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# 2024 Review of the Woomera Prohibited Area Coexistence Framework

Submission from the Government of South Australia to the  
Commonwealth Government, Department of Defence

September 2024



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**Department for Energy and Mining**

Level 4, 11 Waymouth Street, Adelaide  
 GPO Box 320, Adelaide SA 5001  
 Phone +61 8 8463 3000  
 Email [dem.minerals@sa.gov.au](mailto:dem.minerals@sa.gov.au)  
[dem.petroleum@sa.gov.au](mailto:dem.petroleum@sa.gov.au)  
[www.energymining.sa.gov.au](http://www.energymining.sa.gov.au)

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**Acknowledgement of Country**

As guests here on Kurna land, the Department for Energy and Mining acknowledges everything it does impacts on Aboriginal country, the sea, the sky, its people and their spiritual and cultural connection which have existed since the first sunrise. Our responsibility is to share our collective knowledge, recognise a difficult history, respect the relationships made over time, and create a stronger future. We are ready to walk, learn and work together.

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## 1. Acknowledgement

As guests on Aboriginal land, the Department for Energy and Mining acknowledges everything it does impacts upon Aboriginal country, the sea, the sky, its peoples, and the spiritual and cultural connections which have existed since the first sunrise. Our responsibility is to share collective knowledge, recognise a difficult history, respect the relationships made over time, and create a stronger future. We are ready to walk, learn and work together.

The word ‘Woomera’ refers to a spear-throwing device that extends the distance a spear can be thrown. The Woomera Range Complex’s motto ‘sharpen the spear’ is a reference to this unique Aboriginal invention.

The Woomera Prohibited Area (WPA) encompasses the traditional lands of six Aboriginal groups. Maralinga Tjarutja (MT) and Anangu Pitjantjatjara Yunkuntjatjara (APY) hold almost 30 per cent of the land in the west of the WPA as freehold title granted under South Australian legislation. Four other groups – Antakirinja Matu-Yankunytjatjara (AMY), Kokatha, Arabana and Gawler Ranges – hold native title over areas in the WPA.

## 2. Executive Summary

The South Australian Government welcomes the opportunity to make a submission to the 2024 Review of the Woomera Prohibited Area Coexistence Framework (the 2024 Review). The South Australian Government is pleased with the appointment of Ms Skinner’s to lead the review, and confident she holds the prior experience and depth of knowledge to oversee a robust and comprehensive process delivering high quality independent advice on the coexistence for all users of the WPA.

The 2024 Review is a timely opportunity for the South Australian Government to ensure that the interests of the Commonwealth Department of Defence (Defence) and Australian Government continue to be balanced with the interests of South Australians. This submission seeks to influence the on-going operation of a contemporary WPA coexistence framework for a strong Australian Government-South Australian Government partnership delivering outcomes focussed on national security, continued economic development, protection of Aboriginal heritage and the environment and sustainable regional growth in South Australia.

The South Australian Government recognises that as one of the largest and electromagnetically quietest military test ranges in the world, the WPA is a critical national and international asset, with significant importance to our allies for testing and trials. In a period of geostrategic instability and rapidly evolving technology, a large test and trials range is essential to Australia’s strategic defence capability.

The WPA is an area of 122,000 square kilometres, roughly the size of England, encompassing the largest land-based military test range in the Western world. The WPA is also an area of strategic State significance delivering economic, cultural, social, and environmental value shared by all South Australians. South Australia has mineral and energy resources of national and global significance within the WPA, which are of vital importance to the future development of Australia’s resource sector, mineral wealth security, and the future

contribution to the critical minerals needed for the technologies underpinning Australia's national security and that of our major allies.

The WPA Advisory Board (the Board) monitors and reports on the balance of national security and economic interests in the WPA and oversees implementation of the Coexistence Framework. The South Australian government considers the Board to be an effective mechanism to manage interactions between the State and Commonwealth with independent oversight from a Chair and Co-Chair.

There are three large scale mines currently operating within the WPA: the Prominent Hill iron oxide copper, gold, and silver mine (BHP), the Peculiar Knob iron ore mine (Peak Iron Mines) and the Buzzard iron ore mine (Peak Iron Mines). There are an additional two mines in care and maintenance: the Cairn Hill iron and copper mine (CU-River Mining Australia) and the Challenger gold and silver mine (Barton Gold Holdings Limited). In 2023/2024, mining operations in the WPA contributed over \$39 million in royalty receipts to the South Australian economy and employed approximately 1,750 people<sup>1</sup>.

Additionally, the Arckaringa, Officer and Eromanga basins which contain substantial hydrocarbon resources and half of Coober Pedy precious stone fields fall within the WPA boundaries.

Exploration is vital to identify the commercially viable resources necessary to underpin future resource operations and production. Geoscience Australia estimates 69% of Australia's known copper resources and 78% of known uranium resources are located within the WPA or the immediate surrounds. A review by the Department and Energy and Mining (DEM), Geological Survey of South Australia (GSSA) demonstrate that there are more than 260 mineral occurrences within the WPA area.<sup>2</sup> Geological models clearly indicate a correlation between the deposits within the WPA and highly prospective IOCGU (Iron Ore, Copper, Gold and Uranium) deposits east of the WPA, such as Carrapateena and Olympic Dam. Other key prospective mineral targets within the WPA include gold and heavy mineral sands (titanium, zircon, rutile, ilmenite).

Further work is required to define specific exploration targets and enhance the understanding of potential mineral resource targets within the WPA. There are important leadership and investment roles for the Australian and South Australian Government in this regard.

The WPA retains important Aboriginal cultural heritage values for the Maralinga Tjarutja, Anangu Pitjantjatjara Yunkuntjatjara, Antakirinja Matu-Yankunytjatjara, Kokatha, Arabana and Gawler Ranges groups.

The pastoral industry, including those pastoral enterprises operating within the WPA, generate an estimated annual output of \$226 million. The South Australian Dog Fence transecting the WPA is a key piece of infrastructure protecting a \$4.3 billion livestock industry. Rebuilding

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<sup>1</sup> 2022/23 Annual Report: Woomera-Annual-Report-2022-2023

<sup>2</sup> Davies, M., Fairclough, M., Dutch, R., Katona, L., South, R. and McGeough, M.: 2008. Mineralisation and mineral potential of the Woomera Prohibited Area, central Gawler Province, South Australia. South Australia. Department of Primary Industries and Resources. Report Book 2008/18.

works to reduce the impact of wild dogs is estimated to create a net benefit \$112.9 million over a 20-year period.

South Australia supports a balanced approach to management of the WPA; increasing demand for defence purposes should be balanced with demands from mining exploration and leases, pastoralists, traditional owners, tourism and other uses.

This submission to the 2024 Review references the detailed submission made by the South Australian Government during the 2018 WPA Review<sup>3</sup>. It builds on the improvements already implemented, highlights what is currently working well and should be maintained, and identifies the tasks required to support ongoing access to the WPA with the consideration of all stakeholder interests.

The 2018 Review of the Woomera Prohibited Area Coexistence Framework led to 12 recommendations, four of which have not been fully implemented:

1. That Defence and the South Australian government explore a grid-based zoning model for a Flexible Green Zone, including detailed modelling of testing activity to inform future development of a flexible Green Zone proposal.
2. Geological and economic analysis of the mineral, energy and groundwater resources potential of the Gawler Craton area, including the red zone within the WPA, should continue.
3. To modernise the administration of the WPA coexistence framework, a recommendation which is largely complete with an objective to develop a digital platform for access management remaining.
4. A further complete review of WPA arrangements by 2025, noting sunseting of the *Woomera Prohibited Area Rule 2014* (the Rule) has been deferred from 1 October 2024 to 1 October 2026, effective 29 March 2024.

For the 2024 review, South Australia prioritises closing out the remaining four actions from the 2018 review and proposes additional recommendations to further enhance the coexistence framework and strengthen working relationships among all WPA users.

The recommendations for the 2024 review are:

1. Strengthening the role of the WPA Advisory Board, including the opportunity to consider impacts on other stakeholders. Consideration could be given to improved engagement by the Board with stakeholders to address emerging issues such as new technologies, biosecurity, environmental and cultural heritage management. Consider reviewing membership to include a senior representative from the South Australian Department of the Premier and Cabinet.
2. Defence and the South Australian Government should continue to employ a collaborative co-design process to determine a model which delivers a more flexible

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<sup>3</sup> [South Australian Government Submission.pdf \(energymining.sa.gov.au\)](#)

arrangement for access to and closure of the WPA green zone, and which would fold the existing Amber 2 Zone into a larger Green Zone

3. The South Australian Government seeks continued collaboration between Geoscience Australia, GSSA and Defence to deliver detailed geological and economic analysis of the mineral, energy and groundwater resources potential of the Gawler Craton area, including within the WPA red zone.
4. Consider on-going improvements to administration of the WPA coexistence arrangements, including formalising communication plans with key stakeholders and developing the proposed digital platform that support non-Defence users managing access requirements for the WPA.
5. The complete review of the WPA arrangements, particularly the review of the Rule by 1 October 2026, should ensure appropriate timeframes and engagement for stakeholders.
6. Consideration of mechanisms to deliver increased engagement opportunities with users of the WPA including guidance to enable early consideration on potential issues associated with the introduction and use of new technologies in the area such as drones, remote sensing, and autonomous mining and rail operations.
7. Given the significant costs involved with major mining project developments, consideration of mechanisms to provide early resource permit approvals (conditional or in principle) would build company confidence in progressing with the project development process, including seeking regulatory approvals.
8. Defence and Aboriginal groups in the WPA should continue to build on their relationships, including with respect to evaluating the management of cultural heritage and enhancing the partnerships with the different Aboriginal groups that access the WPA for cultural heritage and traditional land uses. The coexistence framework should lead the way in promoting and supporting further economic development opportunities for members of the Aboriginal communities in and around the WPA in alignment with Defence access frameworks.
9. Consideration should be given to reviewing the guidance for managing small parcels of land no longer suitable for pastoral activity, and guidance for pastoralists claiming compensation for losses due to Defence testing, including where the inability to use agricultural technologies is likely have financial implications.
10. Should access be further restricted, consideration of development of an equitable compensation framework for impacted users and the State.

### 3. Introduction

South Australia's economic success is underpinned by the resources, primary production and defence industries which fuel the prosperity and well-being of communities across the State. Additionally, these industries have the ability to fuel the development of regional centres, rural

towns and rail, road and coastal infrastructure. The WPA is significant to these three industries, and to traditional owners who use the WPA for cultural and traditional activities.

The WPA coexistence framework delivers positive interactions amongst the various stakeholders in the WPA and increased awareness and understanding of the many interests, rights, requirements and concerns of Defence, the South Australian Government, the minerals and energy resources sector, Aboriginal groups and traditional landowners, pastoralists, railway operators and other non-Defence users.

The WPA covers 12% of South Australia's landmass, approximately the size of England, and overlaps a large portion of SA's significant mineral resource potential including 30% of the Gawler Craton, one of the world's major mineral domains. Recent studies by the Geological Survey of South Australia (GSSA) with technical input from Geoscience Australia has identified more than 260 mineral occurrences within the WPA area, 35 of which are identified as essential to the economic and national security of the United States of America. In addition, the Coober Pedy Proclaimed Precious Stones field covers about 5,000 square kilometres, about 48 per cent of which falls within the WPA. The WPA Board has been effective in its primary role as an 'honest broker' and has been instrumental in building trust and confidence between key stakeholders and non-Defence users in the WPA. It has provided a formal forum for both Defence and non-Defence user groups to raise their issues and concerns be heard and facilitate outcomes. It has laid a strong foundation for relationship-building between and among key stakeholders in the WPA, having conducted one-one-one meetings with pastoralists, opal miners, exploration and mining companies, resource industry associations, environment groups, Aboriginal freehold landholders and native title claimant groups, railway owners and operators, and tourism operators.

## 4. Legislative Context

The WPA is operated under the following legislation.

- The Defence Act (Cth) 1903 authorises use of the WPA for testing of war material.
- The WPA Rule 2014 (the Rule) regulates most third-party access to the WPA.
- The Defence Force Regulations 1952 sets out historical access arrangements for traditional owners and native title holders, pastoral lease holders, railway authorities, and a limited number of mining operators.
- The WPA coexistence governance arrangements are within a Memorandum of Understanding (MOU) between the Commonwealth of Australia and South Australian Government and the WPA Advisory Board.

The Rule and WPA governance arrangements together form the 'Coexistence Framework'.

## 5. Terms of Reference – 2024 Review

The scope of the 2024 Review is set out within the Terms of Reference (TOR). Input into the review should focus upon qualitative and quantitative assessments of the balance of national interests over the short and medium (10-year) term with the interests of WPA stakeholders including opportunities to minimise regulatory burden and costs for third-party users. Accordingly, this submission assesses the current WPA Coexistence Framework, last

reviewed in 2018, to determine whether it remains fit for purpose considering the 2024 National Defence Strategy and the current strategic and economic environment. It considers national security, economic and cultural perspectives, and makes recommendations which emphasise the importance of the WPA to the people of South Australia and to the national interest, including to:

- Update coexistence governance arrangements; and
- Inform the remaking of the WPA Rule before it sunsets on 1 October 2026.

## 6. South Australian Strategic Context

The South Australian Government is committed to delivering a smart, sustainable, and inclusive economy that leverages its renewable energy, petroleum, and mineral resource endowments to deliver economic growth whilst also respecting our natural resources, progressing toward a net zero economy by 2050 and ensuring a better quality of life for all South Australians.

In 2024 the Government of South Australia announced the State Prosperity Project, a coordinated initiative to unlock the full potential of renewable energy, critical minerals, and green manufacturing to reindustrialise the upper Spencer Gulf region capitalising on a unique combination of solar and wind resources, valuable minerals including copper and magnetite iron ore, and steel manufacturing capability in alignment with the objectives of the Commonwealth's Future Made in Australia Bill.

South Australia is home to more than two-thirds of Australia's copper resource. The Gawler craton arguably hosts the world's most richly endowed iron oxide copper-gold ore province. With the proximity of the supergiant Olympic Dam deposit with its existing copper smelter, Carrapateena Prominent Hill and the emerging Oak Dam deposit, , South Australia has become a Tier 1 global copper province.

The South Australian Government is actively leveraging the forecast demand surge for copper required to supply the materials required for the global energy transition to deliver increased valuable exports, job creation and importantly, more complexity in the economy.

Industry confidence in the long-term value of the in-ground resources located within and adjacent to the WPA is clearly evidenced by BHP's substantial investments in the regions. An investment of over \$9 billion in the purchase of OZ Minerals, including the Prominent Hill copper mine and the on-going strategic intent to increase copper production in South Australia are signals in the confidence industry holds in the ability to coexist in the WPA. BHP has outlined its intent to progress studies into increased copper production capacity at Olympic Dam to support the significant regional mining development plans. Capital expenditure associated with these projects is anticipated to be significant, in the billions.

South Australia is also actively developing its own Critical and Strategic Minerals Strategy in line with the Australian Government's efforts to establish secure and stable mineral supplies essential for industrial uses and as part of the clean energy transition. The establishment of new supplies of critical minerals and the development of a local critical mineral processing

sector will support the Australian and South Australian Governments to achieve multiple Defence, national security, resources and economic policy goals.

The South Australian Government has released the Green Iron and Steel Strategy, a key component of the State Prosperity Project. This initiative seeks to decarbonise steel production by leveraging the state's magnetite resources and renewable energy in the Upper Spencer Gulf. The strategy outlines South Australia's vision to become a leading global partner in sustainable steel manufacturing. The substantial identified magnetite resources within the WPA align with this initiative.

South Australia has delivered the *Hydrogen and Renewable Energy Act 2023* (HRE Act) which provides the regulatory framework to support the development of large-scale renewable energy and hydrogen projects.

Northern Water aims to deliver a reliable and sustainable new commercial water source to meet the growing needs of a broad range of resource, Defence, hydrogen and pastoral industries. Northern Water will unlock economic growth in industries and regions that are crucial to achieving net-zero targets and will reduce reliance on precious water resources like the Great Artesian Basin and the River Murray. This would be achieved by construction of a seawater desalination plant drawing water from the Spencer Gulf, connected by up to a 600km transfer pipeline to northern South Australia linking Eastern Eyre Peninsula, Whyalla, Port Augusta, Woomera, Carrapateena, Roxby Downs, Pimba, and Olympic Dam. The project is currently in the planning and assessment phase with a final investment decision subject to project approvals and agreements.

Whilst it is not anticipated that the Northern Water pipeline will be located within the WPA, the current proposed alignment, which is still subject to a site selection board process, runs through the Standing Permission Area within the Woomera Village and then runs north to Olympic Dam along the eastern side of the Olympic Dam Highway, adjacent to the WPA red zone. It is not anticipated that access within the red zone would be required to support construction activities. The Office of Northern Water Delivery is currently engaged with Defence on the potential for a future Stage 2 offtake agreement to deliver a reliable and sustainable water supply to support Woomera activities, as well as the immediate requirements to secure access for the pipeline construction, and subsequent operations and maintenance of the pipeline.

South Australia is key to the nation's defence sector, with approximately 25 % of the nation's defence industry in the state. In a period of geostrategic instability and increasing global tensions the availability of a large land-based test range is critical to the nation's defence strategy. Rapid advances in technology and weaponry amongst our potential adversaries means that Australia needs to be able to test and trial a range of high technology capabilities in a secure and available environment. The WPA is the only area in Australia where many of these tests can be conducted.

South Australia acknowledges that the interests of all users of the WPA need to be balanced.

## 7. Importance of the WPA to South Australia's Economy

The WPA is situated on one of Australia's most endowed mineral provinces and has substantial demonstrated mineral deposits. The Warburton, Arckaringa and Arrowie sedimentary basins and Neoproterozoic Stuart Shelf overlie much of the Archaean to Mesoproterozoic basement rocks of the Gawler Craton. The geology supports demonstrated mineral deposit models include copper-gold-uranium-silver deposits, iron ore as magnetite and hematite skarn/replacement styles and iron ore as magnetite-bearing banded iron formation, orogenic gold and shear-hosted iron-oxide copper-gold. Copper, gold, iron, titanium, zirconium and silver are major known mineral commodities in the WPA.

Total annual exploration expenditure in the WPA averaged \$40 million per year between 2005 and 2022, reaching a peak of \$92.4 million in 2012. Mineral exploration expenditure in the WPA rose by 223% from \$5.6 million in 2017 to \$12.5 million in 2023.

The mineral occurrences, deposits, operating mines and petroleum wells in the WPA include:

- Three large scale mines currently operating within the WPA: the Prominent Hill iron oxide copper, gold, and silver mine (BHP), the Peculiar Knob iron ore mine (Peak Iron Mines) and the Buzzard iron ore mine (Peak Iron Mines).
- An additional two mines in care and maintenance: the Cairn Hill iron and copper mine (CU-River Mining Australia) and the Challenger gold and silver mine (Barton Gold Holdings Limited).
- Peak Iron are progressing the studies and regulatory applications to support the continued development of the Hawkes Nest area, focussing on the significant magnetite deposits.
- As an indicator of future mine development potential, 164 exploration leases are currently held by over 45 mineral exploration companies.
- For future petroleum and hydrogen resource development potential, three petroleum wells have been drilled (with oil shows), and nine petroleum exploration licenses are held in the WPA by three companies. Additionally, three petroleum exploration license applications within the WPA are specifically focused on hydrogen.

One of the key recommendations of the 2018 review of the WPA Coexistence Framework was the re-assessment of the economic value potential of the mineral prospectivity within WPA following the acquisition of considerable geoscientific datasets. In 2023, DEM contracted Scyne Advisory (formerly PwC Consulting Australia) to undertake an updated review of the WPA's mineral and energy resource potential and economic assessment for developing those potential future resources (Appendix A).

The updated 2023 resource prospectivity assessment of mineral, hydrogen and petroleum resources confirms that there is high potential for further discovery of copper, gold, silver, iron, titanium, zirconium, uranium and nickel and there is moderate potential for sedimentary-hosted copper and cobalt deposits in the WPA.

The 2023 economic assessments estimate the current WPA's Economic Demonstrated Resources (EDR) for the established and developing mines have a Net Present Value (NPV)

of \$14.2 billion. The 2023 EDR NPV of \$14.2 billion is a significant increase from the estimated \$5.9 billion in 2018. This increase is primarily driven by an increase in the copper, gold and silver EDR at Prominent Hill and changes in commodity price forecasts. Under scenarios for possible future mines and energy resources, the NPV models for Low, Best and High scenarios for WPA development possibilities estimated returns of \$3.1 billion, \$12.2 billion and \$23.4 billion respectively.

The 2018 review also recommended that the results of desktop assessments of mineral and petroleum potential of the WPA are tested in the field, with follow-up geoscientific surveys and the collection of precompetitive data inclusion of geological and geophysical datasets acquired since the 2010 Geoscience Australia assessment. The 2023 economic assessment addresses these recommendations by including data from the South Australian Government projects.

To realise the economic opportunities for South Australia, maintaining a coexistence framework that delivers certainty of access to the WPA is vital to secure on-going investment. Building flexibility into the framework is critical to support the transition from exploration activities to the development of profitable mining projects. Confidence in the workability of the framework translates to increased certainty that investment will deliver the economic benefits to industry and the people of South Australia.

DEM commissioned prospectivity report and economic assessment of resource potential is part of the deliverables of the 2018 WPA Review that DEM/South Australian Government is tasked as lead agency. As mentioned above, the DEM commissioned updated prospectivity report will form part of information and data that will be used to inform the recommended review of the WPA coexistence arrangements in 2025.

Many weapons, missile, rocket and technology tests conducted at the WPA are by overseas forces, sponsored by the Australian Department of Defence. The economic benefit of these activities to the state economy are significant, however they are difficult to quantify are the South Australian Government often has little visibility of the events at WPA.

## **8. Minerals and Energy Resource Sector**

Mineral resources sourced from stable geopolitical environments are increasingly in demand, supporting responsible manufacturing and delivering low financial and social risk profiles. South Australia is recognised globally as a stable geopolitical jurisdiction.

The South Australian Government welcomes the opportunity to work with Defence in relation to national security concerns highlighted in the Australian Government 2024 National Defence Strategy which made clear that, in response to our deteriorating strategic circumstances, Australia – and in particular Defence – must accelerate capability development and acquisition, including of long-range strike, and investment in emerging technologies. The mineral resources industry is renowned for its innovation and welcomes opportunities for research and development of technologies including for unmanned and semi-autonomous systems. Overlapping technological enhancement across the sectors will assist with addressing issues associated with remote operations in often harsh environments made more so by climate change.

## 8.1 Mineral Production

Major mines such as the Prominent Hill copper-gold mine, Peculiar Knob iron ore mine, Buzzard iron ore mine, Challenger gold mine, and Cairn Hill magnetite iron ore mine are located within the WPA which have generated over 2000 full time jobs and contributed \$200 million to the State accounts and contribute almost a quarter of total mineral royalty payments.

Production from Prominent Hill, Peculiar Knob, Challenger, Breadknife Hill Quarry and Fitzgerald's Dam Sandpit all located within the WPA together contributed over \$39 million in royalty receipts in 2023/2024.

### Prominent Hill Copper-Gold Mine

Owned and operated by BHP, the Prominent Hill mine produces one of the highest grades of copper concentrate in the world with a production rate of ~4.0Mtpa. The mine also produces silver and gold from a deposit of iron oxide copper gold style mineralisation.

The Prominent Hill mine is central to BHP's plans to grow copper production out of South Australia. An expansion plan is underway to instal a vertical hoisting shaft (the Wira shaft) at a capital cost of more than \$600 million, to assist in maximising values from the mines approximately 140 million tonnes of underground copper-gold-silver resource. The shaft will increase production at Prominent Hill to 6.5 million tonnes per annum.

Investment in supporting infrastructure includes access roads, concentrate export road, bore field, electricity transmission lines, plant and equipment, airstrip and accommodation village.

Prominent Hill is a significant employer delivering substantial socio-economic benefits to the region and to the State. The Prominent Hill Pre-Employment Training Program facilitates employment opportunities for surrounding communities by providing educational support and training. The program focuses on long-term unemployed participants, and both indigenous and non-indigenous people who may have never worked within the mining industry. Training opportunities are provided to local workers to facilitate their growth and achieve nationally accredited qualifications. Indigenous employment and training programs involve collaboration with APY Lands, TAFE, and Bungala Aboriginal Corporation.

### Peculiar Knob Iron Ore Mine

The Peculiar Knob Iron Ore mine contained an estimated 16.7 million tonnes (Mt) of hematite (iron ore) to a vertical depth of 175 metres. Iron ore is extracted at a rate of approximately 2.4 million tonnes per annum with ore hauled to a rail siding at Wirrida to be crushed onsite then transported to the Port of Whyalla ready for export.

Southern Iron Pty Ltd, a wholly owned subsidiary of Peak Iron Mines Pty Ltd, operates the mine via an open pit with the use of contract mining, crushing, and logistics service providers employing over 120 personnel directly, and indirectly supports employment and businesses in the WPA, Whyalla and in the region.

Mining operations are progressing towards the end of the life of mine plan which are expected to reach the end of economic extraction in 2025-26. Following completion of extractive activities the operation will transition into the closure and completion phases of the project.

#### Buzzard Iron Ore Mine

The Buzzard Iron Ore Mine has commenced mining operations. It comprises an open pit iron ore (hematite) mine and associated infrastructure. The Buzzard deposit global resource is 21.26 Mt of high-grade hematite.. The Buzzard open pit is expected to be 185 metres deep. The mining process will involve drilling and blasting the ore and waste material and loading onto haul trucks for removal from the pit. Waste will be placed into a waste rock dump (WRD) and ore will be stockpiled on the Run of Mine Pad (ROM) for processing and transport off the proposed Mining Lease (ML).

Peak estimate the project will generate 160 full time jobs and contribute \$50 million to the South Australian economy in royalty payments over an initial 5 year mine life. It is noted that

#### Cairn Hill Iron Ore Mine

The Cairn Hill iron ore mine is situated in the northern Gawler Craton within the WPA. Iron Ore (magnetite), with associated copper and gold, is recovered via open pit operations with concentrate transported via haul road hauled to the Rankin Dam Rail Siding on the main North-South rail line. The mine is owned by CU-River Mining which has recently undergone a change of ownership. Operations were placed into care and maintenance in 2023 subject to on-going reviews of mine plans and near mine exploration activities to determine potential future operational scenarios.

#### Challenger Gold Mine

The Challenger gold mine is owned by Barton Gold and is located in the WPA. The Challenger gold mine is maintained in a state of care and maintenance and comprises the Challenger Mine (open pit and underground), the Challenger Mill, a mine village and associated infrastructure.

The Challenger Mine was discovered in 1995 by Dominion Mining and produced ~1.2Moz Au in operations from 2002 – 2018. The Challenger Mill is a ~650ktpa processing plant for production of gold. Due to the depth of the mine and requirement for substantial investment to renew the geological understanding of the deposit at depth, investigations into future development is not a priority focus for Barton.

The Challenger Mill presents an opportunity for processing of regional mineralisation in the vicinity of the mill. It also provides an attractive option for trucking and processing of ore from the Company's Tarcoola Project, which was previously undertaken during 2017 and 2018. The Challenger Mill is maintained in a state of care and maintenance.

#### Extractive Industry

Several smaller extractive mines operate within the WPA producing materials for construction, roads, mining and other industries, including for Defence use. Fifty-eight mineral tenements

held by ten mineral tenement holders produce a range of products including aggregates, sand, granite, calcrete, and gravel, and support employment in the quarrying and construction sectors.

### Coober Pedy Opal Mining

The Coober Pedy Proclaimed Precious Stones field covers about 5,000 square kilometres of which approximately 50% falls within the WPA. Around \$5.5 million worth of opals has come from this field with opal mining underpinning tourism in the region. Coober Pedy welcomes over 150,000 tourists every year adding to the local economy.

## **8.2 Resource Exploration**

Approximately 300 mineral exploration licences were granted since the Coexistence Framework was implemented in 2011. As at 1 August 2024, there are 164 active mineral exploration licences in the WPA held by junior explorers, and by major mining companies including BHP and FMG Resources. From 2005 to 2022, total annual resource exploration expenditure in the WPA totalled more than \$40 million per annum.

Explorers continue to seek out the WPA area for future projects with 13 Exploration Licence Applications currently under assessment covering a broad range of mineral targets.

The commodities pursued within the WPA via exploration and resource evaluation activities range from copper, gold, silver, platinum, iron, nickel, heavy mineral sands, uranium, lead, zinc, utile, magnetite, lead, tungsten, base and precious metals, rare earths, tin, nickel, titanium, diamonds, salt, cobalt, halloysite, palladium, potash, evaporites.

Exploration activities are conducted via ground and airborne geophysical surveys, geochemical surveys, environmental and cultural surveys, drilling, and drill site rehabilitation. Research conducted by the South Australian Government since 2018 has provided new and updated datasets for the benefit of all stakeholders. These datasets include: Gawler Craton Airborne Survey (and derivative products), magnetotelluric (MT) data from the Australian Lithospheric Architecture Magnetotelluric Project (AusLAMP), releases from Gawler Phase 2: Next Generation Mineral Systems Mapping including the data acquisition project (gravity and magnetotellurics), a new Hiltaba Suite layer in SARIG, Neodymium map and new structures from SA Discovery Mapping.

## **8.3 Renewable Energy and Hydrogen Industry**

The WPA is located in the Far North of the State where there is excellent coincident wind and solar resources. The South Australian Government is committed to leveraging its renewable energy resources and has brought forward its net 100% renewable electricity target by 3 years to 2027 and has implemented the HRE Act.

Preliminary industry engagement has identified several moderate to large companies expressing an interest in utilising remote areas which are in close proximity to the railway line between Adelaide and Darwin as it would allow for low-cost production of hydrogen and access to transport infrastructure linking to end use sites in both Adelaide and Darwin.

Consideration of how these new industries may seek to interact with the WPA and early identification of any constraints should be factored into the coexistence framework.

Given the high energy demand from operations including Olympic Dam and Carrapateena and the distance to electricity generation there is strong interest in the potential to develop renewable energy infrastructure in the vicinity of the WPA. Under AEMO's 2022 ISP Step Change Scenario, the projected electricity generation capacity in the Roxby Downs Renewable Energy Zone which is within the WPA is 700 MW.

Early engagement and an in-depth understanding of the interests of all parties can facilitate the consideration at the fundamental design stage and inform the type and location of potential new renewable energy infrastructure.

### **8.4 Petroleum and Gas Exploration**

Petroleum exploration has occurred sporadically in the WPA between 2005 and 2017. Exploration targets have included conventional and shale gas and oil, and coal seam gas and potential coal gasification projects. However, more recently interest in natural hydrogen increased due to changing trends in energy exploration. There are currently 9 petroleum exploration licenses held in the WPA by three companies, and 18 petroleum exploration licence applications, including 3 licences with a specific focus on hydrogen exploration (as of 2022).

## **9. Primary Industries**

Information provided by the South Australian Department of Primary Industries and Regions (PIRSA) highlights the significance of the WPA to the agricultural sector in addition to economic and regional development, and the preservation of the environmental health and biosecurity of the area.

The pastoral industry operates on Pastoral Leases issued over Crown Land under the *Pastoral Land Management and Conservation Act 1989* (PLMC Act). The Pastoral Board of South Australia is responsible to the Minister for Climate, Environment and Water for the administration of the PLMC Act and is supported by the Pastoral Unit in the Department for Environment and Water (DEW). The Pastoral Unit undertakes land condition assessments, regulates lessees against their lease conditions and manages lease tenure dealings (e.g. consents for transfers, mortgages, sub-leasing).

The WPA contains substantial sections of the South Australian Dog Fence, a key piece of infrastructure in wild dog management, protecting a \$4.3 billion livestock industry, employing 15,000 South Australians with a value chain worth \$1.3 billion annually.<sup>4</sup> The Dog Fence is 2,150km long and currently 1,600km is being rebuilt. These activities, commencing in 2020, aim to deliver the objective of reducing the impact of wild dogs and creating a net benefit to the community of between \$56.4million and \$112.9million over a 20-year period.<sup>5</sup>

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<sup>4</sup> [pir.sa.gov.au/data/assets/pdf\\_file/0006/438513/sa-wild-dog-management-strategy.pdf](https://pir.sa.gov.au/data/assets/pdf_file/0006/438513/sa-wild-dog-management-strategy.pdf)

<sup>5</sup> [Microsoft Word - A3891656 - Dog Fence Economic Analysis Final 181221 \(002\).docx \(pir.sa.gov.au\)](#)

Biosecurity is critical to maintaining the productivity of our primary industries and protecting our natural environments. PIRSA Biosecurity division manages the risks posed to South Australia by animal and plant pests and diseases, food borne illnesses and the misuse of rural chemicals. The pastoral industry, including those pastoral enterprises operating within the WPA, generate an estimated annual output of \$226 million. Biosecurity risks are a continual challenge to animal health and the department undertakes disease response and animal surveillance programs as a key part an approach to protect and improve market access, increase farm productivity, protect public safety; some of these activities occur within the WPA or may occur within the WPA into the future.

Building on the existing relationships, Defence, PIRSA and DEW will continue to review and develop protocols which ensure operational efficiency for all parties and outline how they will respond to critical incidents including those associated with biosecurity risks.

## 10. Defence Use

The WPA is unique in the western world and must be maintained as a strategic asset. The Australian Government and allies can conduct tests and trial on the WPA that cannot be done anywhere else in the world. This capability is critical in the current unstable geopolitical environment where the development of technology by potential adversaries continues apace and must be countered and exceed by national capabilities.

The WPA is frequently accessed by the Defence Science and Technology Group, the Royal Australian Air Force local researchers and defence industry. This contributes to the development of national capability and is in the nation's interests.

## 11. Indigenous WPA Users

The WPA is the traditional land of a number of Aboriginal groups - two Aboriginal groups (Maralinga Tjarutja and Anangu Pitjantjatjara Yankunytjatjara) with freehold land ownership over a significant portion of the WPA and four native title holders (Antakirinja Matu-Yankunytjatjara, Arabana People, Gawler Ranges People and Kokatha People). Generally, Aboriginal groups access the WPA for their traditional ceremonies, hunting, heritage site protection, and cultural activities. Like pastoralists, they are exempt from the WPA Rule, their occupation implicitly authorised under the Defence Force Regulations.

## 12. Tourism Industry

The WPA often draws tourists on their travels throughout outback South Australia due to its historical significance and beautiful landscape. The Woomera Village's Heritage Centre, History Museum and Rocket Park are all popular tourist destinations depicting the WPA's rich history, with 550 tourist permits issued during 2022-2023.

## 13. Recommendations

The WPA Coexistence Framework is functioning well, but ongoing improvements are essential to facilitate flexible access arrangements and instil confidence in users. Commercial ventures, particularly mining and exploration activities, rely on secure access to resource areas within

the WPA. Without certainty, confidence diminishes, leading to reduced investment and fewer capital-raising opportunities, ultimately hindering economic growth.

The 2018 review of the Woomera Prohibited Area Coexistence Framework resulted in 12 recommendations, four of which remain unimplemented. There is still room to further strengthen the framework. The South Australian Government presents the following recommendations, including the incomplete 2018 actions, to ensure a balanced consideration of national security, cultural, and economic interests in the WPA. These recommendations also aim to enhance the partnership between the South Australian and Australian governments, fostering sustainable regional growth and environmental management.

1. Strengthening the role of the WPA Advisory Board, including the opportunity to consider impacts on other stakeholders. Consideration could be given to improved engagement by the Board with stakeholders to address emerging issues such as new technologies, biosecurity, environmental and cultural heritage management. Consider reviewing membership to include a senior representative from the South Australian Department of the Premier and Cabinet.
2. Defence and the South Australian Government should continue to employ a collaborative co-design process to determine a model which delivers a more flexible arrangement for access to and closure of the WPA green zone, and which would fold the existing Amber 2 Zone into a larger Green Zone
3. The South Australian Government seeks continued collaboration between Geoscience Australia, GSSA and Defence to deliver detailed geological and economic analysis of the mineral, energy and groundwater resources potential of the Gawler Craton area, including within the WPA red zone.
4. Consider on-going improvements to administration of the WPA coexistence arrangements, including formalising communication plans with key stakeholders and developing the proposed digital platform that support non-Defence users managing access requirements for the WPA.
5. The complete review of the WPA arrangements, particularly the review of the Rule by 1 October 2026, should ensure appropriate timeframes and engagement for stakeholders.
6. Consideration of mechanisms to deliver increased engagement opportunities with users of the WPA including guidance to enable early consideration on potential issues associated with the introduction and use of new technologies in the area such as drones, remote sensing, and autonomous mining and rail operations.
7. Given the significant costs involved with major mining project developments, consideration of mechanisms to provide early resource permit approvals (conditional or in principle) would build company confidence in progressing with the project development process, including seeking regulatory approvals.

8. Defence and Aboriginal groups in the WPA should continue to build on their relationships, including with respect to evaluating the management of cultural heritage and enhancing the partnerships with the different Aboriginal groups that access the WPA for cultural heritage and traditional land uses. The coexistence framework should lead the way in promoting and supporting further economic development opportunities for members of the Aboriginal communities in and around the WPA in alignment with Defence access frameworks.
9. Consideration should be given to reviewing the guidance for managing small parcels of land no longer suitable for pastoral activity, and guidance for pastoralists claiming compensation for losses due to Defence testing, including where the inability to use agricultural technologies is likely have financial implications.
10. Should access be further restricted, consideration of development of an equitable compensation framework for impacted users and the State.

## 14. Conclusion

The South Australian Government welcomes the opportunity to participate in the 2024 Review of the Coexistence Framework and recognises the significant opportunity for the South Australian Government to ensure that Defence and Australian Government interests are correctly balanced with the interests of South Australians.

The Recommendations set out above seek to enhance the implementation of improvements to ensure a contemporary WPA coexistence framework for a stronger Australian Government-South Australian Government partnership towards national security, protection of Aboriginal heritage and the environment, sustainable regional growth, and continued economic development in South Australia.

The South Australian Government recognises that the WPA is an important national security asset used to advance strategic priorities and capability development to protect Australia's national security as well as being an area of strategic mineral significance, and of critical importance to the traditional owners, to its' pastoralists and of environmental importance.

In addition to the Recommendations set out above, the South Australian Government welcomes the opportunity to work with Defence in relation to national security concerns highlighted in the Australian Government 2024 National Defence Strategy which made clear that, in response to our deteriorating strategic circumstances, Australia – and in particular Defence – must accelerate capability development and acquisition, including of long-range strike, and investment in emerging technologies. The mineral resources industry is renowned for its innovation and welcomes opportunities for research and development of technologies including for unmanned and semi-autonomous systems. Overlapping technological enhancement across the sectors will assist with addressing issues associated with remote operations in often harsh environments made more so by climate change.

The WPA Advisory Board remains a critical component of the Coexistence Framework playing an important role in ensuring a forum for the interests of users to be communicated. The South

Australian Government is also committed to continuing discussions at Board meetings in addition to participating in the planned review of the Rule (which is sunsetting on 1 October 2026), to ensure the Rule and supporting coexistence arrangements are fit-for-purpose, as well contributing to the further wholesale Review of the WPA Coexistence arrangements by 2025.

South Australia is key to the nation's defence sector, with approximately 25% of the nation's defence industry in the state. In a period of geostrategic instability and increasing global tensions the availability of a large land-based test range is critical to the nation's defence strategy. Rapid advances in technology and weaponry amongst our potential adversaries means that Australia needs to be able to test and trial a range of high technology capabilities in a secure and available environment. The WPA is the only area in Australia where many of these tests can be conducted.

South Australia acknowledges that the interests of all users of the WPA need to be balanced.

## **Appendix A – WPA Resource Prospectivity and Economic Assessment**