTP for the accommodation village will treat wastewater to Class A standards, making it safe for reuse in applications with a high risk category or for release into the environment. The WWTP for the processing plant will treat wastewater to Class C standards, making it eligible for reuse in applications with a low risk category or for release into the environment.

The treated effluent from the accommodation village WWTP will be either pumped to the process plant tails hopper, where it will be disposed of within the TSF, or pumped to holding tanks where it will be used for limited construction purposes (dust suppression on roads, conditioning of materials for foundation or TSF embankments).

Treated effluent from the process plant WWTP will be pumped to a holding tank where it will be regularly removed from site by a licenced contractor for offsite disposal prior to the TSF being constructed and commissioned. Once the TSF is operational, wastewater will be disposed of within the facility.

The WWTP solids and activated sludge will be processed offsite by a third party.

## Compliance Requirements

Given the nature of our operational activities, together with our location in a high water stress area, water compliance requirements are extensive. Throughout the exploration and development phases, we have made substantial investments in human capital to ensure compliance with all applicable regulations and laws. We will continue to do so as we move into the construction and mining phases.

In addition to our monthly internal compliance reporting on water, the following requirements around water compliance apply:

- Groundwater monitoring and wastewater monitoring under our Works Approval submitted to the Department of Water and Environmental Regulation (WA)
- Environmental Protection Act 1986 (Part 4) which relates to potential environmental pollution from tailings and the wastewater treatment plant
- Environmental Protection Amendment Act 2020 (under proclamation)
- Aboriginal Heritage Act 1972
- Catchment: Australian Drinking Water Guidelines 2011

In the case of a water related breach an incident will be entered into the company incident management system, investigated, and corrective actions applied.

There were no incidents of non-compliance during the reporting year.

## Stakeholder Engagement

### Tjiwarl

Significant stakeholder engagement on water-related issues was conducted in FY22 with the Tjiwarl, the regulator, and adjacent communities. Before submitting compliance information to authorities, Tjiwarl AC receives a quarterly compliance report. In accordance with our Kathleen Valley Project NTA, we have released two quarterly compliance reports covering all areas of NTA compliance, including water management, for the period of January to June 2022.

All key environmental permits and heritage applications were provided to the Tjiwarl for assessment and comments prior to being submitted to the various regulatory agencies.

### Regulators

Routine contact with regulators has taken place regarding water exploration permitting and licensing.

### Neighbours

Our neighbours are other miners within and adjacent to our project tenements. We have negotiated multiple access agreements with our regional neighbours to enable water exploration activities to expand beyond the Kathleen Valley Project tenements. We have learned that obtaining access agreements early with neighbours is critical to ensure that we are able to undertake water exploration activities effectively.

## Water Data

Outside of test-pumping requirements, no water was extracted in FY22 as approvals for production bores had not yet occurred.

A baseline for water usage will be developed at the end of CY2024 after the first year of mining at Kathleen Valley. After this time, formal water targets will be set.

## FY23 Water Targets

Our FY23 targets for managing our water risk are:

- Complete Water Management Plan
- Undertake water risk assessment
- Complete groundwater operating strategy
- Develop Catchment Management Plan
- Undertake additional vegetation health study of Jones Creek
- Investigate alternative recycling opportunities for wastewater effluent

## Policies

Liontown's policies are available on the Company's website at <https://www.ltresources.com.au/about/corporate-governance>

## Biodiversity Management

We have a clear responsibility as leaseholders of the mining tenements to mitigate and avoid negative impacts on biodiversity within the Kathleen Valley area. Mining typically results in land disturbance which, in turn, may impact flora and fauna within tenement areas.



The area in which we will mine has significant cultural heritage value to the Tjiwarl and we must work in harmony with this land. The Kathleen Valley mine has been specifically designed to maintain the integrity of Jones Creek. While the first two years of mining will commence via two open pits, the mine will transition to an underground mine thereafter, which will have the least impact on land disturbance.

Our commitments to managing biodiversity are outlined in our Environment Policy, ESG Statement and Climate Change Policy.

### Potential Negative Biodiversity Impacts

Many activities associated with the Kathleen Valley Project have the potential to negatively impact the environment including vegetation clearing; ground disturbance, including bulk earthworks; drill and blasting; construction of infrastructure, including roads; groundwater abstraction; power generation; vehicle movement; crushing and screening; wastewater and waste disposal.

Construction and clearing will begin in FY23. As we progress through the various stages of building the Kathleen Valley mine infrastructure, including the TSF and waste rock dump and move to mining and ore processing, we are committed to mitigating and avoiding negative biodiversity impacts.

The primary negative biodiversity impacts, if not managed correctly, are land disturbance through land clearing, the potential for groundwater contamination and generation of dust, which can negatively impact vegetation.



Other potential biodiversity impacts of our operations on terrestrial fauna include habitat loss and fragmentation; altered fire regimes; noise, dust, vibration, and light spillage; vehicle collisions; introduced fauna (posing a biosecurity risk); drill holes and sumps (potential for fauna to be trapped) and putrescible waste.

Without effective risk management controls, these impacts could occur through the activities of the Kathleen Valley Project and construction staff, including contractors, and sub-contractors when building mine infrastructure, mining, and ore processing. The Company has such risk management controls in place and will work diligently and professionally to minimise such impacts.

### Cultural Ecological Values

In FY22, a cultural ecological knowledge assessment of the project area was undertaken by Tjiwarl AC. The assessment was undertaken by an external consultant, representatives of the Tjiwarl knowledge holders and an Indigenous ranger.

The assessment identified 41 flora of cultural importance, considering uses for traditional food, medicine, ceremonies/rituals, and other uses such as tools, heating and navigation.





We are very aware of the negative consequences of a lax attitude towards preserving native biodiversity, and biodiversity management is a key plank of the Kathleen Valley Project's ESG strategy. Mining projects create infrastructure that can remain in place for an incredibly long time and Liontown's ambitions towards environmental sustainability will ensure responsible stewardship of the land on which we work.

The project has significant goals regarding environmental governance and several strategies have been put in place to ensure the project's impact on local biodiversity is minimised. This includes a bias towards underground mining to reduce pit sizes, surveying and monitoring native vegetation present across the project tenements, careful planning of project disturbance footprints, robust water management methods, strict management of waste streams, vigilant adherence to weed and seed policies, and simple things like preserving as much existing native vegetation as possible.

**Kody Dixon**  
Deputy Construction Manager

### **Kathleen Valley Ecological Environment**

The project lies within the Eastern Murchison sub-region of the Murchison bioregion, characterised by its internal drainage and extensive areas of red desert sandplains. The area contains salt lake systems and the Mulga Woodlands is the dominant vegetation type throughout.

The Class A Wanjarri Nature Reserve is located 5 km to the northeast of the project area and is recognised for its high diversity of flora and fauna and areas of un-grazed mulga.

The Kathleen Valley site is not in an area of protected conservation status.

### **Native Vegetation Clearing**

In FY22, Liontown submitted a proposal to the DMIRS under s.51E of the Environmental Protection Act 1986 to receive permission to clear 348.2 hectares of native vegetation. Land clearing is required for the development of the Kathleen Valley Project, including the construction of two small open pit mines, one underground mine, a processing plant, two tailings storage facilities, a waste rock dump, a borefield and other associated infrastructure. A further application for a Small Operations Permit was also made to enable clearing of up to 10 hectares for commencement of accommodation village construction.

As of 30 June 2022, 6.014 hectares of land had been cleared as part of the village construction activities. We have created a land disturbance register which tracks the purpose of land clearing, the area of cleared land and land management measures.

Significant effort was spent on minimising the disturbance footprint of the project in conjunction with the Tjiwarl and resulted in multiple redesigns of the mining activity areas.

### **Disturbance**

The project tenements contain multiple registered and logged physical and mythological sites of significance to the Tjiwarl. As a consequence, multiple large exclusion zones on the tenements were established as part of the NTA based on archaeological and cultural surveys conducted jointly with the Tjiwarl and their consultants.

Where disturbance of sites was identified as unavoidable, a Section 18 approval under the Aboriginal Heritage Act 1972 (WA) to clear the area was received in FY22. Significant engagement was undertaken with the Tjiwarl to ensure due diligence processes were adhered to throughout this process.

All artefact scatters, if required to be disturbed, are being stored, labelled and will be returned to site once the area has been rehabilitated. We understand the cultural sensitivity of this activity and are committed to limiting land disturbance impact. Protection and restoration measures for land disturbance is addressed in our NTA with the Tjiwarl and CHMP.

## Flora and Fauna

Database searches and site surveys have recorded no threatened flora listed under the Western Australian Biodiversity Conservation (BC) Act or Commonwealth Environment, Protection, Biodiversity and Conservation (EPBC) Act. Two priority flora taxa (*Grevillea inconspicua* and *Hemigenia exilis*) listed by the Department of Biodiversity Conservation and Attractions (DBCA) have been recorded, with both listed as Priority 4 species (rare, near threatened and other species in need of monitoring, due to lack of available information).

A level one fauna survey was conducted to identify potential conservation significant fauna and their habitat protected under Commonwealth and State Acts. No threatened or migratory fauna that are listed under the BC Act or EPBC Act or priority fauna as listed by DBCA were recorded within the survey area.

Baseline surveys for Jones Creek were also undertaken by the Tjiwarl in September 2021.

One significant fauna species is known to occur locally. The Peregrine Falcon (*Falco peregrinus*) listed as “Other Specially Protected” under the BC Act was observed with one individual bird observed just south of the study area during a 2018 fauna survey. Also identified was the potential for rocky areas to support the Black-flanked Rock Wallaby (*Petrogale lateralis lateralis*) which is listed as endangered under the BC Act and EPBC Act. A targeted habitat assessment and survey for the species was conducted by an external consultant in 2021.

Four broad habitat types were identified and assessed for their value as Black-flanked Rock-Wallaby habitat and, subsequently, identified as being unsuitable for the species. No Black-flanked Rock Wallabies were detected during the field survey.

A further study conducted in November 2021 was a pilot subterranean fauna desktop assessment and an associated survey was conducted for the project area. Subterranean fauna is protected under state legislation via the BC Act.

The survey considered potential impacts to groundwater from mining (open pit and underground) and water supply bores, as well as the potential for suitable habitat based upon the hydrogeological conditions of the area. The results indicated a zero to low likelihood of subterranean fauna or suitable habitat being present within the project area and that no significant impacts from the Kathleen Valley Project are likely.

Activities planned for FY23 include further baseline environmental monitoring, seed collection of priority flora, a weed mapping survey and a follow up significant flora survey.

Table 05:

### Listed Threatened Species: EPBC Act

Species in Surveys	Threatened Category	Identified
<b>Bird</b>		
Grey Falcon ( <i>Falco hypoleucos</i> )	Vulnerable	No
Malleefowl ( <i>Leipoa ocellata</i> )	Vulnerable	No
Night Parrot ( <i>Pezoporus occidentalis</i> )	Endangered	No
Princess Parrot, Alexandra’s Parrot ( <i>Polytelis alexandrae</i> )	Vulnerable	No
<b>Mammal</b>		
Chuditch, Western Quoll ( <i>Dasyurus geoffroii</i> )	Vulnerable	No
Sandhill Dunnart ( <i>Sminthopsis psammophila</i> )	Endangered	No
Black Flanked Rock-wallaby ( <i>Petrogale lateralis lateralis</i> )	Endangered	No
<b>Plant</b>		
Atriplex yeelirrie	Endangered	No





## How we Manage Biodiversity

### Environmental Permits

There are many environmental and heritage obligations with which we need to comply. To ensure compliance with these obligations, in FY22, we developed the following environmental permit procedures to safeguard biodiversity and cultural heritage within clearing and construction activities at the site:

- Access, Construction or Change Permit (ACCP)
- Clearing and Civil Works Permit (CCWP)

If any non-compliances occur, depending on the incident severity, we are required to stop work and raise an incident.

### Contractor Management

Contractors are provided with a detailed scope of services contract which outlines Liontown's expectations in relation to environmental management, including land disturbance. Contractors are expected to develop an environmental management plan which complies with all applicable laws, environmental licences and Liontown's policies, plans and procedures.

### Cultural Heritage Management Plan

Together with the Tjiwarl AC, a CHMP was finalised in FY22. The plan identifies which activities can be undertaken within a specific location. This includes cleared areas identified prior to and after finalisation of the plan as well as exclusion zones.

### Biodiversity Management Plan

Although we are not required to have a Biodiversity Management Plan, we have voluntarily chosen to create a plan for the Kathleen Valley site. Compilation of the plan is currently underway and will be finalised in FY23. The plan will address our approach to managing Native Title and cultural heritage; roles and responsibilities of all personnel; flora and fauna; managing environmental risks; protected areas and limitations on land use (including compliance and approvals; soil management; rehabilitation; contaminated sites and emergency preparedness); land use management and monitoring, reporting and corrective actions.

These issues will be addressed throughout the entire project lifecycle from exploration, development, mining and mine closure. A mine closure plan, which will provide further detail on closure, decommissioning and land rehabilitation is currently under assessment by DMIRS. The plan will outline the relevant legislation to which Liontown must adhere. Our current process for managing any biodiversity breach is to enter the incident into the Company incident management system, investigate, and apply corrective actions where applicable.

## Stakeholder Engagement

We have worked closely with the Tjiwarl throughout the design phase of the Kathleen Valley Project. As per our NTA with the Tjiwarl, prior to seeking approvals with regulators around various activities, we must include Tjiwarl in the application and review process to capture key concerns and feedback within all our applications.

All key environmental permits and heritage applications have been provided to the Tjiwarl for review prior to submission to the various regulatory authorities with input included in submissions.

We have also undertaken cross-stakeholder engagement with the Tjiwarl and the Department of Biodiversity, Conservation and Attractions (DBCA) to facilitate sandalwood collection by the Tjiwarl within the tenement areas.

## FY23 Biodiversity Targets

Our FY23 biodiversity targets are:

- Conduct further baseline environmental monitoring
- Undertake seed collection of priority flora
- Identification of Sandalwood and facilitate Sandalwood collection prior to clearing
- Complete a weed mapping survey
- Undertake a significant flora survey
- Finalise the Biodiversity Management Plan

## Policies

Liontown's policies are available on the Company website at <https://www.ltresources.com.au/about/corporate-governance> ■

# 13.

## Decarbonisation Pathway

The push for decarbonisation of industry has never been stronger. Critical raw material supply chains to the lithium-ion battery and EV sectors are witnessing unprecedented growth as the global economy speeds delivery on its decarbonisation ambitions, with global transportation electrification serving as a key driver. The goal of the Paris Agreement in 2015 was to limit global warming to well below 2°C, preferably to 1.5°C, compared with pre-industrial levels to mitigate the consequences of significant negative ramifications on the environment and living conditions of communities globally.



The Intergovernmental Panel on Climate Change (IPCC) has strengthened their initial position that 1.5°C and 2°C of global warming will occur within the 21st century unless carbon dioxide (CO<sub>2</sub>) and other greenhouse gas emissions are reduced in the near future (IPCC, 2021), to posit that limiting warming to 1.5°C and 2°C will need to involve rapid, deep and, in most cases, immediate greenhouse gas emissions reduction in all sectors (IPCC, 2022).

The IPCC also states that achieving net-zero CO<sub>2</sub> emissions from the industrial sector will be difficult but feasible if coordinated efforts are made along all value chains to promote all available mitigation measures, such as demand management, energy and material efficiency, as well as abatement technologies in production.

To reduce industry emissions, innovative manufacturing methods utilising energy with low or no emissions, hydrogen, fuels and carbon management are essential. Major transitions are required across the energy sector, including a sharp decline in the use of fossil fuels, the introduction of low emission energy sources and increased energy efficiency and conservation, if the IPCC position is to be realised. Liontown supports the IPCC position.

Our aim is to be an ESG leader and a globally significant provider of battery minerals for the rapidly growing clean energy market. Liontown's lithium will provide a critical input into decarbonisation, and to achieve our aim, it is our responsibility to produce our lithium with the lowest possible carbon footprint.

The mining industry is responsible for a significant amount of global energy consumption and operations in Western Australia are often located in remote regions, such as Liontown's Kathleen Valley Project.

Our largest emissions will come from the mining mobile fleet and we are making significant efforts via our contracting processes to ensure that a least 60% of our start-up energy requirements will come from renewable energy sources.

Further significant investment will be made to achieve our ambition of net-zero by 2034.







Many mines operate in areas exposed to climate risks and we recognise that those physical impacts can lead to higher mining and remediation costs, operational disturbances and more critically, increased risk to our employees' health and safety.

The mining sector is now acknowledging its role to responsibly balance shareholder value and sustainability. It's encouraging to see the shift from financial-only decision making to decision that include climatic returns, social and operational benefits.

It is important for us that the Kathleen Valley site, its infrastructure and supply chain are designed to mitigate the physical effects of climate change as far as practical. We will be actively looking to collaborate with industry partners who are able to demonstrate a commitment and proactive approach in pursuing climate-intelligent practices.

**Bella Luntungan**  
Commercial Operations

### Pathway to Net-Zero by 2034

In 2021, we set out our 'net-zero by 2034' ambition to be at least 60% renewable power commitment at mine commencement in 2024. Integral to the Kathleen Valley mine is a clear design and investment focus on climate risk adaptation and mitigation through infrastructure, such as our planned hybrid power station, currently expected to be the largest off-grid wind-solar-battery storage hybrid power station for a mining project in Australia.

Our Climate Strategy Roadmap is still in development but is well underway. We have engaged external consultants to assist us with a climate risks and opportunities analysis and a decarbonisation pathway with an initial focus on Scope 1 and Scope 2 emissions. In future, the project scope may be expanded to include Scope 3 emissions. Over time, we aim to undertake scenario modelling under a 2°C or lower scenario.

Implementation of the decarbonisation pathway project is an absolute priority for Liontown. The project will focus on identifying the actions plans, pathways and capital costs required to achieve our net-zero emissions ambition by 2034. Pathway scenarios will include investigations of optimal, realistic and achievable ways to achieve our net-zero ambition including the use of fleet electrification, onsite renewables, hydrogen, carbon offsets and carbon insets.

The scenarios will consider current limitations on various technologies such as hydrogen inputs and fleet electrification. Year-on-year annual projected and abated emissions will be forecast for each scenario, in addition to estimated financial costs of implementation.

The project will consider share of electricity by activity and phase including construction, open pit mining, processing, underground mining and sustaining.

This work will assist us with achieving the recommendations of the TCFD and will continue in FY23.

As we progress the decarbonisation pathway project, our short, medium and long-term horizons will be identified, which will further shape our strategy and allow us to set emissions reductions targets within each time horizon.

Our commitments to mitigating our climate risk are outlined in our Environment Policy, ESG Statement and Climate Change Policy, available on the Company website. ■



# 14.

## Energy and Emissions Efficiency

We have made substantial financial capital investment to ensure that the Kathleen Valley mine will be a sustainable operation, which will assist us in achieving our net-zero by 2034 ambition. We are committed to setting an industry standard for energy and emissions efficiency and achieving industry leadership in this area.



### Clean Energy Supply: Hybrid Power Station

A significant focus for Liontown in FY22 was to determine an efficient and low-carbon power supply for our operations to achieve our net-zero ambition. The Kathleen Valley Project will not be connected to the grid, providing us the opportunity to reduce emissions from onsite electricity generation through the implementation of renewable energy generation assets.

A power supply tender was issued to several companies for the provision of energy supply on a Build, Own and Operate (BOO) basis, for an off-grid wind-solar and battery storage hybrid power station. The successful company will finance, design, construct, own, operate and maintain a 95MW hybrid power station at Kathleen Valley and will include wind generation from five wind turbines and a fixed axis solar photovoltaic array.

This will be coupled to a Battery Energy Storage System (BESS) to provide additional clean energy. Once fully constructed, the hybrid power station is currently expected to have the largest off-grid renewable capacity of any mining project in Australia (46MW (wind and solar) plus 17MW BESS).

### Onsite Energy and Emissions Management

The mining and processing of our ore will be the principal source of Scope 1 and 2 emissions at the Kathleen Valley mine.

The heavy transportation required to transport our concentrate product from the mine to Geraldton Port, approximately 680 kilometres away, will contribute to Scope 3 emissions.

Scope 1 emissions will be below 100,000 tonne of CO<sub>2</sub> equivalent per annum, which would trigger consideration under Part IV of the Western Australian Environmental Protection Act 1986 and additional reporting under the Australian National Greenhouse and Energy Reporting Act 2007. Scope 1 emissions are expected to peak in 2024 when open pit mining is being undertaken but will decrease as mining moves underground and the subsequent reduction in requirement for mining equipment fleet.

Scope 2 emissions are expected to peak in 2031 and beyond, when the process plant capacity increases to lithium mining of 4 Mtpa and the underground development reaches greater depth, increasing power consumption.

These estimations are based on continuation of the minimum 60% renewable power mix at project start-up. We anticipate that the renewable mix will increase through the life of the mine and we will actively investigate use of new technologies to reduce emissions.







For people



Liontown is providing a critical mineral for the future, in a way that minimises the negative impact on our planet. I have been inspired by the number of people who I have engaged with, many of them veterans in the mining industry, who are equally passionate about this approach.

Kathleen Valley has invested in industry leading levels of renewable power generation from the outset of the project. When wind and solar resources are available, the hybrid power station will run in 'engine off' mode and deliver 100% renewables, with overall renewable energy penetration exceeding 60% from first production.

Few mining companies have a combination of solar, wind and battery that produce anywhere close to this level of renewable penetration. I'm exceptionally proud to be part of a team that is delivering on our promise to prioritise renewable energy."

**Kirit Chauhan**  
General Manager Project Development



*Kathleen Valley landscape.  
Photograph: Tony McDonough*



As the Kathleen Valley Project is at the early works stage, the primary source of energy and emissions generation in FY22 was through pump testing on wells, grade control drilling and geotechnical investigation under the proposed tailings storage facility site, and plant site over an approximate three month period. This work was undertaken by contractors and sub-contractors.

With mine construction commencing in FY23, an increase is expected in the energy and emissions associated with open pit mining activities such as bulk earthworks activities, civil and concreting works, and associated transport of contractors and sub-contractors to and from Perth (the closest capital city) to increase.

While diesel fuel will initially power the trucks, the possibility of converting to biofuel or battery technologies is being considered. We are actively monitoring technological advancements in the electrification of mining fleets and, if deemed feasible, these requirements will be included in future contracts. In accordance with regulatory approvals, fugitive emissions will be managed under a health and hygiene management plan and environmental and social management plan. Energy and emissions data is collected from contractors who are required to report their diesel usage. Monthly energy and emissions reporting as part of the Environmental Health and Safety Management System will be implemented in FY23.

When the decarbonisation pathways plan is finalised, firm goals and targets for energy and emissions reduction will be set.

Our commitments to energy and emissions efficiencies are outlined in our Environment Policy, ESG Statement and Climate Change Policy.

### **Stakeholder Engagement**

Our primary engagement around energy and emissions in FY22 centred on the power supply infrastructure necessary for the Kathleen Valley Project. We engaged with local council and regulators on the approvals necessary for power supply infrastructure, subject matter experts for power supply requirements and vendors for the power supply tender.

All key environmental permits and heritage applications have been provided to the Tjiwarl for review and input prior to submission to the various regulatory authorities.

### **Policies**

Liontown's policies are available on the Company website at <https://www.ltresources.com.au/about/corporate-governance> ■



Table 06:

Energy Usage: All Projects (diesel usage only)	FY2019	FY2020	FY2021	FY2022
Kathleen Valley	18,421	22,559	2,787	7,865
Buldania	7,447	3,268	0	4,757
Moora/Koojan	0	0	2,166	0
<b>TOTAL (GJ)</b>	<b>25,868</b>	<b>25,827</b>	<b>4,953</b>	<b>12,622</b>

Table 07:

Emissions Profile: All Projects	FY2019	FY2020	FY2021	FY2022
<b>Scope 1 emissions</b>				
<b>CO<sub>2</sub> emissions (tonnes CO<sub>2</sub>-e)</b>				
Kathleen Valley	1,291	1,581	195	551
Buldania	522	229	0	333
Moora/Koojan	0	19	133	0
<b>TOTAL</b>	<b>1,813</b>	<b>1,810</b>	<b>347</b>	<b>885</b>
<b>CH<sub>4</sub> emissions (tonnes CO<sub>2</sub>-e)</b>				
Kathleen Valley	48	58	7	20
Buldania	19	8	0	12
Moora/Koojan	0	0	6	0
<b>TOTAL</b>	<b>67</b>	<b>66</b>	<b>13</b>	<b>32</b>
<b>N<sub>2</sub>O emissions (tonnes CO<sub>2</sub>-e)</b>				
Kathleen Valley	95	117	14	41
Buldania	39	17	0	25
Moora/Koojan	0	0	11	0
<b>TOTAL</b>	<b>134</b>	<b>134</b>	<b>25</b>	<b>66</b>
<b>TOTAL GHG (tonnes CO<sub>2</sub>-e)</b>	<b>2,014</b>	<b>2,011</b>	<b>386</b>	<b>983</b>

- Notes:
- All 2018, 2019, 2020 and 2021 data has been amended from calendar year (January 1 to December 31) as reported in Liontown's ESG Report FY2021 to reflect financial year (July 1 to June 30)
  - There are no Scope 2 emissions as no power or heat was purchased from a third party provider
  - Toolebuc and Monjebup tenements are not included as no activity occurred in FY22
  - The Toolebuc tenement was divested in August 2022

- Assumptions:
- Light vehicle travel assumed to be 70km/day per Liontown person on site
  - Forklift usage three hours per day when two or more Liontown persons are onsite
  - Generator run for 11 hours per day during warm months (October 1st to April 15th)
  - Service trucks accompanying drill rigs travel 60km per day
  - All drilling contractors mobilised from Perth – mobilisation distance 960km
  - Skid-steer loader working at medium duty
  - Back-hoe loader working at medium duty
  - Back-hoe loader cutting one drill pad and associated access per day at three hours

Table 08:

Conversion factors for energy and emissions data tables	
Energy	Factor
CO <sub>2</sub> -e emission per Litre Diesel (kg/L)	2.7
N <sub>2</sub> O emission per GJ Diesel (kg/GJ)	0.2
CH <sub>4</sub> emission per GJ Diesel (kg/GJ)	0.1
Diesel Specific Energy (GJ/kL)	38.6
CO <sub>2</sub> -e per GJ Natural Gas (kg/GJ)	51.53
CO <sub>2</sub> -e per GJ Diesel (kg/GJ)	70.4

Source: National Greenhouse Accounting Factors (2021)

Table 09:

Kathleen Valley Lithium Project Forecast Scope 1 and 2 emissions profile	CY2023	CY2024	CY2025	CY2026	CY2027	CY2028	CY2029	CY2030	CY2031
Scope 1 GHG emissions (tonnes CO <sub>2</sub> -e)	43,774	21,218	6,405	8,598	10,117	15,000	16,792	16,792	17,636
Scope 2 GHG emissions (tonnes CO <sub>2</sub> -e)	4,476	33,043	36,449	42,671	42,671	48,893	57,308	62,357	62,357
FORECAST TOTAL (Scope 1 and 2 tonnes CO <sub>2</sub> -e)	48,250	54,261	42,854	51,269	52,788	63,893	74,100	79,149	79,993

Note: All figures are based on calendar year (January to December)





Responsible only

“

Our plan for our Tailings Storage Facility (TSF) construction is to haul waste rock mined from small-scale open pits directly to the location of the TSF for embankment construction to the final designed width and height. This will significantly reduce the area required for a waste rock dump as well as reduce greenhouse gas emissions, as the need for future rehandling of waste rock to progressively build out TSF embankments to gain additional TSF capacity is eliminated.

Whilst the Kathleen Valley Project has a projected 23 year mine life, it is insignificant with respect to the passage of time. Our objective must be to minimise our impact on the natural environment. Notwithstanding, our legal obligations, our commitment to responsible waste and tailings management extends to immense respect for the traditional custodians — the Tjiwarl — and all future generations.”

**James Howard**  
General Manager  
Mining Operational Readiness



# 15.

## Responsible Waste and Tailings Management

Responsible waste and tailings management is integral to the design of the Kathleen Valley Project. Our overarching philosophy is to minimise our waste and minimise our use of hazardous materials as much as possible. This is sensible operating practice and contributes to our licence to operate. Given the close proximity of the Kathleen Valley site and Jones Creek, which is of cultural significance to the Tjiwarl, it is our responsibility to be vigilant with managing waste and tailings generated from the mine.



Mismanagement of waste and tailings can have significant environmental and social impacts. Activities associated with the project performed by both Liontown and contractors include construction of infrastructure and landforms; onsite workforce management, wastewater disposal, bulk earthworks, drill and blasting, groundwater abstraction, power generation, vehicle movement and processing and refining of ore, all of which can contribute to the generation of waste and hazardous materials.

Potential risks associated with waste generating activities include contamination of surface water groundwater and soil; deterioration of flora and fauna (including habitats), landform deterioration as well as risks to human health and safety. Regular risk assessments are conducted and submitted to the DMIRS (WA).

The majority of waste in the short-term (prior to commencement of mining in 2023) will be generated during construction from the delivery of materials and generation of construction waste (i.e. building materials, packaging and pallets). Waste rock will be generated through excavation for the open cut mine and, as production commences, tailings waste will be generated through the extraction of minerals from the ore body.

Our commitments to responsible waste management are outlined in our Environment Policy, ESG Statement and internal Waste Management Plan.

### Utilising Waste Rock for Mine Construction

The mine will initially operate as an open-cut mine for the first 30 months of mine production, after which it will transition to underground mining. The Project will produce approximately 28 Mt of waste rock, of which 22.1 Mt will be from open pits which will be mined in the first two years of operation. Approximately 13.5 Mt of this waste rock will be used for construction of TSF embankments, Run-of-mine (ROM) pad and other site infrastructure.

The balance of the waste rock from the open pits will be placed in the temporary waste rock dump and, ultimately, be used for construction materials with the bulk used for the ROM Pad and TSF embankments and covers.

Underground mining will produce approximately 5.9 Mt of waste rock. Waste rock from the portals, declines and underground mine will be used for stope fill or brought to the surface for placement in a temporary waste rock dump prior to it being used for construction activity.

Waste rock with differing physical characteristics will be placed in discrete areas within the waste rock dump to ensure these can be readily accessed for the varying construction needs of the mine.

Together with pastefill, which consists of tailings mixed with cement, waste rock may be used selectively to backfill mined stopes.

## Utilising Tailings Waste to Create Mine Stability

Tailings waste that is generated through the minerals extraction process will be mixed with cement to produce pastefill which will fill voids created by the extraction of waste rock. This will provide geotechnical stability for underground mining operations.

To produce a product suitable for use in pastefill, plant tailings will need to be re-ground in a milling circuit as part of the process plant, which contains a mineral processing concentrator. Cement will be combined with water to achieve the required density and structural strength to provide ground support. The cemented paste fill will be discharged to the required underground location either by gravity or by positive displacement pumps.

Two pastefill plants will be utilised with the second plant being required as the lithium production capacity increases to 4 Mtpa.

## Tailings Safety

The TSF will be constructed in the early stages of mine construction to store tailings from the process plant. The TSF has been designed in accordance with Code of Practice for Tailings Storage Facilities in Western Australia (DMP 2013) and ANCOLD Guidelines on Tailings Dam Planning, Design, Construction, Operation and Closure (ANCOLD 2019). It will be constructed under the supervision of a suitably accredited engineer and in accordance with industry standards and guidelines.

The TSF is designed to store a total of approximately 20.8 Mt of tailings at an average rate of approximately 1.0 to 1.6 Mtpa.

During 2021, external consultants were commissioned to undertake geochemical characterisation of tailings samples. The tailings samples were assessed for the potential of the material to contribute to acid, saline and neutral leaching of environmentally significant metals and/or metalloids to the surrounding environment.

Tailings geochemical testing undertaken indicates that the tailings material and water does not contain any hazardous materials or substances and will be benign. The assessment indicated that the tailings are classified as Non-Acid Forming (NAF), and leachates generated from the tailings will be alkaline and non-saline. Aluminium was the only element in leachate that has potential to exceed a relevant environmental trigger value. However, as the tailings will be stored in a specialised TSF and will be dissolved and removed, this poses negligible threat to the environment. In addition, the TSF will be lined by a composite liner composed of high-density polyethylene (HDPE) reducing the risk of tails seepage to the environment.

As required under the Environmental Protection Act 1986, Liontown is required to obtain a Works Approval for the TSF construction which was submitted in FY22, in addition to compiling a TSF construction manual which is scheduled for completion in FY23. A TSF operating manual will be completed in FY24, in line with commencement of mining. Both manuals will ensure that operation of the TSF is safe, stable, and non-polluting.

## Emergency Preparedness

As part of our application for a Works Approval from the Department of Water and Environmental Regulations (DWERS), a preliminary risk assessment of the TSF was completed. As mandated by the Work Health and Safety Act 2020 of the Western Australian government, an Emergency Preparedness Response Plan (EPRP) will be developed in FY24 as part of the TSF Construction and Operating Management Plans.

## Landfill

A proposed landfill site will be constructed and operated according to the Environmental Protection (Rural Landfill) Regulations 2002. Domestic (putrescible and non-putrescible), non-recyclable waste produced at the accommodation village will be disposed of into this landfill facility. Recyclable materials, such as metals, rubber, plastic, paper, glass, and fabric products, will be segregated from other waste. The size of the facility will trigger the need for a prescribed premises works approval as per our current application to DWERS and environmental licence for a landfill facility under the Environmental Protection Act 1986, which is required once the mine is built and in operation. This will be applied for in FY24.



## General Waste

By law, generators of waste are responsible for the safe and appropriate disposal of all forms of general waste. Waste remains the property of the Kathleen Valley Project even after disposal and Lione town can be held responsible for harm to the environment caused by the waste years after mine closure.

The Kathleen Valley mine site is located in a remote location, approximately 60 kilometres from Leinster, the nearest regional town. Due to its remote location, our focus will be to adopt responsible onsite waste management practices, which are prudent from both an economic and environmental perspective, rather than seeking assistance from our neighbours. A Waste Management Plan was developed in FY22 and a formal assessment of anticipated waste streams and volumes will be undertaken in FY23. The plan meets all national and state environmental and waste regulations and legislation.

Waste management objectives are set out in our management plan and are supported by a series of management actions to ensure the waste impact of the mine are minimised and that appropriate monitoring, reporting and corrective action functions are implemented to support successful implementation.

Our waste management objectives are to:

1. Treat and dispose of any remaining waste streams in an environmentally acceptable manner to avoid or minimise environmental impact, and
2. Minimise the creation of waste through the use of the waste mitigation hierarchy

Monitoring of the effectiveness of the Waste Management Plan will be through statutory reports and monitoring (where applicable), workplace audits and inspections and rehabilitation monitoring.

If there is a breach of the waste management plan, an incident will be entered into the Company incident management system, investigated, and corrective actions applied.

As more contracting groups are engaged onsite, generating larger waste scopes, a monthly environmental reporting requirement will be implemented in FY23. The reporting will require workers and contractors to report both volumes and waste stream.

Currently under development, for implementation in FY23, supplier contracts for the mining fleet will include responsible waste management requirements that abide by all relevant legislation and regulations.

## Hazardous Materials Management

Potential environmental risks that arise from the use of hazardous substances onsite include spillage of hazardous materials during transport, storage and/or usage and incorrect waste disposal, resulting in environmental or human harm.

A Hazardous Materials Management Plan was compiled in FY22 and it will be the responsibility of contractors employed for mine construction and operations to implement. The plan outlines how potential hazardous materials impacts are managed through a hierarchy of control including elimination, substitution and engineering solutions.

The plan meets all national and state environmental and hazardous waste regulations and legislation. In addition, administrative management systems have been introduced such as the use of SAI360, staff training, routine auditing, inspections and maintenance.

Monitoring the effectiveness of the plan will be undertaken where applicable by annual compliance audit reports; annual environmental reports; workplace audits and inspections; surface disturbance permit inspections and statutory monitoring.

Our expectations of responsible hazardous materials management practices are written into supplier contracts and abide by all relevant legislation and regulations.

## Stakeholder Engagement

Regulators and the Tjiwarl were the primary stakeholders engaged for our waste management approach.

### Regulators

As the project is deemed a major approval, all environmental considerations regarding mine construction and operation is regulated under the Environmental Protection Act 1986 (WA), and our waste management approach plays a key role in receiving a Works Approval.

### Tjiwarl

As with all activities that have the potential to negatively impact the environment, our water and hazardous materials management plans are presented to the Tjiwarl for approval and for comment prior to issuing for use. In addition, our NTA outlines opportunities for Tjiwarl to undertake recycling of scrap metals and cans. During the reporting year, we engaged with the Tjiwarl on these opportunities to provide recycling services in addition to other onsite waste management activities.

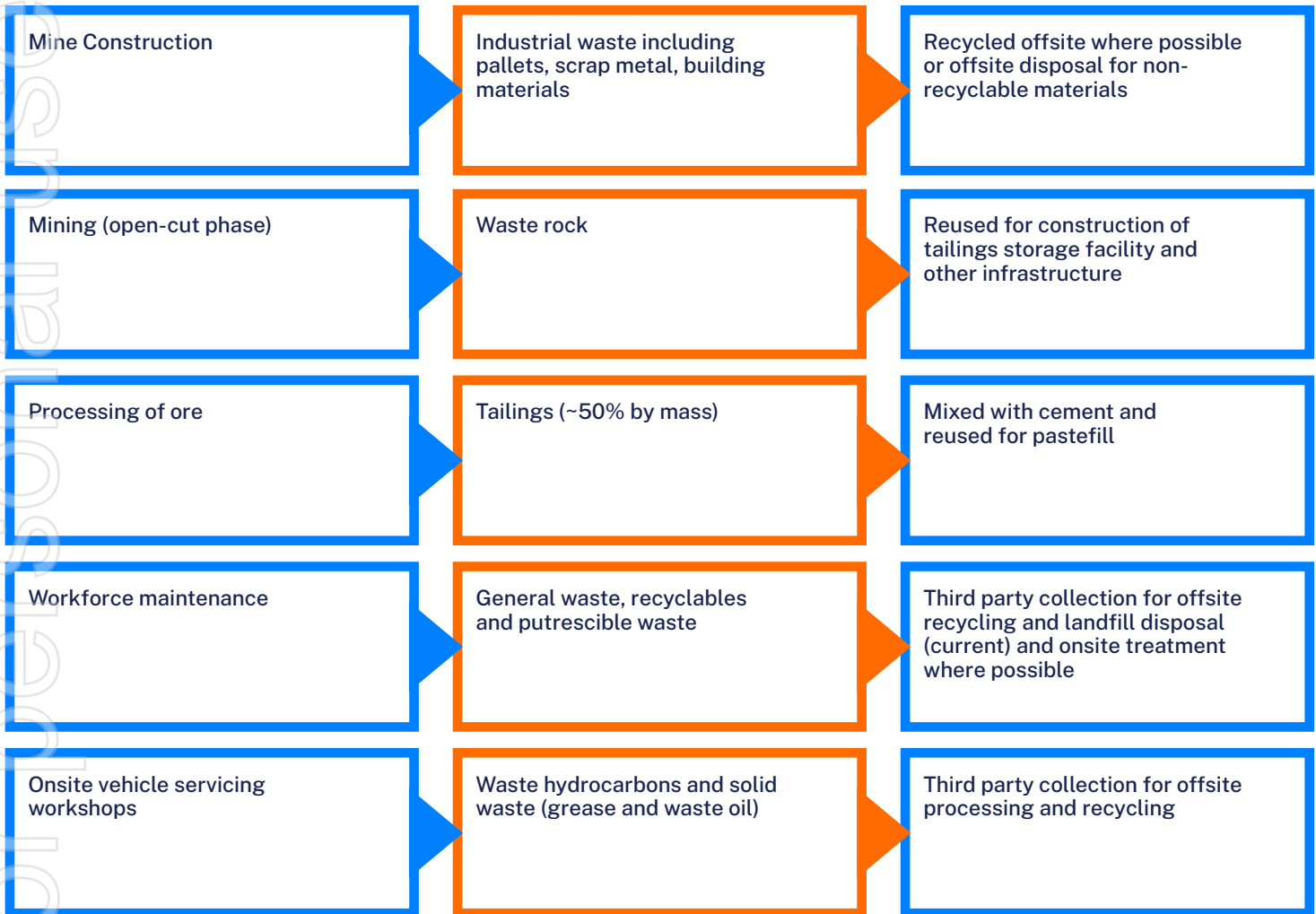
All key environmental permits and heritage applications have been provided to the Tjiwarl for review and input prior to submission to the various regulatory authorities.

Waste Generation and Disposal (current)	
Waste Stream	Disposal
Liquid waste (sewerage, grease trap waste, grey water)	Shire of Leonora Waste Facility
Cans and bottles	Containers of Change facility operated jointly by the Shire of Leonora and Wirrpanda Foundation
Scrap metal	Recycling
PVC and plastics	Recycling
General waste	Landfill
Waste oil	Resource recovery
Other hydrocarbons e.g. filters, oily rags	Disposal at various registered facilities

Note: All waste is tracked from its place or origin to final destination via controlled waste tracking forms.



Waste Generation and Disposal (future)



Our Performance

Construction at the Kathleen Valley site commenced in late FY22, which resulted in a small amount of waste generated. The waste generated was primarily non-process related and consisted of general waste such as putrescible waste and recyclables such as cardboard, bottles and cans, taken offsite for recycling. Waste data collection commenced in June 2022. Due to the low volume of waste generated, it will be included in our FY23 ESG Report.

As construction ramps up during FY23 and when the mine becomes operational in 2024, the volume of waste will increase.

Policies

Liontown's policies are available on the Company website at <https://www.ltresources.com.au/about/corporate-governance> ■

# 16.

## Environmentally Sustainable Supply Chain

With our Kathleen Valley Project moving rapidly towards construction, we have significantly enhanced our capacity to build an operation that we are confident is built on excellent ESG credentials. These strong credentials have provided us with success in securing offtake agreements with Tesla, Ford and LG Energy Solution, multinational corporations with high expectations that their suppliers are committed to environmental and social sustainability.



We have a significant amount of ongoing work to put in place the formal due diligence processes required to understand the nature and practice of our suppliers, including their own environmental and social credentials, including human rights. To date, we have not undertaken formal assessments of new supplier environmental credentials.

Our current mechanisms that formalise our own commitments to environmental sustainability are our ESG Statement, Environment Policy and Climate Change Policy. Our Environment Policy sets out the expectations that we have of our suppliers in the work that they undertake at the Kathleen Valley site.

We want to ensure that we engage with suppliers that have a commitment to environmental and social responsibility and, to this end, in FY23 we will work towards publishing a Sustainable Procurement Policy as well as our first Human Rights Policy.

### Focus on Local Suppliers

Environmental and other sustainability benefits can be realised through our practice of primarily contracting suppliers that are based locally in Western Australia.

For example, a local business has been contracted to build the mine site accommodation village. The demountable units are built offsite in Perth and transported directly to Kathleen Valley's accommodation village site. An associated benefit of this is that the land clearance requirements are reduced.

### Major Contracts

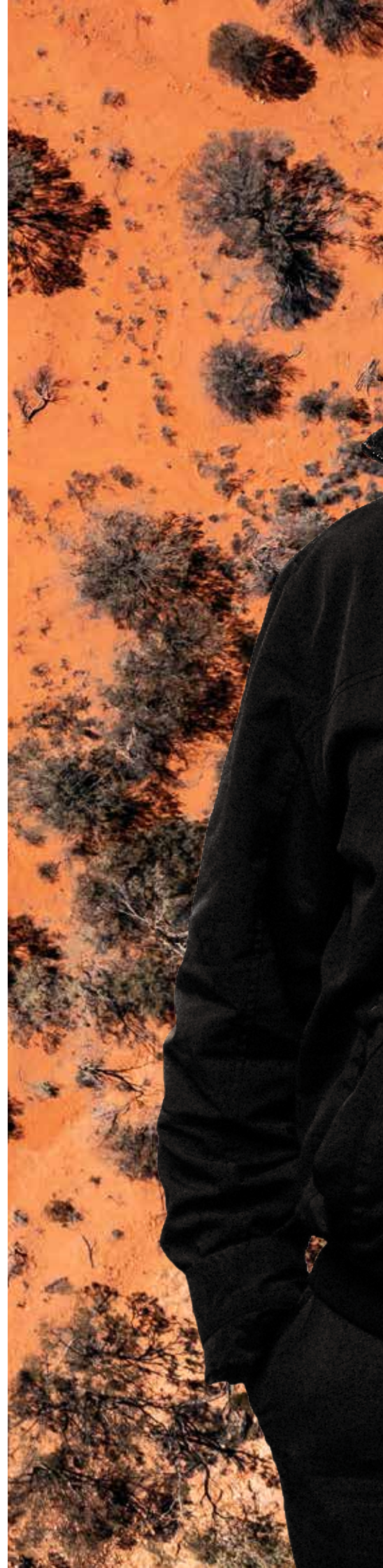
A major tender was issued in FY22 for the provision of a large scale hybrid power station for the mine. This demonstrates our commitment to ensuring the sustainability of our own operations by engaging with suppliers that can provide us with environmentally preferable energy solutions that include solar and wind.

### Stakeholder Engagement

Our primary engagement around environmentally responsible supply chain focused on the provision of the hybrid power station for Kathleen Valley.

### Policies

Liontown's policies are available on the Company website at <https://www.ltresources.com.au/about/corporate-governance> ■





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Our major procurement processes include environmental response schedules to ensure that suppliers engaged by Liontown have sufficiently mature environmental management systems and adequate internal resources to maintain compliance and continuous improvement in their approaches to sustainability.

All suppliers providing goods and services to Liontown, in particular those suppliers performing services onsite at Kathleen Valley, must operate in strict compliance with all applicable environmental laws, environmental management plans and other applicable requirements.

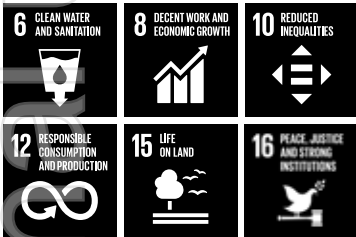
For example, supplier personnel are required to confine their respective activities of work and travel to designated areas, so as to not disturb established flora, minimise dust, reduce noise and so on.

Major operational contracts will include key performance indicators and targets to drive compliance and continual improvement in the environmental performance of our suppliers.”

**David McGregor**  
Contracts and Procurement Manager



The Tjiwarl are the recognised Native Title Holders for the territory where our Kathleen Valley Project is located (Tjiwarl Determined Native Title Claim (WC11/7)). The Native Title Holders are the individuals and groups with the cultural obligation to preserve the cultural integrity of the land and waters.



The Tjiwarl have a strong connection with the area in which we will mine and Jones Creek, a seasonal watercourse, figures prominently in both their songline and dreamtime. We are profoundly aware of the cultural connection that exists between the Tjiwarl culture and this land.

If not planned or managed effectively, the mining operation could create significant detrimental impacts on the environment, including negatively impacting Jones Creek, soil contamination and local biodiversity.

Due to the cultural sensitivity of this area, the Kathleen Valley mine has been designed to minimise negative environmental impacts on the local environment and we have worked, and will continue to work closely, with the Tjiwarl to monitor our activities across our operations throughout the life of the mine. This will include management of our own activities and our contractors.

We have worked closely with the Tjiwarl throughout the design phase to ensure culturally significant sites are protected, exclusion zones are defined and delineated across all project tenements and disturbance is minimised through mine redesign. Where disturbance is unavoidable, a Section 18 approval under the Aboriginal Heritage Act 1972 (WA) in conjunction with Tjiwarl AC has been sought and received.

Under Section 18, additional heritage surveys and artefact recovery have been organised with the Tjiwarl AC prior to the commencement of construction activities in FY23.

The mine will operate as an open cut mine for approximately 30 months so that we can provide initial feedstock to the process plant and access to underground workings.

In consultation with the Tjiwarl, we have also created strong governance mechanisms to ensure that the appropriate due diligence mechanisms are in place to protect cultural heritage and to continue to build a respectful and collaborative relationship.

Our primary governance mechanisms are our NTA, Aboriginal Engagement Policy and ESG Statement. A Human Rights Policy will be published in FY23. All policies apply to contractors, sub-contractors and suppliers.

We comply with all relevant Western Australian legislation (Aboriginal Cultural Heritage Act 2021, Mining Act 1978 and the Environmental Protection Act 1986) and are committed to following best practice.

There were no incidents of violations involving Indigenous rights in FY22.







All land should be respected – it is not a renewable resource. The Tjiwarl country is no different.

The Kathleen Valley Project preserves as much of the country as possible using a predominantly underground mining method. This method requires far less disturbance, affecting far less of the land.

When starting at Lontown, I looked at the plans for open pit mining to see if there were ways in which they could be improved. As a part of this process, I was made aware of the significance of Mt Mann to the Tjiwarl. This significance was a key component of the review of the open pit mining. A holistic review of the strategy and designs of the open pit mining showed there was a different approach possible, which would result in sections of Mt Mann being preserved. This result was a win-win for both the Tjiwarl and Lontown.”

**Ken Larwood**  
Principal Mining Engineer





Members of the Tjiwarl community meeting with Liontown representatives at Kathleen Valley.

## Native Title Agreement

Negotiated over a two and a half year period, in November 2021, the Tjiwarl provided their consent for the signing of a NTA for the Kathleen Valley Lithium Project. The NTA supports the Tjiwarl Sustainability Framework, a comprehensive guide to provide long-term benefits to Tjiwarl members. Through ties to country, culture and customary law, the Sustainability Framework's focus areas uphold and defend Native Title.

To satisfy the requirements of condition 2.2(e) in the NTA, Liontown is required to submit quarterly compliance reports on compliance with the following activities:

- Communication and consultation
- Environmental management
- Water management
- Aboriginal heritage management
- Access
- Social opportunities and development
- Employment and contracting, and
- Compensation.

We began this reporting in the second half of FY22 and have submitted two quarterly compliance reports to the Tjiwarl. During FY23, we will work towards establishing a formal NTA Implementation Management Plan. We are not required to undertake social impact assessments as all relevant compliance requirements are adhered to.

## Cultural Heritage Management Plan

As part of our NTA obligations, a CHMP was compiled in collaboration with the Tjiwarl in FY22. The CHMP is a live detailed document that outlines how Liontown and the Tjiwarl will work together to protect the cultural integrity of the area and minimise negative impacts in the area in which we will mine.

The CHMP outlines the agreed objectives and outcomes for the Tjiwarl, as Native Title Holders, and Liontown, as well as the principles to protect culture and heritage. In addition, the CHMP provides a detailed overview of the overall management strategies for the Agreement Area including:

- Exclusion zones and culturally sensitive areas
- Heritage monitoring
- Human remains
- Management of previously unidentified archaeological material which may constitute culturally sensitive areas
- Management of ochre deposits
- Section 18 applications for Liontown
- Mapping of ground disturbance at six monthly intervals
- Toolbox meetings
- Where and which activities may be undertaken.

## Internal Management Process

Our internal environmental permitting system, established in FY22, serves as a due diligence process to ensure that we comply with all legislation that may impact Aboriginal culture and heritage.

The majority of key heritage surveys have already been undertaken to support the NTA for the development of the Kathleen Valley mine and further works are being undertaken in compliance with the CHMP for water exploration.



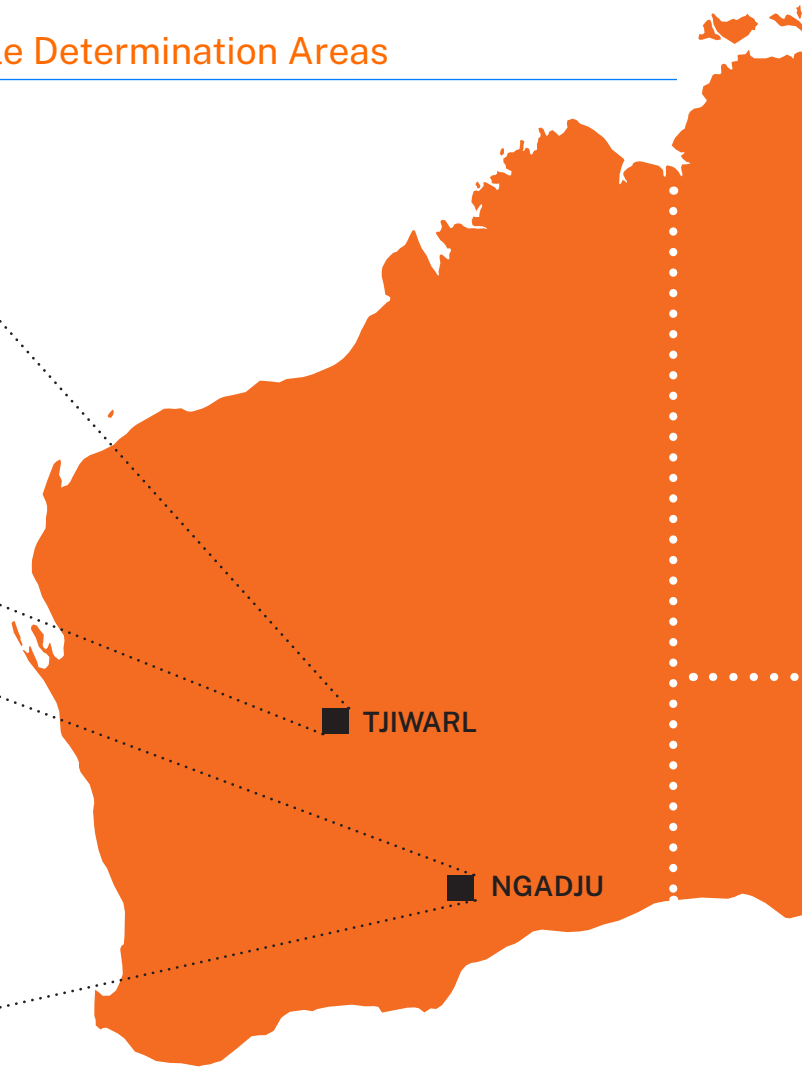
## Native Title Determination Areas

### Kathleen Valley Lithium Project

Liontown's Kathleen Valley Project is situated on tenements that are subject to the Tjiwarl Determined Native Title Claim (WCD2017/001), administered by the Tjiwarl Native Title Aboriginal Corporation. A Native Title Agreement was signed in November 2021.

### Buldanina Lithium Project

Liontown's Buldanina project is situated on tenements that are subject to the Ngadju Determined Native Title Claim (WCD2014/004), administered by the Ngadju Native Title Aboriginal Corporation RNTBC. Avoca Resources, one of the original parties to the Heritage and Mining Agreements, transferred its rights to Liontown in 2017. Liontown thereby assumes all of Avoca's duties under the Heritage Agreement and Mining Agreement.



## Employment and Contracting Opportunities

In FY22, we actively supplied a list of contracting opportunities to Tjiwarl AC and gave members the chance to submit tender for key project contracts. This provides opportunities for Tjiwarl businesses to work with Liontown or its contractors and serves to disseminate awareness of Tjiwarl culture and heritage.

Introductions have been provided to all leading contractors tendering for works contracts. In addition, the Tjiwarl AC supplies contractors with a list of Tjiwarl member owned businesses that contractors may choose to engage with to provide specialised services to Liontown.

In FY23, we will commence the development of an Aboriginal Employment and Contracting Plan, which will include contracting and employment targets.

## Compensation

As per our NTA with the Tjiwarl, we provide fair compensation and other benefits to the Tjiwarl for the physical impacts on the mine site and other adverse impacts on their native title rights and cultural heritage interests.

## Cultural Awareness Training

To foster knowledge of, respect for, and understanding of Tjiwarl culture and heritage, and to foster positive ties between the Liontown and the Tjiwarl, our team takes part in cultural awareness training. All contractors must also complete training on cultural understanding, which is presented by the Tjiwarl and delivered through a mix of online and in-person workshops. The program offers a unique opportunity to bring people to Tjiwarl country.

## Stakeholder Engagement

All key environmental permits and heritage applications are provided to the Tjiwarl for review and input prior to submission to the various regulatory authorities. Internal management plans are also presented to the Tjiwarl for review and comment, covering all aspects of the operations throughout the mine life.

Positive ongoing engagement with the Tjiwarl has continued in FY22, including quarterly NTA compliance reporting, inaugural Relationship Committee Meeting, site visits, ongoing review of key heritage and environmental applications by the Tjiwarl and inclusion of the Tjiwarl in the procurement and tender process.

Quarterly compliance reports are provided to the Tjiwarl as required under our NTA and we report project updates in person to the Tjiwarl, including project risks, any issues and upcoming activities.

The Tjiwarl established two committees in FY22: a Relationship Committee and a Cultural Committee, in which Liontown participates. The purpose of the Relationship Committee is to establish and maintain ongoing and regular communication between Liontown and the Tjiwarl. The first meeting of this committee was held in June 2022 and will be held bi-annually during mine construction and annually during periods post construction.

The purpose of the Cultural Committee is to provide a forum for all resource companies that operate on Tjiwarl country. Topics addressed are those that require cultural approvals, such as sandalwood collection, training, cultural awareness and embedding language. The committee meets twice per year and we attend on invitation. Two meetings were attended in FY22 after the signing of the NTA.

## Policies

Liontown's policies are available on the Company website at <https://www.ltresources.com.au/about/corporate-governance>





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Being involved in a lithium project as exciting as Kathleen Valley has been such a great experience, both because of the critical stage in the energy transition we find ourselves in but also because of the people that a project like this attracts. Working with such a diverse, talented and highly motivated team ensures that I am constantly learning something new, gaining different perspectives, and ultimately expanding my capacity as an engineer.

One of the key takeaways for me so far has been the importance of working with contractors to achieve high quality deliverables right from the onset of a project. Attention to quality and detail has been a key theme throughout the village construction from the very beginning and I believe that the implementation of premium quality infrastructure from day one will ultimately set the tone for the construction of a world-class lithium asset.”

**Sam Raschiatore**  
Graduate Project Engineer





# 18.

## Working at Liantown

Liantown is not only here to construct the Kathleen Valley mine; we are here to build a sustainable and successful company. We recognise the importance of having talented people who can make a contribution. Our Managing Director actively encourages a ‘team first’ approach, which cascades down through the Executive Management team and to their various teams, and sets the tone for the Company’s culture. We want to be sure that all employees play a key part in fostering a thriving working community at all of our workplaces and want to be known as a good employer and responsible citizen within the wider community.



### Rapid Growth

A critical juncture in Liantown’s development is the start of construction at the Kathleen Valley mine. To support this, our team has expanded quickly in a short period of time. As we expand, we want to make sure that Liantown remains a great workplace with a strong emphasis on teamwork. Our culture is still developing during this growth stage and, as we continue to grow, maintaining this culture will be important.

With the rapid expansion, and, with the knowledge that our workforce will continue to grow dramatically, it is essential that we have the right systems and procedures in place to support our employees. Fundamentally, we understand that our staff are subject to high demands in this fast paced environment. Our priority, as we expand, is to have the appropriate systems, procedures and people in place to reduce the risk of overburdening our staff.

Employee risks are already being addressed and our aim for FY23 is to carry out a gap analysis of our internal human resource procedures and implement a corrective action plan. We are continually checking and adjusting our approach to ensure that risks to people through our own activities are addressed.

In FY23, we plan to undertake an exercise with the Executive Management team to gain alignment around our employee value proposition and culture. This will be important as our Company continues to grow as it will set the framework for attracting the people who will fit within our culture.





## Non-Discrimination and Diversity

Liontown is committed to treating everyone equally. This is demonstrated through equal pay and equal advancement. We are committed to creating opportunities for people within our Company.

We also know that through embracing diversity, we will be in the best position to build a sustainable and successful business. This diversity of thought comes through in different measures such as gender, race, age, culture, experience and ability. Having greater diversity and creating a team culture means we will get the best from our people, and they will feel secure to express their views.

Our employees must not only feel engaged, safe and healthy, but that they also believe that the Company is properly appreciating their efforts. To assist with this, all of our employees enjoy favourable and equal employment working conditions and benefits.

As per the terms of the NTA, in FY23 we will begin to develop an Aboriginal Employment and Contracting Plan, which will set employment targets for the Tjiwarl. In FY22, we provided the opportunity to a Tjiwarl member to join the ESG team on a casual basis to fit in with prior commitments. This position was not taken but will be re-visited during the 2022/2023 summer period.

There were no incidents of discrimination reported in FY22.

## Governance Mechanisms

Our main governance mechanisms that address workplace conditions and non-discrimination are our Code of Conduct, Health and Safety Policy, Diversity Policy and Statement of Values. We will publish a Human Rights Policy in FY23 which will address human rights in the workplace and be aligned with the expectations of the International Bill of Rights and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. In the case of major operational changes, we are required to engage with employees and give appropriate notice as per the Fair Work Act 2009.

## Stakeholder Engagement

With low employee numbers in FY22, formal employee engagement on work conditions was limited. However, engagement was undertaken with the Tjiwarl regarding employment and contracting opportunities at Liontown.

## Policies

Liontown's policies are available on the Company website at <https://www.ltresources.com.au/about/corporate-governance> ■



## Employees and Contractors

Table 10:

### Employees

	Female	Male	Total
Number of employees (head count/FTE)	11	26	37
Number of permanent employees (head count/FTE)	10	25	35
Number of temporary employees (head count/FTE)	1	1	2
Number of full-time employees (head count/FTE)	10	25	35
Number of part-time employees (head count/FTE)	1	1	2

Notes:

- Employee numbers as at June 30 2022 were generated from human resources monthly report and payroll data
- There are no employees at Liantown that have non-guaranteed hours
- No employees are employed or contracted under collective bargaining agreements
- There were no significant fluctuations in employee numbers during the reporting period
- All employees are in Western Australia

Table 11:

### Contractors

All contractors were involved in exploration work including geology and drilling and engaged as needed at the Kathleen Valley project.

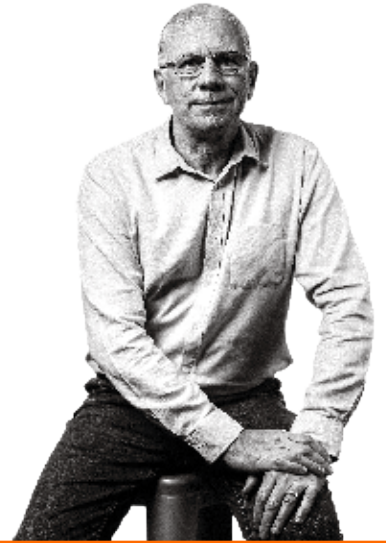
Month	Average number of contractors on site
<b>2021</b>	
July	2
August	13
September	13
October	19
November	19
December	25
<b>2022</b>	
January	4
February	8
March	17
April – changed to quarterly reporting	18
May	
June	

Note: Contractor data reported to the DMIRS



“ I started at Liontown in July 2022. I chose to work at Liontown because it presented a new personal opportunity to be part of the installation of a new mine service area facilitating an underground lithium mining operation. My best experience so far has been the challenges and rewards associated with a new start-up operation.

**Nino Notaro**  
Senior Project Engineer

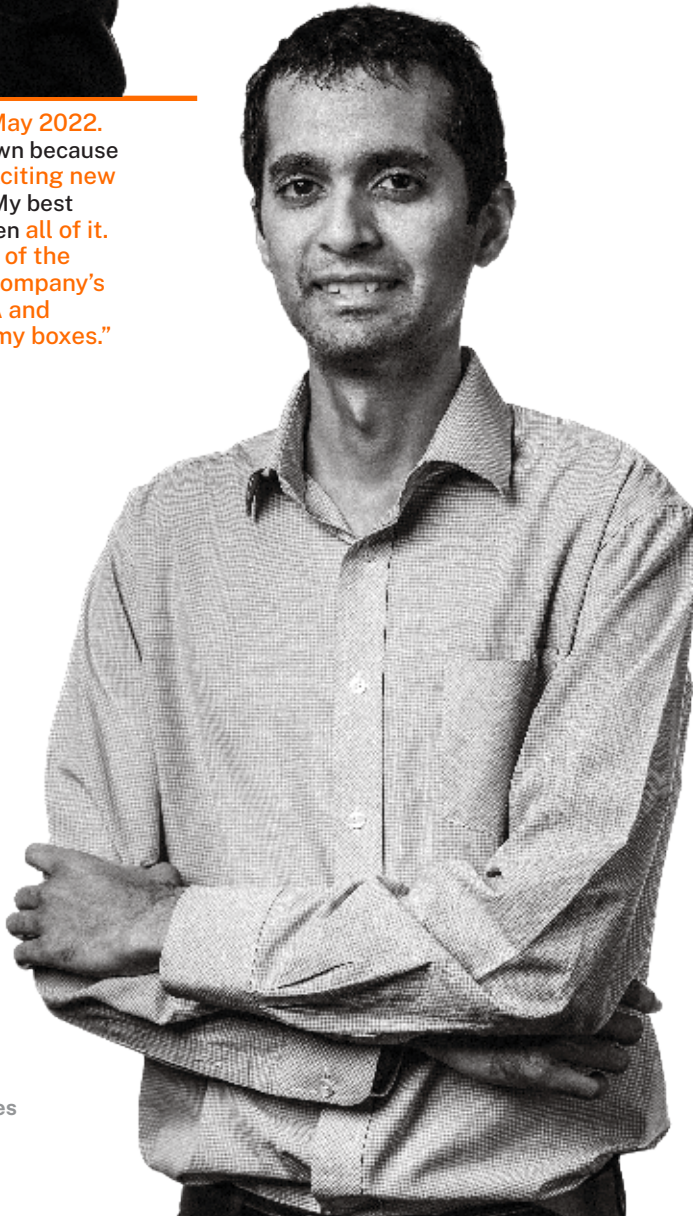


“ I started at Liontown in February 2022. I chose to work at Liontown because lithium is a fantastic West Australian industry to be involved in and we are on the cusp of something great. My best experience so far has been working with a mix of people who have interesting and diverse backgrounds.”

**Richard Shannon**  
Logistics Procurement

“ I started at Liontown in May 2022. I chose to work at Liontown because Kathleen Valley is an exciting new project to be a part of. My best experience so far has been all of it. The energy and passion of the project team, plus the company's commitment to the NTA and renewables, ticks a lot my boxes.”

**Ben Innes**  
Contracts Manager



“ I started at Liontown in April 2022. I chose to work at Liontown because Kathleen Valley is a world class project using cutting edge technology. My best experience so far has been implementing designs from the office drawing board to on the ground construction at Kathleen Valley.”

**Dheeraj Mascarenhas**  
Project Engineer



For personal use only



“

I started at Liantown in November 2021. I chose to work at Liantown because of the exciting prospect of being part of a start-up lithium project and watching it grow from the ground up. Lithium is an incredible industry to be involved with especially for the sustainability and ESG factors. My best experience so far has been collaborating with passionate people in my team in a fast-paced working environment.

**Tessa Hill**  
Office Manager



“

I started at Liantown in May 2022. I chose to work at Liantown because of the exciting Kathleen Valley Project and my experience in the lithium industry. My best experience so far has been the friendly working environment and everyone helping each other to get the work done.”

**Amelia Wong**  
Project Accountant

“

I started at Liantown in April 2022. I chose to work at Liantown because they're a group with strong values and have a passion for what they do. My best experience so far has been the time spent onsite learning about the region.

**Feti Meka**  
Project Coordinator

# 19.

## Sustainable Development Goals

In FY21, we initiated the process of prioritising Sustainable Development Goals (SDGs) relevant to our sustainability impacts and opportunities that we can create through our activities. This year, we reviewed our sustainability risks based on key activities carried out at Liontown during the reporting year and cross-checked our SDG goals and targets with the outcomes of our materiality assessment carried out in FY22.



Native flora at Kathleen Valley.

The outcomes of the materiality assessment identified biodiversity as a risk from our operations and as a result SDG 15, Life on Land and relevant targets have been added to our initial SDG analysis.

A principled prioritisation approach was used in the selection of the SDG targets that will assist us to frame sustainability risk, impacts and opportunities that can be aligned with global efforts to contribute to the SDGs. The targets were selected based on an assessment of the risks and benefits to people and the environment that we determined may create negative sustainability impacts throughout the exploration, development and operational phases of the Kathleen Valley mine.

This is particularly important given our role as a supplier of battery materials to the global electric vehicle market and our participation in a complex value chain that can create significant positive impacts but also have significant negative environmental and social impacts.

At this stage, the SDGs have not been incorporated into our overall business strategy, however, we will progressively introduce beneficial programs which will aid in achievement of the goals in coming years.





More information about the SDGs is available at: <https://sdgs.un.org/goals> ■



# SUSTAINABLE DEVELOPMENT GOALS

## Our Potential Risks to People and the Environment

Sustainable Development Goals and Targets	Potential Risks
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 <p><b>6</b> CLEAN WATER AND SANITATION</p>	<p><b>TARGET 6-3</b></p>  <p>IMPROVE WATER QUALITY, WASTEWATER TREATMENT AND SAFE REUSE</p>	<p><b>TARGET 6-4</b></p>  <p>INCREASE WATER-USE EFFICIENCY AND ENSURE FRESHWATER SUPPLIES</p>	<p><b>TARGET 6-5</b></p>  <p>IMPLEMENT INTEGRATED WATER RESOURCES MANAGEMENT</p>
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Mining in a water-stressed area  
 Potential wastewater impacts on the local environment  
 Infrastructure design

 <p><b>8</b> DECENT WORK AND ECONOMIC GROWTH</p>	<p><b>TARGET 8-8</b></p>  <p>PROTECT LABOUR RIGHTS AND PROMOTE SAFE WORKING ENVIRONMENTS</p>
--	---

Work health and safety (physical and mental health and safety) for employees and contractors

 <p><b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p><b>TARGET 12-4</b></p>  <p>RESPONSIBLE MANAGEMENT OF CHEMICALS AND WASTE</p>	<p><b>TARGET 12-5</b></p>  <p>SUBSTANTIALLY REDUCE WASTE GENERATION</p>
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Waste and effluent management

 <p><b>15</b> LIFE ON LAND</p>	<p><b>TARGET 15-5</b></p>  <p>PROTECT BIODIVERSITY AND NATURAL HABITATS</p>
--	--

Environmental degradation due to mining activities throughout the exploration, development and mining phases

**Our Current Positive Impacts on People and the Environment Linked to Business Activity**

**Sustainable Development Goals and Targets**

**Current Positive Impacts**

**10 REDUCED INEQUALITIES**

**TARGET 10-2**

**PROMOTE UNIVERSAL SOCIAL, ECONOMIC AND POLITICAL INCLUSION**

Native Title Agreement  
 Cultural Heritage Management Plan  
 Aboriginal Engagement Policy

**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**

**TARGET 12-6**

**ENCOURAGE COMPANIES TO ADOPT SUSTAINABLE PRACTICES AND SUSTAINABILITY REPORTING**

**TARGET 12-7**

**PROMOTE SUSTAINABLE PUBLIC PROCUREMENT PRACTICES**

Mine design includes circular design principles (re-use of waste rock & tailings)  
 Implementation of environmental management plans  
 Hybrid power plant  
 Setting sustainability expectations for suppliers in policies  
 Reporting ESG Performance

**16 PEACE, JUSTICE AND STRONG INSTITUTIONS**

**TARGET 16-6**

**DEVELOP EFFECTIVE, ACCOUNTABLE AND TRANSPARENT INSTITUTIONS**

**TARGET 16-7**

**ENSURE RESPONSIVE, INCLUSIVE AND REPRESENTATIVE DECISION-MAKING**




Native Title Agreement  
 Cultural Heritage Management Plan  
 Robust ESG governance mechanisms

For persons



## Our Future Positive Impacts on People and the Environment

Sustainable Development Goals and Targets	Future Positive Impacts
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 <p><b>TARGET 4-3</b></p> <p>EQUAL ACCESS TO AFFORDABLE TECHNICAL, VOCATIONAL AND HIGHER EDUCATION</p>	<p>Education opportunities for employees</p> <p>Training opportunities for Tjiwarl</p>
 <p><b>TARGET 5-5</b></p> <p>ENSURE FULL PARTICIPATION IN LEADERSHIP AND DECISION-MAKING</p>	<p>Focus on gender diversity</p>
 <p><b>TARGET 7-2</b></p> <p>INCREASE GLOBAL PERCENTAGE OF RENEWABLE ENERGY</p>	<p>At least 60% renewable energy target at start up</p> <p>Net-zero by 2034 ambition</p> <p>Progressive increase in renewable technology once the technology becomes available</p> <p>Hybrid power plant</p>
 <p><b>TARGET 8-5</b></p> <p>FULL EMPLOYMENT AND DECENT WORK WITH EQUAL PAY</p>	<p>Provision of good employment conditions</p>
 <p><b>TARGET 10-2</b></p> <p>PROMOTE UNIVERSAL SOCIAL, ECONOMIC AND POLITICAL INCLUSION</p>	<p>Native title agreement</p> <p>Employment opportunities for Tjiwarl</p> <p>Compensation for Tjiwarl</p> <p>Employee diversity</p>
 <p><b>TARGET 12-2</b></p> <p>SUSTAINABLE MANAGEMENT AND USE OF NATURAL RESOURCES</p>	<p>Focus on mitigating negative impact across all environmental parameters</p>
 <p><b>TARGET 13-3</b></p> <p>BUILD KNOWLEDGE AND CAPACITY TO MEET CLIMATE CHANGE</p>	<p>Hybrid power station</p> <p>60% renewable energy target at start up</p> <p>Phased approach to increase renewable energy</p> <p>Net-zero ambition by 2034</p> <p>Supply chain contribution to the low carbon economy</p>

# 20.

## Stakeholder Engagement Summary

Successful stakeholder engagement for Liontown means that we effectively involve our most important stakeholders throughout the life of the mine. Since the outset of the Project's exploration, we have established and maintained connections with a wide range of project stakeholders through ongoing engagement.



Ant hills at Kathleen Valley.

Our aim is for all engagement with all stakeholders to be meaningful. This means listening and being collaborative. We want to understand what our stakeholders' drivers are, identify mutual drivers and work together. Our intention is to create mutually beneficial solutions for all stakeholders that, at the same time, reduce project risk. Integrity, honesty and respect are critical and that is why they are our core values.

To ensure that all relevant parties are identified, a list of project stakeholders is maintained and periodically reviewed. We consider any reasonable requests from additional parties who express an interest and ask to be consulted.

To keep track of all consultation efforts with stakeholder organisations and individuals, we have created a Stakeholder Consultation Register that includes the nature of engagement, stakeholder feedback, the significant issues found and the corresponding response or resolution.

In FY22, stakeholder engagement was focused on the following:



Stakeholder Group	How we Engaged	Main Topics Discussed	Our Response
<b>Tjiwarl Native Title Holders</b>	<p>Daily emails and phone calls</p> <p>Face to face meetings at a minimum of every four to eight weeks</p> <p>Community presentations</p> <p>Relationship Committee</p> <p>Cultural Committee</p>	<p>Approvals</p> <p>Water management</p> <p>Heritage surveys (culturally sensitive locations)</p> <p>Contractor engagement</p> <p>Job opportunities</p>	<p>We will be compliant with the terms of the Native Title Agreement and Cultural Heritage Management Plan</p>
<b>Debt/Equity Providers (project funders/enablers)</b>	<p>Debt providers:</p> <ul style="list-style-type: none"> <li>Engagement with banks and customers</li> </ul> <p>Equity providers:</p> <ul style="list-style-type: none"> <li>Engaged through brokers and joint lead managers for equity raising</li> </ul>	<p>Debt providers:</p> <ul style="list-style-type: none"> <li>Project overview and funding requirements</li> </ul> <p>Project economics</p> <ul style="list-style-type: none"> <li>Due diligence by banks regarding whole of project</li> </ul> <p>Equity providers:</p> <ul style="list-style-type: none"> <li>Project updates</li> <li>Project timing</li> <li>Funding requirements</li> </ul> <p>Debt and equity providers:</p> <ul style="list-style-type: none"> <li>ESG strategy</li> </ul>	<p>Debt providers</p> <ul style="list-style-type: none"> <li>We appointed independent experts and provided all information required to make an investment decision in us</li> </ul> <p>Both debt and equity providers:</p> <ul style="list-style-type: none"> <li>We committed to IRMA self-assessment and will provide our ESG credentials and due diligence throughout the project</li> </ul>
<b>Local, State and Federal Government</b>	<p>Regular in person meetings, phone calls and email</p>	<p>Local Government:</p> <ul style="list-style-type: none"> <li>Requisite building and permitting</li> <li>Development application advice</li> <li>Degazetting of roads</li> </ul> <p>State Government:</p> <ul style="list-style-type: none"> <li>Approvals for mining, water, and environmental submissions</li> <li>Project timing</li> <li>De-risking the project</li> <li>Section 18 (Aboriginal Heritage Act WA) requirements</li> </ul> <p>Federal Government:</p> <ul style="list-style-type: none"> <li>Approval of Native Title Agreement</li> </ul>	<p>Permitting was delayed and we have established positive communications with regulators who are assisting us to de-risk project schedules and timelines.</p> <p>Anticipated dates for commencement of construction have been provided and are being worked towards.</p>
<b>Customers</b>	<p>Frequent one on one meetings during negotiations and in execution</p>	<p>Volume and timing of supply</p> <p>Pricing mechanisms</p> <p>Pricing specifications</p>	<p>We are aiming for the highest quality product</p> <p>We will be delivering from a Tier 1 jurisdiction with strong ESG credentials</p>

Stakeholder Group	How we Engaged	Main Topics Discussed	Our Response
<b>Investors and Shareholders</b>	<p>Investor briefings</p> <p>Annual General Meeting (AGM)</p> <p>Extraordinary General Meeting (EGM)</p> <p>Webinars (company updates)</p> <p>Conferences</p>	<p>Project status</p> <p>Demerger of Minerals 260</p> <p>Offtake and financial updates</p> <p>Statutory preparation</p>	<p>We will regularly communicate project status</p> <p>Opportunity to raise questions and hold the organisation accountable to its commitments</p>
<b>Employees</b>	<p>Regular small group meetings</p> <p>One on one weekly or fortnightly meetings</p> <p>Strategy and risk meetings as required</p> <p>MD/CEO has monthly one on one meetings with each senior manager</p>	<p>We are significantly increasing the project team with highly skilled and qualified individuals to deliver the project operations.</p> <p>We are bringing in a discreet set of skills to ensure we have an underground mine that is of a gold star standard</p>	<p>We are committed to assisting employees and ensuring their health and wellbeing, including mental health, to enable them to work towards their best</p>
<b>Key Suppliers (consultants and contractors that contribute to the proposed mine construction and operations; construction of the site village; proposed construction of the processing facilities)</b>	<p>Daily emails, phone calls and in-person meetings</p>	<p>Supplier certainty</p> <p>COVID travel restrictions</p> <p>Skills shortage</p>	<p>Project timings; budget; health and safety requirements</p> <p>High sustainability credentials required for Power Station supplier</p> <p>Tjiwarl suppliers:</p> <ul style="list-style-type: none"> <li>We will engage for bulk earthworks and other areas for part of the processing facility.</li> </ul> <p>Tjiwarl contracting:</p> <ul style="list-style-type: none"> <li>We require support to assist in securing fencing for the project</li> <li>Opportunity to introduce a Tjiwarl business and leading suppliers to Liontown to work together to provide services for the power station and camp</li> </ul>
<b>Board</b>	<p>Regular meetings between the Board, Executive Management and Committees</p> <p>Monthly updates (including ESG) (from management to Board)</p>	<p>Project updates including ESG</p> <p>Offtake discussions</p> <p>Project financing (debt and equity)</p> <p>Final Investment Decision (FID) to proceed with the project (granted by the Board)</p> <p>Completion of Native Title Agreement with Tjiwarl</p> <p>General corporate governance</p>	<p>We have agreed on and finalised three offtake agreements as well as debt and equity funding</p>
<b>Surrounding Tenement Holders (BHP Nickel; IGO; Bellevue Gold)</b>	<p>Email; face to face meetings; phone as required</p>	<p>Land access for water drilling</p> <p>General land access</p> <p>Jones Creek management</p>	<p>Land access agreements have been signed with BHP, IGO and Bellevue Gold</p> <p>We appreciate the positive communications that have occurred with surrounding tenement holders</p>



## 21.

## Glossary

**Aquifer**

An area underground where spaces between gravel, sand, clay, or rock fill with water

**Association of Mining and Exploration Companies (AMEC)**

An Australian industry association whose membership comprises explorers, emerging miners, producers and a wide range of businesses and service providers

**ASX 300**

A stock market index that measures the performance of the top 300 companies listed on the ASX

**Australian Securities Exchange (ASX)**

An Australian public company that operates Australia's primary securities exchange

**Biofuel**

Any fuel that is derived from biomass (plant or algae material or animal waste). It is considered to be a source of renewable energy.

**Borefield**

An area where bores or wells are drilled

**Chamber of Minerals and Energy (CME)**

A resources representative body in Western Australia

**Definitive Feasibility Study (DFS)**

A feasibility study undertaken to a high degree of accuracy (+15%) which may be used as a basis for raising finance for the construction of a project

**Downstream Scoping Study (DSS)**

A desktop feasibility study undertaken to a relatively low degree of accuracy (+35%) which may be used as a basis for further studies and test work on downstream processing of lithium concentrate

**Determined Native Title Claim**

A claim of Native Title that has been recognised by law. Native Title exists where Aboriginal people have maintained a traditional connection to their land and waters substantially uninterrupted since Australian sovereignty.

**Fugitive Emissions**

Non-liquid leaks or unintended releases of pollutants from a contained source into the surrounding atmosphere

**Geophysics**

Study of the earth

**Greenfield**

An undeveloped site

**Groundwater**

Water that exists underground in saturated zones beneath the land surface

**Hydrocarbon**

An organic chemical compound that is composed exclusively of hydrogen and carbon atoms. They are naturally occurring and form the basis of crude oil, natural gas, coal, and other important energy sources.

**Hydrogeological**

The occurrence, distribution, and movement of groundwater

**Intergovernmental Panel on Climate Change (IPCC)**

An intergovernmental body of the United Nations responsible for advancing knowledge on human-induced climate change

**Ktpa**

Kilo tonnes per annum

**Li<sub>2</sub>O**

Lithium oxide

**Lithium**

Lithium is the lightest of all the solid metals. It is highly combustible and reactive, and it readily bonds with other metals. Lithium has an exceptional ability to conduct electricity, making it a preferred component for batteries.

**Lithium hydroxide**

Lithium hydroxide monohydrate is a refined lithium product used in the production of cathode material for lithium-ion electric vehicle batteries

**Lost Time Injury Frequency Rate (LTIFR)**

The number of lost-time injuries within a given accounting period, relative to the total number of hours worked in that period

**Medically Treated Injury Frequency Rate (MTIFR)**

Work related injuries that require medical treatment

**Mt**

Million tonnes

**Mtpa**

Million tonnes per annum

**National Greenhouse Accounts Factors**

Guidance provided by the Australian Government's Department of Industry, Sciences, Energy and Resources that provides methods to help estimate greenhouse gas emissions

**Native Title Agreement (NTA)**

Native title is the designation given to the common law doctrine of Aboriginal title in Australia, which is the recognition by Australian law that Indigenous Australians (both Aboriginal Australian and Torres Strait Islander people) have rights and interests to their land that derive from their traditional laws and customs.

**Net-zero emissions**

Achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere

**Offtake agreement**

A contract between the producer of a resource and a buyer of the resource, who is known as the offtaker, to sell and purchase all or substantially all of the future production from the project

**Open-cut mining**

A surface mining technique of extracting rock or minerals from the earth from an open-air pit

**Ore Reserve**

The parts of a mineral resource that can be economically mined

**Paris Agreement**

A legally binding international treaty on climate change to limit global warming to well below two degrees Celsius (2°C) above pre-industrial times, and as close to 1.5°C as possible

**Pastefill**

A method developed to fill the mined out voids underground and to stabilise ground support

**Power Purchase Agreement**

A long-term electricity supply agreement between two parties, usually between a power producer and a customer (electricity consumer)

**Pre-Feasibility Study (PFS)**

A preparatory study required to enable funders to undertake a successful feasibility study for a particular investment opportunity

**Run of Mine (ROM) pad**

Area designated for storage/stockpiling of ore received from the mine prior to processing

**SAG Mill**

Semi-Autogenous Grinding Mill used for grinding large fragments into small pieces which are then used for further processing

**SC6.0**

Spodumene concentrate is a high-purity lithium ore with approximately 6 percent lithium content being produced as a raw material for the subsequent production of lithium-ion batteries for electric vehicles

**Scope 1 GHG emissions**

Direct greenhouse (GHG) emissions that occur from sources that are controlled or owned by an organisation (e.g. on-site fossil fuel combustion and fleet fuel consumption)

**Scope 2 GHG emissions**

Indirect emissions from sources that are owned or controlled by an organisation (e.g. emissions that result from the generation of electricity, heat or steam purchased by the organisation from a utility provider)

**Scope 3 GHG emissions**

Indirect greenhouse gas emissions other than Scope 2 emissions that are generated in the wider economy. They occur as a consequence of the activities of a facility, but from sources not owned or controlled by that facility's business. (e.g. employee travel; emissions associated with contracted solid waste disposal and wastewater treatment).

**Scoping Study**

An initial appraisal carried out early in the life of a resource project. They are based on initial drilling and informed assumptions, and commonly include an elementary mine plan.

**Solar voltaic array**

A linked collection of solar panels

**Spodumene**

A pyroxene mineral consisting of lithium aluminium inosilicate and is a source of lithium

**Subterranean fauna**

Animal species that are adapted to live in an underground environment

**Ta<sub>2</sub>O<sub>5</sub>**

Tantalum pentoxide

**Tailings Storage Facility**

A structure built for the purposes of storing the uneconomical ore and water from the mining process

**Telemetry**

Technologies that accommodate collecting information in the form of measurements or statistical data and forward it to IT systems in a remote location

**Tenement**

Collective mining rights that include prospecting licences, exploration licences, retention licences and mining leases

**Tier-1**

Tier 1 deposits are company-making mines and are large, long life and low cost with NPV at the Decision-to-Build stage of >\$1000m (in 2013 US Dollars - Source: MinEx Consulting © October 2019)

**V<sub>2</sub>O<sub>5</sub>**

Vanadium oxide

**Value chain**

A series of consecutive steps that go into the creation of a finished product, from its initial design to when it reaches the customer



## Acronyms

<b>AC</b> Aboriginal Corporation	<b>EPM</b> Exploration permit	<b>Mtpa</b> Million tonnes per annum
<b>ACCP</b> Access, Construction or Change Permit	<b>EPRP</b> Emergency Preparedness Response Plan	<b>MTIFR</b> Medically treated injury frequency rate
<b>AEP</b> Annual Exceedance Probability	<b>ESG</b> Environmental, Social and Governance	<b>NAF</b> Non-acid forming
<b>AGM</b> Annual General Meeting	<b>EV</b> Electric vehicle	<b>NTA</b> Native Title Agreement
<b>AMEC</b> Association of Mining and Exploration Companies	<b>FID</b> Financial investment decision	<b>PFS</b> Pre-Feasibility Study
<b>ANCOLD</b> Australian National Committee on Large Dams	<b>FY</b> Financial year	<b>RIWI</b> Rights in Water and Irrigation (Act)
<b>ARI</b> Average Recurrence Interval	<b>GHG</b> Greenhouse gas	<b>ROM</b> Run of mine
<b>ASX</b> Australian Securities Exchange	<b>GRI</b> Global Reporting Initiative	<b>S&amp;P</b> Standard & Poor's
<b>BESS</b> Battery Energy Storage System	<b>GJ</b> Gigajoules	<b>SAG</b> Semi autogenous (mill)
<b>BOO</b> Build, Own and Operate	<b>HAZOP</b> Hazard and Operability	<b>SASB</b> Sustainability Accounting Standards Board
<b>CCWP</b> Clearing and Civil Works Permit	<b>HDPE</b> High-density polythene	<b>SDG</b> Sustainable Development Goals
<b>CEO</b> Chief Executive Officer	<b>HSE</b> Health, Safety and Environment	<b>SRS</b> Safety Reporting System
<b>CHMP</b> Cultural Heritage Management Protocol	<b>HRWL</b> High Risk Work Licenses	<b>SWMS</b> Safe Work Method Statement
<b>CME</b> Chamber of Minerals and Energy	<b>ICAM</b> Incident Cause Analysis Method	<b>TCFD</b> Task Force on Climate Related Financial Disclosures
<b>COO</b> Chief Operating Officer	<b>IEA</b> International Energy Agency	<b>TRIFR</b> Total recorded injury frequency rate
<b>CRA</b> Construction Risk Assessment	<b>IPCC</b> International Panel on Climate Change	<b>TSF</b> Tailings storage facility
<b>CY</b> Calendar Year	<b>IRMA</b> Initiative for Responsible Mining Association	<b>US</b> United States
<b>DBCA</b> Department of Biodiversity Conservation and Attractions (Western Australia)	<b>JHA</b> Job hazards analysis	<b>VOC</b> Verifications of Competency
<b>DFS</b> Definitive Feasibility Study	<b>km</b> Kilometre	<b>WA</b> Western Australia
<b>DMIRS</b> Department of Mines, Industry Regulation and Safety (Western Australia)	<b>KPI</b> Key Performance Indicator	<b>WHS</b> Work Health & Safety
<b>DSS</b> Downstream Scoping Study	<b>ktpa</b> kilotonnes per annum	<b>WHSMS</b> Work Health Safety Management System
<b>E</b> Exploration licence	<b>L</b> Miscellaneous licence	<b>WWTP</b> Wastewater Treatment Plant
<b>EAP</b> Employee Assistance Program	<b>L</b> Litre	
<b>EGM</b> Extraordinary General Meeting	<b>LTIFR</b> Lost time injury frequency rate	
<b>EPCM</b> Engineering, Procurement and Construction Management	<b>M</b> Mining lease	
	<b>MAT</b> Materiality Assessment Tool	
	<b>Mt</b> Million tonnes	

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### Competent Person Statements

The Information in this Report that relates to Mineral Resources for the Kathleen Valley Project is extracted from the ASX announcement “Strong progress with Kathleen Valley Definitive Feasibility Study as ongoing work identifies further key project enhancements” released on 8 April 2021 which is available on [www.ltresources.com.au](http://www.ltresources.com.au).

The Information in this Report that relates to the Ore Reserves and Production Target for the Kathleen Valley Project is extracted from the ASX announcement “Kathleen Valley DFS confirms Tier-1 global lithium project with outstanding economics and sector-leading sustainability credentials” released on 11 November 2021 which is available on [www.ltresources.com.au](http://www.ltresources.com.au).

The Information in this Report that relates to Mineral Resources for the Buldania Project is extracted from the ASX announcement “Liontown announces maiden Mineral Resource Estimate for its 100%-owned Buldania Lithium Project, WA” released on 8 November 2019 which is available on [www.ltresources.com.au](http://www.ltresources.com.au).

As detailed in the ASX announcement “Liontown Board approves development of Kathleen Valley Lithium Project” released on 29 June 2022, as part of the Final Investment Decision, the capital expenditure budget for the Kathleen Valley Project was increased to \$545 million. The Company confirms that it is not aware of any other new information or data that materially affects the information included in the original market announcements and the updated capital expenditure budget referenced in the announcement dated 29 June 2022 and that all material assumptions and technical parameters underpinning the estimates or production targets or forecast financial information derived from a production target (as applicable) in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements.

### Cautionary Statement

The production targets and forecast financial information referred to in the Definitive Feasibility Study (DFS) and Downstream Scoping Study (DSS) were based on Proven Ore Reserves (3.4%), Probable Ore Reserves (79.4%) and Inferred Mineral Resources (17.2%). The Inferred material included in the inventory was 14.3Mt @ 1.1% Li<sub>2</sub>O & 120 ppm Ta<sub>2</sub>O<sub>5</sub>. The Inferred material was scheduled such that less than 10% of the Inferred material is mined in the first ten years, with the remainder mined through to the end of the mine life.

The Inferred material does not have a material effect on the technical and economic viability of the project.

There is a low level of geological confidence associated with inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of indicated Mineral Resources or that the production target itself will be realised.

### Forward Looking Statement

This Report contains forward-looking statements which involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this Report. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

## Alignment with the IFC Standards

We do not formally report against the International Finance Corporation's (IFC) Standards, however, a number of Sustainability and Accounting Standards Board (SASB) disclosures ask us to identify how our policies and practices align with the standards.

IFC Performance Standard		Liontown's Related Policies and Practices (FY22)	Alignment with IFC Performance Standard (report reference)
<b>Performance Standard 1</b>	Assessment and Management of Environmental and Social Risks and Impacts	Board Charter Audit Committee Charter Risk Committee Charter Code of Conduct Risk Management Policy ESG Statement Climate Change Policy Environment Policy Aboriginal Engagement Policy Health and Safety Policy Diversity Policy NTA CHMP	Functions throughout Liontown cover elements under this Performance Standard.  pp.24-58
<b>Performance Standard 2</b>	Labor and Working Conditions	Code of Conduct Risk Management Policy ESG Statement Diversity Policy Health and Safety Policy Aboriginal Engagement Policy NTA	pp.24-29; 57, 58
<b>Performance Standard 3</b>	Resource Efficiency and Pollution Prevention	Code of Conduct Risk Management Policy ESG Statement Climate Change Policy Environment Policy Aboriginal Engagement Policy NTA CHMP	pp.31-50
<b>Performance Standard 4</b>	Community Health, Safety, and Security	Code of Conduct ESG Statement Health and Safety Policy Incident reporting and investigation procedure Health and Hygiene Management Plan Security Management Plan Emergency Management Plan Crisis Management Plan	pp.24-29; 52-55
<b>Performance Standard 5</b>	Land Acquisition and Involuntary Resettlement	This Performance Standard is not relevant to Liontown as no land acquisition or involuntary resettlement will take place	
<b>Performance Standard 6</b>	Biodiversity Conservation and Sustainable Management of Living Natural Resources	Code of Conduct Risk Management Policy ESG Statement Climate Change Policy Environment Policy Aboriginal Engagement Policy NTA CHMP	pp.34-37
<b>Performance Standard 7</b>	Indigenous Peoples	Code of Conduct Risk Management Policy ESG Statement Aboriginal Engagement Policy NTA CHMP	pp.52-55
<b>Performance Standard 8</b>	Cultural Heritage	Risk Management Policy Aboriginal Engagement Policy NTA CHMP	pp.52-55



Supplemental guidance from the Task Force on Climate Related Financial Disclosures (TCFD) for Non-Financial Groups has been incorporated.

Disclosure	Reference/Response
<b>Governance: Disclose the organisation's governance around climate-related risks and opportunities</b>	
A Describe the board's oversight of climate related risks and opportunities	pp.21, 22
B Describe the management's role in assessing and managing climate related risks and opportunities	pp.19, 21, 22
<b>Strategy: Disclose the actual and potential impacts of climate related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material</b>	
A Describe the climate related risks and opportunities the organisation has identified over the short, medium and long term	pp.19, 39, 42
B Describe the impact of climate related risks and opportunities on the organisation's businesses, strategy, and financial planning.	pp.4, 5, 12, 13, 19, 39, 42
C Describe the resilience of the organisation's strategy, taking its consideration different climate related scenarios, including a 2°C or lower scenario	We have not yet undertaken climate scenario modelling however will undertake this in future years
<b>Risk Management: Disclose how the organisation identifies, assesses, and manages climate related risks</b>	
A Describe the organisation's processes for identifying and assessing climate related risks	pp.19, 21, 22, 39
B Describe the organisation's processes for managing climate related risks	pp.19, 21, 22, 39-42
C Describe how processes for identifying, assessing and managing climate related risks are integrated into the organisation's overall risk management	p.21
<b>Metrics and Targets</b>	
A Disclose the metrics used by the organisation to assess climate related risks and opportunities in line with its strategy and risk management process	pp.39, 40
C Disclose Scope 1, Scope 2, and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	pp.39, 43
C Describe the targets used by the organisation to manage climate related risks and opportunities and performance against targets	p.42

## GRI Content Index and SASB Disclosures

This index identifies the relevant disclosures in the Global Reporting Initiative (GRI) Standards 2021 and G4 Mining and Metals Sector Disclosures that correspond to the material topics identified in our FY22 materiality assessment. In addition to the GRI disclosures, we have used the applicable Sustainability Accounting Standards Board (SASB) disclosures from the Metals & Mining Sustainability Accounting Standard (Version 2021-12).

Statement of use: Lontown Resources Limited has reported in accordance with the GRI Standards for the period 1 July 2021 to 30 June, 2022

GRI 1 Standard used: GRI 1: Foundation 2021

Applicable GRI Sector Standard: G4 Mining and Metals Sector Disclosures

GRI Standard/ Other source	Disclosure	Page/Reference/ Explanatory notes
<b>General Disclosures</b>		
<b>GRI 2: General Disclosures 2021</b>	<b>The organisation and its reporting practices</b>	
	2-1: Organisational details	p.8
	2-2: Entities included in the organisation's sustainability reporting	p.6
	2-3: Reporting period, frequency and contact point	p.6 ESG Report published November 2022
	2-4: Restatements of information	pp.6, 43
	2-5: External assurance	p.6
	<b>Activities and workers</b>	
	2-6: Activities, value chain and other business relationships	pp.8, 10, 12, 13, 50
	2-7: Employees	p.59
	2-8: Workers who are not employees	p.59
	<b>Governance</b>	
	2-9: Governance structure and composition	pp.21, 22
	2-10: Nomination and selection of the highest governance body	p.22
	2-11: Chair of the highest governance body	p.21
	2-12: Role of the highest governance body in overseeing the management of impacts	p.22
	2-13: Delegation of responsibility for managing impacts	p.22
	2-14: Role of the highest governance body in sustainability reporting	p.22
	2-15: Conflicts of interest	p.23
	2-16: Communication of critical concerns	p.23
	2-17: Collective knowledge of the highest governance body	p.22
	2-18: Evaluation of the performance of the highest governance body	p.22
	2-19: Remuneration policies	p.23
	2-20: Process to determine remuneration	p.23
	2-21: Annual total compensation ratio	p.23 Data compiled using wage records from 2021 and 2022
	<b>Strategy, policies and practices</b>	
	2-22: Statement on sustainable development strategy	pp.2-4
	2-23: Policy commitments	pp.22, 23
	2-24: Embedding policy commitments	pp.22, 23 No specific training occurs around responsible business related policies
2-25: Processes to remediate negative impacts	Throughout report	
2-26: Mechanisms for seeking advice and raising concerns	p.23. Throughout report	
2-27: Compliance with laws and regulations	p.23	
2-28: Membership associations	p.23	
<b>Stakeholder engagement</b>		
2-29: Approach to stakeholder engagement	pp.66-68	
2-30: Collective bargaining agreements	p.59	



GRI Standard/ Other source	Disclosure	Page/Reference/ Explanatory notes
<b>Material topics</b>		
<b>GRI 3: Material Topics 2021</b>		
	3-1: Process to determine material topics	
	3-2: List of material topics	
<b>Work health and safety</b>		
<b>GRI 3: Material Topics 2021</b>	3-3: Management of material topics	pp.24-29
<b>GRI 403: Occupational Health and Safety 2018</b>	403-1: Occupational health and safety management system	pp.24, 26
	403-2: Hazard identification, risk assessment, and incident investigation	p.26
	403-3: Occupational health services	p.28
	403-4: Worker participation, consultation, and communication on occupational health and safety	pp.26, 27, 29
	403-5: Worker training on occupational health and safety	p.28
	403-6: Promotion of worker health	p.28
	403-7: Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	p.29
	403-8: Workers covered by an occupational health and safety management system	p.24
	403-9: Work-related injuries	p.29
	403-10: Work-related ill health	pp.26, 29
<b>SASB Metals &amp; Mining Sustainability Accounting Standard (Version 2021-12)</b>	EM-MM-320a.1: (1) MSHA all-incidence rate (2) fatality rate (3) near miss frequency rate (NMFR) and (4) average hours of health, safety, and emergency response training for (a) full-time employees and (b) contract employees	pp.28, 29
<b>Water use</b>		
<b>GRI 3: Material Topics 2021</b>	3-3: Management of material topics	pp.31-33
<b>GRI 303: Water and Effluents 2018</b>	303-1: Interactions with water as a shared resource	p.31
	303-2: Management of water discharge related impacts	pp.31, 33
	303-3: Water withdrawal	p.33
	303-4: Water discharge	p.33
	303-5: Water consumption	p.33
<b>SASB Metals &amp; Mining Sustainability Accounting Standard (Version 2021-12)</b>	EM-MM-140a.1. (1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	p.33
	EM-MM-140a.2. Number of incidents of non-compliance associated with water quality permits, standards, and regulations	p.33
<b>Impact on biodiversity</b>		
<b>GRI 3: Material Topics 2021</b>	3-3: Management of material topics	pp.34-37
<b>GRI 304: Biodiversity 2016</b>	304-1: Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	p.35
	304-2: Significant impacts of activities, products and services on biodiversity	p.34
	304-3: Habitats protected or restored	p.35
	304-4: IUCN Red List species and national conservation list species with habitats in areas affected by operations	p.36
<b>G4: Mining and Metals Sector Disclosures</b>	MM1: Amount of land (owned or leased, and managed for production activities or extractive use) disturbed or rehabilitated	p.35
	MM2: The number and percentage of total sites identified as requiring biodiversity management plans according to stated criteria, and the number (percentage) of those sites with plans in place	p.37
<b>SASB Metals &amp; Mining Sustainability Accounting Standard (Version 2021-12)</b>	EM-MM-160a.1: Description of environmental management policies and practices for active sites	pp.31-37; pp.40-42; pp.45-49
	EM-MM-160a.2. Percentage of mine sites where acid rock drainage is: (1) predicted to occur, (2) actively mitigated, and (3) under treatment or remediation	p.46
	EM-MM-160a.3. Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	pp.35, 36

GRI Standard/ Other source	Disclosure	Page/Reference/ Explanatory notes
<b>Material topics</b>		
<b>Energy Use (Internal)</b>		
<b>GRI 3: Material Topics 2021</b>	3-3: Management of material topics	pp.40-42
<b>GRI 302: Energy 2016</b>	302-1: Energy consumption within the organisation	p.43
	302-2: Energy consumption outside the organisation	p.43
<b>SASB Metals &amp; Mining Sustainability Accounting Standard (Version 2021-12)</b>	EM-MM-130a.1: (1) Total energy consumed; (2) Percentage grid electricity; (3) Percentage renewable	p.43. Diesel only. No grid electricity or renewables on site in FY22

<b>Emission levels</b>		
<b>GRI 3: Material Topics 2021</b>	3-3: Management of material topics	pp.40-42
<b>GRI 305: Emissions 2016</b>	305-1: Direct (Scope 1) GHG emissions	p.43
	305-2: Energy indirect (Scope 2) GHG emissions	p.43
	305-7: Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions	p.43
<b>SASB Metals &amp; Mining Sustainability Accounting Standard (Version 2021-12)</b>	EM-MM-110a.1. Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	p.43
	EM-MM-110a.2. Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	pp.5, 19, 38-42

<b>Waste and hazardous materials management</b>		
<b>GRI 3: Material Topics 2021</b>	3-3: Management of material topics	pp.45-48
<b>GRI 306: Waste 2020</b>	306-1: Waste generation and significant waste-related impacts	pp.45-48
	306-2: Management of significant waste related impacts	pp.45-48
	306-3: Waste generated	pp.48, 49
	306-4: Waste diverted from disposal	pp.48, 49
	306-5: Waste directed to disposal	pp.48, 49
<b>G4: Mining and Metals Sector Disclosures</b>	MM3: Total amounts of overburden, rock, tailings, and sludges and their associated risks	pp.45-49
<b>SASB Metals &amp; Mining Sustainability Accounting Standard (Version 2021-12)</b>	EM-MM-150a.4. Total weight of non-mineral waste generated	p.49
	EM-MM-150a.5. Total weight of tailings produced	No tailings were produced in FY22
	EM-MM-150a.6. Total weight of waste rock generated	No waste rock was produced in FY22
	EM-MM-150a.7. Total weight of hazardous waste generated	pp.48, 49
	EM-MM-150a.8. Total weight of hazardous waste recycled	pp.48, 49
	EM-MM-150a.9. Number of significant incidents associated with hazardous materials and waste management	No incidents, significant or other were associated with hazardous materials and waste management
	EM-MM-150a.10. Description of waste and hazardous materials management policies and procedures for active and inactive operations	pp.45-48
	EM-MM-540a.1. Tailings storage facility inventory table: (1) facility name, (2) location, (3) ownership status, (4) operational status, (5) construction method, (6) maximum permitted storage capacity, (7) current amount of tailings stored, (8) consequence classification, (9) date of most recent independent technical review, (10) material findings, (11) mitigation measures, (12) site-specific EPRP	p.46. The TSF will be located at the Kathleen Valley mine site.
	EM-MM-540a.2. Summary of tailings management systems and governance structure used to monitor and maintain the stability of tailings storage facilities	p.46
	EM-MM-540a.3. Approach to development of Emergency Preparedness and Response Plans (EPRPs) for tailings storage facilities	p.46



GRI Standard/ Other source	Disclosure	Page/Reference/ Explanatory notes
<b>Material topics</b>		
<b>Environmentally sustainable supply chain</b>		
<b>GRI 3: Material Topics 2021</b>	3-3: Management of material topics	p.50
<b>GRI 308: Supplier Environmental Assessment 2016</b>	308-1: New suppliers that were screened using environmental criteria	p.50
	308-2: Negative environmental impacts in the supply chain and actions taken	There were no negative environmental impacts in the supply chain identified in FY22
<b>Non-discrimination</b>		
<b>GRI 3: Material Topics 2021</b>	3-3: Management of material topics	p.58
<b>GRI 406: Non-discrimination 2016</b>	406-1: Incidents of discrimination and corrective actions taken	p.58
<b>Indigenous rights</b>		
<b>GRI 3: Material Topics 2021</b>	3-3: Management of material topics	pp.52, 55
<b>GRI 411: Rights of Indigenous Peoples 2016</b>	411-1: Incidents of violations involving rights of indigenous peoples	p.52
<b>G4: Mining and Metals Sector Disclosures</b>	MM5: Total number of operations taking place in or adjacent to Indigenous peoples' territories, and number and percentage of operations or sites where there are formal agreements with Indigenous Peoples' communities	pp.52-55 100% of the Kathleen Valley site is located on Tjiwarl country
<b>SASB Metals &amp; Mining Sustainability Accounting Standard (Version 2021-12)</b>	EM-MM-210a.2. Percentage of (1) proved and (2) probable reserves in or near indigenous land	100% of the Kathleen Valley site is located on Tjiwarl country
	EM-MM-210a.3. Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	pp.52-55, 67
	EM-MM-210b.1. Discussion of process to manage risks and opportunities associated with community rights and interests	pp.52-55
	EM-MM-210b.2. Number and duration of non-technical delays	There were no non-technical delays in FY22
<b>Labour and management relations</b>		
<b>GRI 3: Material Topics 2021</b>	3-3: Management of material topics	pp.57, 58
<b>GRI 204: Labor and Management Relations 2016</b>	402-1: Minimum notice periods regarding operational changes	p.58



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