



**HASTINGS**  
Technology Metals Limited

13 October 2021

Company Announcements Office  
Australian Securities Exchange

## **SUSTAINABILITY REPORT**

Hastings Technology Metals Ltd is pleased to advise that it has today published its 2021 Sustainability Report.

The Report is attached and can be found on the website at [Governance – Hastings Technology Metals Limited \(hastingstechmetals.com\)](https://www.hastingstechmetals.com/Governance-Hastings-Technology-Metals-Limited).

Hastings acknowledge the detrimental effects of climate change to society and are committed to doing our part in reducing greenhouse gas emissions. Our maiden Sustainability Report marks the genesis of our sustainability road map as we progress from construction into production. It sets out our recognition of the role we play in society and the environment in which we live and work. It delineates our contribution towards the climate change agenda via our mixed rare earths carbonate product and the way in which we will operate.

The report addresses a key focus of a range of our stakeholders – including our debt and equity providers, insurers, offtake customers, contractors, employees, traditional owners, government organisations and many more.

This reports reflects the culture that Hastings is striving to generate, the values that we hold as an organisation and allows us to reflect on our positive contribution to the energy and mobility transition landscape.

I commend this report to you.

Charles Lew  
Chairman

This announcement has been approved for release by the Board.



**HASTINGS**  
Technology Metals Limited



# 2021 Sustainability Report

ASX | HAS | Australia's Next Rare Earths Producer



“ We are focused on contributing to a lower carbon economy by developing the rare earths resources required to electrify mobility. ”



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# Message from Leadership

Charles Lew- Executive Chairman

It is my pleasure to share our first Sustainability Report with you. It is an important milestone, for both the organisation and me personally.

This report captures the value that we place on protecting the environment and contributing to not only our communities but broader society, as we progress our flagship project, the Yangibana Rare Earths Project (referred to as 'Yangibana Project').

We are focused on contributing to a lower carbon economy by developing the rare earths resources required to electrify mobility. It is recognised that emissions need to be rapidly reduced

and the transition to a lower carbon economy accelerated. As a rare earths company, we see ourselves as having a critical role to play as the world moves away from fossil fuels and other carbon intensive activities, towards renewable energy solutions.

We aim to further contribute by understanding, measuring and reducing our own carbon footprint. This need to reduce emissions has been emphasised by the most recent Intergovernmental Panel on Climate Change (IPCC) special report, titled 'Global Warming of 1.5 °C.' The need is so great the Report describes a "code red for humanity." Specific to our operations, we are also currently understanding our baseline emissions levels and are in the process of completing a climate change risk assessment.

The Yangibana Rare Earths group of deposits, discovered in May 2014, is composed of high quantities of neodymium and praseodymium. Since this discovery, our team have completed a definitive feasibility study, metallurgical testwork, detailed engineering design, and extensive environmental and social studies. Today, the Yangibana Rare Earths Project is entering the construction phase.

The Hastings team is focused on long term value creation. Despite the challenges presented by Covid-19, we have made significant strides





in advancing the Yangibana Project whilst ensuring the health, safety and wellbeing of our people. Key progress includes:

- Signing a long-term binding Master Agreement with Germany's Tier 1 automotive components supplier, Schaeffler Technologies AG. This agreement provides Hastings with the opportunity to work with Schaeffler as a long term supplier of a critical mineral for the manufacture of permanent magnets used in e-motor for Electric Vehicles.
- Concluding a 10-year binding offtake contract with thyssenkrupp Materials Trading of Germany (a worldwide raw materials trading company) for nearly two thirds of our annual production in the first five years.
- Increasing our ore reserves from 12.2 to 16.7 million tonnes during 2020 through an extensive mineral exploration program.
- Introducing the opportunity for our employees to become shareholders in Hastings via a long term performance rights program.
- Raising equity capital to allow us to mobilise our team to commence construction work on our Yangibana Project.

In addition, we have put in place a corporate governance framework this year, which has been designed to drive organisational culture, workplace practices and business process. This framework reflects the integral role

that sustainability plays in the way we do business.

This year we also established an Environment, Social and Governance (ESG) Committee, which is led by myself and has representation from both the Board and key executives within the organisation. The Committee has developed a sustainability strategy to guide us as we move forward.

As we continue to build on this positive momentum, the impacts of our business activities on the environment calls for responsible environmental stewardship. Detailed environmental studies have been completed and assessed by government specialists and we have sought public comment on our plans as a key component of environmental approvals. Extensive stakeholder consultation has been undertaken and an open and transparent dialogue continues with many government and community stakeholders. Identification and mitigation of risk formed the focus of the dialogue with key stakeholders. The development of systems to align with international standards ensure risk mitigation is implemented. Further, we have been developing our Environmental and Social Management System (ESMS) aligned with the International Standardisation of Organizations (ISO) 14001 standard and will look to finalise this prior to construction.

Our activities are conducted on Traditional Owner, pastoral and government lands. Our Traditional Owners work hand in hand with us on environmental and heritage matters where we ensure that socio-economic benefits from our activities are also

shared with our host communities. These include local recruitment of employees from the host communities into our workforce, supporting local business owners, employee skills training and further education development so local people, especially vulnerable groups can gain employment in the industry. Hastings is committed to diversity and inclusion within our workforce.

Hastings has been mindful of the commitment to promote and protect the welfare of our Traditional Owners, the Thiin-Mah Warriangka, Tharrkari and Jiwarli People (TMWTJ People), via our joint voluntary Native Title Agreement. In the time that has followed since the agreement was signed, our focus of bringing Yangibana into production has not wavered even as we transition from a junior mining company into an aspiring production operator.

As highlighted above, we believe that we can contribute positively to the environment and society through our operations, creating a positive legacy for generations to come, which includes contributing to achieving a lower carbon future. We look forward to sharing our progress with you in our 2022 Sustainability report.

We recognise the continued effort of our employees and support of our shareholders, particularly through the challenges of the past year. Your efforts have contributed to the growth and continued success of Hastings, as we continue our journey and deliver on our company's vision...One Dream, One Team.

**Charles Lew**  
Executive Chairman

# Overview



## About Hastings

Hastings Technology Metals Ltd (Hastings) is a leading Australian rare earths company listed on the Australian Securities Exchange (ASX: HAS) and headquartered in Perth, Western Australia (WA).

We discovered the presence of rare earths minerals in the Gascoyne and Kimberley regions of WA. In 2014, we commenced development of

the Yangibana Project, as a way to contribute to the renewable energy revolution. The Yangibana Project will more than double Australia's annual production of rare earths.

As we commence the construction phase, we also begin to impact the local environment and communities in which the company will operate. Each

successive year as we progress from early works to construction and then through the commissioning phase into full scale operations, our sustainability report will show increases in water use, waste generation, air emissions and land clearing.

Recognising this, much work has gone into ensuring our environmental impacts are not significant, our social impacts are positive and that we have robust management systems to mitigate risk and are prepared to operate in a sustainable manner.

During the next few years, our positive impacts to peoples' lives will be realised as we become embedded within our local communities, start to influence the global supply chain and contribute to green technologies.

Our inaugural sustainability report summarises our team's work to date, specifically progress achieved in FY20/21 to realise our dream of becoming the next rare earths mining company.

“ During the next few years, our positive impacts to peoples' lives will be realised as we become embedded within our local communities, start to influence the global supply chain and contribute to green technologies. ”

## Our Vision

Our vision is to be a leading Australian rare earths company and a significant producer of Neodymium (Nd) and Praseodymium (Pr) supplying the growing demand for technology metals, specifically to the permanent magnets market.

## Our Mission

We are committed to creating value for our stakeholders by becoming a world class producer of material for technologies that improve our planet. We embrace safety, integrity, sustainability, creativity and diversity and mental well being.

## Our Values

At Hastings, we expect our people to take **Responsibility** for their actions, display a positive **Attitude**, and be resilient and thoughtful in their work. We are focussed on delivering **Results** to our stakeholders by **Empowering** our people to address risks and challenge the status quo.



RESPONSIBILITY



ATTITUDE



RESULTS



EMPOWERMENT

### One Dream, One Team

Hastings was a small mineral exploration company when Charles Lew took over and joined the Board in December 2013 as Executive Chairman. In early 2014, he commissioned an exploration program at Yangibana and discovered multiple trends of exceptionally high NdPr rare earths ore. Believing firmly that this is God's blessing, he embarked on a life changing journey and a dream to develop the Yangibana Project and contribute to the green energy revolution whilst wanting to touch the lives of many stakeholders.

Four of our original six-member management team continue to work at Hastings due to his unwavering support, positivity and belief that we will succeed despite the challenges. Charles has worked tirelessly in this company and has brought together a skilled and experienced management team to make his dream and vision a reality. We now have a total of 28 employees in Perth and Singapore.

Charles has an open-door policy and over the years has developed strong relationships with our management team with frequent visits to Perth.

In the last 18 months of Covid-19 enforced travel restrictions, despite being based in Singapore, his inclusive style of management continues to motivate and inspire all of us in the company with his vision, belief and dream of becoming the next rare earths producer in Australia. His slogan - One Dream, One Team - embeds our spirit of working together in a company that is on a mission to bring our product into the world under a climate change agenda.





## Our Operations

Our focus is on our flagship project, the Yangibana Project and the associated Onslow Rare Earths Plant, which are located in the Gascoyne Region and Pilbara Region of WA, respectively. Our second project is the Brockman Project, which is located in the Kimberly Region of WA.





### Yangibana Project

The Yangibana Project is an Australian rare earths project, containing substantial neodymium and praseodymium resources.

The project occupies 650 square kilometres (km<sup>2</sup>) and is located approximately 250 kilometres (km) northeast of Carnarvon, in WA. The project has completed a definitive feasibility study and is currently in the pre-construction phase with construction expected to commence at the end of 2021. Construction is expected to take 27 months with commissioning and operations expected to begin in late 2023 – early 2024.

The Yangibana Project involves developing an operation that will mine a monazite ore containing rare earths at a rate of approximately 1.20 million tonnes per annum (Mtpa). The ore will undergo processing via a beneficiation circuit, which will then be transported ~430km via truck to the Onslow Rare Earths Plant, located at the Ashburton North Strategic Industrial Area, which is 15km from the town of Onslow.

The Onslow Rare Earths Plant consists of a hydrometallurgy circuit to produce up to 15,000 tonnes per annum (tpa) of mixed rare earths carbonate (MREC) product. The MREC product would then be transported via road to port for export to overseas customers. All tailings generated by the beneficiation and hydrometallurgical process circuits will be stored in approved tailings storage facilities (TSFs) at the Yangibana Project site.

In June 2020, Hastings signed a long-term binding Master Agreement with Schaeffler Technologies AG (German Tier 1 automotive supplier, relevant to electric vehicle manufacturing). This agreement provides us with the opportunity to supply Schaeffler with our mixed rare earth carbonate over a 10 year duration. In April 2021, we concluded a 10-year binding offtake contract with thyssenkrupp Materials Trading GmbH (a worldwide raw materials trading company).

### Brockman Project

The Brockman Project is situated 18km south-east of the historical gold mining centre of Halls Creek in the East Kimberley Region. The project site is accessed from the Great Northern Highway, which links Broome and Derby (450km from site) to Kununurra (380km from site), at Halls Creek.

Tantalum and Niobium accompany the rare earths deposits at the Brockman Project. High levels of Heavy Rare Earths Oxides (HREO) and the high niobium content are a major differentiator to other advanced rare earths projects with lower HREO concentrations. Niobium is considered to be a critical element for emerging technologies. Further development of the Brockman Project will occur once the Yangibana Project is operational.

More information on these projects is available on our website and in our 2021 Annual Report.

## What are Rare Earths?

Rare Earth Elements are a suite of seventeen metallic elements that naturally occur together - fifteen from the lanthanide series of the periodic table plus scandium and yttrium. They have very similar physical and chemical properties that make them difficult to separate. Although these elements are not actually that rare, as they are relatively abundant in the Earth's crust, it is rare to find

them in concentrations significant enough to support economic development.

The Yangibana Project has one of the highest concentrations of Neodymium (Nd) and Praseodymium (Pr) post beneficiation in the world.

H Hydrogen																	He Helium																														
Li Lithium	Be Beryllium											B Boron	C Carbon	N Nitrogen	O Oxygen	F Fluorine	Ne Neon																														
Na Sodium	Mg Magnesium											Al Aluminium	Si Silicon	P Phosphorus	S Sulfur	Cl Chlorine	Ar Argon																														
K Potassium	Ca Calcium	Sc Scandium	Ti Titanium	V Vanadium	Cr Chromium	Mn Manganese	Fe Iron	Co Cobalt	Ni Nickel	Cu Copper	Zn Zinc	Ga Gallium	Ge Germanium	As Arsenic	Se Selenium	Br Bromine	Kr Krypton																														
Rb Rubidium	Sr Strontium	Y Yttrium	Zr Zirconium	Nb Niobium	Mo Molybdenum	Tc Technetium	Ru Ruthenium	Rh Rhodium	Pd Palladium	Ag Silver	Cd Cadmium	In Indium	Sn Tin	Sb Antimony	Te Tellurium	I Iodine	Xe Xenon																														
Cs Caesium	Ba Barium	57-71 Lanthanoids*	Hf Hafnium	Ta Tantalum	W Tungsten	Re Rhenium	Os Osmium	Ir Iridium	Pt Platinum	Au Gold	Hg Mercury	Tl Thallium	Pb Lead	Bi Bismuth	Po Polonium	At Astatine	Rn Radon																														
Fr Francium	Ra Radium	89-103 Actinoids**	Rf Rutherfordium	Db Dubnium	Sg Seaborgium	Bh Bohrium	Hs Hassium	Mt Meitnerium	Ds Darmstadtium	Rg Roentgenium	Cn Copernicium	Nh Nihonium	Fl Flerovium	Mc Moscovium	Lv Livermorium	Ts Tennessine	Og Oganesson																														
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## How are Rare Earths used?

It is an exciting time to be part of the rare earths minerals sector, especially for the Yangibana Project, which has deposits that are rich in Nd and Pr. The rising demand for our products in the energy transformation necessitates security of supply.

Rare Earths or “technology metals” make the technology we use in everyday life possible. Their magnetic, phosphorescent and catalytic properties make them essential for the continued evolution of the technologies that are used in modern society. This includes electric vehicles and wind turbines, telecommunications, medical technologies, defence systems, miniaturisation of electronics, and critically the transition to a lower carbon economy.

In terms of destinations for our products, Hastings will take steps to ensure that processed concentrate is directed to sustainable technologies, such as wind energy and electric car manufacturers, as well as manufacturers down the supply chain who operate in a sustainable manner. We see this as an important role to assist in the transition to a lower carbon economy and creating intergenerational equity.

# Nd

Neodymium

Neodymium enables the development of magnets that are three times stronger and a tenth the size of conventional magnets. This is essential in the production of wind turbines and hybrid and electric vehicles. Neodymium has made it possible to miniaturise electronic devices such as mobile phones.

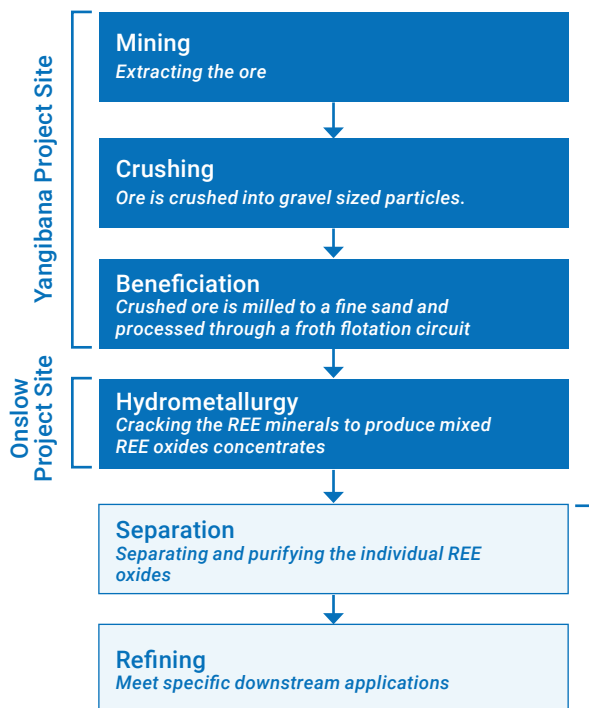
# Pr

Praseodymium

Praseodymium, like Neodymium, is used to produce permanent magnets for hybrid and electric vehicles, wind turbines and solar PV panels. It is also used in carbon arc electrodes for lighting and projection and filtration of infrared (heat) radiation.



## Mining and Processing



## Separation and Refining



## Approach to Sustainability

Hastings' is committed to operating in a sustainable manner. Our approach to sustainability is built around four key pillars which integrate all aspects of our operations:



## About this report

The preparation of this Report has been guided by Global Reporting Initiative (GRI) Standards, including the Mining and Metals Sector Disclosure Supplement. The focus is on activities, efforts, and initiatives undertaken in the 12-month period ending 30 June 2021.

In line with the GRI Standards, we conducted a materiality assessment to identify and prioritise sustainability topics that matter most to our stakeholders and our business. This report has focussed on describing how we manage, as well as our performance against each of these topics.

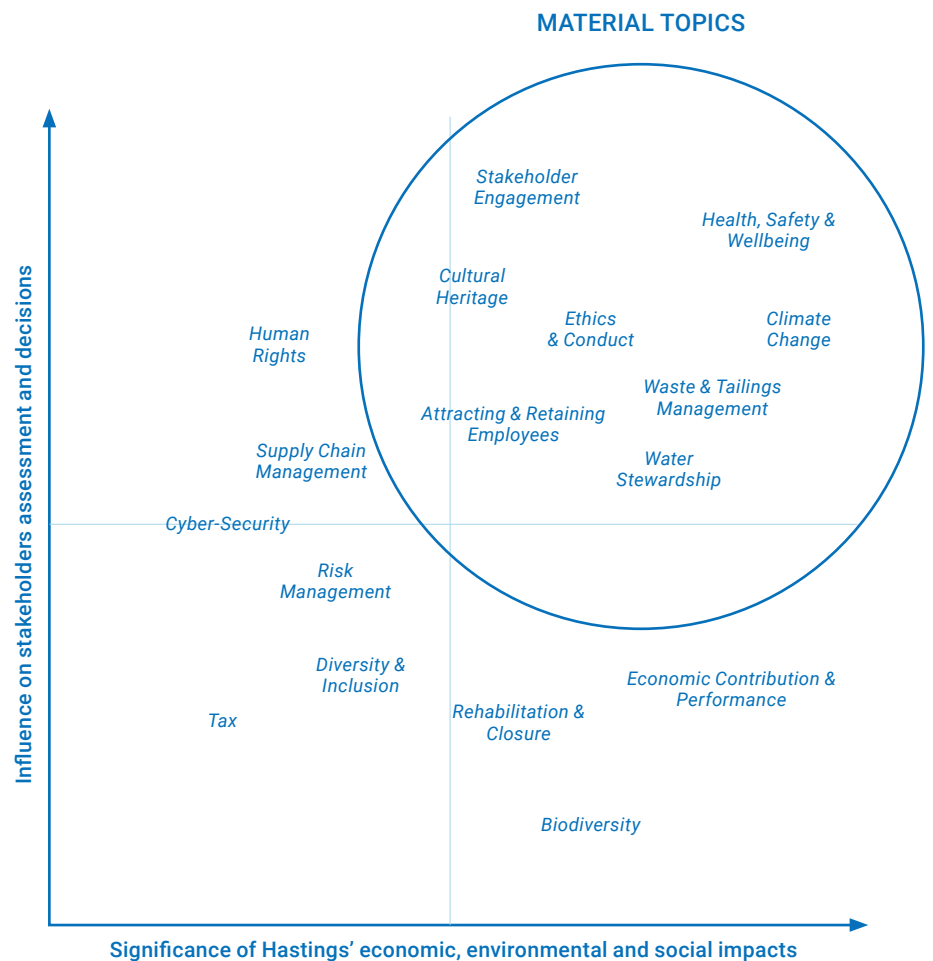
The process used to identify material topics included three key steps:

1. A list of potential material topics was developed based on an external factors analysis, as well as engagement with internal and external stakeholders.
2. The list of material topics was then prioritised based on the significance of the potential impact it may have on the business and the influence it may have on stakeholder assessments and decisions.
3. A short-list of material topics was then reviewed by the ESG committee comprised of senior decision-makers of the business, including members of the Board, to verify and finalise the material topics for reporting.

Our material topics are shown in the matrix. A full description and their

impact boundary (where the impact occurs) is provided in the Annexures of this Report.

In addition to the material topics, a few additional topics have also been included in this Report to meet expectations of stakeholders and other reporting requirements.





## United Nations Sustainable Development Goals



The United Nations (UN) Sustainable Development Goals (SDGs), established in 2015 by the United Nations General Assembly, define a set of universal targets to address global sustainability challenges. The 17 SDGs focus on the most urgent economic, social and environmental challenges and are intended to be achieved by the year 2030.

Each of the 17 SDGs includes specific targets that cover a range of areas including development,


social inclusion and environmental conservation. It is recognised that their success is dependent on collaboration between governments, business and communities.

We are committed to identifying ways in which Hastings' can maximise its contribution to the SDGs by mapping our business activities and identifying priority areas. In future, we will look to report on our contribution to our prioritised SDGs.

## Setting Targets

We are looking to commence construction of our Yangibana Project this coming year. Considerable work has gone into planning the project, so as to minimise our impacts and maximise opportunities. This includes opportunities to positively contribute to local communities, and protect the health, safety and wellbeing of our employees.

This year will help in establishing a baseline, against which future targets will be developed. The aim is to establish and report against targets in subsequent reports as outlined in our sustainability strategy.



“ Considerable work has gone into planning the project, so as to minimise our impacts and maximise opportunities.

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# Our Governance

Strong corporate governance is fundamental to achieving our business strategy. It not only helps to manage risk but delivers long-term value.

Key material topics identified under the governance pillar were ethics and conduct, inclusive of human rights and tax transparency; risk management, inclusive of cyber-security; and supply chain management.

The primary function of Hastings Board is to oversee the company's strategy, culture and business on behalf of its shareholders. The Board is also responsible for monitoring the performance, ensuring legal compliance and managing the organisation's risks, as detailed in

our Board Charter and Corporate Governance Statement.

To this end, a number of policies have been established, which underpin our governance structure. This includes our *Code of Ethical Business Conduct*, *Anti-bribery and Corruption Policy*, *Health and Safety Policy*, *Cultural Heritage Policy*, *Community Policy*, *Whistleblower Policy*, and *Human Rights Policy*. These are reviewed and updated on an ongoing basis.

Our approach to corporate governance continues to evolve to reflect our rapid

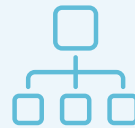
growth from a mineral exploration company to a project developer producing a MREC. For example, we established two new subcommittees of the Board in FY21, being the Technical and Risk Committee and the ESG Committee. This is in addition to the existing Audit Committee and Remuneration Committee.

The Committee has developed a sustainability strategy to help guide the organisation as we continue to grow.





Performance Data	2019	2020	2021
Number of board members	5	5	6
Female board members (%)	0	0	0



### Governance Structure

Hastings six member Board is comprised of four non-executive directors and two executive directors. Mr Bruce McFadzean joined the Board this year bringing with him over 30 years of mining experience. All Board members are male from diverse cultural and professional backgrounds that reflect the specialised global market in which the company is operating, being the development of rare earths resources projects.

The Board is responsible for leading our various sub-committees.



“

The ESG Committee, led by our Executive Chairman, was established to drive our approach to sustainability.

”

## Ethics and Conduct

Our directors, employees and contractors are expected to act in an ethically and responsible manner in accordance with the *Code of Ethical Business Conduct*, and *Anti-bribery and Corruption Policy*.

In 2020, the Board endorsed the implementation of our *Whistleblower Policy*, which encourages directors, employees and contractors to speak out if they become aware of potential misconduct. The policy details a

process for reporting misconduct, confidentially and without fear of reprisal. Since its implementation, the policy has been accessed once. The concern was raised with the Protected Disclosure Officers and investigated to understand the nature of the concern.

Furthermore, we see the trust of the company's shareholders as being essential. Our *Continuous Disclosure Policy* recognises that the timely and

balanced disclosure of all material information concerning the company must be made on a continuous basis so as to ensure that the market is informed of all material events and developments as they arise. This is also required to ensure compliance under the Listing Rules of the ASX and the *Corporations Act 2001*.



### Human Rights

The Board endorsed a *Human Rights Policy* during the year that affirms our commitment to respecting human rights and ensuring that all people are treated equally and with dignity, courtesy, and respect. Hastings has affirmed that it is committed to addressing human rights grievances and providing appropriate avenues for affected individuals or communities to come forward.

The principles underpinning our approach to human rights are reflected in a variety of company policies and procedures from our ESMS to our diversity policy, employee guidelines, codes of conduct, and health and safety management system.

Australia's Modern Slavery Act 2018 requires organisations with an annual consolidated revenue exceeding \$100 million to report on the risks of modern slavery in their operations and supply chains via a Modern Slavery Statement. As we do not currently meet the reporting threshold there is not a requirement to submit a Modern Slavery Statement; however, we plan to develop a voluntary annual Modern Slavery Statement in future. This will set out how we assess modern slavery risks in our operations, including our supply chains, and the actions taken to address those risks.

In line with our commitment to human rights, Hastings undertook a Human Rights Impact Assessment to better understand the potential risks associated with our Yangibana Project.



### Tax Transparency

The financial impact of taxes is addressed in the Company's lodged annual reports, noting that Hastings is in the exploration and evaluation phase of the Yangibana Project. Once in operation, the Company is forecast to pay income taxes at 30% of net profits, royalties (to government and Traditional Owners) on the extraction of minerals, and where applicable withholding taxes on revenue.

Hastings operates in a capital intensive industry, and to encourage such industries, the Australian Government allows companies to claim income tax deductions for capital expenditure. These income tax deductions will initially be higher than the revenues generated during ramp-up of our operations, therefore liability for income taxes will be lower in the earlier years.

Tax risk forms part of the overall risk review undertaken by the Hastings Technical and Risk Committee. A risk register is maintained for each identified tax risk, and where required, reputable external tax consultants are engaged to provide advice to ensure taxation regulation compliance and to make informed investment decisions.

Hastings seeks to align with the Australian Government's Voluntary Tax Transparency Code and will continue to be transparent in reporting our taxes.



## Risk Management

Hastings implements a risk framework that integrates consideration of risks across the organisation including corporate risk, technical risk, and individual risk management.

Our risk management approach is underpinned by our Risk Management Policy, which aims to create a culture whereby risk management is at the forefront of our business planning and decision making processes. This includes the early identification and evaluation of risks and mitigation where possible.

All identified risks are entered into our Corporate Risk Register, which is reviewed, at a minimum, annually in conjunction with the risk identification and management system by senior management and the Board. Our process for risk assessment is aligned with the ISO 31000: 2018 Risk Management series.

In FY20/21, the Board's Technical and Risk Committee and members of the broader organisation participated in a series of workshops to review and update the Corporate Risk Register. Coming out of the workshops, a Risk Manager role was created to coordinate the implementation of risk treatment plans in conjunction with internal audit best practices and report on their progress to the Board's Technical and Risk Committee.

In addition to the Corporate Risk Register, project specific risks are identified and maintained in registers specific to the environment and social, health and safety, finance and the activity (e.g. engineering, procurement and construction management scope). For example, the environmental risks associated with the Yangibana Project have been incorporated into the development of management plans and procedures in line with the *Leading Practice Sustainable Development Program for the Mining Industry - Risk Assessment and Management* (Department of Resources, Energy and Tourism, 2008).



## Cyber-Security

Technology plays a pivotal role in maintaining business activities; however, technological advances bring with them both opportunities and threats for our business.

Recognising this threat, Hastings has captured cyber-security in its Corporate Risk Register. We have also implemented a range of management measures, in line with the Australian Signals Directorate (ASD) Essential Eight Maturity Model. We are continuing to update our policies and procedures to ensure we mature our resilience to cyber threats as the threat landscape changes.

The security operations centre (SOC) monitors Hastings' infrastructure twenty-four hours a day for internal and external threats. The SOC reports to the senior management and has the authority to act immediately on any suspicious behaviour.

In addition, to the above measures, we ensure our employees and contractors maintain their cyber security fitness by holding regular training, awareness, and information sessions.



## Supply Chain Management

Hastings has embraced a proactive approach to engaging with stakeholders throughout our supply chain to ensure that risks are understood and managed.

Hastings has implemented corporate and project-specific procurement management plans, which govern, amongst other things, our contracting and procurement strategy, tendering process, and engagement of third party specialists to undertake inspection and quality assurance services.

Our corporate Procurement Management Plan is complemented by operating procedures and standards that outline key processes covering vendor selection (e.g., minimum supplier requirements, vendor assessment form) and contracting (e.g., contract approval form). We are also developing a Human Rights and Ethical

Procurement Framework to support our procurement efforts.

Hastings supports the Australian government's *Australian Industry Participation Policy*, which involves placing a preference on Australian owned and operated procurement opportunities.

This commitment to local procurement will be formalised through our Local Procurement Policy, which is in development, and the local content targets that we intend to establish.

“

We have engaged 29 local suppliers throughout the year including locally Aboriginal owned businesses.

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# Our People



Our people are the foundation of our business and are integral to our success. We recognise our people are at their best when they feel supported, so we promote a flexible working environment.

Key material topics identified under the people pillar are health, safety and wellbeing, inclusive of mental health, and attracting and retaining employees. In 2020 and 2021, the challenges associated with COVID-19 has had a great impact on our people, particularly their wellbeing. We have made efforts to support our employees and embody our One Dream, One Team motto.

Hastings is committed to building a workforce that is representative of the communities where we operate. Currently we have 28 employees with all save three being based in our head office in Perth. While our workforce to date has been relatively small

and reflective of the exploration and evaluation phases of our projects we expect our workforce size to grow as we look to commence construction of our Yangibana Project.

Our key objectives are to:

- Create a safe and respectful workplace
- Support employee health and wellbeing
- Attract and retain a diverse workforce.





### Resilience in the Face of COVID-19

2020 saw Hastings, like many other organisations impacted by COVID-19. During this period, the workforce was asked to reduce their workhours by 20% and subsequently take a 20% reduction in pay. As a result of such measures, we were able to retain the workforce and minimise redundancies. Hours and remuneration returned to normal in September 2020.

COVID-19 also saw periods of working from home. As working conditions have returned to normal, flexible work practices have continued to be implemented, with almost all the current workforce taking up some form of flexibility. The most common being working from home and modified start and finish times.

Hastings recognises that COVID-19, as well as the potential for future pandemics, will need to be managed and controlled in the long term. In response, Hastings will take advice from health authorities, develop and implement industry standard procedures and protocols to manage COVID-19 at our Corporate office and at each of our sites, and ensure our employees are fully informed of health requirements and restrictions. We will also engage with our stakeholders, including surrounding communities, to implement controls to mitigate impacts as a result of our operations.

Performance Data	2019	2020	2021
Number of employees	46	31	28
Employee turnover (%)	35	28	15
Number of new employees	-	3	9
Female employees (%)	37	32	43
Women in leadership positions* (%)	7	10	31
Indigenous diversity (%)	0	0	0
People with a disability (%)	0	0	0

\* Women in leadership positions is defined using the Workplace Gender Equality Agency (WGEA) manager categorisations, including CEO, Head of Business, Key Management Personnel, Executives, General Managers, Senior Managers and other managers.



## Attraction and Retention

We have developed a Recruitment and Attraction Strategy, recognising that it is critical to identify, attract and retain the right people. This will help us meet our business objectives.

A key focus in the latter half of 2021 has been to build brand awareness and attract a workforce that sees the value in rare earths as a means of building a sustainable future. Providing opportunities for flexible work and part-time opportunities has helped to broaden the pool of candidates.

Hastings' utilises external market remuneration data to inform pay at the time of appointment. A gender pay equity review will be undertaken as part of the next annual

remuneration increase. The results of which will be shared via our website.

In FY20/21, Hastings identified a risk associated with a skills shortage in the local community. Planning is currently underway for a trainee and apprentice program for the operations phase, which include partnerships with schools and TAFE now and into construction.



## Diversity and Inclusion

Hastings is committed to workplace diversity and recognises the benefits arising from diversity. Our Diversity Policy provides a framework for the Company to achieve:

- a diverse and skilled workforce, leading to continuous improvement in service delivery and achievement of corporate goals;
- a workplace culture characterised by inclusive practices and behaviours for the benefit of all employees;
- improved employment and career development opportunities for women;
- a work environment that values and utilises the contributions of employees with diverse backgrounds, experiences and perspectives through improved awareness of the benefits of workforce diversity and successful management of diversity; and
- awareness in all employees of their rights and responsibilities with regards to fairness, equity and respect for all aspects of diversity.



## Incentive Program

A Performance Rights Incentive Scheme was implemented in 2020 to support employee retention and reward performance. The Scheme is offered to all eligible employees and is an ongoing programme based on an overall team effort to achieve key milestones during each of the calendar years 2020 through to 2022. These milestones relate to capital expenditure (Capex), operating expenditure (Opex), Net Present Value (NPV), total budget and the construction schedule for the Yangibana project. These financial metrics and time line are currently being reviewed in view of the inflationary costs pressures across the mining industry and the timing in securing all funding necessary for the full implementation of the project.

The 2020 milestone, which was anchored around the previously announced (29 July 2020) Capex of \$517m, has already been met. For the 2021 calendar year, performance measurements are based around the board's strategic decision to decouple the two plants and bring the hydrometallurgical plant to the Pilbara coast i.e. Onslow (announced on 16 September 2021), which now includes a number of process flow sheet improvements with associated costs impacting on the project's Capex. Both the relocation to Onslow and the additional Capex revision will need to be taken into account when considering the 2021 performance conditions. The 2022 milestones pertaining to construction budget and schedule will be reviewed in conjunction with the revised financial metrics later this year.

We have assembled a skilled team of mining professionals who are motivated to succeed. We place a big value on our people and want them to take ownership and pride in our dream of getting into production by 2024.



## Health Safety and Wellbeing

Our health and safety culture of 'safety first in everything we do' is driven by our leadership team and operationalised through our health and safety policies and management system. We are committed to setting safety goals, taking action and getting results through ensuring continuous learning, so that all potential risks are identified early. This philosophy is embedded through our health and safety systems and encourages our people, including contractors, to take personal responsibility of health and safety.

We strive to ensure our workforce have the resources, skills, and equipment to perform their tasks safely. Our health and safety management system (HSMS) is reflective of the activities we are undertaking and is being prepared ahead of the next stage of development. Our HSMS is aligned with the *Australian Standard AS 4804 Occupational health and safety management systems*.

We believe engagement with our people face to face is key to acknowledging positive behaviour,

addressing at risk behaviour, and discussing improvement ideas. Through engagement, we also seek to support the wellbeing of our workforce to be mentally and physically healthy.

Health and safety performance is reported on a monthly basis. During FY20/21, there were no fatalities or serious injuries.

Performance Data	2019	2020	2021	Project to date
Number of first aid injuries	0	0	0	2
Number of restricted work injuries	0	0	0	0
Number of serious incidents	0	0	0	0
Number of medical treatment injuries	0	0	0	1
Workplace fatalities	0	0	0	0
Loss time injury frequency rate	0	0	0	0
Total recordable injury frequency rate	0	0	0	1
Motor vehicle accidents	0	0	0	0
Hours worked	950	1,770	3,700	146,537

\* Hastings Health and safety metrics are calculated as per AS 1885-1990 Workplace Injury and Disease Recording Standard. This uses 1 million manhours for calculating frequency rates. Project to date TRIFR is 6.61.  $1 \times 1000000 / 151177$ .



### Let's chat..

About work money, family, and everything in between.

#### Employee Assistance Program

An Employee Assistance Program has recently been implemented to support the health and wellness of employees and their immediate families. The confidential counselling service is provided by Converge International and includes general employee assistance, family assistance, manager assistance, money assistance and nutrition lifestyle assistance. The service has counsellors who can support employees and family members with diverse backgrounds, including indigenous, LGBTIQ and Auslan.

# Our Community



We strive to create value for our communities by developing strong long-term relationships.

Key material topics identified under the community pillar are cultural heritage and stakeholder engagement.

Hastings is committed to establishing long-term mutual relationships with the communities in which we operate. Our Cultural Heritage Policy and Community Policy outlines our commitment, and is underpinned by five key principles – communication, transparency, collaboration, inclusiveness and integrity.

Through the development of our projects we look to positively contribute to the communities in which we operate. We seek to identify such opportunities early through a social impact assessment process. A summary of our Yangibana Project Social Impact Assessment is available on our website.

In addition to our contribution to local communities, we also see ourselves as contributing to broader society, as the rare earths we will be producing will assist with the transition to the lower carbon economy and the development of more sustainable cities.



## COVID-19 Community Response

Despite limited community transmission, the threat of a community outbreak has never been under-estimated.

Several measures have been put in place to ensure our employees are protected, such as working from home and wearing masks as required. Our work in regional areas means that we also need to consider the risks associated with our movements to and from the Upper Gascoyne Region. As a result, employees are expected to fill in a declaration form prior to travel at times when COVID-19 is a risk in the community. Some employees are also expected to prove a negative COVID-19 test prior to their stay at a nearby station homestead, which provides accommodation to our employees and consultants on occasion.

CASE STUDY

## Road User Agreement with Local Shire

Shire roads in the Upper Gascoyne Region, in which our Yangibana Project is located, are fragile and suitable road building materials are scarce. In fact, many of the roads in central WA are unsealed or not regularly maintained due to their remoteness and relatively infrequent use. As such, the harsh conditions of the Australian outback often results in significant damage to the road networks due to the softening (winter rainfall) and drying out (summer droughts) of the soil. Further damage is caused by vehicle usage, particularly during or after rainfall events.

As a result, the Shire of Upper Gascoyne often close parts of the road network during heavy rainfall events for the safety of users and to prevent damage to the road surface. This can result in limited access in

and out of the Region, which has the potential to disrupt operations.

In FY20/21, Hastings had regular meetings with representatives from the local Shires to discuss the expected road usage for the Yangibana Project. As a result of these discussions, Hastings contracted a civil engineer to assess the road condition along the transport route between the mine site and the Onslow Rare Earths Plant. The assessment highlighted the poor condition of the road, and provided several solutions for remedial works to improve the road conditions.

Recognising the fragility of the road systems and the business risks of road closures, Hastings is working with the Shires of Upper Gascoyne, Carnarvon and Ashburton

to develop a Road User Agreement. The Agreement will outline the conditions and actions required to ensure the roads are maintained in a safe condition as a result of the increased traffic associated with the Yangibana Project.

While Hastings will become the main user of the roads, there will be benefits to the public including pastoralists, tourists and the Shire as a result of road maintenance and upgrade activities to be detailed in the Road User Agreement. The road improvements are expected to have flow on benefits for local stakeholders, including regional residents and pastoral owners, as well as, tourists that are passing through.

CASE STUDY

## Gascoyne Junction Opportunities

Gascoyne Junction is the nearest township to our Yangibana Project, located approximately 158 km south-west. The rural township has a population of 81 people and provides services for tourists on their way to the nearby Kennedy Ranges National Park or Mount Augustus National Park, and the surrounding communities and pastoral stations.

We have been in conversation with the Shire of Upper Gascoyne, to look at opportunities to enhance and improve the existing local facilities. One such way is by encouraging the relocation of employees and their families to the township, in order to support the local school.



## Stakeholder Engagement

Hastings is committed to maintaining positive relationships with our stakeholders, by establishing an ongoing, two-way relationship with our stakeholders. The aim is to build relationships that facilitate proactive information sharing and informed decision-making.

Our efforts are guided by our Community Policy and Indigenous Engagement Strategy. These are operationalised at a project level through a project specific stakeholder engagement action plan (SEAP). A SEAP describes the process for engaging with stakeholders within and surrounding the project area and is treated as a living document through the life of the project, including closure and rehabilitation.

A range of stakeholders have been identified and engaged over the past few years as part of our Yangibana Project, and to a lesser extent



A visit to see our laboratory scale beneficiation test work by government representatives

the Brockman Project. Key stakeholders have included pastoral station managers, Traditional Owners, State

government departments and local government authorities due to their proximity to and/or involvement in the Yangibana Project.

Performance Data	2019	2020	2021
Number of complaints raised	1*	0	1**
Number of social incidents	0	0	0

\* This complaint was from the Shire of Upper Gascoyne regarding a deterioration in the condition of the Shire Road caused by increased traffic to and from the Yangibana Project. Hastings paid for road maintenance activities to improve the condition of the road to the satisfaction of the Shire.

\*\* This complaint was from the pastoralist regarding the presence of contractors in areas of the pastoral station that were not expected. Hastings discussed the matter with the pastoralists to ensure all activities occurring on site were known to the pastoralist.

A third party due diligence assessment of social aspects of the Yangibana Project and Onslow Rare Earths Plant has commended Hastings for on-going communications, engagement and consultation with key stakeholders:

*'The IESC [Independent Environmental and Social Consultant] commends the thorough stakeholder engagement record-keeping / documentation demonstrated by the Project.*

*... concludes that the Project has been proactively engaging with the relevant Indigenous Peoples ...*

*Though Hastings is not required to engage or establish an agreement with the Thalanji People (as this is the responsibility of Development WA), Hastings proactive stance in informing the Thalanji People / BTAC about the Project as well as initial discussion of potential opportunities reflects a proactive approach by the Company and is commended. Hastings is, furthermore, noted to plan to continue engagement with the Thalanji... including providing Project updates and potential employment opportunities as the Project progresses."*



## Stakeholders

## Engagement Activities



### Local Communities

This includes the pastoral lease holders, local and regional residents, not-for-profit groups, businesses, community-based and other special interest groups.

Face-to-face engagement, phone calls, newsletters, community meetings, events, website.



### Traditional Owners

Specifically, the Thiin-Mah Warriyangka, Tharrkari and Jiwarli People (TMWTJ) People and the Thalanyji People who are recognised as the traditional owners of the land on which the Yangibana Project and Onslow Project, respectively is located due to their connection to the land and presence of cultural heritage sites and artefacts.

Face-to-face engagement, phone calls, newsletters, community meetings and events, and our website.



### Employees and Contractors

Our employees and contractors are invaluable to the continuation of our operations. Where possible, we look to employee people from the local communities.

Email, briefings, newsletter, department and weekly update meetings, direct engagement between manager and employees.



### Government

This includes Commonwealth and state government departments, as well as, local government authorities. They are responsible for Project approvals and maintenance of local infrastructure.

Briefings, direct engagement and emails.



### Suppliers

Suppliers from a global supply chain, although we prefer local businesses where practical.

Discussions and briefings, contractual agreements.



### Shareholders

Shareholders receive regular communication on our business performance via our website and ASX announcements.

Annual Report, website, email, investor briefings, market announcements, annual general meetings, this Sustainability Report.



### Customers

Our rare earths will be sold globally to a range of customers, including automotive and renewables organisations.

Meetings, report, website, discussions, site visits, tenders.

## Indigenous Relations

Our Indigenous Engagement Strategy, Cultural Heritage Management Plan and Project Agreement for Native Title collectively outline our commitment to working closely with Traditional Owners.

Aboriginal and Torres Strait Islander people are the recognised Indigenous People of Australia and are the most important partners and stakeholders for Hastings. Aboriginal and Torres Strait Islander people are the holders of unique languages, knowledge systems and beliefs, and often have a special relation to and use of their traditional lands, waters or territories.

There is evidence of Indigenous People in the Upper Gascoyne Region, where the Yangibana Project is located, dating back more than 30,000 years. The Region contains areas of cultural significance such as burial grounds and middens. Presently,

the land within and adjacent to the Shire of Upper Gascoyne belongs to several language groups, including the Budina, Gnulli, Malgana, Thiin-Mah Warriyangka, Tharrkari and Jiwarli.

Components of our Yangibana Project are located on traditionally owned land. The TMWTJ People are Determined Native Title holders of the land on which the Yangibana Project mine site occurs, while the Thalanyji People are the Determined Native Title holders of the land on which the hydrometallurgical process plant in Onslow will be developed. While these sites may not be actively accessed or used by the Traditional Owners, we aim to recognise and respect the rights of Indigenous peoples and embrace the

opportunity to establish respectful, long-lasting relationships.

While extensive engagement has been undertaken with the TMWTJ people since 2015 and more recently the Thalanyji People in 2020, engagement has slowed in 2020 due to COVID-19 restrictions, as the Australian Government closed access to a number of Indigenous communities and regional areas to prevent transmission. In lieu of face-to-face engagement opportunities, Hastings has utilised telecommunications technologies to conduct remote engagement and keep the community informed of project developments.

### CASE STUDY

#### Respecting and Preserving Culture, Knowledge and Practice

We seek to respect and preserve the culture, knowledge, and practices of Indigenous Peoples.

In 2020, Hastings liaised with the Irra Wangga Language Centre to assist in the development of a video and report that documents the Thiinma language, which is classed by UNESCO as a critically endangered language.

The Irra Wangga Language Centre aims to preserve and comprehensively document the languages of the Midwest, Murchison and Gascoyne regions of WA, in addition to engaging with language communities to aid efforts in language maintenance and revitalisation.





## Cultural Heritage

Cultural heritage values are the aspects of a community's past and present that its people consider valuable and want to pass on to future generations. It can include everything from landscapes, artefacts and archaeological sites to language, art, stories and music, and customary practices like hunting and gathering.

Recognising the cultural, spiritual and physical connections that Indigenous

people often have with land, water, plants and animals, we are committed to engaging with the Traditional Owners and implementing strategies to avoid and, where avoidance is not possible, mitigate impacts to cultural heritage values.

This commitment is captured in our Cultural Heritage Policy and Cultural Heritage Management Plan that applies to all employees and contractors.

Through this policy we commit to engaging with the relevant Traditional Owners before conducting activities, respecting and managing cultural heritage in a culturally appropriate and sensitive manner, and providing cultural awareness training to our workforce.

### CASE STUDY

## Voluntary Native Title Project Agreement

As the Yangibana Project is located along a historic Indigenous travel route, it is recognised as belonging to multiple family groups through the Native Title Determination.

In Australia, the term 'Native Title' refers to the recognition by Australian law of the rights and interests of Aboriginal or Torres Strait Islander (Indigenous) people's traditional law and custom over land and/or water, according to their traditional laws and customs.

As a requirement of the Native Title Determination, the TMWTJ People have formed a Prescribed Body

Corporate, the Woodgoomungoooh Aboriginal Corporation, which is responsible for managing and protecting native title on behalf of the Native Title holders.

Due to the unique joint ownership situation of the claim, it took some time for the claim to be initially lodged in 2016. The claim was then Determined by the Federal Court in 2017. Hastings was honoured to be invited to witness the proceedings with the group and to share their joy in achieving recognition of their rights and interests to the land that derive from their traditional laws and customs.

As all our mining leases for the Yangibana Project were granted prior to the lodgement of the claim, Hastings were not required to pay royalties on its use of the land. However, recognizing the importance of the land to the TMWTJ People and the long-term positive contribution Hastings could achieve, we agreed to establish a voluntary agreement and a royalty structure for granted mining tenure. All future mining tenements will be included into the Agreement via a Deed of Variation. This enables the TMWTJ People to benefit with a royalty structure for future mining tenements within the Yangibana Project.

CASE STUDY

## Yangibana Project Cultural Heritage Studies

All areas of the Yangibana Project mine site footprint have undergone cultural heritage surveys, in collaboration with the TMWTJ People, to meet legislative requirements and align with international good practice. Through these surveys a number of cultural heritage sites and artifacts were identified.

In consultation with the TMWTJ People, recommendations were provided and considered during

Project decision-making. All sites of cultural heritage significance were avoided through the design of the Project's infrastructure footprint.

Additionally, in recognition of the importance of certain flora, fauna, and watercourses to the TMWTJ People, we will limit native vegetation clearing and establish a 150 m exclusion buffer either side of local watercourses (Lyons River and Fraser Creek) to protect these heritage values.

Similarly, two cultural heritage sites have been identified at the tenure border of Hastings future hydrometallurgical process plant in Onslow. These were identified through government coordinated cultural heritage surveys with the Thalanyji People. As these are located on the border of the proposed area, infrastructure design will avoid impact to these areas.

“ All sites of cultural heritage significance were avoided through the design of the Project's infrastructure footprint. ”



# Our Environment



We acknowledge our obligation to operate in a responsible manner, which involves mitigating our risks and minimising the impacts of our operations.

Our key material topics include waste and tailings management, water stewardship and climate change. We are conscious of the role we have in managing these aspects for the benefit of future generations and the safety of our people, the environment and the communities where we operate.

Our environmental management approach is underpinned by our Environmental Policy, which outlines our commitment to minimise our environmental footprint and drive continual improvement.

We have developed an ESMS aligned with the ISO 14001: 2015. To date, the ESMS components that are relevant to our activities in the past year have been implemented,

including the Exploration Environmental Management Plan and Early Works Construction Environmental Management Plan and associated procedures.

As we look to commence construction of the Yangibana

Project this year, we will be finalising the remainder of our ESMS. Many of the Environmental Management Plans that form part of the ESMS have been required as part of the environmental approvals for our Yangibana Project.

“ We view ourselves as stewards of the land, water and air, and ecosystems.

”



Performance Data	2019	2020	2021
Environmental incidents*	1	0	0
Land disturbance (hectares)*	80	0	28
Rehabilitated land (hectares)**	0	0	0
Greenhouse Gas Emissions			
Scope 1 and 2 emissions (ktCO2e)	na	na	na
Energy Use and Resources Used			
Energy use (terajoules)^	0.073	0.110	0.094
Coal (%)	0	0	0
Electricity (%)	100	100	100
Natural gas (%)	0	0	0
Diesel (%)	na	na	na
Water Usage and Resources			
Total water used (kilolitres)****	14.195	0.781	13.042

\* Environmental incidents are classified by non-compliance with the law, a non-conformance with relevant risk mitigation detailed in management plans and associated documentation and are reportable to a regulatory authority. The environmental incident in 2019 included track maintenance that included some minor vegetation clearing that had not been permitted. Given its minor nature, the government regulator directed us to submit a permit application and describe corrective actions to ensure it didn't occur in future.

\*\* Land disturbance is largely a result of our exploration activities. In FY19, ~24 hectares of land was cleared for the Yangibana Project, which included a camp and access track.

^ Energy use records are only available for the corporate office and thus shows a 100% contribution by electricity, however diesel has been used at the Yangibana Project but has not been calculated. A portion of our energy use can be contributed to diesel use for the operation of mobile equipment at the Yangibana Project.

\*\*\* No rehabilitation works have commenced due to the early stage of the projects. An exploration rehabilitation program is being conducted in FY22 to rehabilitate exploration areas. An ongoing progressive rehabilitation program will be undertaken over exploration areas and future temporary construction areas.

\*\*\*\* Water usage is only reported for the Yangibana Project and is currently not reported for the corporate office.

Na not available at this time but will be reported in the future.

CASE STUDY

## Solar Power

Hastings is currently investigating opportunities to incorporate a solar field at the Yangibana Project to complement the liquid natural gas fired power station. The solar field could supply up to 30% - 40% of the Projects total power requirements. Approval applications will be submitted for a solar field that may be doubled in size in anticipation of an increased reliance on renewable energy in the future.

At Onslow, Hastings shall utilise an existing power station (Horizon Power). The power supply for the Onslow area comes via a state-of-the-art hybrid system comprising a high efficiency gas-fuelled power station, a battery energy storage system, and a centralised 1 MW solar farm. In addition, distributed energy resources are spread across domestic and commercial premises in Onslow and include 2.4 MW of rooftop solar power and battery storage. With the Hastings load connected, it is estimated that

approximately 14% of the total Onslow energy will come from renewable energy. With the connection of Hastings' load to the Horizon Power system, Horizon Power will be able to make increased use of the Distributed Energy Resources in the town, thereby increasing the quantum of renewable energy servicing the town of Onslow. The increased system load coming from Hastings will enable Horizon Power to explore the possibility of increasing the amount of centralised solar servicing the area.

## Climate Change

Climate change presents a range of risks and opportunities - from changing weather patterns and regulatory requirements to shifts in technology and societal expectations. Around the world governments, organisations and civil society are taking action and moving towards a low carbon economy. As a rare earths company, we see ourselves as part of this global solution.

Management of this material topic is guided by our Environmental Policy. We are committed to reducing our emissions through investigating opportunities to use renewable energy sources and identifying operational energy efficiencies, as well as, assessing the physical risks of climate change to ensure the longevity of our operations.

The recent IPCC Report, titled 'Global Warming of 1.5 °C,' confirms scientists' previous findings about climate change and provides new estimates of the chances of exceeding 1.5°C of global warming in the coming decades. Under all emissions scenarios considered by the scientists, the 1.5°C degree temperature rise will be reached by 2040, with the expected consequences being an increase in extreme weather events and sea level rises.

Given the urgency of tackling climate change, Hastings maintains close ties with business partners to ensure that

our products will be prioritised for use in sustainable technologies, such as wind energy and electric vehicles.



### Climate Change Risk Assessment

We support the Paris Agreement objectives and IPCC assessment of climate change science and are committed to incorporating the most recent climate science into our decision-making processes and strive to ensure our operations are not contributing to the climate threat.

As described by the Task Force on Climate-Related Financial Disclosures (TCFD), physical risks resulting from climate change can be event driven (e.g. extreme weather events) or longer-term shifts (e.g. sustained higher temperatures) in climate patterns. Physical risks may have financial implications for organisations, such as direct damage to assets, reduced access to critical resources (e.g. water) and indirect impacts from supply chain disruption.

In 2020, we undertook a review of the Yangibana Project's potential physical risks, in which the physical and natural hazards likely to impact the Project were assessed under present (baseline) and future climate scenarios.

The aim was to understand the projected changes to climate which might impact on our operations. This process considered potential impacts from extreme weather events, temperature changes and changes in access to water. The assessment considered the Project's baseline, or 'current' conditions, some of which are already classified as high risk but will not change under future scenarios. In these situations, Hastings has already conducted engineering design to take account of the conditions. In other situations, extreme weather events have increased the risk profile and thus mitigation strategies are currently being developed to monitor these scenarios and have contingency plans in place.

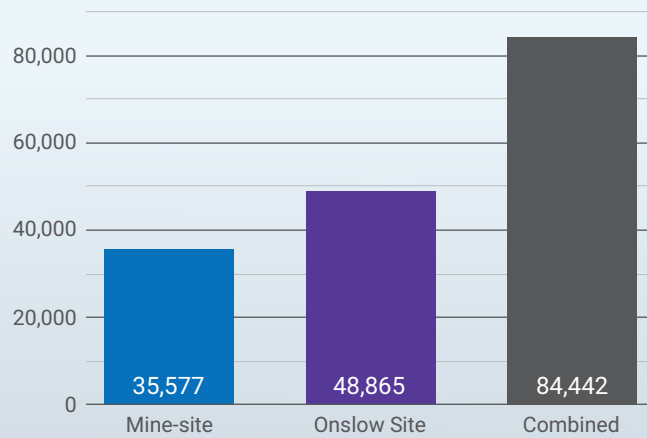
We undertook a greenhouse gas emissions (GGE) assessment of our Yangibana Project and Onslow Rare Earths Plant using the National Greenhouse and Energy Reporting (NGER) methodologies. NGER is the national framework for reporting on GGE, energy production and energy consumption. The Yangibana

Project will be required to report on its emissions, as its emissions are estimated to be above the Australian legislative threshold (25 kt CO<sub>2</sub>e-).

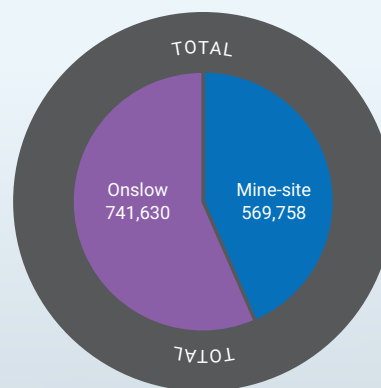
The majority of emissions from the Yangibana Project mine-site activities were from diesel operated mining machinery and the use

of liquefied natural gas (LNG) for electricity production (Scope 1). The Onslow site emissions, related to the hydrometallurgical processing plant, largely resulting from the combustion of natural gas at the acid bake rotary kiln (Scope 1) and the use of electricity purchased from the grid (Scope 2).

### Predicted Annual Emissions (t CO<sub>2</sub>-e)



### Predicted Life of Mine Emissions (t CO<sub>2</sub>-e)



## Waste and Tailings Management

We aim to ensure all waste generated by our operations is appropriately handled, stored and disposed of according to their properties, environmental factors and regulatory requirements. Our management of waste is governed by our Environmental Policy and operationalised on site via project specific Tailings Storage Facility (TSF)

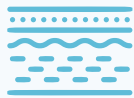
Operating Manuals, Waste Management Plans and Naturally Occurring Radioactive Materials (NORM) Residue Management Plans. These documents form part of our ESMS.

We recognise our greatest potential waste risk lies with the management of the TSFs as they have the potential to

impact the environment if not managed appropriately. For our Yangibana Project, we have undertaken numerous studies to inform the design of the TSFs and conducted landform evolution modelling to ensure the integrity of the TSFs over a 1000-year period, which have been approved by the relevant government departments.

### Yangibana Waste Streams

Our Yangibana Project waste streams will include:



#### Overburden

This refers to the top layer of soil that will be removed from the land above during ground disturbing activities, and is to be stored in topsoil storage facilities. The overburden will be used to progressively rehabilitate waste rock landforms during the operations phase and all other areas during the closure phase.



#### Mineral waste

Our iron stone ore body contains monazite, which hosts the targeted rare earth elements and also low level NORM. The ore body is surrounded by granite, which is geochemically benign and will be separated from the ore body. This mineral waste will be disposed of in waste rock landforms beside the respective pits.



#### Tailings

There will be two tailings waste streams, including from the beneficiation process plant at the Yangibana Project site, and from the hydrometallurgical process plant at Onslow. Tailings will be disposed of in one of the two respective TSFs located at the Yangibana Project site, in accordance with the tailings physical and chemical properties.



#### Hazardous Waste

Examples of hazardous waste includes oil, tyres, batteries and hydrocarbon contaminated waste. Hazardous waste will be appropriately stored and handled on site, and then disposed of by licensed contractors at licensed facilities off-site.



#### General waste

General Waste includes putrescible and inert solid waste generated from a variety of sources, including workforce accommodation facilities and construction activities, which will be disposed of in landfills located at the Yangibana Project site. Waste generated at the Onslow Rare Earths Plant will be disposed of at the municipal Onslow Waste Facility.



### Hydrometallurgical Process and NORM

NORM will be separated from the rare earths in the hydrometallurgical process plant in Onslow. The radionuclides are then disposed of in the hydrometallurgical tailings, while the MREC product, being exported to overseas customers, is not classed as radioactive.

In order to safely dispose of the hydrometallurgical tailings, it will be transported from the Onslow

Plant to the Yangibana Project site to be stored in the fully permitted hydrometallurgical TSF. Less than 5% of the total tailings generated, from both the beneficiation process and the hydrometallurgical process activities, are considered radioactive.


In order to safely transport the hydrometallurgical tailings and ensure they are appropriately

managed, we have developed a Transport Radiation Management Plan, which will be approved by the Radiological Council and the Department of Mines, Industry Regulation and Safety. This includes consideration of of pressurised containers, baseline monitoring and spill response plans.

## Biodiversity

Numerous flora and vegetation, terrestrial fauna and subterranean fauna surveys have been conducted at the Yangibana Project and Onslow Project areas. These have been on-going over the last five years. In the past year we have focussed on conducted targeted flora and vegetation surveys over new disturbance areas. We have a comprehensive understanding of the environmental values of the areas in which we operate.

Environmental approvals have been obtained for the Yangibana Project and have involved opportunities for our stakeholders and the general public to comment. Our formal environmental impact assessments (EIA) of each site have included consideration of flora and fauna, water, air quality and emissions. The Environmental Review Document, which is the EIA for the Yangibana Project, is available on our website. In the coming year, we will obtain environmental approvals for the Onslow Project and will progress an EIA for additional mining areas at the Yangibana Project (Yangibana Expansion 1).



“ We have ensured our Project disturbance footprint will not significantly impact priority species, including *Acacia curryana*. ”

## Closure planning

Mine closure planning is an integral component of mine development and should continue over the mine life until the closure phase. Hastings has developed a Mine Closure Plan for the Yangibana Project, which has been granted approval by government stakeholders. A Closure Plan for the Onslow Project shall be developed this year.

Storage of topsoil is an important component of the mine closure plan. Ensuring adequate topsoil is available for rehabilitation activities is essential for successful revegetation of disturbed areas. Hastings has collected and stored topsoil during our early works activities. In addition, specifications for waste rock landform design and

TSF design has taken account of the integrity of the embankments, erodibility of embankments, geochemistry and containment of tailings, and rehabilitation success. Incorporation of these closure specifications into the engineering design of landforms reduces the cost of the decommissioning and closure program at the end of mine life.

Mine closure planning should also involve consultation with key stakeholders. Hastings has and will continue to consult with key stakeholders with regard to mine closure.





## Water Stewardship

Hastings considers water as a shared and critical resource, particularly in the semi-arid regions of WA where we will operate the Yangibana Project. Water is a fundamental ecosystem requirement, a cultural heritage value, and an essential component of our mining activities. Therefore, we have an important role in its stewardship.

Hastings is committed to managing water resources in a sustainable manner. This commitment is operationalised at a site level via Water Management Plans, Surface Water Management Plans and other associated documents, such as the Groundwater Operating Strategy. These documents form part of our ESMS.

Over the past three years, Hastings water usage has been relatively minimal and reflects the investigative studies and mineral exploration activities required to develop the Yangibana Project. However, water usage is expected to increase once the Yangibana Project commences construction activities and will continue to increase during commissioning and operations.

Impacts to surface water, ground water, and from wastewater at our Yangibana Project have been assessed through the regulatory approvals process and will be monitored and managed accordingly with actions detailed in specific and tailored management plans.





## Yangibana Project Water Sources and Management

Hastings has established a bore for the Yangibana Project exploration and construction activities in a fractured rock aquifer associated with the ore body. Water quality in the fractured rock aquifers is fresh but form a component of the ore body to be mined.

A deep aquifer water source (i.e. a palaeochannel; called SipHon Well borefield) has been identified to meet the operational water demands. Water quality in the palaeochannel is marginal (i.e. ranges from fresh to brackish). Water studies and drawdown modelling have been undertaken to ensure abstraction does

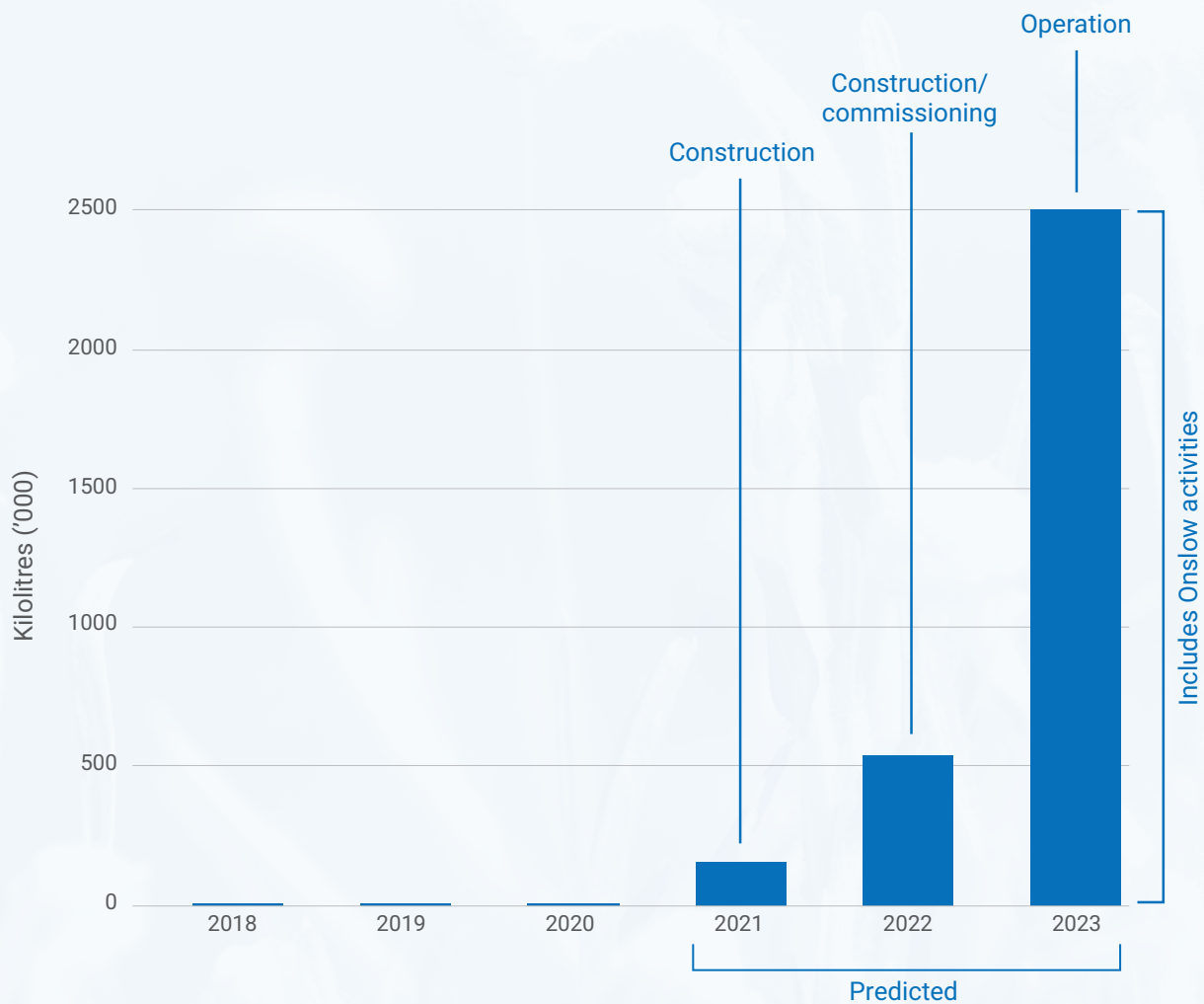
not impact nearby sensitive receptors, including groundwater dependent ecosystems. We are continuing to undertake studies and plan to develop monitoring bores in shallow aquifer systems in close proximity to SipHon Well borefield, which will assist to validate the modelling once water abstraction begins.

We have considered water management throughout the development of the Yangibana Project and are implementing a range of initiatives. During the planning phase we have investigated water harvesting from pit catchments during heavy rainfall events, utilisation of fractured

rock water during pit dewatering, and recycling 78% of wastewater from the beneficiation process plant.

Hastings will obtain water from an existing government water source for the operation of the Onslow Rare Earths Plant. Hypersaline water from a 300m deep aquifer will undergo treatment to improve the water quality. Surface water, groundwater and waste studies have been completed at the Onslow site and will be subject to regulatory Approvals processes in the coming year.

### Water Consumption



## Groundwater Dependent Ecosystems and Stygofauna

Groundwater dependent ecosystems (GDEs) are reliant on the shallow aquifers that fluctuate with the seasons and depend on the recharge from surface water drainage into the river and creek systems. Pastoral bores, native vegetation (e.g. Eucalyptus trees), stygofauna and permanent pools along the Lyons River are components of the GDEs and thus sensitive environmental receptors for water drawdown or contamination risks.

Stygofauna are small organisms, usually invertebrates or crustaceans that live permanently in shallow groundwater aquifers associated with a calcrete lithology. Not much is known about stygofauna but they are understood to be important to maintaining the health of groundwater ecosystems. Through their evolutionary characteristics stygofauna offer a scientific window into deeper historical processes such as changing climates and continental drift.

Recognising the important role of GDEs, specifically stygofauna, we undertook onsite studies to determine the presence of stygofauna that could potentially be affected by groundwater abstraction. We have avoided targeting shallow



groundwater aquifers as a water source for the Project. In addition, we went through a process of revising the layout of the Yangibana Project

access road so that it would not interact with the Lyons River and, thus reducing the potential impact to GDEs, specifically eucalypts.

### CASE STUDY

## Drinking Water for Gascoyne Junction

The town of Gascoyne Junction currently obtains its water from a shallow aquifer associated with the Gascoyne River. This water supply is under stress with lower yields and rising salinity.

During Yangibana Project stakeholder discussions, the Shire of Upper Gascoyne raised


concerns around drinking water shortages and the need to identify a new water supply. As we have been undertaking our own ongoing water investigation program to further refine water sources for our Yangibana Project, we have utilised the same consultants to make assessments of a potential water source for Gascoyne Junction.

In FY20/21 a geophysics assessment was conducted at Gascoyne Junction, the results from which were provided to the Shire's hydrogeology consultant. This has resulted in targets being defined for potential future water bores to be drilled, decreasing risk and cost for the Shire.

# Annexures

PILAR	BOUNDARY	MATERIAL TOPIC	DESCRIPTION
Governance	Internal and external	Ethics and Conduct	Corporate governance, ethics and conduct.
Our People	Internal	Attraction and Retention	Attraction and retention of employees, and the building of a diverse and inclusive workplace.
		Health, Safety and Wellbeing	Managing the health, safety and wellbeing of our workforce and the communities in which we operate. This includes COVID-19 impacts.
Our Communities	Internal and external	Cultural Heritage	The aspects that a community considers valuable and wants to pass on to future generations. This includes tangible and intangible heritage values.
		Stakeholder Engagement	Communicating with and engaging stakeholders, including local communities, Traditional Owners and leaseholders, to build and maintain support for our business activities. This includes grievance management and considering stakeholders in decision making processes.
Our Environment	Internal and external	Climate Risk	Assessing, adapting and managing the risks and opportunities of a variable and changing climate. Minimising energy consumption and improving efficiency to reduce GHG emissions contributing to climate change impacts.
		Waste and Tailings Management	Managing waste and tailings to ensure they are handled, stored and disposed of accordingly.
		Water Stewardship	Responsible use and management of water resources.

Fauna photographs - Kenneth Chew  
 Other photographs - Lara Jefferson  
 Photograph of Peter Salmon - Bundiyarra -  
 Irra Wangga Language Resource Program



“ Your efforts have contributed to the growth and continued success of Hastings, as we continue our journey and deliver on our company’s vision ...  
One Dream, One Team.

”



HASTINGS TECHNOLOGY METALS LIMITED

**Tel:** +61 8 6117 6118

**Email:** [info@hastingstechmetals.com](mailto:info@hastingstechmetals.com)

**Web:** [hastingstechmetals.com](http://hastingstechmetals.com)