## Hawks Nest Iron Ore Project

Application Number: 02603

Commencement Date:

Status: Locked

23/09/2024

## 1. About the project

| 1.1 Project details             |  |
|---------------------------------|--|
| 1.1.1 Project title *           |  |
| Hawks Nest Iron Ore Project     |  |
| 1.1.2 Project industry type *   |  |
| Mining                          |  |
| 1.1.3 Project industry sub-type |  |
| Iron ore mine                   |  |
| 1.1.4 Estimated start date *    |  |
| 01/01/2026                      |  |
| 1.1.4 Estimated end date *      |  |
| 31/12/2045                      |  |
|                                 |  |

### 1.2 Proposed Action details

### 1.2.1 Provide an overview of the proposed action, including all proposed activities. \*

The Hawks Nest Project is a proposed open cut iron ore mining operation targeting magnetite and hematite deposits. The Project consists of multiple deposits within exploration lease (EL) 6395, initially focusing on the Kite prospect. Kite and the surrounding deposits include hematite and magnetite targets of direct shipping ore quality as well as ore requiring some level of beneficiation. The Hawks Nest Project is located adjacent to the operational Buzzard Project.

The Hawks Nest prospect (Exploration Lease (EL) 6395, Figure 1.1 in Att 1 Figures), in which the proposed Hawks Nest Project lies, has a long history of exploration and tenement management. The prospect was discovered in 1995 by South Australian government-led exploration, and has since been held by several companies, including the South Australian Steel and Energy joint venture, Aulron, WPG Resources and Arrium Iron Ore Holdings (Arrium). Whilst Arrium were the ultimate owner of the Hawks Nest prospect, the exploration lease was held in a subsidiary company called Central Iron Pty Ltd (Central Iron).

Central Iron was acquired by Peak Iron Mines Pty Ltd (Peak Iron) from Arrium in July 2019, for the purpose of developing the Hawks Nest project area. The tenement holder and proponent for the Hawks Nest Project is Central Iron, a wholly owned subsidiary of Peak Iron. The Buzzard Project, approved in 2021, is the first iron ore mine to be approved within the Hawks Nest prospect.

The Hawks Nest exploration area is one of the most prospective mineral licences in South Australia. It has an abundance of high-grade, shallow hematite and magnetite mineralisation. Hawks Nest material will be able to feed into the South Australian green iron and steel strategy, which is targeting 50 million tonnes per annum (mtpa) of production and investment of over \$10 billion. Initial export tonnages can leverage off Central Iron's existing infrastructure, which can lead to an achievable fast start up with low capital expenditure. This will allow for quick investment into the region, including additional job opportunities, business opportunities and state royalties.

The Hawks Nest Project will consist of a number of elements that will be progressively developed through staging of the project:

- A number of open pit mines over time with associated surface waste dumps
- · Surface stockpiles for hematite and magnetite with crushing and processing facilities
- Industrial maintenance and repair workshops, parts warehousing and storage yards
- · Power generation facilities including renewables energy generation and storage
- · Pit dewatering and process water bores and water distribution system
- Communications system
- Explosives facility
- · Administration and office facilities
- Accommodation village facilities and an airstrip
- Private haul road.

The initial project, Kite Phase 1, will involve development of the Kite pit, associate waste rock dump and stockpiles, supporting mine infrastructure, a 300-room accommodation village, and an airstrip (Figure 1.2 and Figure 2 in Att 1 Figures). Product will be transported by road from the mine site to Glendambo via Stuart Highway, then along a new haul road (the Kultanaby Haul Road) to the Kultanaby siding (Figure 1.3 in Att 1 Figures).

Activities proposed as part of the development will include:

- Pre-clearing activities including surveying and pegging, environmental monitoring, and installation of fencing.
- Clearing activities including clearing and grubbing vegetation, removing and stockpiling topsoil and subsoil.
- Construction activities, including excavation of base material; construction of hardstand areas and
  internal roads and surface water infrastructure; installation of office buildings, power supplies, water
  bores and related infrastructure; construction of industrial workshop, maintenance areas,
  warehouses and storage yards; upgrading of intersections; construction of the accommodation
  village, and the airstrip and related facilities.
- Operational activities, including excavation of the pit, use of explosives, construction of the waste
  rock dump and stockpiles, on site crushing of ore, transportation of ore to the rail facility, pit
  dewatering, operation of the airstrip, operation of the accommodation facilities, and ongoing
  environmental monitoring. Note that pre-clearing, clearing and construction activities will continue

- throughout operations on an as-needs basis as the mining operation progresses. Progressive rehabilitation will be occur concurrently where possible (removing surface material, reshaping landform, returning topsoil).
- Closure activities (post mine completion), including decommissioning of plant, removal of buildings and all other surface infrastructure, removal of hardstand areas and internal roads, rehabilitation by reshaping surface features and returning topsoil, ongoing environmental monitoring.

The Hawks Nest project area = 10,068 ha (including both the proposed Hawks Nest Mining Lease and the proposed Kultanaby MPL), including an indicative disturbance footprint for Kite Phase 1 of 2555 ha (Hawks Nest development and Kultanaby Haul Road) and avoidance of 3595 ha (in the Hawks Nest Mining Lease only). Development Precincts have been established to guide future expansion of mining operations within the proposed Hawks Nest Mining Lease (ML), including the potential for additional pits. The Development Precincts total 5790 ha.

## 1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

Yes

#### 1.2.3 Is the proposed action the first stage of a staged development (or a larger project)?

Yes

### 1.2.5 Provide information about the staged development (or relevant larger project).

The Hawks Nest Project will initially comprise a three million tonnes per annum (mtpa) open pit mining operation and associated waste dump on the Kite prospect, known as Kite Phase 1 (Figure 2 in Att 1 Figures). This project is expected to expand to approximately six mtpa in year four, and possibly to a greater production level over time.

Additional open pits are expected to be developed over time at other known prospects within the mining lease area, namely Kestrel, Falcon, Eagle, Goshawk, Raptor and others that will be further explored. The mining configurations, waste management strategies and other mine planning and operational details will be resolved on these prospects as they are put forward for development approval in the future. These potential future pits will utilise the backbone infrastructure developed to establish the initial Kite mining operations.

The initial development, Kite Phase 1, comprises a proposed iron ore mine and associated infrastructure including a haul route and a separate camp and airstrip (Figure 2 in Att 1 Figures). Kite Phase 1 will involve development of an iron ore mine using open pit mining techniques and onsite crushing of direct shipping magnetite (DSM) and direct shipping ore (DSO hematite), with no processing required. The iron ore product will be transported from Kite Phase 1 by both road and rail transport to a port (Whyalla, Port Augusta, or Port Adelaide) where it will be exported by ship. The indicative footprint of Phase 1 is shown in Figure 1.2 in Att 1 Figures.

The proposed mine camp and associated airfield are located in the southeastern corner of the proposed mining lease and are connected to the mining operations area by a private internal road.

Transport of ore will be via the Stuart Highway southwards to Glendambo. At Glendambo, the trucks will turn west onto Tarcoola Road for approximately three kilometres, from where they will turn left onto a newly constructed private haul road (Kultanaby Haul Road) for approximately ten kilometres to the Kultanaby Rail

Siding. The Kultanaby Haul Road is included in the Phase 1 operations as a linked component of the project and comprises essential infrastructure to ensure a route to market (Figure 1.3 in Att 1 Figures).

The Kite prospect has a mining inventory of approximately 300 million tonnes (35% Fe) and a stripping ratio of 1 to 1. The Kite Phase 1 Pit is modelled to approximately 1,300 m long, 600 m wide and 180 m deep. The orebody is open along strike (north & south) and down dip, so this pit footprint is likely to expand over time. The ultimate Kite pit is expected to have a life in excess of 20 years. The Kite pit will initially be developed in stages, with a number of starter satellite pits to access shallow, high grade mineralisation (hematite and magnetite). Over time these initial starter pits will be expanded into the ultimate Kite pit.

Future development opportunities within the Hawks Nest Project proposed ML will form Phase 2 of the operations. This will include expansion of the Kite pit, development of other pits within the ML, and initiation of on-site processing facility for lower-grade ore. Although these are not considered part of the Phase 1 project description, potential future impacts have been considered in the design of the Development Precincts (Figure 1.2 in Att 1 Figures). All future vegetation clearing requirements for development of Phase 2 operations in the proposed ML have been incorporated into the Development Precincts. The Development Precincts encompass the future footprint of all proposed activities in the ML for the next 20 years of potential mine development.

## 1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? \*

The Hawks Nest Project will be assessed by South Australia's Department of Energy and Mining (DEM) under the *Mining Act 1971*. This involves a two-stage approval process:

- 1. Mining Lease Proposal to outline the proposed operations and provide an environmental impact assessment, culminating in the grant of tenure (mining lease and associated miscellaneous purposes licence)
- 2. Program for Environmental Protection and Rehabilitation, providing detailed strategies for managing potential environmental impacts and culminating in operational approval.

Central Iron has been engaging with DEM and other relevant agencies throughout the approval process and has submitted a draft Scoping Document to support the preparation of the Mining Lease Proposal. The Scoping Document will be published on the DEM website in due course. Both the Mining Lease Proposal and the Program for Environment Protection and Rehabilitation will be available for public comment during the assessment phase.

Additional approvals also required for the Hawks Nest Project include:

- Native vegetation clearing permit and associated offset (Significant Environmental Benefit), under the SA *Native Vegetation Act*.
- Licence for regulated activity under the SA Environment Protection Act 1993.
- Production permit from the Department of Defence for the operation of a mine within the Woomera Prohibited Area (note Central Iron already has production permits in place for the operation of the Buzzard Project and Peculiar Knob Iron Ore Mine, both also located in the Woomera Prohibited Area).
- Water affecting activities permit under the SA Landscape South Australia Act 2019.
- A water licence for production water may also be required if it is sourced from within the Far North Prescribed Wells Area.
- Agreement with the SA Department of Infrastructure and Transport (DIT) for hauling ore south on the Stuart Highway (note Central Iron already has approval in place to haul up to three million tonnes of ore per annum north for the Buzzard Project). The road trains hauling along the Stuart Highway route will be managed under a suitable NHVR permit system with the DIT.
- No rezoning is required.

In addition to the above, Central Iron is seeking the following:

- Native Title Mining Agreements with the native title holders Antakirinja Matu-Yankunytjatjara Aboriginal Corporation (AMYAC) and Gawler Ranges Aboriginal Corporation (GRAC)
- Land Access Agreements with the relevant pastoral stations.

In the course of preparing this EPBC Referral, the following EPBC-Act related policies and guidelines were applied:

- Significant Impact Guidelines 1.1 guided the self-assessment process
- Survey guidelines for Australia's threatened birds influenced the on-ground survey design
- Survey guidelines for Australia's threatened mammals influenced the on-ground survey design.

The Extent of Occurrence (EOO) and Area of Occupancy (AOO) for Southern Whiteface has been calculated using records sourced from the Atlas of Living Australia consistent with the Guidelines for using the IUCN Red List categories and criteria which is recommended by the *Guidelines for assessing the conservation status of native species according to the EPBC Act 1999 and EPBC Regulations 2000* (TSSC 2000, see link attached).

# 1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. \*

Central Iron has been operating in the region for a number of years and has existing relationships with the communities of Coober Pedy, Glendambo and Kingoonya, along with Pastoralists, AMYAC, GRAC and the Department of Defence. Interests of the stakeholder groups include:

#### Communities

- · job opportunities,
- · benefits to the community both financially and 'in-kind'
- · community safety

#### **Pastoralists**

- · managing access to land,
- · appropriate communication,
- · Stock management
- · Peak and all contractors acting in accordance with agreements

#### Native title holders AMYAC and GRAC

- job opportunities
- environmental and heritage protection and management.

#### Department of Defence

- · Access to the Woomera Prohibited Area
- · National Security.

Central Iron has a number of internal documents guiding the consultation processes, including an overarching Engagement Strategy, a Stakeholder Engagement Action Plan, a Stakeholder Issues Register and a Stakeholder Communications Register for all interactions, including consultation on the proposed Hawks Nest Iron Ore Project. An example extract of this Register (with information deemed appropriate for public release) is attached (Att 3 Stakeholder Engagement Register) with detail of discussions removed for confidentiality purposes.

Consultation on this Project has been undertaken in a number of ways for a period extending two years, and will be ongoing during the development, should the project be approved. Public presentations with the Coober Pedy community were held in the early planning stages for the Project. Direct consultation has occurred with AMYAC and GRAC, the two Traditional Owner groups for the project, along with individual consultation with relevant Pastoralists. No public presentations have yet been held for the Hawks Nest Project due to project sensitivities (relating to Defence interests); however, the Project has now reached a stage where information is ready for public release. Community presentations on the proposed Hawks Nest Project are planned for quarter 4 of 2024, prior to submission of the Mining Lease Proposal.

Both the Mining Lease Proposal and the Program for Environment Protection and Rehabilitation (PEPR) will be available for public comment during the assessment phase. Invitations to provide comment will be published on the DEM website as well posted in the Government Gazette and in an appropriate newspaper, or newspapers. The lease or licence application will also be provided to the local council and the landowners within the Project area.

A Cultural Heritage Survey by Traditional Owners representing the Gawler Ranges Aboriginal Corporation (GRAC) was completed for the Kultanaby Haul Road corridor. The results of this survey and the associated Native Title Mining Agreement are confidential; however, the group was directly involved in the route and detailed design of the Haul Road.

A number of Cultural Heritage Surveys by Traditional Owners representing the Antakirinja Matu-Yankunytjatjara Aboriginal Corporation (AMYAC) have been completed for the Hawks Nest exploration area to inform exploration programs and the development within the Hawks Nest Exploration Licence and existing Buzzard Mining Lease. Another Cultural Heritage Survey was conducted in October 2024, specifically for the purposes of developing the Hawks Nest Iron Ore Project. Another is scheduled for Quarter 1 of 2025. The outcomes of these surveys are confidential between the parties and will inform the detail of a Native Title Mining Agreement.

Central Iron has continued to engage with pastoral station owners and managers throughout the Hawks Nest exploration activities and the existing mining operations, and through the Hawks Nest Project planning. Feedback from these discussions has fed directly into Hawks Nest Project planning including for selection of the haul route, placement of infrastructure, fencing and access requirements, and water supply considerations. Central Iron is in the process of negotiating Land Access Agreements with the relevant pastoral stations.

### 1.3.1 Identity: Referring party

#### **Privacy Notice:**

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide

some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint. Alternatively, email us at privacy@awe.gov.au.

Confirm that you have read and understand this Privacy Notice \*

### 1.3.1.1 Is Referring party an organisation or business? \*

Yes

Referring party organisation details

**ABN/ACN** 85143503397

Organisation name Central Iron Pty Ltd

Organisation address 6012 WA

Referring party details

Name Tegan Stehbens

Job title Senior Environment and Approvals Officer

**Phone** 0417851937

Email tegan@peakiron.com

**Address** 

### 1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? \*

### 1.3.2.2 Is Person proposing to take the action an organisation or business? \*

Yes

Person proposing to take the action organisation details

**ABN/ACN** 85143503397

Organisation name Central Iron Pty Ltd

Organisation address Level 8, 33 King William Street, Adelaide, South Australia 5000

Person proposing to take the action details

Name Rob Morrow

Job title Managing Director

Phone 0417 930 265

Email rob@peakiron.com

Address GPO Box 2715, Cloisters Square PO, WA 6850

### 1.3.2.14 Are you proposing the action as part of a Joint Venture? \*

No

1.3.2.15 Are you proposing the action as part of a Trust? \*

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. \*

Central Iron Pty Ltd, and the parent company Peak Iron Mines Pty Ltd, have a satisfactory record of environmental management.

There are no past or present proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against either the person proposing to take the action or the person preparing the application.

Peculiar Knob Mine, owned by Southern Iron (another fully-owned subsidiary of Peak Iron Mines Pty Ltd) operates under two EPBC Approvals – EPBC 2010\_5634 and EPBC 2014\_7154. Both approvals were granted prior to the purchase of Southern Iron tenements by Peak Iron Mines in 2019. There are no non-compliances recorded against either of these approvals.

Both the Peculiar Knob Mine and the Buzzard Mine operate in accordance with the approved Programs of Environment Protection and Rehabilitation and the associated Environmental Management Systems. Publicly available annual compliance reports are submitted to the South Australian Department of Energy and Mining (DEM) every year.

## 1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

The Environmental Policy is attached (see Att 2 Environmental Policy).

All activities for the Hawks Nest Project will be undertaken in accordance with the Peak Iron Environmental Policy and management framework. A detailed Environmental Management System will be developed prior to construction, in accordance with the Program for Environment Protection and Rehabilitation to be approved by DEM.

The Environmental Management System is derived from the approved Program for Environment Protection and Rehabilitation which will include specific Management Plans for factors including native vegetation and fauna, surface water, groundwater, cultural heritage, fuel and chemicals, and potentially acid forming material. Standard Operating Procedures will be developed to support the Management Plans, along with a suite of registers, forms and data systems for monitoring programs. Outcomes of monitoring and compliance activities are reported through internal quarterly reports and external publicly available annual compliance reports.

### 1.3.3 Identity: Proposed designated proponent

## 1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? \*

Yes

Proposed designated proponent organisation details

**ABN/ACN** 85143503397

Organisation name Central Iron Pty Ltd

Organisation address Level 8, 33 King William Street, Adelaide, South Australia 5000

Proposed designated proponent details

Name Rob Morrow

Job title Managing Director

**Phone** 0417 930 265

Email rob@peakiron.com

Address GPO Box 2715, Cloisters Square PO, WA 6850

### 1.3.4 Identity: Summary of allocation

### Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN 85143503397

Organisation name Central Iron Pty Ltd

Organisation address 6012 WA

Representative's name Tegan Stehbens

Representative's job title Senior Environment and Approvals Officer

Phone 0417851937

Email tegan@peakiron.com

Address

### Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

Organisation name Central Iron Pty Ltd

Organisation address Level 8, 33 King William Street, Adelaide, South Australia 5000

Representative's name Rob Morrow

Representative's job title Managing Director

Phone 0417 930 265

Email rob@peakiron.com

Address GPO Box 2715, Cloisters Square PO, WA 6850

### Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

### 1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? \*

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? \*

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? \*

No

1.4.9 Would you like to add a purchase order number to your invoice? \*

Yes

### 1.4.10 Enter purchase order number \*

PO-0211

### 1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment?  $^{\star}$ 

Proposed designated proponent

## 2. Location

### 2.1 Project footprint





Project area (10068.13 Ha) Disturbance footprint (2554.72 Ha) Avoidance area (3486.8 Ha)

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### 2.2 Footprint details

### 2.2.1 What is the address of the proposed action? \*

McDouall Peak and Bulgunnia pastoral stations (via Stuart Highway, 120 km south of Coober Pe

### 2.2.2 Where is the primary jurisdiction of the proposed action? \*

South Australia

### 2.2.3 Is there a secondary jurisdiction for this proposed action? \*

No

### 2.2.5 What is the tenure of the action area relevant to the project area? \*

It is intended that The Hawks Nest Project will be encompassed by a Mining Lease under the *Mining Act*, 1971.

The proposed Hawks Nest Mining Lease is on Crown Land, all of which is held under pastoral leases:

- McDouall Peak pastoral lease (Crown Lease 6211/148) (proposed Hawks Nest Mining Lease)
- Bulgunnia pastoral lease (CL 1290/6) (proposed Hawks Nest Mining Lease)
- Coondambo pastoral lease (CL 1284/10) (proposed Kultanaby Haul Road).

The proposed Hawks Nest Mining Lease is within the Antakirinja Matu-Yankunytjatjara Aboriginal Corporation (AMYAC) Native Title area. The proposed Kultanaby Haul Road is within the Gawler Ranges Aboriginal Corporation (GRAC) Native Title area.

The proposed Hawks Nest Mining Lease is within Amber Zone 2 of the Woomera Prohibited Area. The Woomera Prohibited Area is managed under a co-existence framework, allowing Defence operations and commercial and cultural activities to take place in conjunction with each other. The South Australian government and Defence signed a memorandum of understanding for these co-existence arrangements in 2019.

The proposed Hawks Nest Mining Lease does not intersect any other mineral, petroleum, hydrogen and renewable energy or geothermal tenements, other than the Company's own Exploration Licence.

The Kultanaby Haul Road proposed MPL overlies two mineral exploration licences and one petroleum exploration licence application:

- EL 63784, owned by Taiton Resources Limited
- · EL 6556, owned by Ernies Find Pty Ltd
- PELA 750, applicant Cryptid Clean Energy Pty Ltd.

## 3. Existing environment

### 3.1 Physical description

#### 3.1.1 Describe the current condition of the project area's environment.

The Project Areas are located entirely within pastoral leasehold in northern South Australia. The Hawks Nest Project Area is located approximately 120 kilometers (km) south of Coober Pedy, with Kultanaby Project Area located a further 120 km south. Both Project Areas experience an arid climate, with average annual rainfalls of 158 mm at Hawks Nest (see **Att 3 HN Baseline**, **Section 3.2**, **p.5**) and 171 mm at Kultanaby (see **Att 4 Kultanaby Baseline**, **Section 3.2**, **p5**).

The Project Areas are zoned as Remote Areas (RA) and are completely within pastoral crown lease used for grazing of sheep and cattle.

The Interim Biogeographical Regionalisation of Australia (IBRA) identifies geographically distinct bioregions based on common climate, geology, landform, native vegetation, and species information. The bioregions are further refined into subregions. Each Project Area falls into the IBRA subregions as listed below. These subregions have been historically used for pastoral grazing of native pasture and have not been historically cleared. They remain almost entirely native vegetation (see **Att 3 HN Baseline, Section 3.3, p.6**).

**Project Area** Hawks Nest

IBRA Bioregion Stony Plains

IBRA Subregion Breakaways

Estimated remaining native vegetation (% total land area) 2,505,843 (100%)

Attachment Reference Att 3 HN Baseline, Section 3.3, p.6

Project Area Kultanaby

IBRA Bioregion Gawler

IBRA Subregion Kingoonya

Estimated remaining native vegetation (% total land area) 1,887,190 ha (99%)

Attachment Reference Att 4 Kultanaby Baseline, Section 3..3, p.6.

The Project Areas are situated on level to undulating plains on clay-loam to sandy-clay soils. Low-lying areas are characterized by small gigais and some areas of cracking clay, although these areas are limited in extent and isolated from similar features.

Vegetation is generally in good to excellent condition, although is impacted by historical and on-going grazing activities. Areas close to artificial watering points and ephemeral water sources are generally in poorer condition than surrounding vegetation, having been preferentially grazed by livestock. These areas are dominated by unpalatable species and generally have a lower vegetation cover, with some large, bare, scalded areas present (see Att 4 HN Baseline, Section 6.2.1, p.25 and Att 6 Buzzard Kultanaby TTSS, Section 5.2.3, p23).

Vegetation in the Hawks Nest Project Area consists primarily of open shrublands dominated by *Maireana* spp., *Acacia* spp. and *Eremophila* spp. These shrublands had a sparse, grassy understorey with *Aristida contorta, Enneapogon* spp. and *Eragrostis* spp. common. Open *Acacia aptaneura* low woodlands were also extensive, particularly in areas with sandy soil and low-lying flats, run-on areas and drainage lines within undulating plains. Nine vegetation associations, or communities, have been mapped at Hawks Nest (see Att 4 HN Baseline, Section 6.2.1 p.25-31):

- Acacia aneura +/- Santalum lanceolatum Low Woodland over Acacia tetragonophylla and Maireana spp.
- Acacia aneura Sparse to Mid-dense Low Woodland over Acacia tetragonophylla +/- Eremophila spp., Aristida contorta and Eragrostis eriopoda.
- Eremophila rotundifolia / Eremophila duttonii +/- Eremophila latrobei ssp. glabra +/- Acacia tetragonophylla Open Shrubland over Ptilotus obovatus and Aristida contorta.
- Maireana sedifolia / Maireana triptera / Maireana astrotricha Low Open Shrubland over Ptilotus obovatus and Aristida contorta.
- Chenopodium nitrariaceum Open Shrubland over Teucrium racemosum and Marsilea drummondii.
- Maireana pyramidata / Maireana sedifolia Low Shrubland over Sclerolaena spp., Ptilotus obovatus, Aristida contorta, Enneapogon avenaceus +/- Eragrostis eriopoda.
- Aristida contorta / Austrostipa nitida / Enneapogon polyphyllus +/- Eragrostis xerophila Mid-dense Grassland with emergent Low Shrubs.
- Melaleuca glomerata Shrubland over Eragrostis australasica.
- Senna ssp. Open Shrubland +/- Acacia tetragonophylla +/- Acacia aneura over Aristida contorta.

These vegetation associations are described and mapped in Att 4 HN Baseline, Section 6.2.1 p.25-31.

The Kultanaby Project Area consists undulating stony plains vegetated with low chenopod shrublands. This is dominated by low *Atriplex* shrublands, except where run-on areas and gilgais occur. In these areas, a sparse shrubland of mid height occurs. Two vegetation associations have been mapped inside the Kultanaby Project Area (see Att 5 Kultanaby Baseline, Section 5.2 p.20):

• Atriplex vesicaria / Sclerolaena ventricosa Low Shrubland over Austrostipa nitida and annual forbs.

 Maireana pyramidata +/- Maireana erioclada +/- Maireana aphylla Shrubland over Atriplex holocarpa and Austrostipa nitida.

These vegetation associations are described and mapped in Att 5 Kultanaby Baseline, Section 5.2 and Att 6 Buzzard Kultanaby TTSS, Section 3.4 p.17-23.

There are no named or major watercourses in either Project Area. Wetlands and watercourses are limited to minor, undefined drainage lines at Kultanaby (see **Att 6 Buzzard Kultanaby TTSS, Section 3.4.2 p.17**) and similar undefined run-on areas that flow towards small, ephemeral swamps at Hawks Nest (see **Att 4 HN Baseline, Section 3.5, p.7**). These features are avoided by the Development Precincts and Disturbance Footprints.

### 3.1.2 Describe any existing or proposed uses for the project area.

The Kultanaby and Hawks Nest Project Areas are located across the Coondambo (Kultanaby), McDouall Peak and Bulgunnia (Hawks Nest) pastoral leases. Current land use is sheep and cattle grazing of unimproved, natural pasture.

These properties are not accessible to the general public and have no other industrial, economic or social uses.

The Hawks Nest Project Area is inside the Woomera Prohibited Area. Access to the Woomera Prohibited Area beyond public roads and other publicly accessible infrastructure requires a permit from the Department of Defence. However, the Woomera Prohibited Area is not Commonwealth owned land.

## 3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

Some swamps and wetlands in the Project Areas provide an ephemeral water source and wetland habitat. These areas also have Aboriginal cultural significance and are outside the Development Precincts and Disturbance Footprints of the proposed Action (see Section 3.3.2 of this Referral).

There are no defined permanent or ephemeral watercourses in the Hawks Nest Project Area. However, several undefined drainage lines shed water from the undulating plains from the southwest to the northeast. The drainage lines are wet only after infrequent heavy ranfall events, and flow into ephemeral swamps. The swamps are not considered to be groundwater dependent ecosystems. The habitat these swamps provide is described further in *Kite and Kestrel Prospects Baseline Flora and Fauna Survey* (Att 4 HN Baseline, Section 3.5, p.7).

There are several very poorly defined ephemeral drainage lines in the Kultanaby Project Area.

The Kultanaby Haul Route route has been designed to follow high ground where possible and avoid drainage lines and swamp areas. All watercourses in the area are ephemeral and only hold water following significant rainfall events. Further detail is provided in *Buzzard (Kultanaby Haul Road) Baseline Flora and Fauna Assessment* (Att 5 Kultanaby Baseline, p.7).

No other outstanding natural features and/or other important or unique values have been identified in the project area.

## 3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

| Both Project Areas are situated on inland level to undulating plains and are generally flat, with little to no relief. The Hawks Nest and Kultanaby Project Areas are both approximately 160 - 170 metres (m) above sea level. |
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### 3.2 Flora and fauna

## 3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

Since 2020, both Project Areas have been extensively investigated through both desktop research, baseline flora and fauna field surveys and surveys targeting relevant MNES. Field surveys have been undertaken under a range of different seasonal and climatic conditions, with results documented in the reports listed in the table below. This section provides a summary of those results.

Survey Year / Season: 2020 / spring

**Study:** Buzzard Project Baseline Flora and Fauna Assessment (**Att 7 Buzzard Baseline**); Buzzard (Kultanaby Haul Road) Baseline Flora and Fauna Assessment (**Att 5 Kultanaby Baseline**).

**Scope:** Buzzard Project and Kultanaby. Baseline flora and fauna surveys. Vegetation mapping. Likelihood of occurrence of MNES.

Survey Year / Season: 2021 / autumn

Study: Buzzard (Kultanaby) Haul Road Targeted Threatened Species Survey (Att 6 Buzzard Kultanaby TTSS); Buzzard (Kultanaby) Haul Road EPBC Self Assessment Plains Mouse (Att 8 Buzzard Plains Mouse); Buzzard (Kultanaby) Haul Road EPBC Self Assessment Thick-billed Grasswren (Att 9 Buzzard TBGW).

**Scope:** Buzzard Project and Kultanaby. Targeted survey for listed threatened species. EPBC Act Significant Impact Assessments.

Survey Year / Season: 2022 / autumn and spring

**Study:** *Kestrel and Kite Prospects Baseline Flora and Fauna Survey* (updated results in **Att 4 HN Baseline**).

**Scope:** Hawks Nest. Baseline flora and fauna surveys. Vegetation mapping. Likelihood of occurrence of MNES.

Survey Year / Season: 2023 / spring

Study: Hawks Nest (EL6395) Kite and Kestrel Prospects Targeted Surveys for EPBC Act Listed Species

(Att 10 Hawks Nest TTSS).

**Scope:** Hawks Nest. Targeted survey for listed threatened species.

Survey Year / Season: 2023 / autumn

Study: Kestrel and Kite Prospects Baseline Flora and Fauna Survey (Att 4 HN Baseline).

Scope: Hawks Nest. Baseline flora and fauna survey and vegetation mapping for expanded ML.

Survey Year / Season: 2024

Study: The Hawks Nest Project Southern whiteface (Aphelocephala leucopsis) Regional Assessment (Att

**11 SWF RA**)

**Scope:** Desktop assessment of Southern Whiteface records at a subregional level.

#### **Hawks Nest Project Area**

### Flora:

Field surveys have mapped nine vegetation associations (listed in 2.3.1 above) and recorded 180 plant species in the Hawks Nest Project Area. Weeds were sparse and infrequently observed, with only four species of introduced plants recorded (Att 4 HN Baseline, Section 10.1 p.62, and Appendix 7).

The plant species recorded included many species that occur only after rainfall and in spring, such as annual forbs and grasses, as well as perennial species. All plant species recorded are common in the arid regions of South Australia. No species listed as threatened under the EPBC Act were observed and none listed as threatened by State legislation (*National Parks and Wildlife Act 1972* – NPW Act) have been recorded (**Att 4 HN Baseline, Section 10.1 p.62, and Appendix 7**).

Although not recorded during the survey, the Project Area provides suitable habitat for a further nine threatened flora species (**Att 4 HN Baseline, Section 10.3 p.64, and Table 35 p.60**). Of these, one is listed under the EPBC Act and is considered to possibly occur within the Project Area:

• Dwarf Desert Spike-rush (*Eleocharis papillosa*). EPBC Act Vulnerable.

No threatened ecological communities occur in the Hawks Nest Project Area (Att 4 HN Baseline, Section 10.1 p.62, and Appendix 7).

#### Fauna:

Field surveys have recorded 74 fauna species, including one frog, 10 reptiles, 51 birds and 12 mammals (Att 4 HN Baseline, Section 10.2 p.63, and Appendix 8).

Three threatened fauna species, including one listed as Vulnerable under the EPBC Act, were recorded in the Project Area (**Att 4 HN Baseline, Section 10.3 p.64**):

- Southern Whiteface (Aphelocephala leucopsis) EPBC Act Vulnerable
- Chestnut-breasted Whiteface (Aphelocephala pectoralis) NPW Act Rare
- Scarlet-chested Parrot (Neophema splendens) NPW Act Rare.

All three species listed above were recorded during the autumn 2022 survey. However, only the Southern Whiteface was observed in spring 2022 and autumn 2024.

The Southern Whiteface is likely to be widespread, with all vegetation in the Project Area representing suitable habitat. The species is known to be largely sedentary, although some local movements are likely due to climatic conditions. It may be more common in the Project Area following periods of increased rainfall.

The Project Area contains large areas of semi-arid to arid shrublands known as the typical habitat for Chestnut-breasted Whiteface. This species is probably widespread across the Project Area, with its non-detection in spring 2022 and autumn 2024 relating to the drier conditions. Birds in general were in low numbers in spring and difficult to detect.

The Project Area probably represents poor habitat for Scarlet-chested Parrot. This species is typically known to inhabit mallee vegetation associations which do not occur in the Project Area. Only a single bird was located, despite several searches at the record's location on consecutive days. It is probable that the record represents a single bird dispersing between areas of more suitable habitat.

Although not recorded during the survey, the Project Area provides suitable habitat for a further 11 fauna species (**Att 4 HN Baseline, Table 35 p.60**). Of these, four are listed under the EPBC Act. These are listed below with the likelihood of their occurrence in the Project Area also stated (**Att 4 HN Baseline, Section 10.3, p.64**):

- Thick-billed Grasswren (Amytornis modestus). EPBC Act Vulnerable. Highly likely.
- Grey Falcon (Falco hypoleucos). EPBC Act Vulnerable. Possible.
- Blue-winged Parrot (Neophema chrysostoma). EPBC Act Vulnerable. Highly likely.
- Plains Mouse (*Pseudomys australis*). EPBC Act Vulnerable. Possible.

### **Kultanaby Project Area**

### Flora:

Field surveys have mapped two vegetation associations (listed in 2.3.1 above) and recorded 48 plant species in the Kultanaby haul road Project Area, with only two species of introduced plants recorded (Att 5 Kultanaby Baseline, Section 5.2.4 p.25, and Appendix 1).

Species recorded were generally typical of arid Chenopod shrublands and low shrublands, with perennial shrubs and sub-shrubs such as *Maireana* spp. and *Atriplex* spp. providing the dominant cover throughout the haul road Project Area. Annual and short-lived perennial forbs and grasses were present but sparse, except in run-on areas and gilgais where species such as *Austrostipa nitida*, *Enneapogon avenaceous*, *Erodium cygnorum* and *Frankenia serpyllifolia* occurred in greater density. No EPBC Act or NPW Act listed threatened plant species were recorded (**Att 5 Kultanaby Baseline**, **Section 5.2.4 p.25**, **and Appendix 1**).

No threatened ecological communities occur in the Kultanaby haul road Project Area (Att 5 Kultanaby Baseline, Section 5.2 p.20).

### Fauna:

Field surveys have recorded 36 fauna species, including 12 reptiles, 21 birds and 3 mammals (Att 5 Kultanaby Baseline, Section 5.2.5 p.25, and Appendix 2). No reptile or mammal species listed as threatened under the EPBC Act or NPW Act were recorded. However, one bird species listed as threatened under the EPBC Act was recorded: the Southern Whiteface, which is listed as Vulnerable under the EPBC Act. However, the species was not recorded inside the proposed haul road impact area.

## 3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

As stated previously in Section 2.3.1 (above), the Project Areas are situated on level to undulating plains on clay-loam to sandy-clay soils. Low-lying areas are characterized by small gigais and some areas of cracking clay, although these areas are limited in extent and isolated from similar features.

Vegetation is generally in good to excellent condition, although is impacted by historical and on-going grazing activities. Areas close to artificial watering points and ephemeral water sources are generally in poorer condition than surrounding vegetation, having been preferentially grazed by livestock. These areas are dominated by unpalatable species and generally have a lower vegetation cover, with some large, bare, scalded areas present (see Att 4 HN Baseline, Section 6.2.1 p.25 and Att 4 Kultanaby Baseline, Section 5.2.3 p.23).

Vegetation in the Hawks Nest Project Area consists primarily of open shrublands dominated by *Maireana* spp., *Acacia* spp. and *Eremophila* spp. These shrublands had a sparse, grassy understorey with *Aristida contorta, Enneapogon* spp. and *Eragrostis* spp. common. Open *Acacia aptaneura* low woodlands were also extensive, particularly in areas with sandy soil and low-lying flats, run-on areas and drainage lines within undulating plains. Nine vegetation associations, or communities, have been mapped at Hawks Nest (see above and Att 4 HN Baseline, Section 6.2.1 p.25):

As stated previously in Section 2.3.1 (above) the Kultanaby Project Area consists undulating stony plains vegetated with low chenopod shrublands. This is dominated by low *Atriplex* shrublands, except where runon areas and gilgais occur. In these areas, a sparse shrubland of mid height occurs. Two vegetation associations have been mapped inside the Kultanaby Project Area (see above and Att 5 Kultanaby Baseline, Section 5.2 p.20):

### 3.3 Heritage

## 3.3.1 Describe any Commonwealth heritage places overseas or other places recognised as having heritage values that apply to the project area.

There are no Commonwealth Heritage Places in, or nearby, the Hawks Nest or Kultanaby Project Areas. There will be no impact by the proposed Action on a Commonwealth Heritage Place.

A search of the SA State Heritage Places Database found the closest heritage places are located in Tarcoola and Coober Pedy, both over 100km away from the nearest Project Areas. There are no State Heritage Places located onsite. Due to the geographical remoteness of these places to the Hawks Nest Project, there will be no impact.

### 3.3.2 Describe any Indigenous heritage values that apply to the project area.

Requests to the Government of South Australia's Aboriginal Affairs and Reconciliation (AAR) for a search of the Central Archives Register of Aboriginal Sites and Objects for the Hawks Nest and Kultanaby Haul Road Project Areas returned no entries for registered Aboriginal Sites within the Central Archive for the Project Areas.

A Cultural Heritage Survey by Traditional Owners representing the Gawler Ranges Aboriginal Corporation (GRAC) was completed for the Kultanaby Haul Road corridor. Although areas of heritage significance were identified onsite during the survey, namely ephemeral water ways and clay pans, Central Iron has engaged with GRAC, and as a result, detailed consultation in regard to finding an appropriate alignment has taken place. Through the consultation, adjustments have been made to the original alignment in order to best mitigate potential impacts to areas of cultural significance. While the resulting report is confidential, culturally sensitive locations identified by the group were incorporated into the detailed design so that relevant features could be preserved and protected.

A number of Cultural Heritage Surveys by Traditional Owners representing the Antakirinja Matu-Yankunytjatjara Aboriginal Corporation have been completed for the Hawks Nest exploration area to inform exploration programs and the development of the Buzzard Project. Outcomes from these assessments include identification of culturally sensitive areas, which have been incorporated into the proposed Hawks Nest Avoidance Areas to ensure their protection. A Cultural Heritage Assessment was completed in October 2024 and another is scheduled for January 2025 to provide additional input into the proposed operations for the Hawks Nest Project detailed design.

Central Iron is in the process of negotiating Native Title Mining Agreements with the native title holders Antakirinja Matu-Yankunytjatjara Aboriginal Corporation (AMYAC) and Gawler Ranges Aboriginal Corporation (GRAC). These documents are necessarily confidential and will not be publicly available; however, they will be registered with relevant authorities once executed.

Although no Aboriginal cultural heritage sites are known in the Project Areas' disturbance footprints, mining construction and operational activities have the potential to uncover previously undocumented Aboriginal heritage sites, objects, remains, artefacts, or sites of significance. A Cultural Heritage Management Plan will be prepared for the Hawks Nest Project as part of the Program for Environment Protection and Rehabilitation (and will be made publicly available at this stage of the approval process). This will include a discovery protocol outlining the steps to be taken if previously undisturbed Aboriginal heritage sites, objects, remains, artefacts, or sites of significance are discovered on site. No culturally sensitive information will be included in the Cultural Heritage Management Plan.

### 3.4 Hydrology

## 3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. \*

Several hydrology studies have been completed for the Hawks Nest Project Area and Kultanaby Haul Road Project Area. This section provides a summary of those reports, with more detail provided in the attachments described below.

Study: Kultanaby haul road – Desktop study of water supply potential (Att 12 Kultanaby GW)

**Scope:** Kultanaby haul road desktop groundwater baseline study.

Study: Kultanaby Haul Road Surface Water Assessment (Att 13 Kultanaby SW)

**Scope:** Kultanaby haul road floodplain model and surface water impact assessment of the 2%, 1% and 0.5% Annual Exceedance Probability (AEP) design rainfall events.

**Study**: Hawks Nest Iron Project Kite and Kestrel Desktop Groundwater Assessment (**Att 14 Hawks Nest GW**)

**Scope:** Hawks Nest desktop groundwater baseline study.

Study: Hawks Nest Surface Water Assessment (Att 14 Southfront 2023)

**Scope:** Hawks Nest surface water model of the 2%, 1% and 0.5% Annual Exceedance Probability (AEP) design rainfall events.

### **Groundwater Description**

Groundwater occurs in multiple aquifers within the project area including the basement fractured rock aquifer, the J-K aquifer and the Mount Toondina Formation and Boorthanna Formation. Of these the J-K aquifer of the Eromanga Basin is the most widely recognised, as it is one of three sedimentary basins which make up the Great Artesian Basin (GAB). Despite its association with the GAB, it is important to note that the project area lies at the southwestern margin of the Eromanga Basin over 130 km away from the spring communities of the GAB. Hydrogeological mapping completed by Department for Environment and Water indicates that aquifer conditions in the J-K aquifer are either unconfined or dry (Att 14 Hawks Nest GW Section 2.4 p.9). Confined conditions in the J-K aquifer occur over 50 km to the north, while the artesian extent of the aquifer is 130 km to the northeast. The general groundwater flow direction in the J-K aquifer is from the west to northeast across the site.

Archaean to Mesoproterozoic basement rocks are also known to store and transmit groundwater within the project area, particularly where secondary porosity has developed though fracturing and faulting. Geological units include the Hutchison Quartzite and the ore bearing Wilgena Hill Formation. Groundwater elevation data for wells completed in basement rocks indicate a west to east hydraulic gradient across the site (Att 14 Hawks Nest GW Section 2.4 p.9).

Aquifers associated with the Arckaringa Basin including the Mount Toondina and Boorthanna Formation are mapped to the south, east and north of the project area. Despite the inferred presence of these formations, there is very little known about the hydrogeological characteristics of these formations within the project area due to the limited number of wells completed in these formations. The nearest well recorded as being completed in the Arckaringa Basin is located over 30 km to the northeast, installed during water supply investigations for the Prominent Hill mine site. The hydrogeological characteristics and flow directions of the Arckaringa Basin remain largely unknown within the project area (Att 14 Hawks Nest GW Section 2.4 p.9).

Depth to groundwater is greatest in high topography areas such as the Stuart Range to the east of the highway. Depth to groundwater ranges from over 100 m in these high elevation areas to less than 10 m in some lower elevation areas. In the project area, depth to water has been recorded as being as shallow as 30 m below ground level (Att 14 Hawks Nest GW Section 2.4 p.9).

#### **Groundwater Impact Assessment**

A comprehensive groundwater monitoring well network has been installed across the Hawks Nest Project Area to provide data that will help characterise local groundwater quality and provide a groundwater conceptualisation for the Project Area. This will feed into a groundwater model currently under construction that will look at the potential impacts of the proposed Hawks Nest Project including extraction for mine production and pit dewatering requirements. This work will be completed prior to submission of the Mining Lease Proposal and will be included in the overall project impact assessment.

#### **Surface Water Description**

During most of the year, the swamps and creeks of the arid zone of South Australia are dry. Potential surface water within the wider area includes swamps, pastoral dams and tanks associated with station windmills.

The Hawks Nest project area lies on the eastern margin of the Gairdner Basin, immediately to the southwest of some low-lying hills forming the southern end of the Stuart Range and acting as the boundary between the Gairdner and Lake Frome Basins (Att 14 Hawks Nest GW Section 2.2 p.3). General surface water drainage direction is to the west and south across shallow sloping land towards the salt lake of Lake Gairdner (Att 14 Hawks Nest GW Section 2.2 p.3).

The maximum elevation in the area is 259 m AHD in the hills to the east across the Stuart highway, these hills form the catchment boundary (**Att 14 Hawks Nest GW Section 2.2 p.3**). Ephemeral drainage channels and creeks are the only watercourses with a few named creeks to the west. Waterbodies mapped in the area are all non-perennial including some named swamps. Swamps within EL 6395 include Horse Shoe Swamp in the north-western corner, Stafford Swamp in the centre, and Ten Mile Swamp to the east. Salt lakes to the south and east including Gairdner, Torrens, and Eyre are fed by intermittent runoff from heavy rainfall events (**Att 14 Hawks Nest GW Section 2.2 p.3**).

The Kutanaby Haul Road catchment is bound by the Stuart Highway to the north and east and the Indian Pacific Railway to the south (**Att 12 Southfront 2022**, **section 2.4.1 p.7**). Surface water drainage of the catchment generally occurs from south to north following areas of higher topography to lower lying areas in the north (**Att 12 Kultanaby GW**, **section 2.4.1 p.7**). In areas south and east of the Kultanaby Haul Road, drainage occurs in a north-east direction towards lower lying areas and sub-catchments surrounding Glendambo (**Att 12 Kultanaby GW**, **section 2.4.1 p.7**).

No permanent waterbodies are located within the Kultanaby Haul Road project area. However, several lakes exist locally, including Lake Gairdner (approximately 20 km to the south-west) and a chain of smaller playa lakes running west-east located to the north. The catchments receive discharge from a series of ephemeral watercourses that drain areas of higher elevation (Att 12 Kultanaby GW, section 2.4.1 p.7). Several low-lying ephemeral swamps are present in areas immediately west and north of Glendambo. These 'swamps' are terminal drainages for local watercourses to the south-east, west and north of Glendambo (Att 12 Kultanaby GW, section 2.4.1 p.7).

There are no known permanent surface expressions of groundwater (e.g., springs or seeps) within the local catchment of the either the proposed Hawks Nest ML or Kultanaby Haul Road area, nor have any permanent surface water features been identified (such as rivers or creeks) that may provide opportunity for groundwater and surface water interaction (**Att 12 Kultanaby GW, section 2.6 p.11**). Water courses in the vicinity are ephemeral; therefore, limited groundwater interaction is likely to occur.

Some diffuse groundwater recharge is expected to occur across the local area, near and within many ephemeral drainages providing recharge to shallow perched aquifers locally following significant rain events (Att 12 Kultanaby GW, section 2.6 p.11).

### **Surface Water Impact Assessment**

Surface water modelling of the 2%, 1% and 0.5% Annual Exceedance Probability (AEP) design rainfall events was used to assess the potential impacts of the Kultanaby Haul Road and to determine appropriate mitigation measures. This resulted in the adoption of culverts as per **Southfront (Att 13 Kultanaby SW,** 

**Section 4.4 p.10)** recommendations into the haul road design.

Surface water modelling of the 2%, 1% and 0.5% Annual Exceedance Probability (AEP) design rainfall events has been used to inform the design of the Hawks Nest mine site layout and in the consideration of potential haul route options (**Att 15 Hawks Nest SW, Section 4 p.4**). It is noted that this assessment is preliminary and does not consider the most recent designs. An updated surface water model on the current layout will be completed prior to submission of the Mining Lease Proposal. This report will also model the 2%, 1% and 0.5% Annual Exceedance Probability (AEP) design rainfall events and make recommendations for appropriate mitigation including location of basins, drains, culverts and bunds for the final design.

## 4. Impacts and mitigation

### 4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

| EPBC Act section | Controlling provision  | Impacted | Reviewed |
|------------------|--|----------|----------|
| S12              | World Heritage   | No       | Yes      |
| S15B             | National Heritage  | No       | Yes      |
| S16              | Ramsar Wetland   | No       | Yes      |
| S18              | Threatened Species and Ecological Communities                                | Yes      | Yes      |
| S20              | Migratory Species  | Yes      | Yes      |
| S21              | Nuclear  | No       | Yes      |
| S23              | Commonwealth Marine Area   |          | Yes      |
| S24B             | Great Barrier Reef   |          | Yes      |
| S24D             | Water resource in relation to large coal mining development or coal seam gas |          | Yes      |
| S26              | Commonwealth Land  | No       | Yes      |
| S27B             | Commonwealth Heritage Places Overseas  | No       | Yes      |
| S28              | Commonwealth Agency  | No       | Yes      |

### 4.1.1 World Heritage

| You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.  |
|--|
| A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels. |
| An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.   |
|  |
| 4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of  |
| these protected matters? *   |
| No   |
| 4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *  |
| There are no World Heritage listed areas inside, or near, the Project Area.  |
| 4.1.2 National Heritage  |
| You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.  |
| A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels. |
| An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.   |
| _  |
| 4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of  |
|  |
| these protected matters? *   |

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

| There are no National Heritage areas inside, or near, the Project Area.  |
|--|
| 4.1.3 Ramsar Wetland   |
| You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.  |
| A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels. |
| An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.   |
| _  |
| 4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *   |
| No   |
| 4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.  |
| There are no RAMSAR Wetlands inside, or near, the Project Area. The Project Area has no drainage features or watercourses that are connected to a RAMSAR Wetland.  |

### **4.1.4 Threatened Species and Ecological Communities**

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

### Threatened species

| Direct impact | Indirect impact | Species                 | Common name                         |
|---------------|-----------------|-------------------------|-------------------------------------|
| Yes           | Yes             | Amytornis modestus      | Thick-billed Grasswren              |
| Yes           | Yes             | Aphelocephala leucopsis | Southern Whiteface                  |
| No            | No              | Calidris acuminata      | Sharp-tailed Sandpiper              |
| Yes           | Yes             | Eleocharis papillosa    | Dwarf Desert Spike-rush             |
| Yes           | Yes             | Falco hypoleucos        | Grey Falcon                         |
| No            | No              | Frankenia plicata       |                                     |
| No            | No              | Leipoa ocellata         | Malleefowl                          |
| Yes           | Yes             | Neophema chrysostoma    | Blue-winged Parrot                  |
| No            | No              | Pedionomus torquatus    | Plains-wanderer                     |
| No            | No              | Polytelis alexandrae    | Princess Parrot, Alexandra's Parrot |
| Yes           | Yes             | Pseudomys australis     | Plains Rat, Palyoora, Plains Mouse  |

### **Ecological communities**

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## 4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? \*

Yes

## 4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. \*

An *EPBC Act Significant Impact Assessment* (**Att 16 SIA**) has been undertaken for the Project. All protected matters known to occur in the Project Areas or assessed as likely, highly likely, or possible to occur within the Project Areas have been assessed in accordance with the *Significant Impact Guidelines 1.1* (DEWHA 2013). The following six threatened species have been assessed and are listed below according to conservation status and Project Area (**Att 16 SIA Table 4.1 p.30**):

 Thick-billed Grasswren (Amytornis modestus). Vulnerable. Hawks Nest: Highly Likely. There are recent records (<10 years) in the Search Area and suitable habitat in the Project Area. Kultanaby:</li> Possible. Not recorded within 50 km of the currently proposed haul road
Disturbance Footprint, however chenopod shrubland habitat is broadly suitable. The species was not detected during targeted surveys

- Southern Whiteface (*Aphelocephala leucopsis*). Vulnerable. Hawks Nest and Kultanaby. Highly Likely. The species was recorded in the Project Area during field surveys.
- Grey Falcon (Falco hypoleucos). Vulnerable. Hawks Nest and Kultanaby. Possible. Habitat is suitable
  for foraging Grey Falcons, however there are no records of the species within 50 km of the Project
  Area.
- Blue-winged Parrot (*Neophema chrysostoma*). Vulnerable. Hawks Nest and Kultanaby. Likely. Habitat is broadly suitable for the species and there are recent records (<20 years old) within 50 km of the Project Area.
- Plains Mouse (*Pseudomys australis*). Vulnerable. Hawks Nest and Kultanaby. Although there are recent records of the species (<10 years) within 50 km, there is no suitable habitat in the Project Area. It is possible that the species might occur during periods of very high rainfall.
- Dwarf Desert Spike-rush (*Eleocharis papillosa*). Vulnerable. Hawks Nest. Possible. Well vegetated, ephemeral swamps in the Project Area are potential habitat, although there is only one historical record of the species and this is outside the Project Area. The species was not recorded in the Project Area by vegetation surveys.

The proposed action will have direct and indirect impacts on these threatened species. During construction, the action will remove native vegetation that provides potential habitat for some threatened species and is known habitat for one threatened species. Direct mortality of fauna may occur during vegetation clearance activities, if fauna are unable to naturally relocate prior to disturbance (**Att 16 SIA Section 1.4 Table 1.2**, **p.8**).

Indirect impacts during the operational phase of the action may also occur. This may include reduction in habitat due to accidental clearing, risk of wildfire, weeds, edge effects, changes in hydrology, or spills; increases in the number of feral predators, vehicle strikes during operations, and noise from construction and operational activities (Att 16 SIA Section 1.4 Table 1.2, p.8).

### 4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact?

No

### 4.1.4.6 Describe why you do not consider this to be a Significant Impact. \*

Assessment against the Significant Impact Criteria for threatened species (Critically Endangered and Endangered; and Vulnerable species, as appropriate) has determined that the Project is not likely to have a significant impact on any EPBC Act threatened species (**Att 16 SIA Section 5.0 and sub-sections 5.1 to 5.6, from p.39**). A summary is presented below.

### Thick-billed Grasswren (Att 16 SIA Table 5.4 p. 44)

- Based on results of targeted surveys and the distance of historical records from the Project Areas, it is unlikely that Thick-billed Grasswren occurs in either Project Area. The Project will not lead to a long-term decrease in the size of a population.
- There are no records of Thick-billed Grasswren in the Project Areas, despite bird surveys being undertaken. The project does not reduce the area of occupancy of Thick-billed Grasswren.
- Based on results of targeted survey and the distance of historical records from the Project Areas, it is
  unlikely that there is a population of Thick-billed Grasswrens in either Project Area, so there will be no
  fragmenation of existing populations.

- Although some habitat was assessed as possibly suitable for Thickbilled Grasswren, they are unlikely
  to occur in the Project Areas. Based on NVIS mapping, suitable habitat in the project are represents
  a negligible proportion of available habitat in the relevant subregion. Impacted habitat in Hawks Nest
  is therefore not critical to the survival of the species.
- Based on results of targeted surveys and the distance of historical records from the Project Areas, it is unlikely that Thick-billed Grasswren occurs in either Project Area. The Project will not disrupt the breeding cycle of the species.
- Although suitable habitat will be impacted by the Project, the species is not present in either Project Area. The proportion of habitat impacted is negligible compared to available similar habitat in the relevant IBRA subregions.
- The Project does not include any actions that would interfere with the recovery of the species.

### Southern Whiteface (Att 16 SIA Table 5.9 p. 53)

- No important population is defined for Southern Whiteface and the species has a continuous distribution throughout its range. As Southern Whiteface are common over a broad continuous area of South Australia, it is unlikely that the individuals recorded in the Project Areas are an important population. The species is widespread in the relevant IBRA subregions. The individuals recorded in the Project Area therefore are unlikely to be a key source population, or a population necessary for maintaining genetic diversity and/or a population that is near the limit of the species range. They are a mobile species and use a range of habitat features for perching, foraging and nesting. The Project will not lead to a long-term decrease in the size of an important population.
- The individuals of Southern Whiteface in the Project Area are not considered an important population. The proposed habitat clearance for Southern Whiteface represents 0.02% of the total Area of Occupancy (AOO) of this species. Considering the overall negligible impact to the AOO, the broad area of available habitat for the Southern Whiteface in South Australia at a bioregional scale and within the landscape surrounding the Disturbance Footprint, the Project is unlikely to reduce the area of occupancy of an important population.
- The construction of the mine at Hawks Nest and haul road at Kultanaby will remove vegetation that, on a landscape scale, remains surrounded by contiguous native vegetation and Southern Whiteface habitat. The Southern Whiteface is known to undertake movements triggered by climatic conditions and narrow access roads are not likely to be a barrier to the species dispersal. The proposed action will not fragment an existing population into two or more populations.
- Although known habitat for the Southern Whiteface will be impacted, it represents only 0.08 % of available habitat in the Breakaways IBRA subregion and 0.002 % of available habitat in the Kingoonya IBRA subregion. This negligible effect on habitat is not likely to be critical to the survival of the species.
- Construction and operational activities may potentially disturb the species and potentially disrupt the breeding cycle of sedentary bird groups within and/or adjacent to the Project Area. However, given the species' extensive AOO, it is unlikely to disrupt the breeding cycle at a population level and is not likely to disrupt the breeding cycle of an important population.
- The proportion of habitat impacted is negligible compared to available habitat in the relevant IBRA subregion (as described previously). As such, it is unlikely that impacts will cause the species to decline.
- The proposed action does not interfere with any proposed recovery actions for the species and does
  not exacerbate threatening
  processes that have been identified for the species.

### Grey Falcon (Att 16 SIA Table 5.13 p. 62)

• The Grey Falcon has not been recorded at Hawks Nest or Kultanaby and the closest historical record is over 100 km away. As they have not been recorded despite surveys, the Project area is not likely to support a population of the species. The loss of habitat associated with the Project is not likely to cause a long-term decrease in the size of an important population of Grey Falcon.

- The Project does not reduce the area of occupancy of Grey Falcon.
- The Project impacts only 0.09 % of suitable foraging habitat in the Breakaways IBRA subregion, and only 0.01 % of suitable habitat
  - in the Kingoonya IBRA subregion, which is not considered critical to the survival of the species and is not likely to cause the species to decline.
- There is no suitable breeding habitat in the Hawks Nest Project area.
- The Project does not include any actions that would interfere with the recovery of the species.

### Blue Winged Parrot (Att 16 SIA Table 5.15 p. 67)

- Both Project areas are outside the area of occupancy of the species (as there are no records).
   Impact due to the Project would not
  - therefore reduce the area of occupancy of an important population.
- Both the Hawks Nest and Kultanaby project areas are surrounded by extensive native vegetation offering similar habitat resources,
  - as evidenced by the NVIS mapping. Neither the mine nor haul road development will form a barrier that is likely to cause fragmentation of habitats at a landscape scale.
- Both Project areas are outside the breeding range of the species. The Project will not disrupt the breeding cycle of an important population.
- The small proportion of the total area of habitat in the IBRA subregion impacted (0.09 % and 0.01 % for Hawks Nest and Kultanaby respectively) is not likely to cause the species to decline.

#### Plains Mouse (Att 16 SIA Table 5.13 p. 73)

critical to the survival of the species.

size of a population.

- Based on results of targeted surveys, the nature of the habitat present and the distance of historical records from Hawks Nest and Kultanaby, it is unlikely that the Plains Mouse occurs in either project area. The project will not lead to a long-term decrease in the
- Both project areas are outside of the mapped AOO of Plains Mouse. The Project will not, therefore, decrease the AOO of Plains Mouse.
- Based on results of targeted survey and the distance of historical records from the Project Areas, it is unlikely that there is a population of Plains Mouse in either Project Area.
- Although some habitat was assessed as possibly suitable for Plains Mouse, they are unlikely to
  occur in the Project Areas.
   Based on NVIS mapping, suitable habitat at Hawks Nest represents a negligible proportion of
  available habitat in the relevant IBRA subregions. Impacted habitat at Hawks Nest is therefore not
- Based on results of targeted surveys and the distance of historical records from the Project Areas, it
  is unlikely that Plains Mouse
  occurs in either Project Area. The Project will not disrupt the breeding cycle of the species.
- The Project does not include any actions that would interfere with the recovery of the species.

#### For all fauna:

Introduced predators such as cats and foxes may impact fauna populations by predation. These
predators are known to already be established at Hawks Nest and Kultanaby. Weeds such as Buffel
Grass may be detrimental to vegetation condition and may indirectly impact the species. The
development and implementation of a Program for Environment Protection and Rehabilitation
(PEPR) is a regulatory requirement for the approval of mine developments in SA. The PEPR includes

- management methods to prevent the introduction of weeds and pests. It is unlikely that the project would result in new invasive species becoming established.
- The development and implementation of a PEPR is a regulatory requirement for the approval of mine developments in SA. The PEPR includes biosecurity management methods. It is unlikely that any disease that would cause the decline of the species would be introduced.

### Dwarf Desert Spike Rush (Att 16 SIA Table 5.11 p. 58)

- Based on results of surveys, the habitat resources available and the Disturbance Footprint of the Project, it is unlikely that a population of Dwarf Desert Spike-rush is impacted by the Project.
- Both Project Areas are outside of the mapped AOO of Dwarf Desert Spike-rush. The Project will not, therefore, decrease the AOO.
- The Project does not impact a population of Dwarf Desert Spike-rush.
- · No critical habitat is impacted.
- No habitat is removed or modified that would cause a decline in the species.
- Stock grazing and trampling is known to be harmful to Dwarf Desert Spike-rush. Hawks Nest is currently grazed by sheep and cattle across the entire extent of the Project area. Grazing impact is high in run-on areas and small, ephemeral swamps.
- The development and implementation of a PEPR is a regulatory requirement for the approval of mine developments in SA. The PEPR includes biosecurity management methods. It is unlikely that any disease that would cause the decline of the species would be introduced.

### 4.1.4.7 Do you think your proposed action is a controlled action? \*

No

### 4.1.4.9 Please elaborate why you do not think your proposed action is a controlled action.

\*

The proposed action is not a controlled action as it is not likely to have a significant impact on any EPBC Act threatened species.

Assessment against the Significant Impact Criteria for threatened species (Critically Endangered and Endangered; and Vulnerable species, as appropriate) has determined that the Project is not likely to have a significant impact on any EPBC Act threatened species (see 4.1.4.6 above and detail in **Att 16 SIA Section 5.0 and sub-sections 5.1 to 5.6, from p.39**).

- Thick-billed Grasswren (*Amytornis modestus*): Despite targeted surveys, Thick-billed Grasswren have not been recorded at either Project Area and is considered not present on site. Habitat in both Project Areas is broadly suitable but represents a negligible proportion of available habitat within the local IBRA subregions. The Project does not include any actions that would interfere with the recovery of the species.
- Southern Whiteface (*Aphelocephala leucopsis*): Southern Whiteface is known to occur in both Project Areas. No important population is defined for Southern Whiteface and the species has a continuous distribution throughout its range. As Southern Whiteface are common over a broad continuous area of South Australia, it is unlikely that the individuals recorded in the Project Areas are an important population. Habitat in both Project Areas is suitable but represents a negligible proportion of available habitat within the local IBRA subregions. The Project does not include any actions that would interfere with the recovery of the species.
- Grey Falcon (Falco hypoleucos): The Grey Falcon has not been recorded at either Project Area and
  the closest historical record is over 100 km away. There is no suitable breeding habitat in the Hawks
  Nest Project area. Habitat in both Project Areas is potentially suitable for foraging but represents a

- negligible proportion of available habitat within the local IBRA subregions. The Project does not include any actions that would interfere with the recovery of the species.
- Blue-winged Parrot (Neophema chrysostoma): The Blue-winged Parrot has not been recorded at either Project Area and the closest historical record is approximately 35 km away and was recorded in 2005. As they have not been recorded despite surveys, the Project Areas are not likely to support a population of the species. Although habitat in both project areas might be potentially suitable for the species during the non-breeding season, the small extent of habitat affected in the context of available habitat in the IBRA subregion is not likely to be critical to the survival of the species. The Project does not include any actions that would interfere with the recovery of the species.
- Plains Mouse (*Pseudomys australis*): Based on results of targeted surveys, the nature of the habitat
  present and the distance of historical records from Hawks Nest and Kultanaby, it is unlikely that the
  Plains Mouse occurs in either project area. Although some habitat was assessed as possibly suitable
  for Plains Mouse, they are unlikely to occur in the Project Areas. Based on NVIS mapping, suitable
  habitat at the Project Areas represents a negligible proportion of available habitat in the IBRA
  subregions. The Project does not include any actions that would interfere with the recovery of the
  species.
- Dwarf Desert Spike-rush (*Eleocharis papillosa*): Despite targeted surveys, Dwarf Desert Spike-rush
  has not been recorded at either Project area and is considered not present on site. Based on results
  of surveys, the habitat resources available and the Disturbance Footprint of the Project, it is unlikely
  that a population of Dwarf Desert Spike-rush is impacted by the Project.

## 4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. \*

### **Avoiding Impacts**

The planning and placement of mine infrastructure is limited by the location of the target resource and the development of a safely operating mine site that conforms to acceptable industry standards. Whilst native vegetation and threatened fauna habitat cannot be avoided by the Project; ecological assessment has contributed to the process of evaluating alternative design options.

For example, the following has been undertaken:

- The Kultanaby haul road route has been selected over two alternative routes that would have resulted in increased impact to habitat for threatened species, including the Southern Whiteface.
- Sensitive ephemeral wetlands and swamps in the Mining Lease have been avoided.

Impacts that cannot be avoided will be minimised as far as practicable, as discussed below.

#### **Minimising Impacts**

The approval of mining operations in South Australia by the Department for Energy and Mining (DEM) requires the development of a Program for Environment Protection and Rehabilitation (PEPR). This document details the potential impacts on the environment, including biodiversity, and the proponent's commitment to managing and reducing these impacts. The PEPR also presents the proposed methods and extent of rehabilitation following mine closure.

Central Iron is currently preparing the PEPR for the Hawks Nest development as part of the planning and approvals process.

Specific to the threatening processes identified in the conservation advice and recovery plans (where available) for the six EPBC Act listed threatened species relevant to the Project, Central Iron is committed in undertaking broad management strategies (as outlined in **Att 16 SIA Section 6.0 p.79**) to minimise their

impact on biodiversity throughout the construction, operational and closure phases of the Hawks Nest Project. These strategies will be further developed during the preparation of the PEPR.

In addition to these broad measures, the PEPR requires the ongoing monitoring of flora and fauna within the mining lease to detect changes related to mining activity. As part of the required monitoring, Peak Iron is proposing to design and implement a monitoring program for the Southern Whiteface.

Impact minimising strategies will be documented in the following management plans, as part of the PEPR:

- Dust Management Plan.
- Native Vegetation Management Plan.
- Weed and Pest Management Plan.
- Fauna Management Plan.

Although still in development, this monitoring will seek to detect any response by Southern Whiteface populations in the Hawks Nest Project Area to the impact of mine construction and operation and environmental management activities undertaken on site. Monitoring may occur according to the broad themes listed below:

- Monitor Southern Whiteface inside and outside of an area fenced to prevent livestock access.
- Monitor Southern Whiteface at sites with increasing distance from the impact area and operational footprint of the mine.

Please refer to Att 16 SIA Section 6.0 p.79 for more detail.

## 4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. \*

In South Australia, native vegetation clearing is not approved until an offset known as a Significant Environmental Benefit (SEB) is approved under the SA *Native Vegetation Act*.

Central Iron is actively pursuing an on-ground offset with a third-party provider to meet obligations for a SEB for the Hawks Nest Project and Kultanaby Haul Road. The details of the offset proposal have not yet been finalised and are not available to be published at this stage. However, an offset proposal will be included in the Program for Environment Protection and Rehabilitation.

### 4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

| Direct impact | Indirect impact | Species            | Common name                        |
|---------------|-----------------|--------------------|------------------------------------|
| No            | No              | Actitis hypoleucos | Common Sandpiper                   |
| No            | No              | Calidris acuminata | Sharp-tailed Sandpiper             |
| No            | No              | Calidris melanotos | Pectoral Sandpiper                 |
| Yes           | Yes             | Charadrius veredus | Oriental Plover, Oriental Dotterel |
| No            | No              | Motacilla cinerea  | Grey Wagtail                       |
| No            | No              | Motacilla flava    | Yellow Wagtail                     |

## 4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? \*

Yes

## 4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. \*

As part of the *Hawks Nest EPBC Act Significant Impact Assessment* (**Att 16 SIA**) undertaken for the Project, one migratory species has been assessed: the Oriental Plover (*Charadrius veredus*), which is considered highly likely to occur within the Hawks Nest Project Area and possible to occur within the Kultanaby haul road Project Area (**Att 16 SIA Table 4.1**, **p.30**). Other species not assessed include (**Att 16 SIA Table 4.1**, **p.30**):

Common Sandpiper (*Actitis hypoleucos*): Unlikely. There are no records of the species within 50 km of the Project Area. The species requires wetland habitat that is very limited in extent within the Project Area.

Sharp-tailed Sandpiper (*Calidris acuminata*): Unlikely. There are no nearby historical records and no suitable wetland habitat present

Grey Wagtail (*Motacilla cinerea*): Unlikely. There are no records of the species within 50 km of the Project Area. The species requires wetland habitat that is very limited in extent within the Project Area.

Yellow Wagtail (*Motacilla flava*): Unlikely. There are no records of the species within 50 km of the Project Area. The species requires wetland habitat that is very limited in extent within the Project Area.

Pectoral Sandpiper (*Calidris melanotus*): Unlikely. There are no records of the species within 50 km of the Project Area. The species requires wetland habitat that is very limited in extent within the Project Area.

The proposed action may have direct and indirect impacts on the Oriental Plover. During construction, the action will remove native vegetation that may provide potential habitat for the species. Direct mortality of fauna may occur during vegetation clearance activities, if fauna are unable to naturally relocate prior to disturbance (Att 16 SIA Section 1.4 Table 1.2, p.8).

Indirect impacts during the operational phase of the action may also occur. This may include reduction in habitat due to accidental clearing, risk of wildfire, weeds, edge effects, changes in hydrology, or spills; increases in the number of feral predators, vehicle strikes during operations, and noise from construction and operational activities (Att 16 SIA Section 1.4 Table 1.2, p.8).

### 4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact?

\*

No

### 4.1.5.6 Describe why you do not consider this to be a Significant Impact. \*

Assessment against the Significant Impact Criteria for migratory species has determined that the Project is not likely to have a significant impact on the Oriental Plover (*Charadrius veredus*), a listed EPBC Act migratory species. As per **Att 16 SIA Section 5.7.7 p.77** the assessment found:

**Significant Impact Criteria:** Substantially modify (including fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological

cycles), destroy or isolate an area of important habitat for a migratory species.

**Response:** The project areas are not likely to represent an area of important habitat for the Oriental Plover based on the following:

- Neither project area is in nor near any of the internationally important sites listed in the species' conservation advice.
- The only historical record of the species within 50 km of either Project Area is that recorded at the nearby Buzzard ML in 2022.
- Suitably open habitat at Hawks Nest is limited in extent.

Habitat is potentially suitable as intermittent over-wintering (non-breeding) habitat for vagrant individuals and small flocks. The single historical record in the Project Areas, despite bird surveys undertaken in the appropriate season (late spring) supports this assessment.

**Significant Impact Criteria:** Result in an invasive species that is harmful to the migratory species becoming established in area of important habitat for the migratory species.

**Response:** As discussed above, neither project area is likely to represent important habitat for the species. Further, Peak Iron is committed to implementing weed and pest animal control and management through the development and implementation of a PEPR. This is further detailed in **Att 16 SIA Section 6.3 p.80**.

**Significant Impact Criteria:** Seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of a migratory species.

**Response:** There is only one historical record (of 6 birds) within 50 km of either Project Area. This does not represent an ecologically significant proportion of the species.

### 4.1.5.7 Do you think your proposed action is a controlled action? \*

No

### 4.1.5.9 Please elaborate why you do not think your proposed action is a controlled action.

\*

The proposed action is not a controlled action as it is not likely to have a significant impact on any EPBC Act migratory species.

One migratory species was assessed as highly likely to occur within the Hawks Nest Project Area and possible to occur within the Kultanaby haul road Project Area: the Oriental Plover (*Charadrius veredus*) (**Att 16 SIA Table 4.1**, **p.30**).

Assessment against the Significant Impact Criteria for migratory species has determined that the Project is not likely to have a significant impact on any EPBC Act migratory species. The Project Areas are not likely to represent areas of important habitat for the Oriental Plover, as these areas are really only potentially suitable as intermittent over-wintering (non-breeding) habitat for vagrant individuals and small flocks. There is no evidence to suggest that an ecologically significant proportion of the species utilise the Project Areas, or that the Project Areas represent habitat critical for feeding, breeding, migrating or resting behaviour. The very limited historical records of this species within the region, despite bird surveys undertaken in the appropriate season (late spring) supports this assessment (Att 16 SIA Section 5.7.7 p.77).

## 4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. \*

#### **Avoiding Impacts**

The planning and placement of mine infrastructure is limited by the location of the target resource and the development of a safely operating mine site that conforms to acceptable industry standards. Whilst native vegetation and threatened fauna habitat cannot be avoided by the Project; ecological assessment has contributed to the process of evaluating alternative design options.

For example, the following has been undertaken:

- The Kultanaby haul road route has been selected over two alternative routes that would have resulted in increased impact to fauna habitat.
- Sensitive ephemeral wetlands and swamps in the Mining Lease have been avoided.

Impacts that cannot be avoided will be minimised as far as practicable, as discussed below.

### **Minimising Impacts**

The approval of mining operations in South Australia by the Department for Energy and Mining (DEM) requires the development of a Program for Environment Protection and Rehabilitation (PEPR). This document details the potential impacts on the environment, including biodiversity, and the proponent's commitment to managing and reducing these impacts. The PEPR also presents the proposed methods and extent of rehabilitation following mine closure.

Central Iron is currently preparing the PEPR for the Hawks Nest development as part of the planning and approvals process.

Central Iron is committed in undertaking broad management strategies (as outlined in **Section 6.3 in Att 4**) to minimise the impact on biodiversity throughout the construction, operational and closure phases of the Hawks Nest Project. These strategies will be further developed during the preparation of the PEPR.

In addition to these broad measures, the PEPR requires the ongoing monitoring of flora and fauna within the mining lease to detect changes related to mining activity. As part of the required monitoring, Peak Iron is proposing to design and implement a monitoring program for the Southern Whiteface.

Impact minimising strategies will be documented in the following management plans, as part of the PEPR:

- Dust Management Plan.
- · Native Vegetation Management Plan.

| 4.1.5.11 Please describe any proposed offsets and attack   | n any supporting documentation  |
|--|---|
| relevant to these measures. *  |   |
| In South Australia, native vegetation clearing is not approved until a Environmental Benefit (SEB) is approved under the SA <i>Native Vege</i>   | _   |
| Central Iron is actively pursuing an on-ground offset with a third-par SEB for the Hawks Nest Project and Kultanaby Haul Road. The det been finalised and are not available to be published at this stage. H included in the Program for Environment Protection and Rehabilitati | ails of the offset proposal have not yet owever, an offset proposal will be |
|  |   |
|  |   |
| 4.1.6 Nuclear  |   |
| 4.1.6.1 Is the proposed action likely to have any direct ar  | nd/or indirect impact on this   |
| protected matter? *  |   |
| No   |   |
|  |   |
| 4.1.6.3 Briefly describe why your action is unlikely to have   | ve a direct and/or indirect impact.   |
| *  |   |
| The proposed action does not involve any nuclear activities.   |   |
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• Weed and Pest Management Plan.

Please refer to Att 16 SIA Section 6.0 p.79 for more detail.

• Fauna Management Plan.

| matters.   |
|--|
| A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels. |
| An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.   |
| _  |
| 4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *   |
| No   |
| 4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *  |
| There are no Commonwealth Marine Areas within, or adjacent to, the Project Area of the proposed action.  |
|  |
| 4.1.8 Great Barrier Reef   |
|  |
| 4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *  |
| No   |
| 4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.  |
| There Great Barrier Reef is not within, or adjacent to, the Project Area of the proposed action.   |
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You have identified your proposed action will likely directly and/or indirectly impact the following protected

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- 4.1.9 Water resource in relation to large coal mining development or coal seam gas
- 4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? \*

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

\*

| The proposed action does not involve a large coal mining development or coal seam gas development. |  |
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#### 4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

| Direct impact | Indirect impact | Commonwealth land area              |
|---------------|-----------------|-------------------------------------|
| No            | No              | Defence - WOOMERA AIR WEAPONS RANGE |

4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? \*

| *   |
|---|
| The Project Area is wholly on Crown Land held under Pastoral Lease. Although the Project Area falls within the Woomera Prohibited Area (WPA), only a small amount of the WPA is actually owned by the Commonwealth. The area of the WPA that the Project Area sits within is not owned by the Commonwealth but is accessed under an MoU agreement between the South Australian Government and the Commonwealth Department of Defence. |
| 4.1.11 Commonwealth Heritage Places Overseas  |
| You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.   |
| A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.  |
| An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.  —   |
| 4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *   |
| No  |
| 4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact   |
| The proposed action is not located overseas and will not have a direct or indirect impact on a Commonwealth Heritage Place Overseas.  |

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact.

#### 4.1.12 Commonwealth or Commonwealth Agency

# 4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? \*

No

## 4.2 Impact summary

#### Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

None

#### Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Threatened Species and Ecological Communities (S18)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- · Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

## 4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? \*

#### 4.3.8 Describe why alternatives for your proposed action were not possible. \*

The potential alternatives considered during project planning include:

#### Do nothing

The do-nothing scenario will result in the potential of the resources identified not being realised, which will be a significant loss to the state, as well as to the community (in terms of jobs and flow-on economic benefit).

#### Haul route options

Three haul route (road) options were considered for Kite Phase 1:

- 1. Construct a new haul road from the mine site to Gina siding
- 2. Construct a new haul road from the mine site to Carnes siding
- 3. Road haul from the mine site to Glendambo via Stuart Highway, then construct a new haul road to Kultanaby siding.

All three options require the construction of new haul roads (but of differing lengths) and construction of a new rail siding. The Kultanaby option was ultimately chosen as it requires the shortest amount of new road construction and results in considerably less environmental impact than the Gina or Carnes options.

An additional alternative route option (to the south) was previously considered but discounted in preliminary investigations as it would also have resulted in construction of a much longer new road.

#### **Alternative camp locations**

Alternative camp and airstrip locations (including within the proposed ML, as well as several other locations) were considered. The final determination was made following discussions with stakeholders, particularly the Department of Defence. The decision to co-locate the camp close to the operations will also reduce travel time (and thus fatigue) for staff and contractors and simplifies planning and approvals by having everything in the one location. The alternative locations considered would also have required new access roads which would have increased the overall environmental impact.

#### Pit staging

There are a number of prospective iron ore deposits within the proposed Hawks Nest Iron Ore Project. The decision to target Kite as the initial development phase is based on factors including accessibility (depth of the deposit and resulting strip ratio), quality (high-grade ore including both magnetite and hematite that can be direct shipped with no additional processing onsite) and data integrity (well-defined resource based on extensive exploration drilling). Alternative pit staging scenarios would not have changed the overall footprint of the proposed development.

#### Infrastructure layout

Considerable planning has been undertaken in optimising the proposed layout of mine. Although the pit locations cannot change due to the fixed nature of the ore body, supporting infrastructure including waste rock dumps, run of mine pad, machinery sheds, parking, internal roads, basins, offices and ablutions can all be moved according to the optimal design.

In the case of the Hawks Nest Project, all supporting infrastructure has been carefully located to minimise potential for sterilising future resources (i.e. not building over the top of future ore targets) and has been colocated to reduce the requirement for additional road infrastructure and consequent staff travel time and haulage implications. The design also considers environmental aspects including reducing the requirement

for vegetation clearance where possible and ensuring surface water flows are maintained. Consequently, the final layout is designed to be as efficient as practicable within the physical and environmental constraints of the site.

#### Potential future projects

Whist there will not be separate projects, a range of scenarios are currently being investigated for Phase 2 and Phase 3 of the Hawks Nest Iron Ore Project, all situated within the Development Precincts (**Figure 1.2** in Att 1 Figures):

- Processing: on and off-site processing options, dry compared to wet processing methods.
- Pit design: various pit design options for Kite extension, Kestrel, and other prospects.
- Waste facility design options, including consideration of waste rock dump heights in line with Defence discussions, and whether an integrated waste facility is feasible.
- Infrastructure layout options such as staging of the camp development to facilitate gradual expansion.
- Various options for power generation and storage including the use of renewable energy sources, particularly as the project scales up.

# 5. Lodgement

## 5.1 Attachments

#### 1.2.1 Overview of the proposed action

|     | Type Name                     | Date S    | Sensitivi <b>G</b> onfidence |
|-----|-------------------------------|-----------|------------------------------|
| #1. | DocumenAtt 1 Figures.pdf      | 30/09/202 | ∦b High                      |
|     | Attachment of project figures |           |                              |

#### 1.2.5 Information about the staged development

|                               | Type Name                | Date     | Sensiti        | vi <b>6</b> jonfidence |  |
|-------------------------------|--------------------------|----------|----------------|------------------------|--|
| #1.                           | DocumerAtt 1 Figures.pdf | 29/09/20 | ) <b>2\4</b> b | High                   |  |
| Attachment of project figures |                          |          |                |                        |  |

#### 1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

|     | Type | Name  | Date | Sensitivi <b>6</b> onfiden |
|-----|------|---|------|----------------------------|
| #1. | Link | Guidelines for assessing the conservation status of native species according to the EPBC Act https://www.dcceew.gov.au/sites/default/files/do |      | High                       |
| #2. | Link | Significant Impact Guidelines 1.1 - Matters of National Environmental Significance https://www.dcceew.gov.au/sites/default/files/do           |      | High                       |

| #3. | #3. Link Survey guidelines for Australia's threatened birds https://www.dcceew.gov.au/sites/default/files/do |  | High |
|-----|--|--|------|
| #4. |  |  | High |

#### 1.2.7 Public consultation regarding the project area

|     | Type Nan | me  | Date    | Sensiti       | vi <b>6</b> jonfidence |
|-----|----------|---|---------|---------------|------------------------|
| #1. | Extr     | 3 Stakeholder Engagment Register.pdf<br>ract from the Stakeholder Engagement Register for the<br>vks Nest Project | 20/11/2 | 0 <b>2N</b> o | High                   |

# 1.3.2.18 (Person proposing to take the action) If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

|     | Туре  | Name  | Date    | Sensiti        | vi <b>6</b> jonfidence |
|-----|-------|---|---------|----------------|------------------------|
| #1. | Docum | enAtt 2 Envrionmental Policy.pdf<br>Peak Iron Mines' Environmental Policy | 23/10/2 | 0 <b>2\</b> 8o | High                   |

#### 3.1.1 Current condition of the project area's environment

|     | Туре  | Name   | Date    | Sens            | itivi <b>©</b> onfidenc |
|-----|-------|--|---------|-----------------|-------------------------|
| #1. | Docum | enAtt 4 HN Baseline Redacted.pdf Baseline flora and fauna survey of the Kite and Kestrel prospects in the Hawks Nest Project Area redacted | 31/10/2 | 20 <b>2M</b> o  | High                    |
| #2. | Docum | enAtt 4 HN Baseline.pdf Baseline flora and fauna survey of the Kite and Kestrel prospects in the Hawks Nest Project Area                   | 31/10/2 | 20 <b>2%</b> s  | High                    |
| #3. | Docum | enAtt 5 Kultanaby Baseline Redacted.pdf<br>Baseline flora and fauna survey of the Kultanaby Haul<br>Road Project Area redacted             | 05/03/2 | 20 <b>2\1</b> 0 | High                    |
| #4. | Docum | enAtt 5 Kultanaby Baseline.pdf<br>Baseline flora and fauna survey of the Kultanaby Haul<br>Road Project Area                               | 05/03/2 | 20 <b>2/e</b> s | High                    |
| #5. | Docum | enAtt 6 Buzzard Kultanaby TTSS.pdf<br>Kultanaby Haul Road Targeted Threatened Species<br>Survey  | 04/06/2 | 20 <b>2\f</b> o | High                    |

#### 3.1.3 Natural features, important or unique values that applies to the project area

|     | Type  | Name   | Date    | Sensi         | tivi <b>6</b> jonfidence |
|-----|-------|--|---------|---------------|--------------------------|
| #1. | Docum | enAtt 4 HN Baseline Redacted.pdf  Baseline flora and fauna survey of the Kite and Kestrel  prospects in the Hawks Nest Project Area redacted | 30/10/2 | 0 <b>2N</b> b | High                     |

| #2. | DocumerAtt 4 HN Baseline.pdf  Baseline flora and fauna survey of the Kite and Kestrel prospects in the Hawks Nest Project Area      | 30/10/20 <b>2/4</b> es | High |
|-----|---|------------------------|------|
| #3. | DocumerAtt 5 Kultanaby Baseline Redacted.pdf<br>Baseline flora and fauna survey of the Kultanaby Haul<br>Road Project Area redacted | 04/03/20 <b>2\l</b> o  | High |
| #4. | DocumerAtt 5 Kultanaby Baseline.pdf Baseline flora and fauna survey of the Kultanaby Haul Road Project Area                         | 04/03/20 <b>2/e</b> s  | High |

#### 3.2.1 Flora and fauna within the affected area

|      | Type  | Name   | Date    | Sensi            | tivi <b>6</b> onfiden |
|------|-------|--|---------|------------------|-----------------------|
| #1.  | Docum | enAtt 10 Hawks Nest TTSS Redacted.pdf Hawks Nest Project Threatened Species Targeted Survey redacted                                       | 17/04/2 | 20 <b>2M</b> b   | High                  |
| #2.  | Docum | enAtt 10 Hawks Nest TTSS.pdf<br>Hawks Nest Project Threatened Species Targeted Survey  | 17/04/2 | 20 <b>2⁄4e</b> s | High                  |
| #3.  | Docum | er <b>A</b> tt 11 SWF RA Redacted.pdf<br>Southern Whiteface regional assessment  | 26/09/2 | 20 <b>2M</b> b   | High                  |
| #4.  | Docum | enAtt 11 SWF RA.pdf<br>Southern Whiteface regional assessment  | 26/09/2 | 20 <b>2⁄4e</b> s | High                  |
| #5.  | Docum | enAtt 4 HN Baseline Redacted.pdf Baseline flora and fauna survey of the Kite and Kestrel prospects in the Hawks Nest Project Area redacted | 30/10/2 | 20 <b>2M</b> b   | High                  |
| #6.  | Docum | enAtt 4 HN Baseline.pdf Baseline flora and fauna survey of the Kite and Kestrel prospects in the Hawks Nest Project Area                   | 30/10/2 | 20 <b>2M</b> b   | High                  |
| #7.  | Docum | enAtt 5 Kultanaby Baseline Redacted.pdf Baseline flora and fauna survey of the Kultanaby Haul Road Project Area redacted                   | 04/03/2 | 20 <b>2\1</b> 0  | High                  |
| #8.  | Docum | enAtt 5 Kultanaby Baseline.pdf<br>Baseline flora and fauna survey of the Kultanaby Haul<br>Road Project Area                               | 04/03/2 | 20 <b>2⁄′e</b> s | High                  |
| #9.  | Docum | enAtt 6 Buzzard Kultanaby TTSS.pdf<br>Kultanaby Haul Road Targeted Threatened Species<br>Survey  | 03/06/2 | 20 <b>2N</b> o   | High                  |
| #10. | Docum | enAtt 7 Buzzard Baseline Redacted.pdf Buzzard Project Baseline Flora and Fauna Assessment redacted   | 05/01/2 | 20 <b>2\f</b> o  | High                  |
| #11. | Docum | er <b>A</b> tt 7 Buzzard Baseline.pdf<br>Baseline flora and fauna survey of the Kultanaby Haul<br>Road Project Area                        | 05/01/2 | 20 <b>2/e</b> s  | High                  |

| #12. DocumerAtt 8 Buzzard Plains Mouse.pdf Kultanaby Haul Road EPBC Self Assessment Plains Mouse              | 03/02/20 <b>2\</b>    | High |
|---|-----------------------|------|
| #13. Documer <b>A</b> tt 9 Buzzard TBGW.pdf  Kultanaby Haul Road EPBC Self Assessment Thick-billed  Grasswren | 03/02/20 <b>2A2</b> b | High |

#### 3.2.2 Vegetation within the project area

|     | Туре  | Name   | Date    | Sensi            | tivi <b>6</b> jonfidence |
|-----|-------|--|---------|------------------|--------------------------|
| #1. | Docum | enAtt 4 HN Baseline Redacted.pdf Baseline flora and fauna survey of the Kite and Kestrel prospects in the Hawks Nest Project Area redacted | 30/10/2 | 20 <b>2N</b> to  | High                     |
| #2. | Docum | enAtt 4 HN Baseline.pdf Baseline flora and fauna survey of the Kite and Kestrel prospects in the Hawks Nest Project Area                   | 30/10/2 | ?0 <b>2∕4e</b> s | High                     |
| #3. | Docum | enAtt 5 Kultanaby Baseline Redacted.pdf<br>Baseline flora and fauna survey of the Kultanaby Haul<br>Road Project Area redacted             | 04/03/2 | 20 <b>2N</b> 10  | High                     |
| #4. | Docum | enAtt 5 Kultanaby Baseline.pdf<br>Baseline flora and fauna survey of the Kultanaby Haul<br>Road Project Area                               | 04/03/2 | 20 <b>2∕⁄e</b> s | High                     |

#### 3.4.1 Hydrology characteristics that apply to the project area

|     | Type I | Name  | Date    | Sensitiv       | vi <b>6</b> jonfidence |
|-----|--------|---|---------|----------------|------------------------|
| #1. |        | Att 12 Kultanaby GW.pdf<br>Kultanaby Haul Road desktop study of groundwater | 28/05/2 | 0 <b>2N</b> 10 | High                   |
| #2. |        | Att 13 Kultanaby SW.pdf<br>Kultanaby Haul Road surface water assessment     | 26/08/2 | 0 <b>2N2</b> o | High                   |
| #3. |        | Att 14 Hawks Nest GW.pdf<br>Hawks Nest desktop groundwater assessment       | 29/09/2 | 0 <b>2N2</b> o | High                   |
| #4. |        | Att 15 Hawks Nest SW.pdf<br>Hawks Nest Project surface water assessment     | 30/05/2 | 0 <b>2\8</b> o | High                   |

# 4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

|     | Туре  | Name  | Date    | Sensi           | itivi <b>6</b> jonfidenc |
|-----|-------|---|---------|-----------------|--------------------------|
| #1. | Docum | er <b>A</b> tt 16 SIA Redacted.pdf<br>Hawks Nest Project EPBC Act Significant Impact<br>Assessment redacted | 26/11/2 | 0 <b>2N</b> o   | High                     |
| #2. | Docum | enAtt 16 SIA.pdf<br>EPBC Significant Impact Assessment  | 25/09/2 | 0 <b>2%/e</b> s | High                     |
| #3. | Link  |   |         |                 |                          |

# Significant Impact Guidelines 1.1 - Matters of National Environmental Significance https://www.dcceew.gov.au/sites/default/files/do...

4.1.4.6 (Threatened Species and Ecological Communities) Why you do not consider the direct and/or indirect impact to be a Significant Impact

|     | Type  | Name  | Date     | Sensitiv        | vi <b>6</b> jonfidence |
|-----|-------|---|----------|-----------------|------------------------|
| #1. | Docum | er <b>A</b> tt 16 SIA Redacted.pdf<br>Hawks Nest Project EPBC Act Significant Impact<br>Assessment redacted | 25/11/20 | ) <b>2</b> 410  | High                   |
| #2. | Docum | en <b>A</b> tt 16 SIA.pdf<br>EPBC Significant Impact Assessment   | 25/09/2  | 0 <b>2/4e</b> s | High                   |

4.1.4.9 (Threatened Species and Ecological Communities) Why you do not think your proposed action is a controlled action

|     | Туре  | Name   | Date     | Sensitiv        | vi <b>6</b> jonfidence |
|-----|-------|--|----------|-----------------|------------------------|
| #1. | Docum | enAtt 16 SIA Redacted.pdf<br>Hawks Nest Project EPBC Act Significant Impact<br>Assessment redacted | 25/11/20 | ) <b>2</b> 4lo  | High                   |
| #2. | Docum | enAtt 16 SIA.pdf<br>EPBC Significant Impact Assessment   | 25/09/20 | 0 <b>2/4e</b> s | High                   |

4.1.4.10 (Threatened Species and Ecological Communities) Avoidance or mitigation measures proposed for this action

|     | Type  | Name   | Date     | Sensiti         | vi <b>6</b> jonfidence |
|-----|-------|--|----------|-----------------|------------------------|
| #1. | Docum | enAtt 16 SIA Redacted.pdf<br>Hawks Nest Project EPBC Act Significant Impact<br>Assessment redacted | 25/11/20 | 0 <b>2</b> 410  | High                   |
| #2. | Docum | er <b>A</b> tt 16 SIA.pdf<br>EPBC Significant Impact Assessment                                    | 25/09/2  | 0 <b>2/4</b> es | High                   |

4.1.5.2 (Migratory Species) Why your action has a direct and/or indirect impact on the identified protected matters

|     | Type  | Name   | Date     | Sensiti         | vi <b>6</b> jonfidenc |
|-----|-------|--|----------|-----------------|-----------------------|
| #1. | Docum | enAtt 16 SIA Redacted.pdf<br>Hawks Nest Project EPBC Act Significant Impact<br>Assessment redacted | 25/11/20 | 0 <b>2</b> 4lo  | High                  |
| #2. | Docum | enAtt 16 SIA.pdf<br>EPBC Significant Impact Assessment   | 26/09/2  | 0 <b>2/4</b> es | High                  |

4.1.5.6 (Migratory Species) Why you do not consider the direct and/or indirect impact to be a Significant Impact

|     | Type Name | Date | Sensitivi <b>G</b> onfidence |
|-----|-----------|------|------------------------------|
| #1. | Document  |      |                              |

| Att 16 SIA Redacte<br>Hawks Nest Proje<br>Assessment redac | ct EPBC Act Significant Impact                    | 25/11/20 <b>2</b> No | High                  |      |
|--|---|----------------------|-----------------------|------|
| #2. DocumerAtt   | : 16 SIA.pdf<br>PBC Significant Impact Assessment |                      | 25/09/20 <b>2⁄4</b> s | High |

#### 4.1.5.9 (Migratory Species) Why you do not think your proposed action is a controlled action

|     | Type  | Name  | Date     | Sensiti         | vi <b>6</b> jonfidenc |
|-----|-------|---|----------|-----------------|-----------------------|
| #1. | Docum | er <b>A</b> tt 16 SIA Redacted.pdf<br>Hawks Nest Project EPBC Act Significant Impact<br>Assessment redacted | 25/11/20 | 0 <b>2</b> 4lo  | High                  |
| #2. | Docum | enAtt 16 SIA.pdf<br>EPBC Significant Impact Assessment  | 25/09/2  | 0 <b>2/4</b> es | High                  |

#### 4.1.5.10 (Migratory Species) Avoidance or mitigation measures proposed for this action

|     | Type  | Name   | Date     | Sensiti         | vi <b>6</b> jonfidenc |
|-----|-------|--|----------|-----------------|-----------------------|
| #1. | Docum | enAtt 16 SIA Redacted.pdf Hawks Nest Project EPBC Act Significant Impact Assessment redacted | 25/11/20 | 0 <b>2N</b> o   | High                  |
| #2. | Docum | enAtt 16 SIA.pdf<br>EPBC Significant Impact Assessment                                       | 25/09/2  | 0 <b>2/4e</b> s | High                  |

#### 4.3.8 Why alternatives for your proposed action were not possible

|     | Type Name                     | Date     | Sensitivi <b>6</b> onfidence |
|-----|-------------------------------|----------|------------------------------|
| #1. | DocumerAtt 1 Figures.pdf      | 29/09/20 | D <b>2N</b> b High           |
|     | Attachment of project figures |          |                              |

# 5.2 Declarations

## **⊘** Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN 85143503397

Organisation name Central Iron Pty Ltd

Organisation address 6012 WA

Representative's name Tegan Stehbens

Representative's job title Senior Environment and Approvals Officer

Phone 0417851937

Email tegan@peakiron.com

Address

Check this box to indicate you have read the referral form. \*

I would like to receive notifications and track the referral progress through the EPBC portal. \*

By checking this box, I, **Tegan Stehbens of Central Iron Pty Ltd**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. \*

I would like to receive notifications and track the referral progress through the EPBC portal. \*

### Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN 85143503397

Organisation name Central Iron Pty Ltd

Organisation address Level 8, 33 King William Street, Adelaide, South Australia 5000

Representative's name Rob Morrow

Representative's job title Managing Director

Phone 0417 930 265

Email rob@peakiron.com

Address GPO Box 2715, Cloisters Square PO, WA 6850

Check this box to indicate you have read the referral form. \*

I would like to receive notifications and track the referral progress through the EPBC portal. \*

| I, Rob Morrow of Central Iron Pty Ltd, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *  I would like to receive notifications and track the referral progress through the EPBC portal. * |
|--|
| Completed Proposed designated proponent's declaration  |
| The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.   |
| Same as Person proposing to take the action information.   |
| Check this box to indicate you have read the referral form. *  |
| ✓ I would like to receive notifications and track the referral progress through the EPBC portal. *   |
| I, <b>Rob Morrow of Central Iron Pty Ltd</b> , the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *  |
| ■ I would like to receive notifications and track the referral progress through the EPBC portal. *   |