



# Gove Mine Closure Socio-Economic Impact Assessment

A WSP Report prepared at the request of Rio Tinto



## Acknowledgement of Country

In Miwatj, we acknowledge the Yolŋu peoples as the Traditional Owners and Custodians of this land. We recognise the unique role they play in the region’s heritage and future.



WSP is a global professional services firm with more than 6000 employees across Australia. The work was completed by a team of social scientists, economists and stakeholder engagement specialists over a period of more than 18 months. The study relied on the active participation and collaboration of the people who live on Gove Peninsula and understand this place. We thank you for your time and generous contributions.

The word Däpaki means non-Aboriginal people; similar to the term Balanda (European people).  
Photos by Developing East Arnhem Limited and Monika Bolton. Artwork by Wanyubi Marika.

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# Introduction

**The Gove Peninsula is entering a period of significant change, with the closure of Rio Tinto’s Gove Mine planned for later this decade.**

Rio Tinto commissioned WSP Australia Pty Limited (WSP) to undertake a Socio-economic Impact Assessment (SEIA) to investigate the potential community impacts and benefits associated with the closure of the Gove Mine. The Gove Peninsula Futures Reference Group (GPFRG) have been closely consulted throughout the SEIA process, and findings will provide evidence and guidance for GPFRG decision making and future planning around the closure of the mine and the future of the region.

**“[I] want to ensure the Peninsula is a viable hub for the whole East Arnhem Region post mining.”**

— *Nhulunbuy Resident*

The GPFRG was formed to coordinate and facilitate planning for a positive future for Nhulunbuy and the Gove Peninsula through the transition beyond mining. The group includes representatives from the Northern Territory Government, Australian Government, Rirratjingu Aboriginal Corporation, Gumatj Aboriginal Corporation, Northern Land Council and Rio Tinto.

## What is an SEIA?

A Socio-Economic Impact Assessment (SEIA) is a formal study for assessing, measuring, and minimising potential social and economic consequences which can happen with a specific project or development.<sup>1</sup>

Socio-economic impacts can be understood as the consequences people will experience when there is significant change. Social impacts consider the social elements valued by people in the community. These include livelihoods, surroundings, decision making systems, quality of life, community, accessibility, culture, and health and wellbeing.<sup>2</sup>

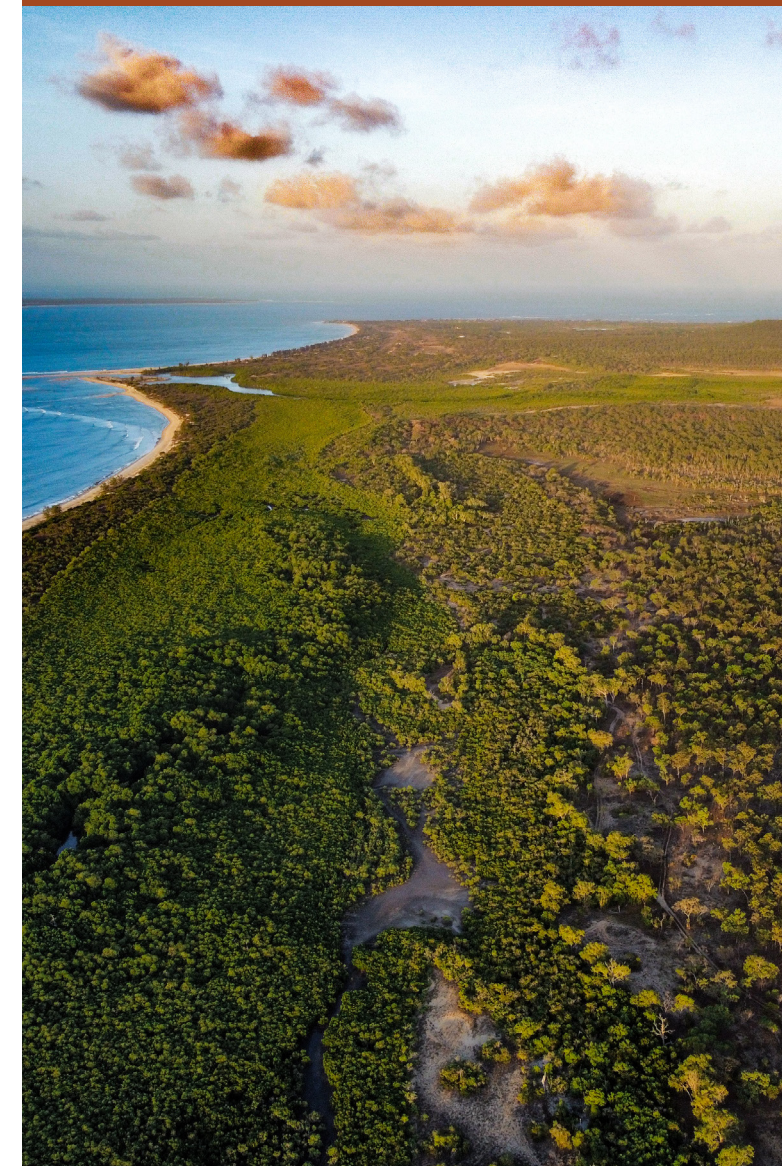
Economic impacts consider the direct and indirect effects of an investment or withdrawal of spend on a region’s employment and output.

This study has assessed and rated potential socio-economic impacts and benefits from the mine’s closure. It has also provided considerations for community leaders to reduce the negative effects and maximise the opportunities to make things better.

<sup>1</sup> Vancley, F & Burge, R J 1996, ‘Social impact assessment: A contribution to the state of the art series’, Impact Assessment, Vol 14, pp. 59-86.

<sup>2</sup> Department of Planning, Industry and Environment, 2023, Social Impact Assessment Guideline. DPIE, Parramatta.

The Gove Peninsula is home to some of the world’s oldest living cultures, collectively referred to as Yolŋu. More than 75 years of bauxite mining has brought about significant change, but mining forms a small part of the complex cultural context for Yolŋu Traditional Owners, including people living in the communities of *Gunyaŋara*, *Yirrkala* and *Nhulunbuy*.





# How the forecasts were developed

## Summary of evidence for SEIA



### Document review

A comprehensive document review was conducted, including:

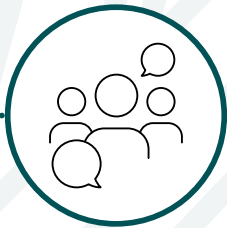
- The Traditional Owner Vision for the Future of Nhulunbuy and the Gove Peninsula
- the 2019 Gove SEIA (GHD, 2019)
- the NT Government's East Arnhem Regional Economic Growth Plan
- the DEAL Strategic Plan 2020-25



### Baseline data collection

WSP determined the socio-economic baseline of the Gove Peninsula through analysis of:

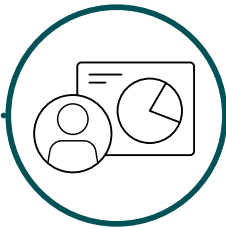
- Australian Bureau of Statistics 2011, 2016 and 2021 Census
- BushTel database
- DEAL's economy.id portal
- NDIS plan budgets and spending
- Markyt community survey
- NTG DOE enrolment data and PFES crime statistics
- AIHW patient admissions
- PHIDU Social Health Atlases of Australia
- REMPLAN tourism visitor profile



### Community consultation

Core consultation methods used to gather data included:

- three field visits for the community consultation team to Nhulunbuy between September 2022 and February 2023
- online and in-person meetings and workshops
- a Rio Tinto employee workshop and targeted survey
- creation of a GoveSEIA mailbox for electronic communication
- online surveys for community members and businesses.
- Incorporation of the Yolŋu Social Impact Study conducted by Gumatj and Rirratjingu



### Socio-economic impact assessment data collection

WSP determined the socio-economic baseline of the Gove Peninsula through analysis of:

- Rio Tinto
- Gumatj
- Rirratjingu
- Aboriginal health organisations
- Not-for-profit health organisations
- Northern Territory Government
- Local health and education providers
- Local businesses



### Dependency analysis

The dependency analysis was informed by:

- Rio Tinto royalty payments records
- Rio Tinto contributions records
- Consultation findings

## Ongoing Stakeholder Consultation

Face to face and online meetings and interviews with local and regional stakeholders and community members



## Economic forecasting process

### Preparation

- Establish Baseline**
  - Employment
  - Population
  - Expenditures
  - Housing
  - Services
- Economic Inputs**
  - Employment
  - Population
  - Expenditures
  - Housing
  - Services

### Up to transition

- Economic forecasts**
  - Determine likelihood of investments & set activity levels - 2023-27
  - Use REMPLAN to inform direct/ other impacts on employment and expenditures
- Population**
  - Understand the changing nature of the workforce (e.g. Yolŋu vs Balanda employees) and the role of FIFO workers
  - Use appropriate multipliers to scale population changes
  - Assess risks & uncertainties for assumptions and for factors not directly modelled
  - Assess the risks/uncertainties

### Beyond transition

- Economic forecasts**
  - Repeat the forecast for period 2028-37
  - Apply the same economic forecasting process
- Population**
  - Repeat the same approach to estimate expected populations for each forecast year
  - Assess risks & uncertainties for assumptions and for factors not directly modelled

“Our future and staff future depend on this. [...] They have worked too hard to stay in a remote area like Nhulunbuy and I am worried that we will not be able to stay in business and keep their jobs. Would be good to know what we have in the future for better planning.”

– Local Business Owner

## Consultation themes

WSP’s consultation included multiple online and in-person meetings, phone calls, online surveys, and written communications with a diverse range of stakeholders.



### Current State

- Uncertainty and mistrust
- Lack of accessible closure information
- Land tenure and real estate
- Varied understanding of closure



### Perceptions of the Future

- Essential services
- Food security
- Labour market constraints
- Reduced freight and movement
- Diminished liveability



### Opportunities for the Future

- Tourism
- Yolŋu economy
- Health and human services
- Heavy industries



### Future State

- Closure communications and feedback opportunities
- Local business support
- Housing and commercial real estate
- Availability and quality of services and infrastructure





### Yolŋu voice

Yolŋu voice was incorporated and considered throughout all aspects of the SEIA. Yolŋu perspectives, aspirations and concerns regarding closure were identified through targeted SEIA consultation with Gumatj Corporation Ltd, Rirratjingu Aboriginal Corporation and other Aboriginal led organisations on the Gove Peninsula. Specific community-based sentiments regarding the closure of the mine were captured in a Social Impact Study commissioned by Gumatj and Rirratjingu in 2022 and used with permission for the SEIA.





# Social impacts and insights

## Uncertainty

Participants expressed a general mistrust and high level of uncertainty about the mine closing, saying a lack of information was making it hard to plan for the future. This may lead to diminished health and wellbeing associated with stress and uncertainty.

## Town infrastructure

Diminished maintenance and upkeep of town infrastructure and services following closure may impact the attractiveness and liveability of the Gove Peninsula for residents and visitors, potentially impacting way of life and reducing accessibility and visitors coming to the region.

## Housing and accommodation

Access to affordable, appropriate housing is critically impacting both Yolŋu living conditions and economic growth. The current demand for housing significantly exceeds supply in Nhulunbuy. Post closure the condition and maintenance of housing stock may deteriorate.

## Changes to population

Forecast changes to community composition, with some people leaving and new people arriving, may result in loss of knowledge, value, and respect for Yolŋu culture.

## Reduced economic activity

Changes to local employment opportunities, business and workforce availability may reduce economic activity, leading to flow-on effects, like loss of local business and increased out migration from the region.

“I am unsure of the future of the town after Rio shuts down and feel that there could be negative implications in terms of access to services for my family.”

– Local resident

## Services

The sustainability of Nhulunbuy as a service hub for regional communities will depend on ongoing access to essential services – including health, education and community support.

The availability, or lack of quality, accessible health care and social services may impact health and wellbeing outcomes for local and regional residents.

## Yolŋu decision making

It is anticipated that Yolŋu could play a central role in decision making processes regarding closure and the future of the Gove Peninsula, with many expressing a desire for them to be more involved.

## Rehabilitation

Yolŋu are also seeking a more active role in rehabilitation, with priority rehabilitation projects, protection and access to country potentially affected by mine closure.

## Transport

The social fabric of local communities could be impacted by diminished access to transport infrastructure such as barge services, air travel and increased cost of freight.

## Social programs

The loss of Rio Tinto support for local programs and community groups may reduce opportunities for existing social activities – including the loss of volunteers for sporting clubs and local groups. The impact of this could reduce the sense of community among those remaining in the region.

## Tourism

Tourism, arts and culture are seen as key strengths and potential growth opportunities for the Gove Peninsula, potentially bringing positive social benefits with the development of new streams of activity and initiatives.

## The SEIA identifies the potential impacts associated with closure, with *no interventions* or activities to reduce impact.

Impacts were identified and categorised against the key elements outlined in the Traditional Owners’ Vision.

## Traditional Owners’ vision

The Gove Peninsula is one of the most special places in Australia. Our vision is to rejuvenate the region. It will be a place for us to share our culture, and a business and services hub for all of Arnhem Land.

We will work together to create a stronger and more secure future for generations of Yolŋu and Däpaki (non-Aboriginal people) to come.

*Gove Peninsula-nydja dhuwala dhapirrk wäŋa dhuwala Australia.*

*Dilimurrungunŋu nhänharanydja ñilimurru yurru sharing ñilimurrunguwuy culture, business ga services dhiyala Arnhem Landŋuru.*

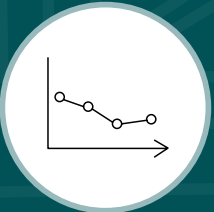
*Marr ñilimurru yurru djäma rrambaŋi ñurikina bala yalalanŋumirri wu Yolŋuwu ga Däpakiwu.*

- Recognition of Traditional Owners
- Yolŋu and Däpaki together
- Connecting with culture and country
- A diverse economy
- Nhulunbuy as a services hub
- Rejuvenating Nhulunbuy
- Infrastructure ready for the future
- Town, communities and homelands strong together



# Economic impacts

BASE CASE



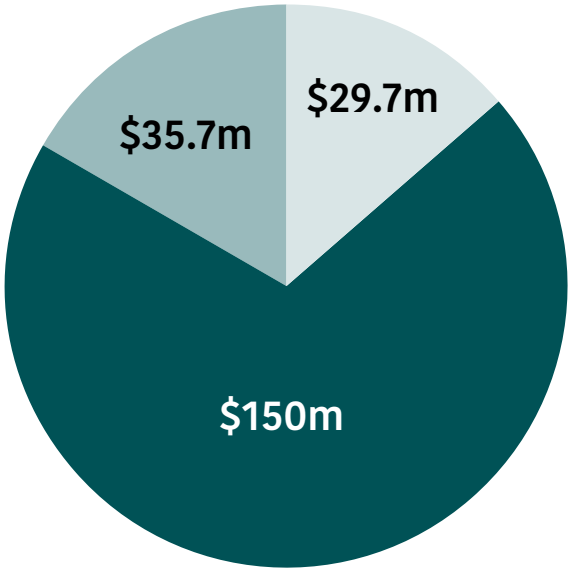
Population is projected to trend slightly downwards to 2027, while employment remains relatively stable



This is followed by a steeper decline in population and employment as Rio Tinto's final residential employees exit the region later this decade



Employment levels can recover to 87% of 2022 levels by 2037 (see page 16) through a combination of greater regionalisation and investments



- Rio Tinto residential employee spend
- Rio Tinto local contract spend
- Rio Tinto royalties and local contributions



**1,200**  
fewer people by 2028

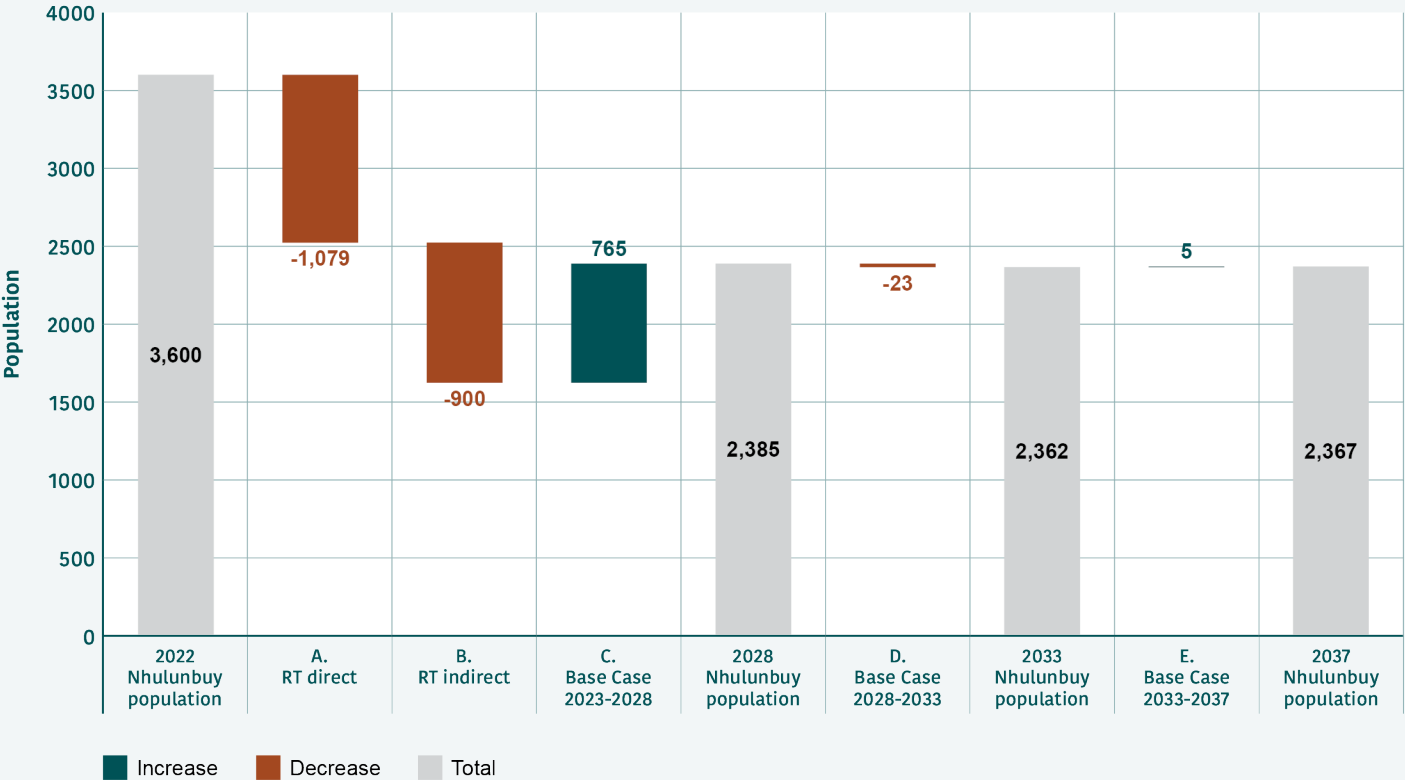


Local spend  
reduction around  
**\$215 million**  
per annum



The Base Case is an estimate of the population (see right) and employment (see page 16) changes expected for the Gove Peninsula between 2022 and 2037. The Base Case depends on the work currently underway through GPFRG initiatives. The estimate is made up of anticipated changes from the withdrawal of Rio Tinto activities and includes consideration of indirect impacts along with other investments and commitments in non-mining sectors. We produced a Base Case estimate for three different periods – in the lead up to closure (2023-2028), immediately after closure (2028-2033) and five to nine years after closure (2033-2037).

“[The transition from mining in the Gove Peninsula] is a good thing, although median income will change, it opens up further opportunities.”  
– Nhulunbuy Resident



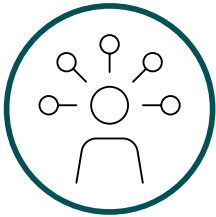


# Economic impacts

The economic impact assessment has produced a forecast of the most likely impacts to population and the local economy in the years leading up to mining ceasing later this decade, and as the region recovers through committed and likely investments.

Employment and the availability of work is one of the strongest predictors for local population. It also helps to build a picture of the types of government and community services needed for the future Gove Peninsula.

## The forecast shows



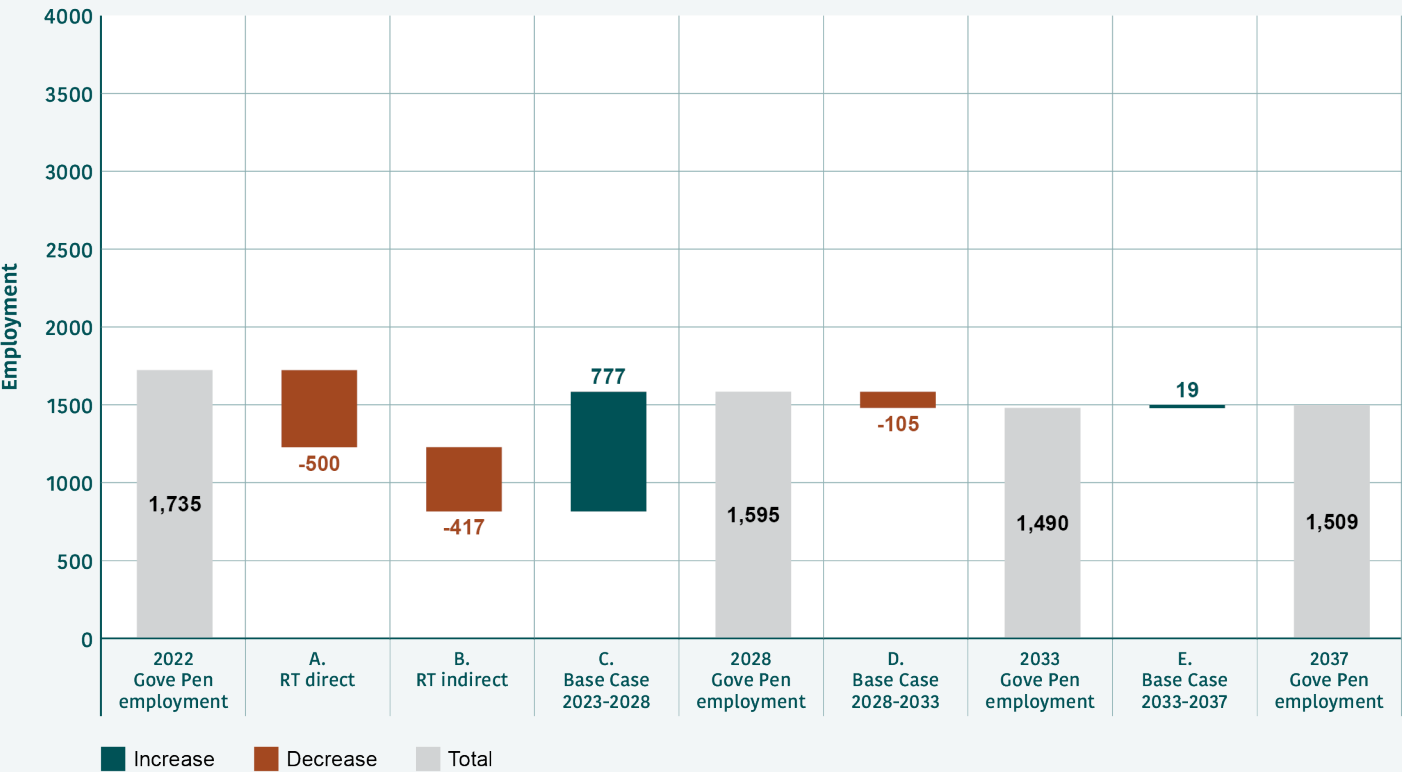
The amount and type of direct jobs for residents living in Nhulunbuy, Yirrkala and Gunyajarra.



The amount and likely composition of the populations for the three communities.



## What is the forecast economic impact of mine closure and other investments and activities on the Peninsula?



## C + D + E Base Case

Projects have been included in the Base Case if they have a strong pathway to funding and approval with minimal critical risks and barriers to their implementation.

## What investments and activities were included in the Base Case assessment?

The Base Case forecasts 691 new non-mining jobs will be supported in parallel with mine closure, leading to a total of 1,509 jobs by 2037, comprising:

- 171 NT public sector and Miwatj Health positions relocated to the Gove Peninsula
- 55 health-related positions through hospital upgrades, enhanced NDIS provision, and increased aged care places
- 74 education-related positions - investments in local schools and tertiary education
- 364 positions generated by Traditional Owners' investments in industries including forestry, agriculture and aquaculture, construction, bulk fuel storage and tourism
- 11 positions supported by other public sector investments through road upgrades, additional housing and increased public administration roles
- 16 Rio Tinto roles related to mine site rehabilitation



## How the local economy will be affected

- Mine closure will lead to a loss of 917 jobs (500 direct and 417 indirect)
- Mine closure is predicted to cause population to fall by 1,979, from 3,600 people in 2022 to 1,621 people by 2028. This is expected to be partially offset by a population increase of 765 people and 777 new non-mining related jobs, leading to an estimated population of 2,385 people by 2028
- Mine closure will remove approximately \$215 million in annual direct, monetary inputs from the local economy each year
- The predicted growth and recovery through to 2037 should see the population recover to 2,367 people, through an estimated 691 new jobs and 746 new residents

	Gove Peninsula employment (# jobs)	Nhulunbuy population (# residents)	Local economic impact (\$m)
<b>2022 employment and population</b>	<b>1,735</b>	<b>3,600</b>	N/A
<b>A</b> Rio Tinto direct impact (2023-2028)	-500	-1,079	-215 per annum
<b>B</b> Rio Tinto indirect impact (2023-2028)	-417	-900	
<b>C</b> Base Case (2023-2028)	+777	+765	N/A
<b>2028 employment and population</b>	<b>1,595</b>	<b>2,385</b>	N/A
<b>D</b> Base Case (2028-2033)	-105	-23	N/A
<b>2033 employment and population</b>	<b>1,490</b>	<b>2,362</b>	N/A
<b>E</b> Base Case (2033-2037)	+19	+5	N/A
<b>2037 employment and population</b>	<b>1,509</b>	<b>2,367</b>	N/A

## Why do jobs and population fall between 2028 and 2033 (shown in waterfall charts and table as D. Base Case 2028-2033)?

A large capital project is expected to be completed in 2028, leading to a fall in short term construction jobs and stabilisation of the longer term operational workforce.



Economic impacts



## Direct employment and population impacts

- Direct impact: Immediate changes in population or employment from a business decision.
- Rio Tinto anticipates reducing the Gove Peninsula workforce by 500 employees (350 staff and 150 Category 1 contractors).
- Direct population loss of 1,079 residents as Rio Tinto staff, Category 1 contractors, and their families leave the Gove Peninsula.



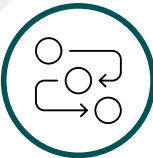
## Indirect employment and population impacts

- Indirect impact: Flow-on supply-chain and consumption effects from a direct impact.
- Rio Tinto's direct reduction of 500 employees and contractors results in an additional indirect 417 job losses across the Gove Peninsula.
- The 417 indirect job losses are in the Gove Peninsula supply chain and businesses where Rio Tinto employees spend income.
- An indirect population loss of 900 residents as residents and their households leave, impacting local businesses where they previously made purchases.



## Direct monetary impacts

The estimated direct, annual impact of Rio Tinto's closure on the local economy is approximately \$215 million per annum, with assumptions made around how much the contract expenditure is locally.



## Base case scenario

- The most likely prediction of future economic activity (direct and indirect)
- The assessment estimates investments and activities will support 691 jobs in parallel with job losses from mine closure, leading to a population increase of 746 persons to partially offset the population loss of 1,979 people from mine closure.
- While likely, the assumptions driving this growth are not guaranteed and will require actions from GPFRG and other stakeholders for them to be realised.



# Possibilities beyond the Base Case

Two additional post-closure scenarios were developed to capture activities and investments not included in the primary estimate of economic impacts. These scenarios are considered less likely but could occur with significant additional investments.

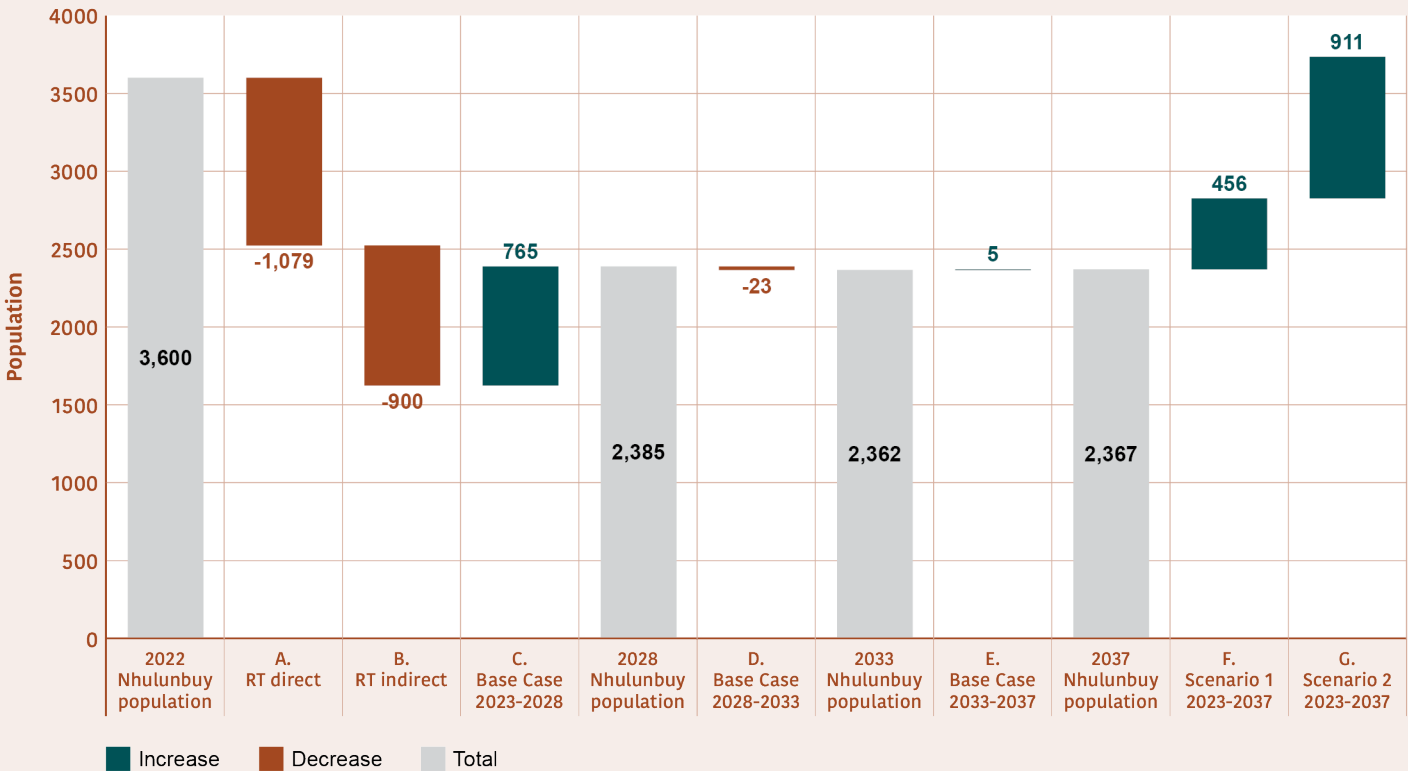
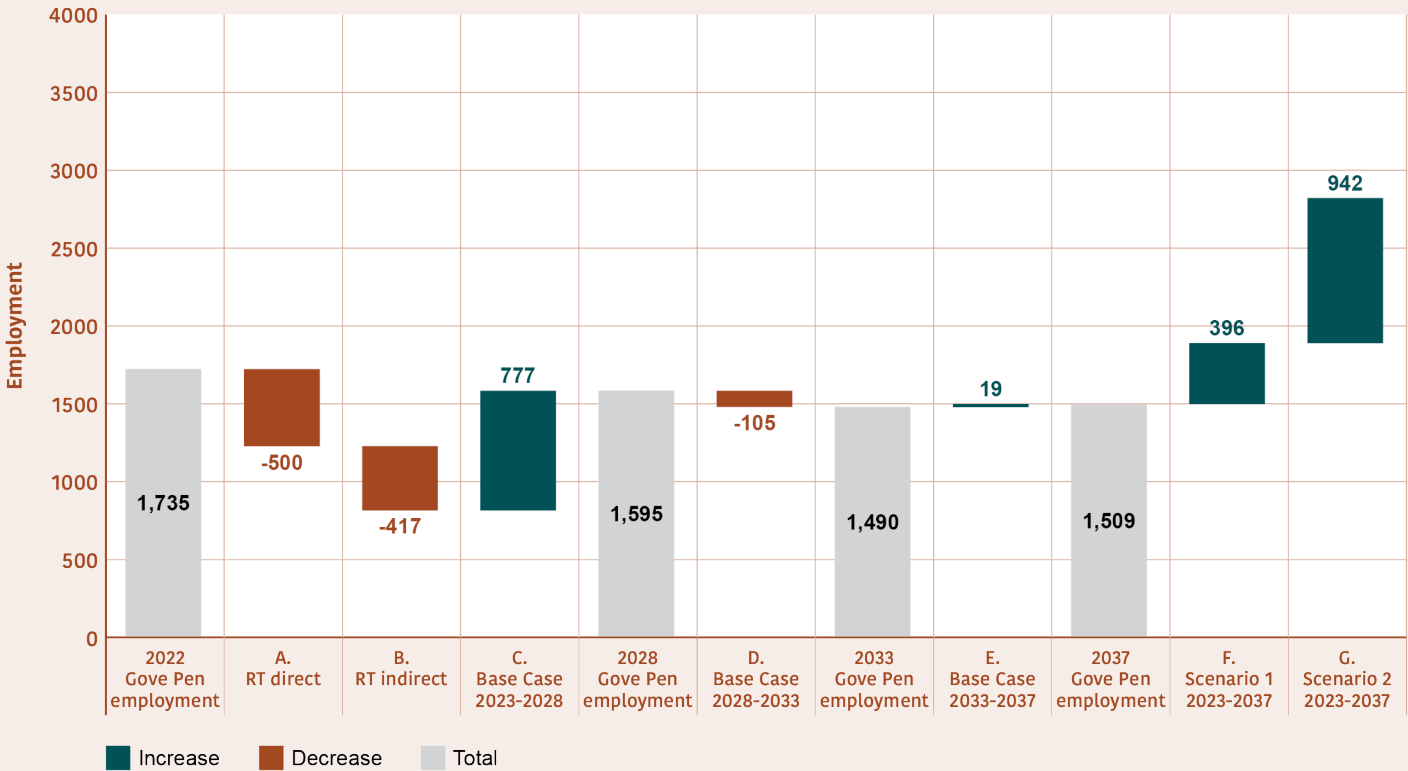
## F Scenario 1: Stabilisation

Scenario 1 has broadly the same types of investments as the Base Case but takes a more optimistic position on the scale of employment generated.

## G Scenario 2: Possible Growth

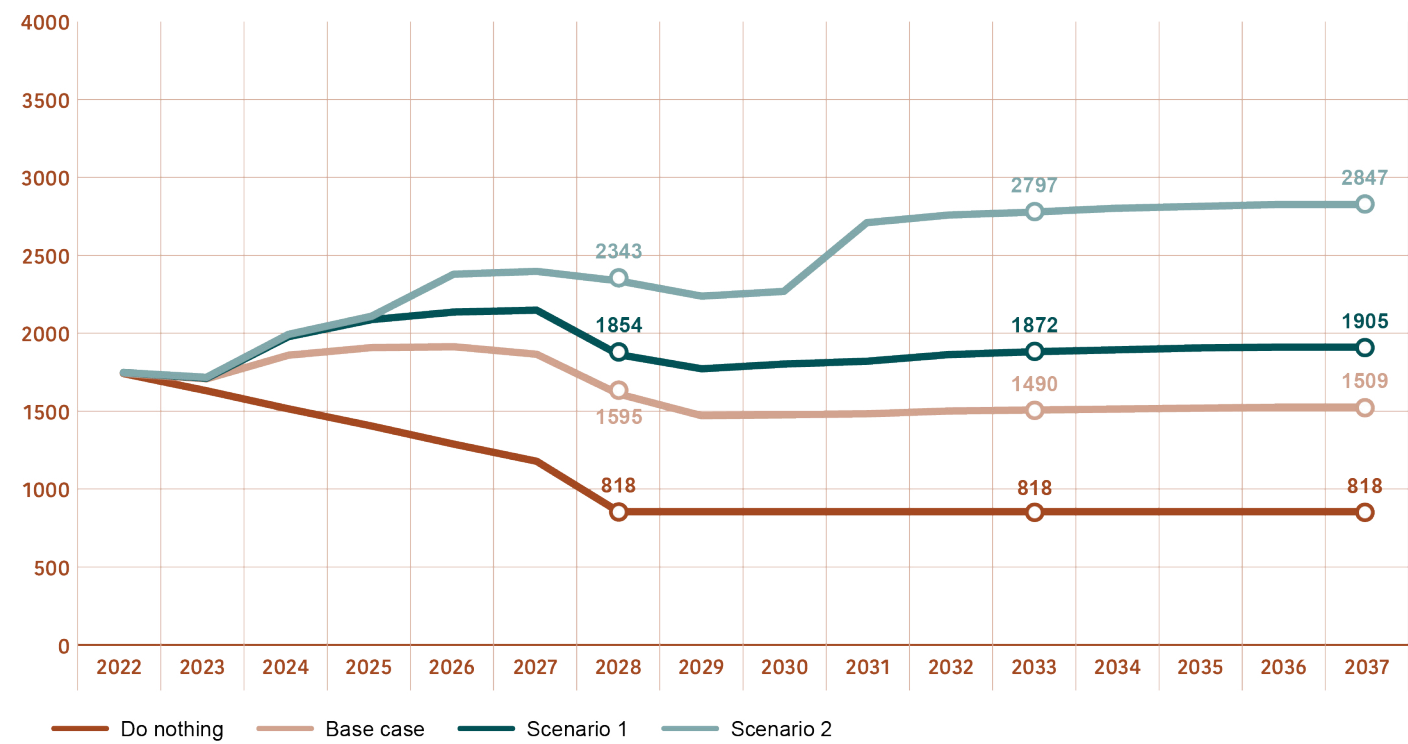
Scenario 2 involves further increasing the employment impacts from Base Case and Scenario 1 investments together with the addition of a major energy-related investment with a level of ongoing employment similar to the current level of direct mining employment. These additional impacts are considered less likely than the preceding scenarios because of the increased scale and the regulatory and other requirements for delivery of this new energy investment.

	Gove Peninsula employment (# jobs)	Nhulunbuy population (# residents)	Local economic impact (\$m)
2022 employment and population	1,735	3,600	N/A
A Rio Tinto direct impact (2023-2028)	-500	-1,079	-215 per annum
B Rio Tinto indirect impact (2023-2028)	-417	-900	
C + D + E Base Case (2023-2037)	+691	+746	N/A
2037 employment and population under Base Case	1,509	2,367	N/A
F Scenario 1 (2023-2037)	+396	+456	N/A
2037 employment and population under Scenario 1	1,905	2,823	N/A
G Scenario 2 (2023-2037)	+942	+911	N/A
2037 employment and population under Scenario 2	2,847	3,734	N/A

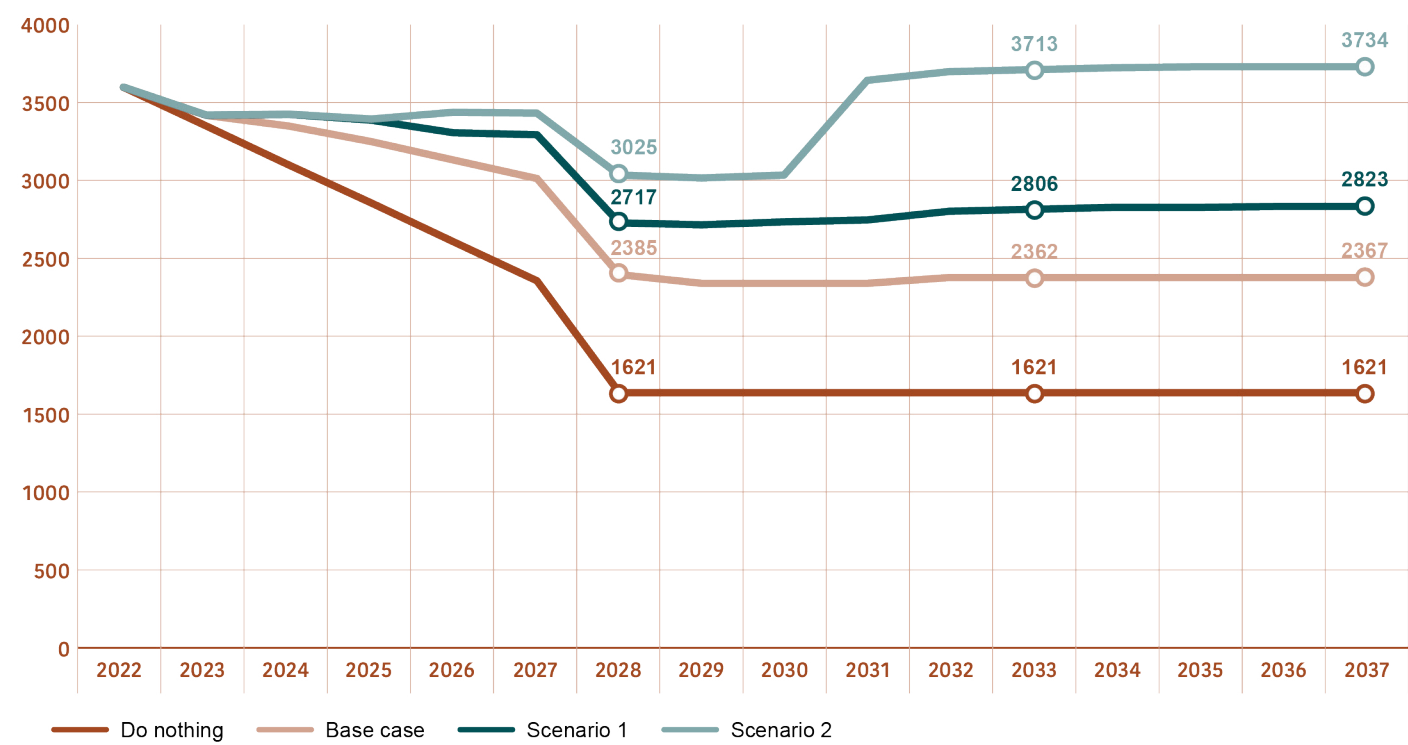




Total estimated employment



Total estimated population



F Scenario 1: Stabilisation

(F) Scenario 1 forecasts 1,087 new non-mining jobs will be supported in parallel with mine closure, leading to a total of 1,905 jobs by 2037, comprising:

- 189 NT public sector and health care services positions relocated to Gove Peninsula
- 201 health-related positions through hospital upgrades and enhanced NDIS
- 74 education-related positions investments in local schools and tertiary education
- 581 positions generated by Traditional Owners' investments and activities including labour hire initiatives, environmental monitoring, and mining and defence opportunities
- 26 positions supported by other public sector investments through additional housing and public infrastructure upgrades
- 16 Rio Tinto roles related to mine site rehabilitation

G Scenario 2: Possible Growth

(G) Scenario 2 forecasts 2,029 new non-mining jobs will be supported in parallel with mine closure, leading to a total of 2,847 jobs by 2037, comprising:

- 189 NT public sector and health care service positions relocated to Gove Peninsula
- 267 health-related positions through hospital upgrades and enhanced NDIS provision
- 74 education-related positions from investments in local schools and tertiary education
- 1,450 positions generated by Traditional Owners' investments and activities including the addition of a major energy-related investment
- 33 positions supported by other public sector investments through additional housing and public infrastructure upgrades
- 16 Rio Tinto roles related to mine site rehabilitation


























# Next steps

The following considerations were identified by WSP to help inform planning and actions over the short, medium and longer term. They bring together the outcomes of the study with inputs from stakeholders. Many of these considerations link to activities already underway. More detailed action plans are being developed by separate committees (known as work streams) under the GPFRG. The SEIA has identified where considerations may relate to existing GPFRG workstreams.

## GPFRG’s six key work streams



## Considerations

<b>Stakeholder management and planning through transition</b> <div>   </div>	<ul style="list-style-type: none"> <li>– Increase Yolŋu engagement and communication activities</li> <li>– Provide clarity about the social transition plan</li> <li>– Implement a communication and engagement strategy targeted at local businesses</li> <li>– Develop an integrated plan for mine closure</li> </ul>
<b>Transitioning the economy to support a sustainable population</b> <div>     </div>	<ul style="list-style-type: none"> <li>– Develop a blueprint for retention, development, management and use of residential housing in Nhulunbuy</li> <li>– Work with Yolŋu and local businesses to strengthen local tourism</li> <li>– Drive innovation to diversify Nhulunbuy's economy</li> <li>– Advance the town operating cost model</li> </ul>
<b>Upskilling the population to sustain services and supply of future investments</b> <div>    </div>	<ul style="list-style-type: none"> <li>– Targeted Yolŋu worker transition plan with focus on redeployment</li> <li>– Upskill Yolŋu to maximise uptake of future employment opportunities</li> </ul>
<b>Sustaining and strengthening community and government services</b> <div>    </div>	<ul style="list-style-type: none"> <li>– Detailed strategy for regionalisation of government services</li> <li>– Development of Nhulunbuy as services hub</li> </ul>
<b>Providing essential services and infrastructure</b> <div>     </div>	<ul style="list-style-type: none"> <li>– Consider outcomes of Town Transition PFS to maximise effective transition of essential town infrastructure</li> <li>– Negotiate to maintain regional access to aviation services</li> <li>– Collaborate with Groote Eylandt Steering Committee to understand potential cumulative impacts of GEMCO closure</li> </ul>
<b>Promoting community wellbeing</b> <div>   </div>	<ul style="list-style-type: none"> <li>– Develop strategy targeted at community members experiencing vulnerable conditions to improve health and wellbeing</li> <li>– Targeted counselling and mental health services for Rio Tinto employees</li> </ul>
<b>Improving the level of cross-cultural respect, partnership and collaboration</b> <div>    </div>	<ul style="list-style-type: none"> <li>– Collaborate with Traditional Owners on development and determination of post mining land uses (PMLUs)</li> <li>– Explore ways to heal Country with Traditional Owners</li> <li>– Promote Yolŋu culture and arts</li> </ul>

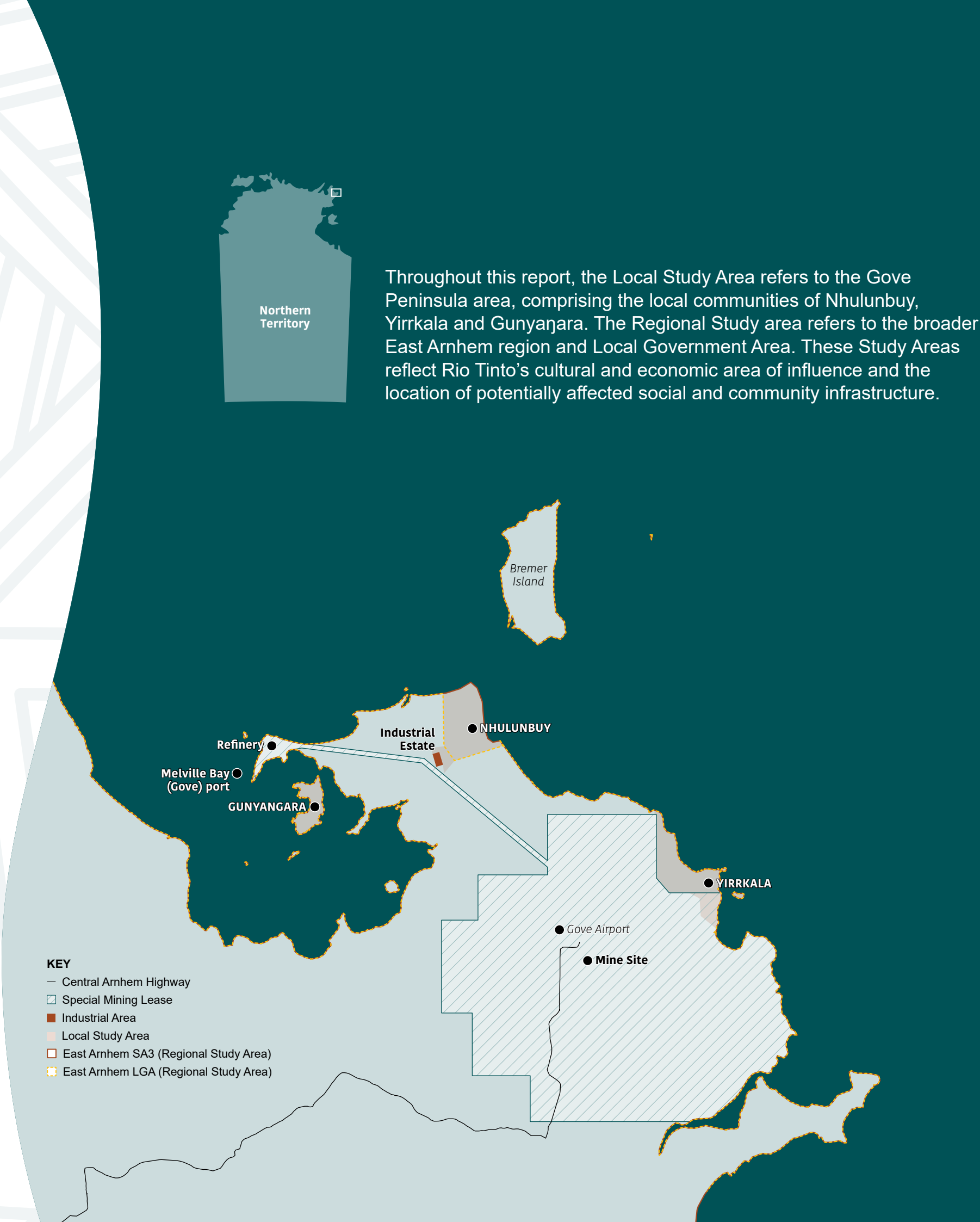


“I do not plan to leave the Gove Peninsula. Work is here [and we] love what we do.”

– Nhulunbuy resident

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