# **ASX ANNOUNCEMENT**

#### ARAFURA LAUNCHES UPDATED SUSTAINABILITY REPORT

29 November 2021



- Updated Sustainability Report launched with initiatives and targets set in line with ESG commitment and goal of achieving net zero carbon emissions by 2050
- Arafura continues to elevate sustainability practices and reporting in line with expectations from customers, government and stakeholders

**Arafura Resources Limited (ASX:ARU)** ("**Arafura**" or the "**Company**") is pleased to announce the launch of a new Nolans Project Sustainability Report (the "**Report**"). The Report aligns with Arafura's ESG Commitment to "be a trusted global leader and supplier of choice for sustainably mined rare earth products, helping our customers deliver clean and efficient technologies. We are committed to delivering positive intergenerational economic, environmental and social benefits to our stakeholders".

Arafura has recognised the strategic importance of implementing and maintaining a culture of sustainability right across the business from the boardroom to the mine site, which is central to its plans to mine and process ore to oxide at a single site.

The Arafura Board of Directors, its employees (including the wider owner's team) are pleased to continue to protect the international credibility of the Nolans Project by setting its goals and targets to demonstrate how it aligns with ESG expectations.

Over the coming year, Arafura will focus on a range of sustainability initiatives including:

- Developing a clear decarbonisation pathway;
- Investigating opportunities for water savings in processing across the life of the mine;
- Maximising project participation opportunities for the indigenous people of central Australia and the broader Northern Territory economy; and
- Establishing a Board Sustainability Committee to review and recommend to the Board the long term targets and aspirations and monitor progress toward these goals.

Arafura's Chairman Mark Southey stated:

"2022 is going to be a year of delivery for Arafura. With ESG at the forefront of what we do since the beginning, we have great confidence in our strategy and our team to make a Final Investment Decision in H2 2022. Getting these supporting strategies and cultural settings right now will make for a better business in the long run."

The 2021 FY Sustainability Report can be found at <a href="https://www.arultd.com/commitments/sustainability">www.arultd.com/commitments/sustainability</a>.



"Our goal is to be a trusted global leader and supplier of choice for sustainably mined and processed rare earth products, helping our customers deliver clean and efficient technologies. We are committed to delivering positive intergenerational economic, environmental and social benefits to our stakeholders."





# ARAFURA LAUNCHES UPDATED SUSTAINABILITY REPORT

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**SUSTAINABILITY REPORT** 

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#### MESSAGE FROM THE CHAIRMAN & MD

# FROM THE CHAIRMAN & MANAGING DIRECTOR

# Arafura Resources - A focus on Sustainability

Welcome to Arafura's updated Sustainability Report. This dedicated annual overview will cement sustainability at the heart of all we do to become a trusted global leader and supplier of choice of rare earth products.

In preparing the Nolans Project for this next critical phase, we are primed for a period of rapid transformation as we move from engineering, construction, and finally into a consistent state of production. Each of these phases will impact sustainability risks and opportunities and require strategic planning and consideration. Now is the right time to release our sustainability report to set a baseline for performance, outline our roadmap and make commitments for the future.

FY21 was a year of significant progress for the Nolans Project with several milestones achieved in the development of our first operation in the inland central region of Australia's Northern Territory. A Native Title Agreement (NTA) was executed in June 2020 with the site's Native Title Holders representing Kwaty Aboriginal Corporation RNTBC, Irretyepwenty Ywentent Pwert Aboriginal Corporation RNTBC and Alherramp Ilewerr Mamp Arrangkey Tywerl Aboriginal Corporation RNTBC. The NTA provides for the ongoing protection of the Native Title Holders' rights as well as allowing them to share in the long-term benefits of the Nolans Project.

Following the NTA, in July 2020 the main project mineral leases covering the Nolans mine, processing plant, waste storage facilities and accommodation village were granted. The grant of these leases provided Arafura with security over the whole asset and secured our regulatory pathway to development.

In August 2021, \$45.5M was raised which enabled us to commence Front End Engineering and Design works (FEED). This will take an estimated 12 months allowing a Final Investment Decision to be made in H2 2022.

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THE RARE EARTHS
SECTOR WILL PLAY
A MAJOR ROLE IN
DELIVERING ON A
LOW-CARBON FUTURE
AND ARAFURA IS IN
A STRONG POSITION
TO MAKE A REAL
DIFFERENCE.

Over 2021, we have prepared both the Mining Management Plan and associated Environmental Management Plans which will be submitted to the Northern Territory Government for final mining approval.

Finally, in 2021 Arafura became a signatory to the United Nations Global Compact. This is an important strategic move for us as we remain committed to best-practice operations in the protection of our environment, genuine engagement with local indigenous owners, and ensuring strict anti-corruption measures are in place across the business.

Looking to the future, Arafura has committed to achieving net zero carbon emissions by 2050. We are not underestimating the gravity of the commitment and have already begun work on defining our pathway to net zero, which we look forward to sharing soon.

Arafura's progress over the past twelve months in these important areas have put us in the strongest possible position to deliver for shareholders in the coming year.

None of this would be possible without the team we have in place at Arafura and we would like to thank all staff, contractors, partners and shareholders for their ongoing support.







Gavin Lockyer
MANAGING DIRECTOR

# ARAFURA OVERVIEW

#### **ABOUT ARAFURA**

Arafura is headquartered in Perth, Western Australia and was listed on the Australian Stock Exchange in 2003 (ASX: ARU).

We are focused on becoming a leading global supplier of rare earth elements (REE), particularly two high-value and in-demand REEs: Neodymium and Praseodymium (NdPr). As part of this, we are in the process of transitioning from exploration and development to construction and operation at the Nolans Project in the Northern Territory.

#### **ABOUT RARE EARTHS**

Arafura's primary products from the Nolans Project will be rare earths which are essential to many important products used in modern society.

These include high-strength magnets, catalytic converters for automobiles, consumer electronics, energy efficient lighting, optics, super alloys and advanced ceramics. Demand for rare earths is forecast to grow strongly in the coming years, driven by the following trends:

- → The transition towards more renewable forms of energy, particularly high efficiency wind generation;
- Advanced manufacturing and consumer products featuring robotics and automation;
- → Low-emission technology concepts; and
- → The evolution in automotive and future mobility trends, particularly in electric vehicle drive trains to increase efficiency and reduce electricity demand.

Arafura's NdPr oxide product will be toll processed to metal and will feed into leading magnet producers in Japan and China, along with emerging magnet manufacturing capability in other regions. Magnet manufacturing capacity is expanding significantly to cater for rapid forecast EV growth in Europe, Japan, China, South Korea and the USA. In addition to rare earths, the Nolans Project will produce a marketable phosphate by-product, namely 54%  $P_2O_5$  phosphoric acid, which is suitable for use in granular fertilisers.



# **OUR VISION**

TO BE THE TRUSTED, LEADING RARE EARTHS PARTNER OF CUSTOMERS IN THE HIGH IMPACT TECHNOLOGIES AND ENDURINGLY LIFT THE SUSTAINABILITY OF OUR PLANET

# **OUR VALUES**

Our values inform the behaviours, attributes and decision-making of our employees, and are encompassed in the acronym RESPECT, which stands for:











Encouraging integrity an accountability in the way we do business through respect, honesty and care for others







# **NOLANS PROJECT**

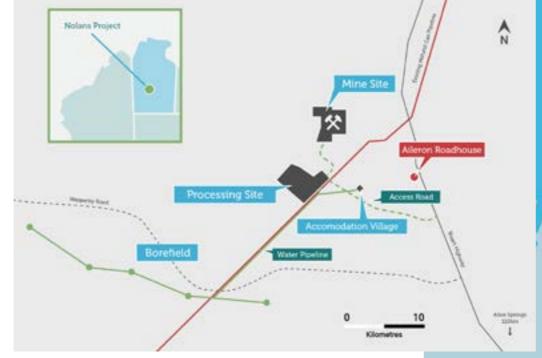
In production, Nolans will consist of a mine, process plant and supporting infrastructure located 135 kilometres north of Alice Springs.

This is a globally significant NdPr project which, once in operation, will become a major supplier of these critical minerals to the high-performance neodymium magnet (NdFeB) sector.

As of 2021, Nolans is the only NdPr-focused project that is 100% domiciled in Australia that has secured full environmental approvals for mining, beneficiation, extraction and separation of rare earths. This includes environmental approval for the on-site management and disposal of tailings and process waste.

The rigorous Northern Territory and Federal government approval processes included an assessment of the Company's ability to manage and mitigate all environmental and social aspects of the planned project in addition to its ability to undertake progressive rehabilitation throughout the life of the project.

social and economic benefits to local, regional and national stakeholders. At it's most simple, this includes royalties and taxes, however, we will also provide opportunities for indigenous and local employment in Central Australia, assistance with the development of small and medium sized enterprises and, potentially, shared infrastructure benefits to local regional communities.





**NORTHERN** TERRITORY

Darwin

# LEGEND

- Gas Pipeline

Highway ..... Railway

# Gas Field

Mining

Processing



Alice Springs



# SUSTAINABILITY AT

# ARAFURA

Life on land and

the goals

## ARAFURA'S SUSTAINABILITY GOAL

"Arafura's ESG commitment is to be a trusted global leader and supplier of choice for sustainably mined and processed rare earth products, helping our customers deliver clean and efficient technologies. We are committed to delivering positive intergenerational economic, environmental and social benefits to our stakeholders."

## UN GLOBAL COMPACT & THE SUSTAINABLE **DEVELOPMENT GOALS (SDGS)**

Arafura acknowledges the need for collaboration in solving the challenges facing the world and recognises the SDGs as a means of maximising collective impact. In order to align our operations with the SDGs. Arafura has become a Participant to the UN Global Compact. This will enable us to better engage at a national level with stakeholders from Government, civil society and communities to map out a shared approach. Arafura is confident that we can contribute to many of the 17 SDGs, with particular emphasis on the following seven:



SDG	DEFINITION	ARAFURA'S COMMITMENT
**************************************	Decent work and economic growth	We aim to create an inspirational working environment in which employees regardless of cultural background, age and gender are encouraged and motivated to realise their potential.
& &	Industry innovation and infrastructure	As a rare earths producer, Arafura's products will support technological innovation in electronics, helping industry transition to a low carbon future.
alda	Sustainable cities and communities	Arafura strives to operate in a sustainable manner and to providing social and employment opportunities that are closely aligned with the aspirations of the local and indigenous communities in which we operate.
©	Responsible consumption and production	Arafura commits to integrating sustainable development principles into our business and complying with legislative requirements aimed at protecting all natural resources. The use of water is important to the project, and Arafura will work to continually reduce our water use throughout the project development and operations.
©	Climate Action	Arafura is taking a number of actions to define and reduce our greenhouse gas emissions to become net zero by 2050, including switching to renewable generation and putting in place energy saving mechanisms.

relations with the land, natural resources and communities.

By placing environmental and social stewardship at the heart of our operations, Arafura intends to be a responsible mineral processor that operates with consideration and forethought in our

# **INITIATIVE FOR RESPONSIBLE** MINING ASSURANCE (IRMA)

As a further commitment to sustainability, Arafura has become the first rare earths company to join the IRMA certification initiative and is now a Pending Member. Full Membership will be attained when Arafura completes an independent audit against the IRMA standard, providing verification to customers at a global level.

Arafura will also be one of the few rare earth projects globally that will be processing ore to oxide product at a single site, enabling traceability across the entire supply chain from mine to end-use application of product. Customers can be assured of the providence and the ESG credentials from which the raw materials were mined and processed, aligning with Arafura's goal to be the supplier of choice for sustainably mined and processed rare earth products.

# WORLD ECONOMIC FORUM I STAKEHOLDER CAPITALISM FRAMEWORK

In partnership with globally recognised accounting firms, the WEF identified a set of global, cross-industry baseline disclosures and ESG metrics for companies to analyse their ESG performance and communicate this to their stakeholders on a regular basis.

Disclosures were drawn from existing commonly used voluntary standards including the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB) and the Taskforce on Climate-Related Financial Disclosure TCFD, across four pillars considered the most critical for business, society and the planet.

This makes the framework a logical and appropriate starting point for Arafura at the beginning of its sustainability journey.



# **BOARD OF DIRECTORS** SUSTAINABILITY COMMITTEE

#### **TARGET**

Establish a Board Sustainability Committee prior to the release of FY22 Sustainability Report.

Arafura's Board of Directors currently maintains oversight of all sustainability impacts and activities. However, given the significance, commitments and requirements, the Board will establish a new specific Sustainability Committee. This will ensure the various important components which comprise our Sustainability portfolio is covered with depth and focus. Showing its importance to the Company, a Board Committee Chair will oversee this function.

#### ARAFURA STAKEHOLDERS

Engaging in genuine and constructive relationships is a core element in our approach to adding value to our investors, our local community in Central Australia, our staff and our customers around the world. The views and expectations of stakeholders plays an essential role in the success of our Company and our social license to operate. In this respect, Arafura strives for regular, active and honest dialogue with our stakeholders.

Stakeholders are defined by GRI Standards as entities or individuals that can reasonably be expected to be significantly affected by Arafura's activities, products or services or whose actions can reasonably be expected to impact Arafura's ability to successfully implement our strategies and objectives. Arafura's stakeholders include:

- → Employees
- → Government
  - Partners → NGOs
- Customers
  - Investors / potential
- Regulators
- Contractors & consultants
- Traditional Owners
  - Board
- → Local communities & landholders /pastoralists
- Suppliers

investors

Industry groups

Media

→ Financial Institutions

SUSTAINABILITY AT ARAFURA SUSTAINABILITY AT ARAFURA

# **TARGETS**

## **MATERIALITY MATRIX**

As part of this report, Arafura undertook a materiality analysis which resulted in a materiality matrix.

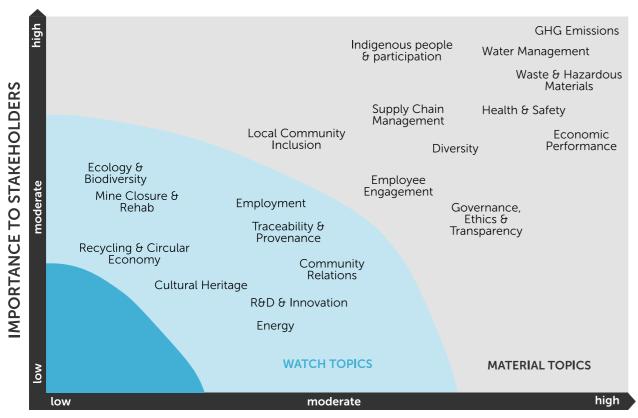
This process allowed us to rank which sustainability issues to focus on – which issues were 'material' to our business.

The results are presented in the materiality matrix below, and present our material issues by contrasting them in two dimensions – one is their importance to Arafura's success, and the other is their importance to our stakeholders and the likely influence they might have on our business.



## MATERIAL TOPIC ROADMAP

Arafura is currently transitioning from an explorer to a developer and producer in the short to medium term which will have a significant effect on levels and areas of impact. The table to the right aims to articulate the overarching progress the company is targeting as it transitions



#### **IMPACT ON ARAFURA RESOURCES**

TOPIC	CURRENT STATUS	DEVELOPMENT TARGET	PRODUCTION TARGET
Reporting framework	Follow WEF framework best practice	Report against WEF framework	Report against GRI & SASB framework
GHG emissions	Perform climate footprint analysis and set net-zero target	Detailed roadmap of path to net-zero released by Arafura Board, with firm targets over the short, medium and long-term	Report Scope 1, 2 and 3 emissions and TCFD compliance
Water management	Site water balance is calculated	Water reduction study performed during front- end engineering and design	Set water reduction targets well below groundwater license allocation
Waste and hazardous materials	Approved plans to mine and process ore to oxide at a single site	Waste plans approved by government. Report against NPI regulations	Reporting all waste streams and amount including hazardous materials
Healthy and safety	Zero harm/injuries in FY21	Development of on-site safety culture and review of policies and procedures	Reporting full safety performance and demonstrate year-on-year improvement
Economic performance	Inaugural reporting of performance using GRI indicators	Increase goods and service payments to drive positive economic impact	Increase tax payments to grow revenue t government
Indigenous people and participation	Native Title Agreement executed with Registered Native Title Bodies Corporate	Execute our current 'Local and Indigenous Employment Plan' including 20% indigenous employment target	Continue to work towards 20% indigenou employment target
Supply chain management	Supply chain mapped and categorised	Establish a procurement on-boarding process and develop supplier code of conduct and quality manual that include sustainability requirements (still to be defined), including a requirement that suppliers undertake sustainability reporting	Partnership programs with suppliers to grow social impact and reduce environmental impact
Diversity	Reported on age and gender diversity metrics	Increase employment proportions of under- represented groups	Set diversity targets and action them, ensure they go beyond age and gender categories
Local community inclusion	'Territory Benefit Plan' submitted to NT government	Set targets for local employment. List tenders to ICN-NT to maximise contracts with local businesses. Host local jobs and contracts expo to get the local communities ready for business	Target of 60 employees living in Alice Springs by year five of operations
Ecology and biodiversity	All baseline studies included in environmental approvals which have been granted	Bio-diversity monitoring and management included in environmental management systems	Undertake landscape scale management of fire, feral animals and weeds in the region around the operations to maximis good habitat for all native fauna
Mine closure and rehab	Draft mine closure plan approved as part of project approvals	Full mine closure plan to be written	Scientific studies to confirm and finalise rehabilitation techniques for closure. Progressive rehabilitation will occur at every possible step of the project
Employee engagement	100% of employees receiving performance reviews	Development of employee training and development policy	Implement employee training and development policy
Governance, ethics and transparency	Inaugural sustainability report	Sustainability Committee formed	Regular fulfilment of ESG commitments. Become a leader in the ESG sector for th mining industry

# **GOVERNANCE AT**

# ARAFURA

Arafura's corporate governance framework, policies and practices are of a high standard and in accordance with expected ethical behaviour.

At Arafura, we believe corporate governance is a critical pillar that supports our business objectives and contributes to stakeholder

Further details of Arafura's corporate governance framework, policies and practices can be found on our website.

#### www.arultd.com



# **SUPPLY**

# CHAIN

## **TARGET**

Implement a sustainable procurement strategy that is in-line with the ISO 20400 sustainable procurement standards.

As we move from planning to construction and operations at the Nolans Project, our objective is to develop responsible supply chain procurement and management through transparent, objective and impartial procedures with suppliers and by providing indigenous business participation opportunities.

Arafura will work with our suppliers, which includes consultants and contractors to ensure optimal cost, quality and governance standards when it comes to the procurement of goods and

# **SOCIAL**

# RESPONSIBILITY

Arafura commits to engaging with the local community and the wider Northern Territory economy to ensure that the Nolans Project delivers tangible and lasting benefits to our stakeholders. To enable this, Arafura has proactively sought input from the local community to ensure they have a voice in the project's development and sharing in its success.

#### **HEALTH AND SAFETY**

# Maintaining high standards of health and safety lies at the heart of our organisation's integrity, prosperity and sustainability.

We take the safety of our workers, contractors and suppliers seriously, and are proud of our safety record.

Arafura records all field work injuries and communicates all incidents in monthly reports to the Board. In FY21, our operations resulted in zero injuries. In FY22, our focus will be on developing an on-site safety culture and updating our policies and procedures to reflect the expansion of our activities.

Our goal is to continue Arafura's culture of zero harm in the workplace as guided by the following principles:

- The safety of our employees and contractors is vital;
- We hold everyone accountable for their own safety and that of their associates and colleagues;
- All injuries and incidents are preventable;
- Working safely is a condition of employment or engagement;
- Everyone is expected to manage workplace risks and identify hazards;
- Being held accountable for safety means there may be significant consequences for disregarding or employing poor safety practices;
- Good safety performance will enable us to achieve our production and financial goals; and
- Looking after the wellbeing of our employees by encouraging healthy lifestyles results in a more engaged and focused workforce.

As an employer, Arafura commits to:

- > Providing leadership, education and guidance in our workplace to enable our employees and contractors to work safely;
- Ensuring good safety practices are integrated into the way we do business and our tasks every day;
- > Implementing a robust, practical safety management system with processes to identify, eliminate or manage workplace risks and hazards: and
- → Educating our workforce on healthy lifestyles by providing practical information on nutrition and exercise and regularly checking on the wellbeing of employees.

### **ECONOMIC CONTRIBUTIONS**

Arafura makes significant financial contributions to local, regional and national economies directly through the payment of taxes to the government and royalties to the CLC, as well as to our workforce and suppliers through salaries and the payment of invoices for work undertaken.

In FY21 we contributed a total \$11.3 million to the Australian economy and approximately \$1.7 million to the Northern Territory economy through supplier payments, wages, taxes and rent. This amount is expected to increase significantly as we commence construction and then ramp-up to production.



REGION	REVENUES	OPERATING COSTS (GOODS & SERVICES)	WAGES & BENEFITS	PAYMENTS TO GOVERNMENT		_ TOTAL	
REGION				TAXES	STATE & SHIRE RENT	CONTRIBUTION	
Northern Territory	-	987,299	\$469,717	\$202,628	\$70,178	\$1,729,823	
Rest Of Australia	-	\$6,273,953	\$2,273,243	\$1,025,998	-	\$9,573,194	
TOTAL	-	\$7,261,253	\$2,742,960	\$1,228,626	\$70,178	\$11,306,017	

#### LOCAL COMMUNITY INCLUSION

Building and maintaining strong relationships with our local community in Central Australia is vital to Arafura's mission. We want our reputation to be as a valued provider of local jobs and prosperity. This can only be achieved by consistently working closely with the Northern Territory Government, local indigenous land owners, and local businesses.

We will continue to work with employees, indigenous groups and other stakeholders to add value to the communities in our operational areas. We will demand leadership from our people in social responsibility and ensure that appropriate policies, standards, and practices to support this are in place and followed. In establishing partnerships, we focus on the following priorities:

- Open, meaningful, and transparent communication;
- Regular engagement with our neighbours;
- > Participation in community activities;
- Support for community initiatives;
- → Effective response to community concerns; and
- Respect for indigenous culture and aspirations.

The Nolans Project will deliver significant stakeholder benefit to the local Alice Springs region, the Northern Territory and Australia during its construction and operational phases.



WE ANTICIPATE THAT THE BENEFITS AND OPPORTUNITIES PROVIDED BY OUR PROJECT WILL BOOST THE ANNUAL GROSS PRODUCT IN THE NORTHERN TERRITORY BY APPROXIMATELY \$332M PER YEAR, AND TAX REVENUE TO THE TERRITORY AND NATIONAL GOVERNMENT WILL BE AT LEAST \$4.5B OVER THE FIRST 26 YEARS OF THE PROJECT.

Quantifiable economic impacts will be derived from Arafura's investment in:

- → Local contracting, procurement, training and employment;
- New jobs and a more skilled workforce;
- → The participation of Indigenous Territorians in the workforce and running businesses; and
- Increased number and size of businesses trade in the region.

Our Nolans Project's Territory Benefit Plan presents Arafura's commitments and engagement strategies to enable and maximise the potential benefits to the local community and the wider Northern Territory economy.

In the Territory Benefits Plan, Arafura has made the following commitments to the training and employment of local and Indigenous people during the construction phase.

# **TARGET**

Target for the Nolans Construction Phase

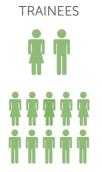
EMPLOYMENT COMMITMENT

INDIGENOUS EMPLOYMENT

4%

LOCAL EMPLOYMENT FROM THE CENTRAL AUSTRALIA REGION

10%





# INDIGENOUS PEOPLE AND PARTICIPATION

### **INDIGENOUS RELATIONS**

In the spirit of partnership, and through respectful collaboration and consultation, Arafura strives to achieve outcomes closely aligned with the aspirations of the traditional owners of the lands in which we operate.

Where possible, across all stages of the Nolans Project, this includes providing employment opportunities and social infrastructure investment to the Anmatjere region.

Arafura's Local and Indigenous Business Participation Plan (for more information, see the Arafura website) outlines the mechanisms we will use to engage with indigenous communities and the way in which we will integrate this approach into our supply chain. It also outlines in detail the methodology that we will use during the planning and construction phases of the Nolans Project to maximise public benefit to indigenous and local communities, the Northern Territory and the wider Australian economy.

In addition to our exploration agreement which has been in place since 2005, a Native Title Agreement (NTA) covering all Mineral Leases of the Nolans Project was executed in June 2020 with the following Registered Native Title Bodies Corporate (RNTBC):

- → Kwaty Aboriginal Corporation RNTBC;
- Irretyepwenty Ywentent Pwert Aboriginal Corporation RNTBC; and
- Alherramp llewerr Mamp Arrangkey Tywerl Aboriginal Corporation RNTBC.

The NTA provides for the on-going protection of the Native Title Holders' rights as well as allowing them to share in the long-term benefits of the Nolans Project.

Through regular interactions and genuine consultation, we have built relationships based on mutual respect with this broad group of stakeholders.

It is our belief that the NTA reflects this strong relationship and is a part of the reason why it was finalised in a relatively short timeframe with the assistance of the Alice Springs-based Central Land Council (CLC).



The Agreement includes various provisions that are important to our Native Title Holder groups, including environmental protection, preservation of cultural sites, business and employment opportunities, training, diversity in our workplace, consultation and financial benefits.

# LOCAL AND INDIGENOUS TRAINING AND EMPLOYMENT

During planning and construction phases of the Nolans Project, Arafura and our contractors are committed to:

- Providing employment opportunities for local and indigenous people;
- Achieving with the aim of surpassing employment targets for local and Indigenous workforce participation; and
- Maximising training, recruitment and retention of local Indigenous people.

During the Nolans Project's operations phase, Arafura pledges to:

- Create culturally-appropriate training and development pathways for local and Indigenous people to take up employment opportunities in the Project through a graduate development program and through school-based traineeships, apprenticeships and vocational education; and
- Maximise long-term career opportunities for local and Indigenous people, across generations and over the full life of the project

## **TARGET**

Target for the Nolans Operations:

20%

Aboriginal employment







# YOUNG INDIGENOUS ART AWARDS AND LITERACY PROGRAM

**LOCAL AND INDIGENOUS** 

**BUSINESS PARTICIPATION** 

and Indigenous business participation.

Arafura is committed to

sites are properly preserved

ensure that we maintain and respect cultural heritage.

SITES

Arafura has and will continue to examine the contracting

opportunities available during the planning and construction

phases of the Nolans Project and, with the assistance of the

Northern Territory Government, identify realistic targets for local

The Nolans Project site contains areas of unique cultural

significance for local indigenous people that are important to

collaborating with local indigenous

communities to ensure that such

We will continue to actively consult with traditional landowners

and relevant land councils about our operational intentions and

PROTECTION OF CULTURAL

For the past three years through the Ti-Tree and Laramba Napperby public schools near Alice Springs, Arafura ha sponsored the Young Indigenous Art Awards and Literac Program. Run by the Children's Charity Network, the award aim to build, foster and nurture confidence and self-esteem i all children. Some of the work produced by the students in the Young Indigenous Art Awards has been entered into the 202 Young Australian Art Awards.



Caring for the environment is integral to Arafura's business. We are committed to ensuring our performance in this field is approached with the same rigor as finance, production and safety.

To achieve this, Arafura has integrated sustainable development principles into our business and commit to complying with environmental protection regulatory requirements wherever we operate. We will work collaboratively with community and governing bodies to ensure a best practice approach is taken to environmental management.

As part of Arafura's commitment, we pledge to:

- Maintain an open consultation process with environmental regulators, the community, and our shareholders to ensure high standards of environmental responsibility;
- → Facilitate the education of our employees and contractors in relation to their roles and responsibilities from an environmental management perspective and ensure robust environmental management systems are in place to support this, including managing and minimise workplace exposure to hazards, ecosystem disturbance or degradation;
- → Ensure good project planning is implemented to protect the biodiversity and resources of the area, including minimising the use of valuable natural resources such as groundwater, actively exploring ways of minimising impacts and recycling and/or disposing of our by-products and waste in a responsible manner; and
- Undertake progressive rehabilitation activities on disturbed areas during operations.

### **ENVIRONMENTAL PERMITTING**

Arafura lodged an Environmental Impact Statement (EIS) for the Nolans Project with the Northern Territory and Australian government agencies in May 2016 and secured all environmental approvals for the project in 2018.

Arafura consulted widely in preparing the EIS to ensure the Nolans Project is sustainable and balances community, corporate, environmental and economic expectations. The EIS included the results of a large number of detailed studies undertaken into the area's plants and animals, social impacts, traffic impacts, culture and heritage, potential radiation, creeks and groundwater aguifers, dust and noise and mine rehabilitation.

Arafura is in the process of submitting the extensive Mining Management Plan (MMP) to the NT government which constitutes Arafura's mining approval and includes a Biodiversity Management Plan. The Biodiversity Management Plan provides a framework for biodiversity management across the project site as well as providing information which is to be used in decision making and project management, detail planning and methods of work, and provide for a record of performance. The Plan has been developed to outline the actions and methods required to mitigate likely impacts on biodiversity including:

- Procedures to be adopted during vegetation clearing, including wildlife rescue procedures;
- → Weed and feral animal management; and
- Mitigation of potential impacts on rare, threatened species.





#### **EMISSIONS AND NET-ZERO**

Climate change and greenhouse gas (GHG) emissions are a significant global issue. The Science Based Targets Initiative (SBTi) guides companies in tackling their emissions profile while seizing the benefits of, and boosting their competitiveness in, the transition to a net-zero economy.

As part of our aspiration to align with the SBTi, Arafura is taking the following steps to define our emissions profile and the way in which we can achieve net zero emissions across our operations by 2050:

- → We have completed an independent GHG emissions audit of our proposed operation at Nolans and are working with external sustainability consultants to develop and define emission reduction strategies and goals;
- We are undertaking a GHG Reduction Study in which we will set interim targets for our journey to net zero by 2050. We have developed a Preliminary Net Zero Pathway which presents three options for carbon abatement, which will be used to define our Net Zero Pathway for Board approval;
- We have applied for an ancillary mineral lease (MLA 32722) close to our Nolans processing plant site for the construction of a sizeable solar farm to fuel the bulk of the mine's power generation needs, replacing the use of diesel and natural gas.

#### **TARGET**

Net Zero 2050 | aligned to Science-Based Targets Initiative (SBTi) methodology

# **PROJECT EMISSION ABATEMENT TIMELINE**

Initial findings from the Preliminary Net Zero Pathway indicate that our long-term emission mitigation and carbon abatement strategy could comprise a suite of options, including:

- Installing a scalable, on-site solar photovoltaic (PV) generation plant to meet the bulk of Nolans' electricity needs as the project ramps up, including using compressed solar steam as that technology becomes scalable;
- Re-using high pressure steam generated by our on-site sulphuric acid plant to reduce consumption of fossil fuels for power generation; and
- → Purchasing Australian carbon credit units (ACCUs) to offset a small amount of the project's remaining emissions.

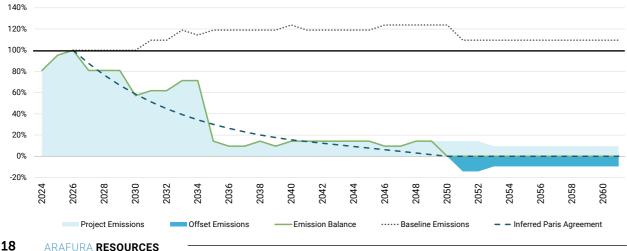
Staged solar photovoltaics investment has been scheduled to commence in 2027 (year 4) once the proof of production throughput is realised. To ensure the energy supply needed for production is secure, it is considered necessary to include an energy storage solution when PV electrical contribution exceeds 25%. This will facilitate the staged decommissioning of the gaspowered turbines needed for electrical production.

At 100% PV contribution steam generation is to be met via biodiesel fuelled steam boilers. When this occurs the remaining onsite diesel demand can also be met by biodiesel.

Arafura is also investigating how wind, hydrogen and concentrated solar can play a part in the continued transition to renewable energy.

#### **TARGET**

Set fixed short and medium term SBTi emissions targets in FY22 against anticipated 2026 baseline emissions aiming for approximately 60% to 70% of baseline emissions by 2030 and 20% of baseline emissions by 2040.



#### WATER MANAGEMENT

Operating in the arid zone of Central Australia, Arafura understands that our use of precious groundwater must be managed to prevent excess use and loss.

In response to stakeholder engagement early in the preparation of the project EIS, in which the community expressed concerns around the use of water for the project from the nearby water control district of the Ti-Tree basin, Arafura went back to basics and thoroughly investigated the regional aquifers through technology and good science. After compiling various geophysical surveys around Nolans, and reprocessing them to locate potential regional groundwater basins, Arafura's geologists and hydrogeologists located the Reaphook Paleovalley, a large and deep groundwater aguifer southwest of the project that had never before been realised or used as a significant source of water to the region. After significant expenditure on groundwater drilling campaigns, pump testing and hydrogeological modelling, a significant water source was found for the project. Full ore-tooxide processing at the Nolans site is largely attributable to this find.

However, operating in the arid zone in central Australia, Arafura understands that groundwater is a precious resource for the region and that our use of water must be minimised and managed to prevent loss and excess use, leaving water for future generations and other beneficial uses.

During the Nolans Project's front-end engineering and design (FEED) process in 2021/2022, we are undertaking a water reduction study to better understand the opportunities for the project to consume significantly less water than the quantity allocated under the groundwater extraction license. Water reduction options that will be assessed will include reducing cooling tower water evaporation, the amount of water in the various residue streams sent to the RSF, dust management in the mining area, the evaporation of water from pond surfaces and general domestic water use.

As the mine's water will be pumped from a borefield some 30 kilometres from the site, groundwater is also expensive for our operations. As a result, we plan to minimise our water usage by consuming it efficiently, recycling it and utilising storm water where possible.

## **TARGET**

Set water reduction targets in FY22 (after water use study is completed).



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#### CARING FOR THE ENVIRONMENT

# WASTE AND HAZARDOUS MATERIALS

Arafura commits to the sustainable management of hazardous materials and waste associated with the production of our rare earth products.

Arafura's single site processing provides traceable product and waste management certainty which is aligned with our customers' ESG expectations. This is important because rare earths are often associated with geology that contains Naturally Occurring Radioactive Material (NORM).

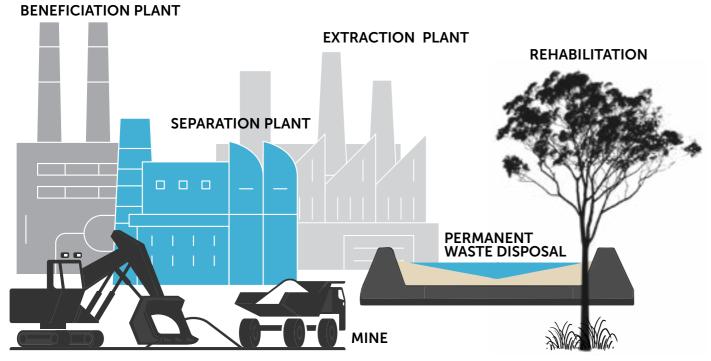
Following confirmation of Arafura's ability to responsibly manage and dispose of radioactive materials on site, we received final approvals from the Northern Territory and Commonwealth governments. All potentially radioactive tailings will be managed and disposed of on site in a specially designed Residue Storage Facility (RSF). The RSF ensures the waste remains permanently contained from the environment.



NOLANS IS THE ONLY
NdPr ORE-TO-OXIDE
PROJECT IN AUSTRALIA
WITH ALL APPROVALS
IN PLACE TO MANAGE
HAZARDOUS WASTE



# SINGLE SITE



## PHOSPHORIC ACID PRODUCTION

The rare earths found in the Nolans ore body are hosted by a phosphate rich mineral which the process flowsheet has been designed to exploit. The ore is initially physically beneficiated and then treated with phosphoric acid to extract the rare earth components and produce a gypsum waste stream. A recycled sulphuric acid-rich stream is utilised to regenerate the spent phosphoric acid following separation of the rare earth rich residue. The process can self-sustain its own phosphoric acid needs with excess phosphoric acid concentrated, bled off and purified to a saleable co-product for fertiliser.

#### **WASTE HEAT RECOVERY**

The Nolans Project sulphuric acid plant will create high pressure steam from waste heat due to the exothermic nature of the sulphuric acid manufacturing process. This steam will be utilised throughout the plant where required. The remainder of the steam required in the process is produced from the waste heat of the natural gas turbines in the power station thereby removing the need for steam production through the direct burning of natural gas.

#### **RESIDUE STORAGE FACILITY**

The on-site RSF is designed to operate with two residue cells, one to receive the combined beneficiation tailings and a gypsum waste stream and another cell to receive a water leach residue

stream. The RSF has been designed in accordance with the appropriate Territory and National tailings storage facility guidelines. The cells will incorporate low permeability liners, underdrainage networks and seepage cut-off trenches to ensure that the groundwater in the area is not impacted by the waste storage. Tailings dams design, construction, operation and closure will be in accordance with the internationally accepted Australian National Committee on Large Dams (ANCOLD) standards. When the two residue cells are full (approximately every seven years) they will be capped and encapsulated with rocky material and topsoil and revegetated in accordance with our approved Mine Closure Plan (MCP). This will ensure that all potentially contaminated materials will remain sealed in the RSF and out of harm's way in the environment.

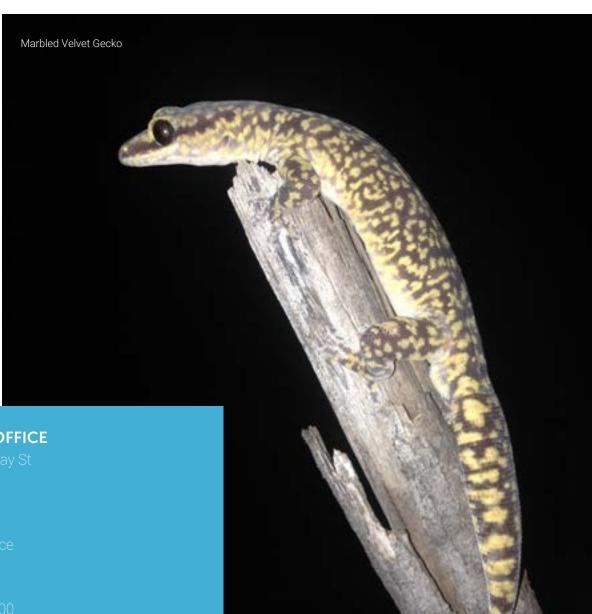
#### WASTE ROCK DUMP

Overburden and waste rock will be deposited in two purpose-built waste rock dumps (WRDs) over the life of mine. Extensive resource drilling and laboratory analysis of the Nolans deposit has showed that acid mine drainage will not be an issue of concern in the WRDs. Some NORM will be present in the WRDs, and this material will be managed by encapsulation with benign waste rock material. The WRDs will be progressively rehabilitated throughout the life of mine. A MCP has been developed for rehabilitation and closure activities.

# WORLD ECONOMIC FORUM STAKEHOLDER CAPITALISM INDEX

KEY DATA/QUESTION	CURRENT STATUS	START DATE TARGET	DISCLOSURE TARGET
The company's stated purpose, as the expression of the means by which a business proposes solutions to economic, environmental and social issues. Corporate purpose should create value for all stakeholders, including shareholders.	Arafura's ESG commitment is to be a trusted global leader and supplier of choice for sustainably mined rare earth products, helping our customers deliver clean and efficient technologies. We are committed to delivering positive intergenerational economic, environmental and social benefits to our stakeholders.	Completed	Disclosed FY21
Composition of the highest governance body and its committees by: competencies relating to economic, environmental and social topics; executive or non-executive; independence; tenure on the governance body; number of each individual's other significant positions and commitments, and the nature of the commitments; gender; membership of under-represented social groups; stakeholder representation	Partial. See the Arafura FY21 Annual Report.  Outstanding disclosures: competencies relating to economic, environmental and social topics; membership of under-represented social groups; stakeholder representation.	FY21	FY22
A list of the topics that are material to key stakeholders and the company, how the topics were identified and how the stakeholders were engaged.			Disclosed FY21
Total percentage of governance body members, employees and business partners who have received training on the organization's anti-corruption policies and procedures, broken down by region. a) Total number and nature of incidents of corruption confirmed during the current year, but related to previous years; and b) Total number and nature of incidents of corruption	All employees sign off on the Anti- Bribery and Corruption policy annually. Arafura has not had any incidents of corruption in the past year or in any previous years.		Disclosed FY21
Discussion of initiatives and stakeholder engagement to improve the broader operating environment and culture, in order to combat corruption.	All employees sign off on the Anti- Bribery and Corruption policy annually.		Disclosed FY21
A description of internal and external mechanisms for seeking advice about ethical and lawful behaviour and organizational integrity	The Arafura Anti- Bribery and Corruption policy has guidance on behaviour in Section 2.1. As a reasonably small business, all Arafura managers and board members are available to employees to discuss any ethical concerns.		Disclosed FY21
A description of internal and external mechanisms for reporting concerns about unethical or unlawful behaviour and lack of organizational integrity.	Arafura Anti- Bribery and Corruption policy, Section 4.0		Disclosed FY21
A description of principal material risks and opportunities facing the company specifically (as opposed to generic sector risks)	Disclosed in Note 2 of the Consolidated Financial Statements in the Arafura FY21 Annual Report.		
A description of the company appetite in respect of these risks, how these risks and opportunities have moved over time and the response to those changes.	Outstanding disclosures: A description of the company appetite in respect of these risks, how these risks and opportunities have moved over time and the response to those changes.	FY21	FY22
For all relevant greenhouse gases (e.g. carbon dioxide, methane, nitrous oxide, F-gases etc.), report in metric tonnes of carbon dioxide equivalent (tCO2e) GHG Protocol Scope 1 and Scope 2 emissions.	Emissions are immaterial to Arafura until development and construction begins. We have forecasted our emissions in the Emissions and Net- Zero section of this Sustainability Report	When development/ construction begins	Forecast disclosed FY21
Fully implement the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). If necessary, disclose a timeline of at most three years for full implementation	Outstanding disclosures: Implementation or roadmap towards the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)	FY21	FY22
Report the number and area (in hectares) of sites owned, leased or managed in or adjacent to protected areas and/ or key biodiversity areas (KBA)	Zero		
Megalitres of water withdrawn, megalitres of water consumed and the percentage of each in regions with high or extremely high baseline water stress, according to WRI Aqueduct water risk atlas tool.	Water usage is immaterial to Arafura until development and construction begins.	When development/ construction begins	When development/ construction begins

KEY DATA/QUESTION	CURRENT STATUS	START DATE TARGET	DISCLOSURE TARGET
Percentage of employees per employee category, by age group, gender and other indicators of diversity (e.g. ethnicity).	Disclosed in the Diversity section of this Sustainability Report	When development/ construction begins	When development/ construction begins
Ratio of the basic salary and remuneration for each employee category by significant locations of operation for priority areas of equality: women to men, minor to major ethnic groups, and other relevant equality areas.	Given the minimal nature of current employment at Arafura, salary and remuneration will not become material until the hiring phase of development and construction	When development/ construction begins	When development/ construction begins
Ratios of standard entry level wage by gender compared to local minimum wage.	Given the minimal nature of current employment at Arafura, salary and remuneration will not become material until the hiring phase of development and construction	When development/ construction begins	When development/ construction begins
Ratio of the annual total compensation of the CEO to the median of the annual total compensation of all its employees, except the CEO.	Outstanding disclosures: Ratio of the annual total compensation of the CEO to the median of the annual total compensation of all its employees, except the CEO.	When development begins	When development begins
An explanation of the operations and suppliers considered to have significant risk for incidents of child labour, forced or compulsory labour.	As Arafura only operates in Australia, there is a very low risk of incidents of child labour, forced or compulsory labour.	Completed	Disclosed FY21
The number and rate of fatalities as a result of work-related injury; high-consequence work-related injuries (excluding fatalities); recordable work-related injuries; main types of work-related injury; and the number of hours worked.	There were zero fatalities or injuries for Arafura employees or contractors during FY21	Completed	Disclosed FY21
An explanation of how the organization facilitates workers' access to non-occupational medical and healthcare services, and the scope of access provided for employees and workers	Arafura does not currently facilitate workers' access to non-occupational medical and healthcare services	Completed	Disclosed FY21
Average hours of training per person that the organization's employees have undertaken during the reporting period, by gender and employee category (total number of hours of training provided to employees divided by the number of employees).	1.5 hrs of training per person  Outstanding disclosures: split by gender and employee category	FY21	FY22
Average training and development expenditure per full time employee (total cost of training provided to employees divided by the number of employees).	\$100 average training expenditure	Completed	Disclosed FY21
Total number and rate of new employee hires during the reporting period, by age group, gender, other indicators of diversity and region.	Given the minimal nature of current employment at Arafura, this will be reported when the hiring phase of development and construction begins	When development begins	When development begins
Total number and rate of employee turnover during the reporting period, by age group, gender, other indicators of diversity and region.	Given the minimal nature of current employment at Arafura, this will be reported when the hiring phase of development and construction begins	When development begins	When development begins
Direct economic value generated and distributed (EVG&D), on an accruals basis, covering the basic components for the organization's global operations	Disclosed in Economic Performance section of this Sustainability Report	Completed	Disclosed FY21
Financial assistance received from the government: total monetary value of financial assistance received by the organization from any government during the reporting period.	Financial assistance received from the government was approximately \$460,000 through R&D rebates	Completed	Disclosed FY21
Total capital expenditure (CapEx) minus depreciation, supported by narrative to describe the company's investment strategy	Arafura did not have any material capital expenditure in FY21	Completed	Disclosed FY21
Share buybacks plus dividend payments, supported by narrative to describe the company's strategy for returns of capital to shareholders.	Given there was no revenue generate or dividends paid and none expected until production begins, a supporting strategy is not yet required.	Completed	Disclosed FY21
Total costs related to research and development.	Total R&D costs were approximately \$1.06m	Completed	Disclosed FY21
The total global tax borne by the company	Total tax paid was \$195,705	Completed	Disclosed FY21



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