

**Alcoa of Australia  
Limited**



**PINJARRA ALUMINA REFINERY  
REVISED PROPOSAL**

**Offset Area  
Management Plan**

Proposed Offset Conservation  
Area POCA005 - Dwellingup

EPA No. 2253  
EPBC No. 2022/09204

DRAFT

**February 2025**

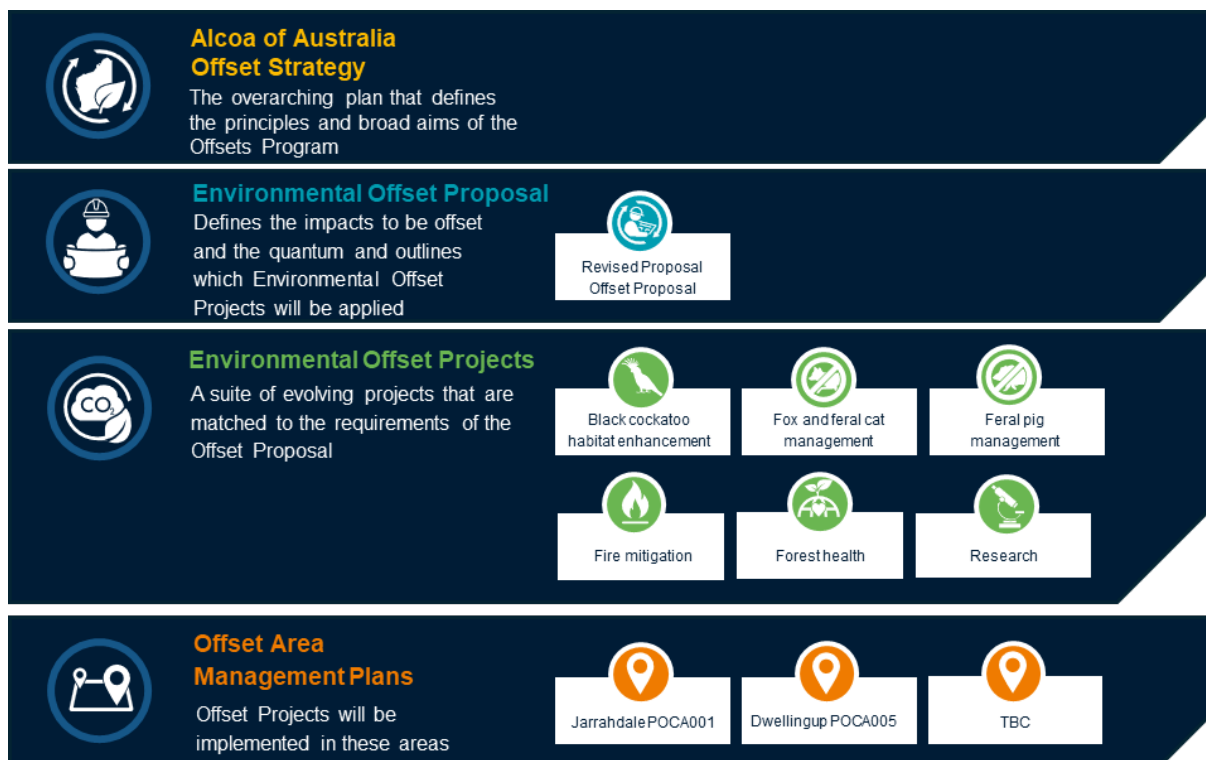
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# Executive Summary

Alcoa of Australia Limited (Alcoa) began operations in the south-west of Western Australia (WA) in 1963. A State Agreement, between Alcoa and the WA Government, permits Alcoa to mine bauxite within Mineral Lease 1SA (ML1SA).

Alcoa are modernising its approvals framework to a more contemporary process. The Pinjarra Alumina Refinery Revised Proposal (the Proposal) has been referred to the WA Environmental Protection Authority (EPA) under Part IV s38 of the *Environmental Protection Act 1986* (EP Act) (assessment number is 2253). The Huntly Bauxite Mine Transition (assessment number is 2022/09204) has been referred to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Myara North and Holyoke Development Envelopes are being assessed as an accredited assessment under the WA EP Act. An environmental impact assessment has been undertaken and documented in an Environment Review Document (Alcoa, 2025b).

As part of the regulatory assessment process, Alcoa has prepared an Environmental Offset Proposal (Alcoa, 2025a) for the Proposal. The Environmental Offset Proposal outlines the significant residual impact, the proposed offset quantum to counterbalance the significant residual impact, the on-ground conservation actions to be implemented (detailed in Environmental Offset Project Plans) and the location(s) for the on-ground conservation actions to be implemented. The offset locations are referred to as Proposal Offset Conservation Areas (POCAs) and described in Offset Area Management Plan(s). The Environmental Offset document framework, provided in **ES Figure 1-1**, shows how the offset documents are organised.



**ES Figure 1-1: Environmental Offset Document Framework**

This Offset Area Management Plan has been prepared to support the environmental assessment of the Proposal by detailing the Dwellingup POCA.

The Dwellingup POCA is based on the area bound by Alcoa's Dwellingup Mining Avoidance Zone (MAZ) in the Shire of Murray, surrounding the Dwellingup township and around 85 km south-east of Perth.

The POCA is 5,087 hectares, primarily State Forest, mostly native vegetation with some small streams and surrounds private properties. The area was selected as a proposed offset conservation area as Alcoa has made a commitment to not mine in the area, the area is known to contain high environmental values, and contains similar vegetation and habitat types and structure, and is close to, the impact area as well as adjoining conservation areas (the Lane Poole Reserve).

The POCA will contribute towards the offset outcomes in the Environmental Offset Proposal and targets in Environmental Offset Project Plans through protection and enhancement of remnant vegetation that provides approximately 4,665 hectares of habitat for black cockatoos, chuditch, woylie and quokka.

Conservation actions within the POCA are expected to be delivered for the long-term (over the offset period). The aim is to maintain or improve the habitat for each species such that the health and condition of the habitat is self-sufficient and requires minimal management and intervention when it reverts to the landowner (the WA Government) and/or land manager (currently the Department of Biodiversity, Conservation and Attractions (DBCA)).

Alcoa will continue to consult with the stakeholders in the development of this area for conservation and as an offset. Alcoa is seeking to have an in principle agreement (informal or formal) with the WA Government to use the area as an offset in Q2 2025. Following agreement, Alcoa will undertake the Baseline survey. The results from the Baseline survey can be used to finalise this Plan, including confirmation of management areas and spatial mapping of monitoring locations. If the Proposal is approved, Alcoa plans to commence on-ground management and conservation actions in Q2 2026.

Delivery of management actions may be undertaken by different environmental practitioners, consultants or specialists. Alcoa and delivery partners will enter into legally binding agreements; however, Alcoa will remain responsible for ensuring the conservation actions are implemented in a safe manner in accordance with any agreements with the landowner.

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## Acronyms

Abbreviation	Definition
BC Act	<i>Biodiversity Conservation Act 2016 (WA)</i>
Black cockatoo(s)	Carnaby's cockatoo ( <i>Zanda latirostris</i> ), Baudin's cockatoo ( <i>Zanda baudinii</i> ) and forest Red-tailed Black Cockatoo ( <i>Calyptorhynchus banksii naso</i> )
DBCA	Department of Biodiversity, Conservation and Attractions
DBH	Diameter at breast height
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety
DWER	Department of Water and Environmental Regulation
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)</i>
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EPA (WA)	Environmental Protection Authority
ERD	Environmental Review Document
IBRA	Interim Biogeographic Regionalisation for Australia.
ha	hectares
km	kilometers
m	meters
ML1SA	Mineral Lease 1SA
MNES	Matters of National Environmental Significance
NJF	Northern Jarrah Forest
POCA	Proposed offset conservation area
RPZ	Reservoir Protection Zone
SRI	Significant residual impact
WA	Western Australia

## Definitions

Term	Definition
Black cockatoo(s)	Carnaby's cockatoo ( <i>Zanda latirostris</i> <sup>1</sup> ), Baudin's cockatoo ( <i>Zanda baudinii</i> <sup>1</sup> ) and forest red-tailed black cockatoo ( <i>Calyptorhynchus banksii naso</i> ).
Black cockatoo known nesting tree	Trees (live or dead but still standing) which contain a hollow where black cockatoo breeding has been recorded or which demonstrates evidence of breeding (i.e. showing evidence of use through scratches, chew marks or feathers).
Black cockatoo potential nesting trees	Trees that have a suitable DBH to develop a nest hollow, but do not currently have hollows. Trees suitable to develop a nest hollow in the future are 300 mm DBH for wandoo, or 500 mm DBH for other tree species (e.g. jarrah or marri).
Black cockatoo suitable nest hollow	Any hollow with dimensions suitable for use for nesting by black cockatoos or assessed by a suitably experienced field ecologist based on hollow size, shape, and entry angle, irrespective of signs of use for breeding.
Black cockatoo suitable nesting tree	Trees with suitable nesting hollows present, although no evidence of use.
Foraging habitat	As in DAWE (2022), plant species known to support foraging within the range of each of the species.
Night roosting habitat	<p>Night roosting habitat: Habitat that contains one, or a group of, known or potential roosting trees:</p> <ul style="list-style-type: none"> <li>- Known roosting tree: A tree (generally the tallest), native or introduced know to be used for night roosting or which demonstrates evidence of roosting. Usually close to an important water source and within an area of high-quality foraging habitat. During the breeding season, male black cockatoos roost in the vicinity of the nesting trees, therefore a breeding area may also be considered to be night roosting habitat. Roosting habitat is not always evident and can be discovered during surveys.</li> <li>- Potential roosting tree: A tall tree of any species within close proximity to water.</li> </ul>

<sup>1</sup> The scientific name of the Carnaby's cockatoo has changed from *Calyptorhynchus latirostris* to *Zanda latirostris* and the Baudin's cockatoo from *Calyptorhynchus baudinii* to *Zanda baudinii*.

Term	Definition
Northern Jarrah Forest	Northern Jarrah Forest Interim Biogeographic Regionalisation for Australia <sup>2</sup> (IBRA) sub-region (JF01)
Offset period	20 years
On-ground management	This includes revegetation (re-establishment of native vegetation in degraded areas) and rehabilitation (repair of ecosystem processes and management of weeds, disease or feral animals). The objective of on-ground management actions is tangible improvement to environmental values in the offset area.
Post-mining rehabilitation	In relation to an area that has been disturbed, includes: (a) stabilisation of the area; and (b) restoration of the landforms of the area to a state that is as close as practicable to their original undisturbed state; and (c) the return of the native vegetation of the area to a state that is as close as practicable to its original undisturbed state.
Subject Matter Expert (SME)	A person who has accumulated great knowledge in WA's threatened species and this level of knowledge is demonstrated by the person's degree, licensure, and/or through years of professional experience with the subject.
Suitably experienced field ecologist	A person who has relevant professional qualifications and at least three (3) years of work experience designing and implementing surveys for black cockatoos using relevant protocols, standards, methods and/or literature.
<b>Environmental Offset Document Framework</b>	
Environmental Offset Strategy	Alcoa's overarching approach to delivering environmental offsets. It demonstrates that Alcoa can offset the environmental impacts from its operations with a high degree of confidence in a positive outcome.
Environmental Offset Program	Alcoa's suite of offset activities and measures to be developed, managed and implemented to offset environmental impacts from its operations.

<sup>2</sup> The Interim Biogeographic Regionalisation for Australia classifies Australia's landscapes into 89 large geographically distinct bioregions based on common climate, geology, landform, native vegetation and species information.

Term	Definition
Environmental Offset Proposal	States the environmental outcomes to be achieved through conservation actions to offset environmental impacts.
Environmental Offset Project Plan	Provide a detailed description of the conservation actions, the indicators and monitoring program to be used to measure the performance of the conservation actions towards the project targets.
Offset Area Management Plans	Provide a detailed description of the proposed offset conservation area; the area in which the environmental offset projects (conservation actions) will be implemented.
Conservation actions	As used in Alcoa's environmental offset documents, includes any activities, actions or offset measures that contribute to environmental outcomes or the ongoing viability or recovery of a species or ecosystem.

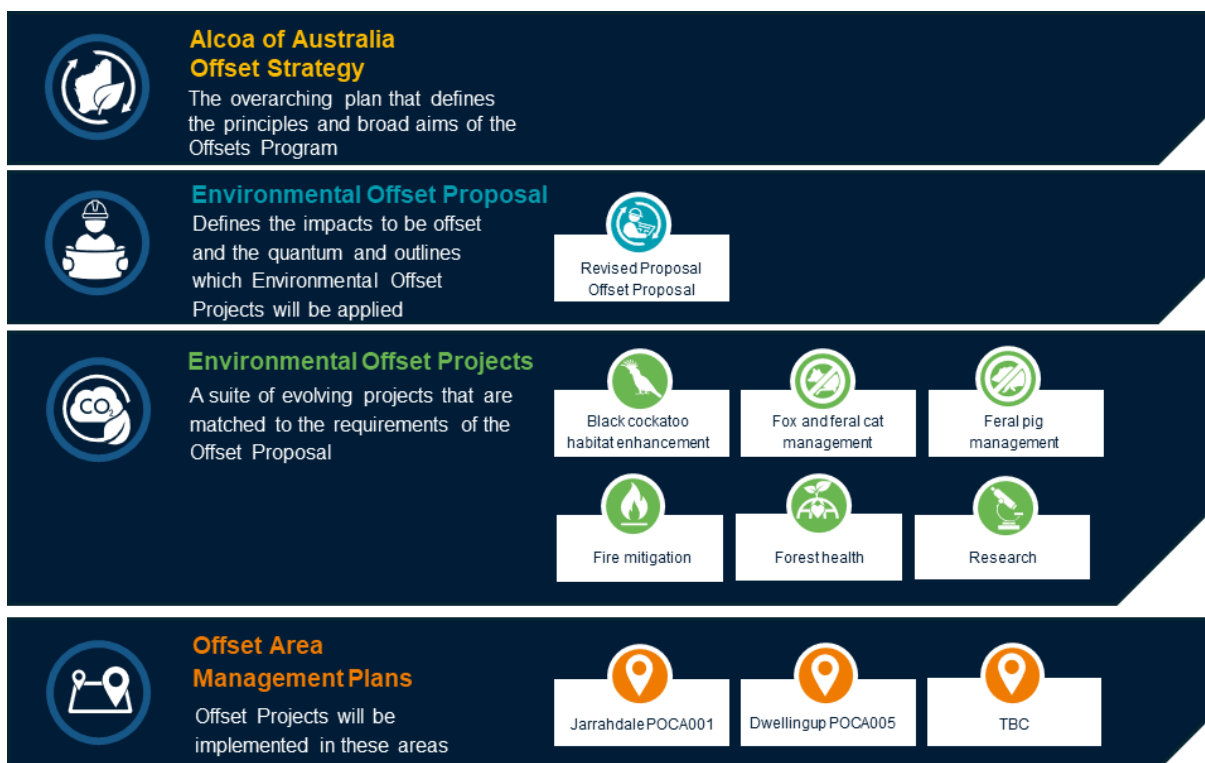
# 1. Context, scope and rationale

Alcoa of Australia Limited (Alcoa) has been operating in the Northern Jarrah Forest (NJF) for over 60 years with its operations approved under robust statutory processes. Alcoa are modernising its approvals framework to a more contemporary process.

## 1.1 Pinjarra Alumina Refinery Revised Proposal

The Pinjarra Alumina Refinery Revised Proposal (the Proposal) has been referred to the WA Environmental Protection Authority (EPA) under Part IV s38 of the *Environmental Protection Act 1986* (EP Act) (assessment number is 2253). The Huntly Bauxite Mine Transition (assessment number is 2022/09204) has been referred to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) under *the Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Myara North and Holyoke Development Envelopes are being assessed as an accredited assessment under the WA EP Act.

To support the assessment process, Alcoa has prepared an Environmental Offset Proposal (Alcoa, 2025a). The Environmental Offset Proposal outlines the significant residual impact, the proposed offset quantum to counterbalance the significant residual impact, the on-ground conservation actions to be implemented (detailed in Environmental Offset Project Plans) and the location(s) for the on-ground conservation actions to be implemented. The offset locations are referred to as Proposal Offset Conservation Areas (POCAs) and described in Offset Area Management Plan(s). The Environmental Offset document framework, provided in **Figure 1-1** shows how the offset documents are organised.



**Figure 1-1: Environmental Offset Document Framework**

This Offset Area Management Plan has been prepared to support the environmental approval assessment by the WA EPA and DCCEEW by demonstrating that if the Proposal is implemented, the significant residual impacts to threatened fauna species can be offset.

## 1.2 Background

Even after strict adherence to the mitigation hierarchy<sup>3</sup>, clearing vegetation within State Forest may result in significant residual impacts through loss of habitat for threatened fauna species.

Under the WA environmental offset framework, environmental offsets are required to provide environmental benefits which counterbalance the significant residual environmental impacts of a proposal. In the context of the EPBC Act Environmental Offset Policy, environmental offsets are a mechanism to address significant residual impacts on nationally significant fauna, flora, habitats or places.

## 1.3 Purpose and scope

The purpose of this Offset Area Management Plan (the Plan) is to outline the environmental values within the POCA and spatially show areas where environmental offset projects will be implemented and monitored.

This draft Plan is limited to a draft for consultation. It has been prepared in accordance with the *Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans* (EPA 2024), the Commonwealth's Environmental Offset Policy (DSEWPC 2012a) and *Environmental Management Plan Guidelines* (DCCEEW 2024). This draft will be finalised following consultation with the EPA, DCCEEW, Department of Biodiversity, Conservation and Attractions (DBCA), stakeholders and the public.

## 1.4 Proposal overview

Alcoa is proposing to increase production at the Pinjarra Refinery by 5 per cent from 5.00 Mtpa to 5.25 Mtpa; and transition the Huntly Mine, located within Mineral Lease 1SA, to the proposed Myara North and Holyoake mine regions and re-enter the O'Neil mine region, for the purpose of mining bauxite for the Pinjarra Alumina Refinery and the Kwinana Alumina Refinery<sup>4</sup> (the Proposal).

The Proposal is in the Peel region of WA, approximately 100 km south-east of Perth. The Proposal is located within a 23,900 hectare (ha) Mine Development Envelope (DE) and will require the clearing of up to 7,500 ha of native vegetation.

Full details of the Proposal is in the Environmental Review Document (ERD) (Alcoa, 2025a), including the calculation of the potential offset extent. The Proposal is summarised in Table 1-1 and shown in Figure 1-2.

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<sup>3</sup> The WA Environmental Offsets Guidelines (GoWA 2014) define the mitigation hierarchy as avoid, minimise, rehabilitate and offset. The EPBC Act Environmental Offsets Policy (DSEWPC 2012) defines the offsets mitigation hierarchy as avoid, mitigate and offset.

<sup>4</sup> The Kwinana Refinery was curtailed in 2024 but will reopen within the lifespan of this Proposal subject to market conditions.

**Table 1-1: Proposal Details**

Item	Details
Proponent	Alcoa of Australia Limited
Proposal Name and Assessment Number EPA Referral	<b>Pinjarra Alumina Refinery Revised Proposal</b> Referred February 2020 under Part IV of the EP Act Assessment number 2253 Assessed as a Public Environmental Review (10 weeks)
Proposal Name Proposal Name and Assessment Number EPBC Referral	<b>Huntly Bauxite Mine Transition</b> Referred July 2022 under the EPBC Act EPBC number 2022/09204 Myara North and Holyoake elements of the Proposal are being assessed as a Controlled Action under an Accredited Assessment with the Western Australian Government.
Region	Peel
Project Description	Alcoa of Australia Limited is proposing to increase production at the Pinjarra Alumina Refinery by 5 per cent from 5.0 million tonnes per annum (Mtpa) to 5.25 Mtpa and transition the Huntly Bauxite mine to the proposed Myara North and Holyoake mine regions and re-enter the O'Neil mine region (the Proposal).  The Proposal is in the Peel region of Western Australia (WA), approximately 100 km south-east of Perth.  The Proposal is within a 23,900 hectare (ha) Mine Development Envelope and will require the clearing of up to 7,500 ha of native vegetation.

## 1.5 Summary of the Significant Residual Impacts

Under the WA Environmental Offsets Guidelines (GoWA 2014) the term significant residual impact (SRI) is used to describe significant impacts to conservation significant species that remain following application of avoidance and mitigation measures and consideration of rehabilitation of areas not required for permanent infrastructure.

Under the *Environment Protection and Biodiversity Conservation Act 1999* Environmental Offsets Policy (DSEWPC 2012a) the term “residual significant impacts” (RSI) is used to identify significant impacts on a matter protected (MNES) under national environment law (the EPBC Act) that remain following avoidance and mitigation measures, where a significant impact is an impact which is important, notable, or of consequence, having regard to its context or intensity (DotE 2013). The term significant residual significant impact (SRI) will be used in this document but is to be taken to have the same meaning as residual significant impact (RSI).

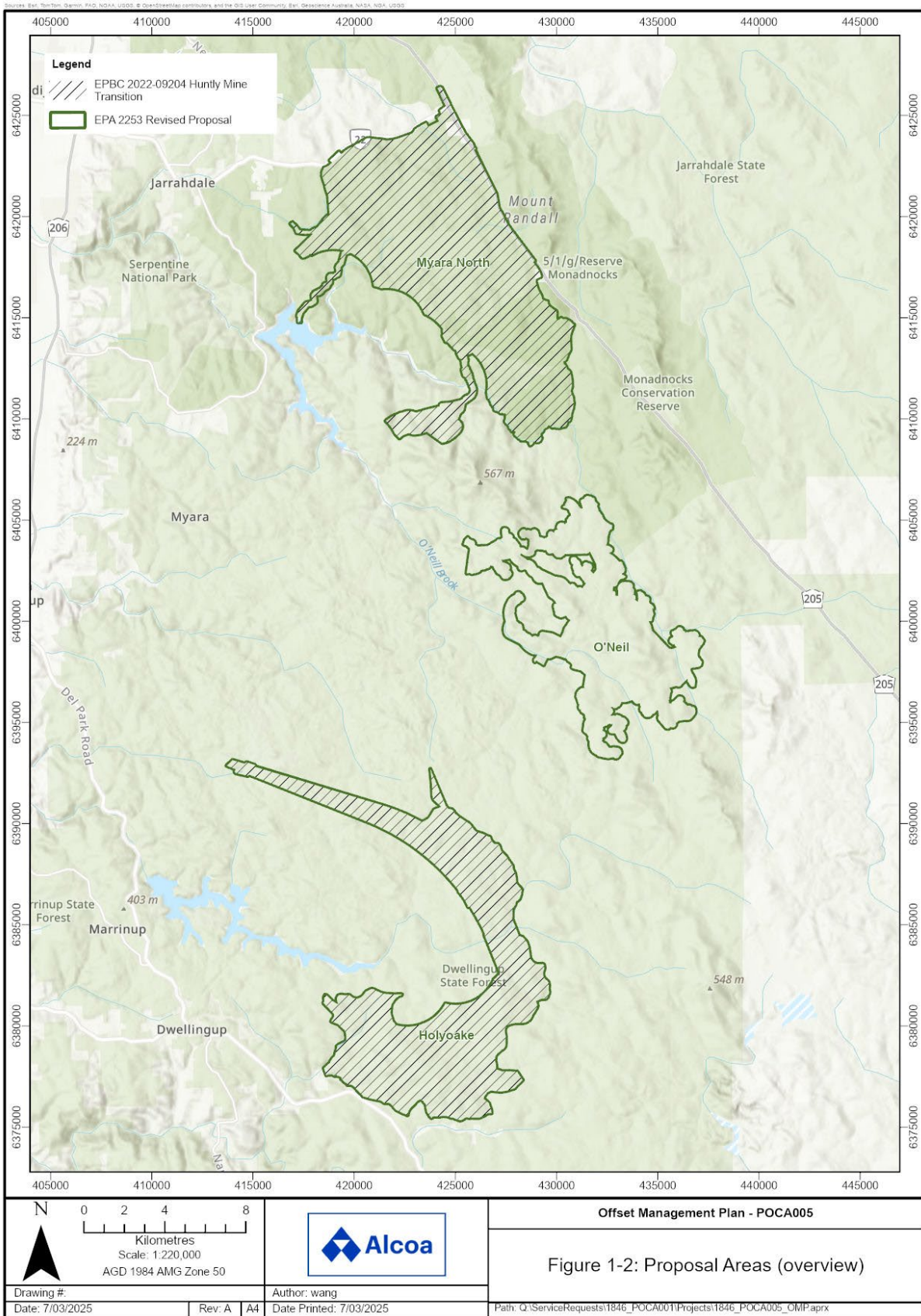
The ERD (Alcoa, 2025b) identified environmental offsets should be proposed for significant residual impacts<sup>5</sup> to environmental values as follows.

- 6,572 ha of habitat for forest red-tailed black cockatoo
- 6,591 ha of habitat for Baudin's cockatoo
- 5,843 ha of habitat for Carnaby's cockatoo
- 3,783 ha of habitat for woylies
- 5,282 ha of habitat for chuditch
- 883 ha of habitat for quokkas

The POCA contains habitats for all the above listed threatened species.

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<sup>5</sup> These significant residual impacts are based on application of the EPBC Act offset assessment guide.



**Figure 1-2: Proposal Areas (overview)**

## 2. Proposed Offset Conservation Area

In 2023 Alcoa committed to not mine within an area in and around Dwellingup, in recognition of local environmental, lifestyle, ecotourism, and recreation values. The 8,344 hectare no mining zone connects with other areas that Alcoa has committed not to mine within. This excludes mining within 3km, and in some instances more than 6km, of the Dwellingup town centre. The 8,344 hectare area avoids potential future impacts to ~5,000 hectare of forest.

To create the POCA the area was refined to include primarily State Forest and remove areas within the South Dandalup Dam reservoir protection zone (RPZ), private properties and conservation and recreation reserves.

### 2.1 Identification

Weerheim (2008) states the identification of key habitat areas is an important step in conservation planning. Unpublished surveys and anecdotal information have identified the Dwellingup no mining zone as having breeding habitat for black cockatoos.

The Dwellingup no mining zone is likely to be a suitable as an offset conservation area. Alcoa has committed to not mining in the area. The area is in the same IBRA subregion, is State Forest, adjoins the Land Poole Reserve and has jarrah-marri forest. The POCA also adjoins areas of Alcoa's Del Park (Huntly mine former mine region) post-mining rehabilitation.

The POCA is close to the impact area and thus may provide opportunities for refuge for species moving outside of the mining footprint. Particularly as the area has threatening processes, conservation actions can help to improve the habitat for threatened species as they move into the area. Threats include proximity to urban areas, feral predators and climate change.

The POCA is near the Dwellingup township, providing opportunities for the local community to be involved and proximity to townsites is likely to provide cost efficiencies in implementing conservation actions.

Given the high environmental values, proximity to the impacts and Alcoa's commitment not to conduct mining in the area, Alcoa consider this to be suitable as an offset conservation area.

### 2.2 Location

The POCA is in the Shire of Murray, encircling the Dwellingup township and around 85 km south-east of Perth. The POCA is bound to the north by Alcoa's former mining and rehabilitation area, Del Park, and Lake Banksiadale and the South Dandalup Dam RPZ<sup>6</sup>. State Forest is to the east and west of the POCA. The south is roughly bound by the Murray River and Land Poole Reserve. The Pinjarra-Williams Road runs west-east through the POCA. The location of the POCA is in Figure 2-1.

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<sup>6</sup> The South Dandalup Dam is within a public drinking water source area (PWDSA) and forms part of Perth's Integrated Water Supply Scheme (IWSS) which delivers water to over 2 million people each year.

Portions of the POCA are within the government defined forest blocks Teesdale, Holmes, Holyoake and Marrinup. The POCA is within the Regional Forest Agreement area (DBCA-081), the 2024-2033 Forest Management Plan planning area (DBCA-080), the Northern Jarrah Forest IBRA subregion (DCCEEW) and Alcoa's mineral lease area (ML1SA) (DMIRS-003).

## 2.3 Description

The Dwellingup no mining area overlays land tenure that represent a potential constraint to an environmental offset. Areas of land tenure including private properties<sup>7</sup>, township areas, main roads and areas within the reservoir protection zone have been excluded from the spatial area used to define the POCA. Alcoa has made commitments to not mine in the Lane Poole Reserve, part of the conversation reserve system. Thus, the POCA is spatially limited to areas of State Forest and/or Alcoa freehold land.

The POCA is 5,087 hectares, approximately 4,970 hectares of which is State Forest separated by private landholdings, roads and government access roads (generally tracks used by the DBCA for forest management activities).

The POCA is mapped by DPIRD as containing mostly native vegetation (91.7 per cent) (DPIRD-005). The remaining 8.3 per cent is cleared areas in private properties (Alcoa freehold land) and government access roads and tracks.

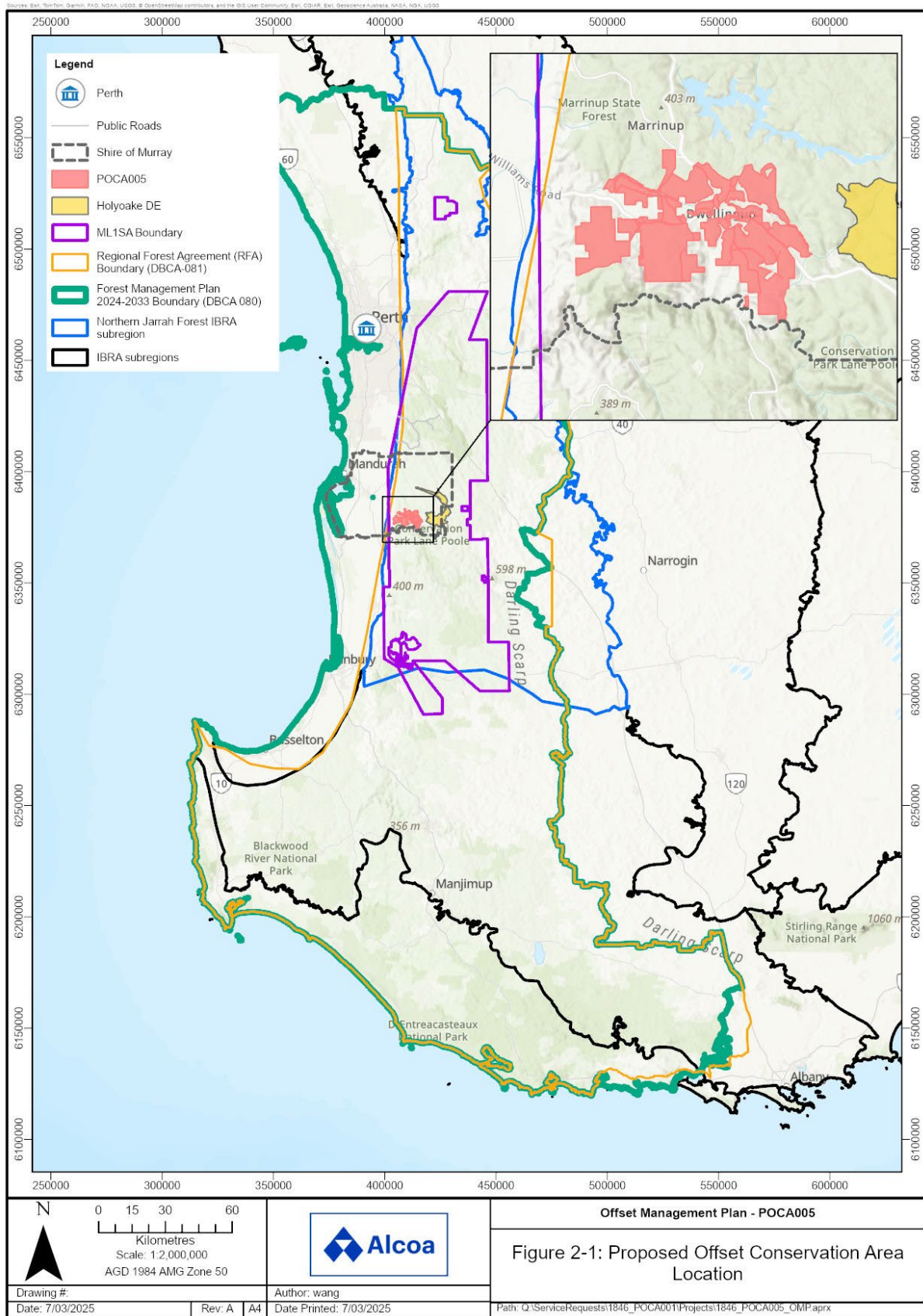
The POCA contains small streams (mapped by Alcoa) and waterways mapped by Department of Water and Environmental Regulation (DWER) (DWER-031), including Marrinup Brook (a minor river) and tributaries, a minor tributary of the Murray River, and a major tributary of Holyoake Brook. Dwellingup Brook, a minor tributary of the Murray River is not within the mapped POCA but passes between areas of the POCA. The POCA lies to the south of the South Dandalup Dam.

Private landholdings within the Dwellingup area have been excluded from the POCA, except for the two private properties owned freehold by Alcoa. The Alcoa owned private property to the north of the POCA is 82.2 hectares whilst the property to the south is 19.3 hectares.

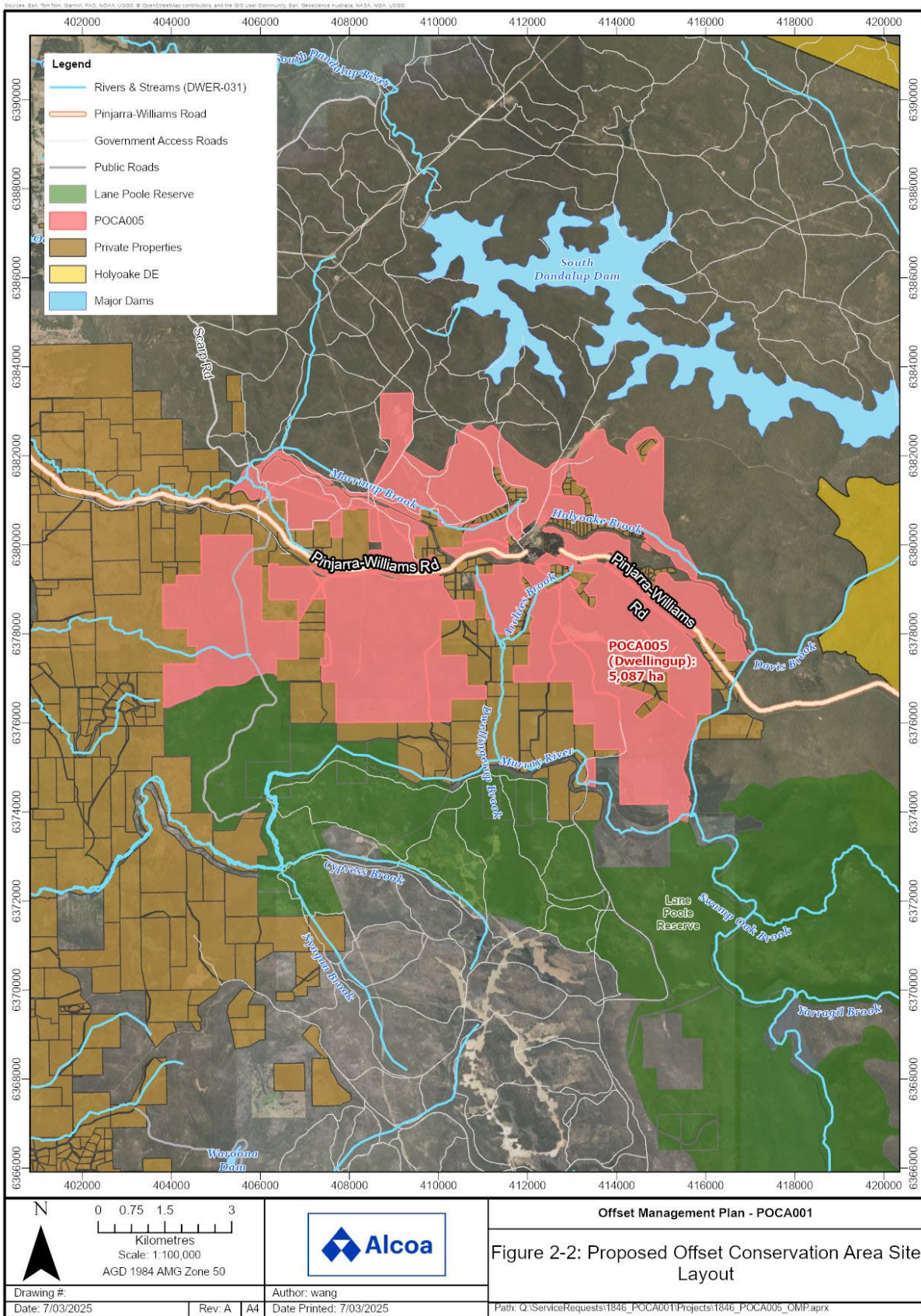
The layout of the POCA is in Figure 2-2.

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<sup>7</sup> With the exception of the private property owned freehold by Alcoa.



**Figure 2-1: Proposed Offset Conservation Area Location**



**Figure 2-2: Proposed Offset Conservation Area Site Layout**

## 2.4 Land tenure and conservation areas

The POCA consists of Crown Land, vested to the Conservation and Parks Commission to be managed by the DBCA (DBCA-011); and 101.5 hectares of land parcels owned freehold by Alcoa.

The Crown Land legislated purpose is “State Forest”, classified under Section 5(1)(a) of the *Conservation and Land Management Act 1984* (WA) (DBCA-011). State Forests have various functions including timber harvesting, water catchment protection areas and public recreation areas. Native timber harvesting within the Forest Management Planning area ceased from 1 January 2024.

The POCA is within Alcoa’s mineral lease (ML1SA), granted under the *Alumina Refinery Agreement Act 1961*, and gives Alcoa exclusive rights to extract bauxite from within the lease area.

## 2.5 Environmental Values

The indicative environmental values of the POCA have been obtained through desktop analysis, DBCA records and anecdotal information from ecologists. Alcoa has a high level of confidence the POCA contains the environmental values to be offset. Alcoa intend to conduct a comprehensive baseline survey to confirm the status and condition of the fauna habitat and species populations in 2025.

## 2.6 Flora

Alcoa obtained a report from the DCCEEW Protected Matters Search Tool (PMST) (DCCEEW 2025). A 1 km buffer was applied to the POCA. The report is in Appendix A. The PMST report indicates the POCA may contain flora species and/or their habitat as follows:

- Star Sun-orchid (*Thelymitra stellata*) - may occur within area
- Summer Honeypot (*Banksia mimica*) - may occur within area
- Purdie's Donkey-orchid (*Diuris purdiei*) – may to occur within area
- Slender Tailflower (*Anthocercis gracilis*) – likely to occur within area
- Dwarf Bee-orchid (*Diuris micrantha*) - known to occur within area
- Southern Tetraria (*Morelotia australiensis*) – likely to occur within area
- Selena’s Synaphea (*Synaphea sp. Fairbridge Farm (D.Papenfus 696)*) – likely to occur within area
- Synaphea sp. Pinjarra Plain (A.S.George 17182) – may occur within area

Selena’s *Synaphea* is listed as Critically Endangered; Star Sun-orchid, *Synaphea sp. Pinjarra Plain (A.S.George 17182)*, Summer Honeypot and Purdie's Donkey-orchid are listed as Endangered; Slender Tailflower, Dwarf Bee-orchid and Southern *Tetraria* are listed as Vulnerable under the EPBC Act.

Results from the DBCA threatened and priority flora search request (obtained June 2024) contained records for flora species classified as threatened or priority (P1 to P4) flora under

the BC Act. No threatened flora has been recorded within, or within 1 km, of the POCA. DBCA has records of occurrences of P3 and P4 flora within the POCA as follows:

- *Tetradthea pilifera* (P3)
- *Stirlingia divaricatissima* (P3)
- *Acacia oncinophylla* subsp. *Oncinophylla* (P3)
- *Amanita fibrilloses* (P3)
- *Amanita kalamundae* (P3)
- *Pimelea rara* (P4)
- *Calothamnus graniticus* subsp. *Leptophyllus* (P4)
- *Parsonsia diaphanophleba* (P4)

## 2.7 Vegetation

The PMST report (DCCEEW 2025) indicates Banksia Woodlands of the Swan Coastal Plain ecological community, listed as Endangered under the EPBC Act, may occur within the 1 km buffer area.

Results from the DBCA threatened and priority ecological communities search request (obtained June 2024) does not reflect the presence of threatened or priority ecological communities within the POCA.

The Department of Primary Industries and Regional Development (DPIRD-005) native vegetation mapping shows 4,665 hectares (or 91.7 per cent) of the POCA is mapped as native vegetation. The dataset indicates 0.4 per cent (19 hectares) is regrowth above 20 per cent cover and 91.3 per cent (4,646 hectares) is remnant vegetation.

The pre-European vegetation dataset (DPIRD-006) maps original natural vegetation presumed to have existed prior to European settlement in Western Australia. The Northern Jarrah Forest is mapped as comprising 44 vegetation associations. The POCA is covered by vegetation association 3 - Medium forest, jarrah-marri (DPIRD-006). Vegetation association 3 is widespread across the Northern Jarrah Forest subregion, with the pre-European extent comprising approximately 48 per cent of the subregion. Approximately 80 per cent of the pre-European vegetation extent remains, with approximately 15 per cent of the current extent protected for conservation (Alcoa, 2025b).

The Department of Conservation and Environment [DEC] (1980) defined and described the dominant pre-European vegetation of the Darling System in a series of vegetation complexes, which was updated by Matiske and Havel (1998) as part of a biodiversity assessment to inform the Regional Forest Agreement. The vegetation complexes provide more detailed definition of vegetation types over the Northern Jarrah Forest subregion than the state-wide mapping of vegetation associations (DBCA-047). DBCA-047 indicates the POCA is covered by Dwellingup complex (D1) (52 per cent) on the uplands and Yarragil (Y1), Helena (He1) and Murray (M1) complexes (48 per cent) on the slopes and valley floors. All vegetation complexes have at least 70 per cent remaining (Alcoa, 2025b).

The DBCA (2024) defined old-growth forest as “ecologically mature forest where the effects of unnatural disturbance are now negligible”. Areas of old-growth forest were mapped for the

Regional Forest Agreement (RFA). According to DBCA old growth dataset (unpublished dataset obtained from the DBCA), 0.7 per cent of the POCA contains old growth forest.

The timber harvesting dataset (unpublished dataset obtained from the DBCA) indicates around 33 per cent (1,683 hectares) of the POCA contains mature forest (harvested before 1949), 61 per cent (3,118 hectares) is immature (harvested between 1950 and 1999) and 5 per cent (232 hectares) is the establishment to juvenile (harvested 2000 - 2023) phase. The dataset indicates an area of approximately 44 hectares (1 per cent) in the southern portion of the POCA has no record of harvesting<sup>8</sup>. Approximately 9 hectares has no forest age information.

The POCA is predominantly outside of the Forest Disease Risk area (DBCA-024), although 1.8 per cent (94 ha) overlays the POCA. Alcoa's internal dieback mapping indicates approximately 11.6 per cent of the POCA is dieback free, 31 is mapped as dieback infested, 0.1 per cent is uninterpretable and the remaining 57.3 per cent has not been mapped. The dieback mapping is in Figure 2-3.

The DBCA fire history dataset (DBCA-060) illustrates that most of the POCA has been burnt within the last 10 years. Recent fire mapping is in Figure 2-4.

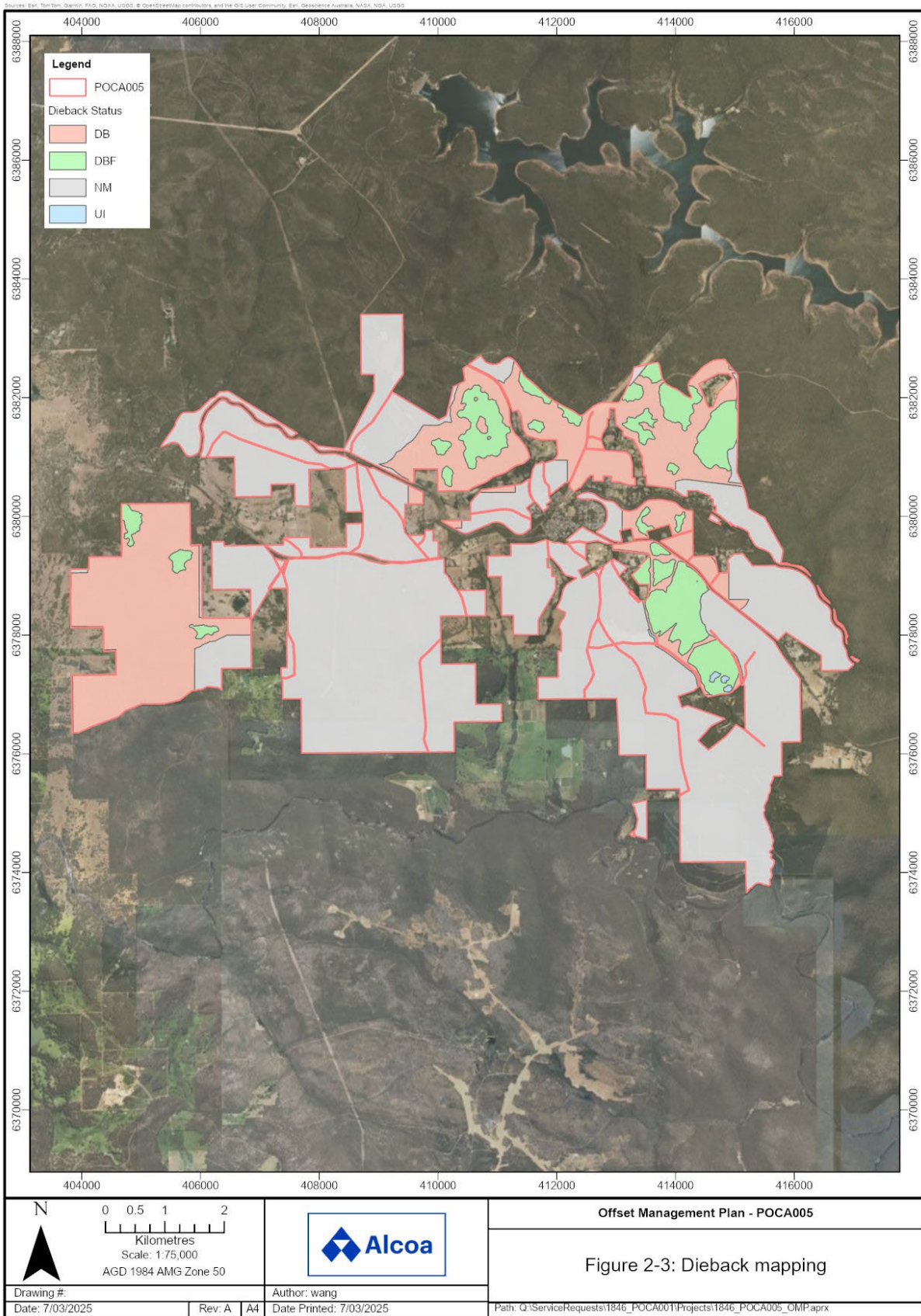
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<sup>8</sup> Alcoa will assess vegetation against DBCA's *FEM075 Procedures for the assessment, identification and demarcation of old-growth forest 2017* as part of the baseline survey (section 4.1).

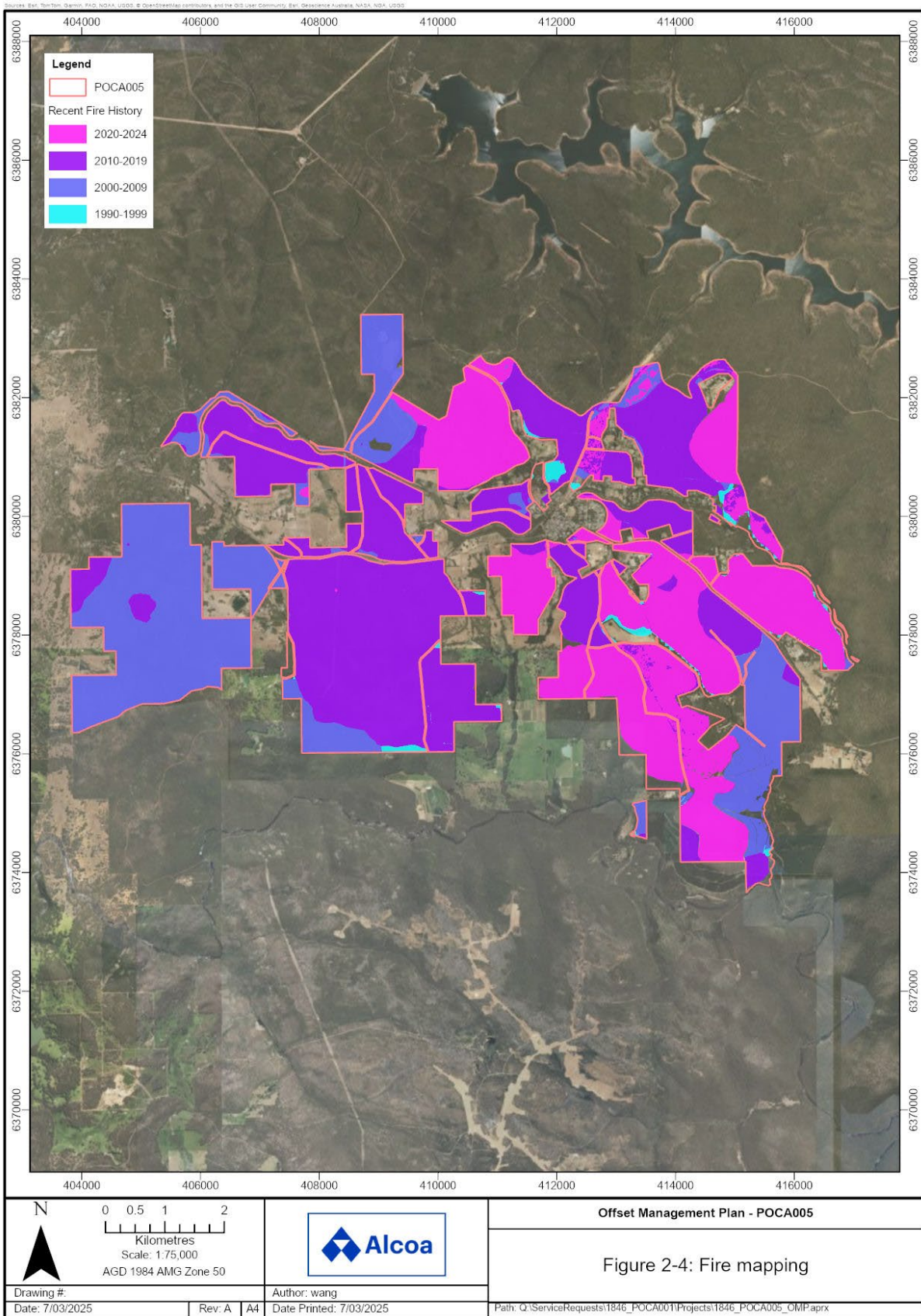
**Table 2-1: Vegetation complexes within the POCA**

Vegetation Complex	Description (as per Havel (1975a, 1975b))	Pre-European Extent (ha)	Current Extent (ha) <sup>9</sup>	Percentage (%) of Pre-European Extent Remaining	Percentage (%) of Current Extent Protected for Conservation	Extent in the POCA (ha)
Dwellingup (D1)	Open forest of <i>E. marginata</i> subsp. <i>marginata</i> - <i>C. calophylla</i> on lateritic uplands in mainly humid and subhumid zones.	208,491	181,039	86.8	6.7	2,629.3
Helena (He1)	Mosaic of open forest of <i>Corymbia calophylla</i> - <i>Eucalyptus patens</i> - <i>Eucalyptus marginata</i> subsp. <i>marginata</i> with some <i>Eucalyptus rudis</i> on the deeper soils ranging to closed heath and lithic complex on shallow soils associated with granite on steep slopes of valleys in humid and subhumid zones.	15,890	12,010	75.6	29	186.3
Murray 1 (My1)	Open forest of <i>E. marginata</i> subsp. <i>marginata</i> - <i>C. calophylla</i> - <i>E. patens</i> on valley slopes to woodland of <i>E. rudis</i> - <i>Melaleuca raphiophylla</i> on the valley floors in humid and subhumid zones.	68,695	52,296	76.1	15.2	718.2
Yarragil 1 (Yg1)	Open forest of <i>E. marginata</i> subsp. <i>marginata</i> - <i>C. calophylla</i> on slopes with mixtures of <i>E. patens</i> and <i>E. megacarpa</i> on the valley floors in humid and subhumid zones.	80,203	64,927	81.0	8.9	1,553.6

<sup>9</sup> GoWA, 2019c



**Figure 2-3: Dieback mapping**



**Figure 2-4: Fire mapping**

## 2.8 Fauna

### 2.8.1 Protect Matters Search Tool

The PMST report (DCCEEW 2025) indicates the POCA contains fauna species and/or their habitat as follows:

Species listed as Critically Endangered under the EPBC Act

- Eastern Curlew (*Numenius madagascariensis*) - may occur within the area
- Curlew Sandpiper (*Calidris ferruginea*) - may occur within the area
- Western Ringtail Possum (*Pseudocheirus occidentalis*) - may occur within the area

Species listed as Endangered under the EPBC Act

- Australian Painted Snipe (*Rostratula australis*) - likely to occur within the area
- Baudin's Cockatoo (*Zanda baudinii*) – roosting is known to occur within the area
- Carnaby's Black Cockatoo (*Zanda latirostris*) - known to occur within the area
- Woylie (*Bettongia penicillata ogilbyi*) - may occur within the area
- Numbat (*Myrmecobius fasciatus*) - known to occur within the area
- Noisy Scrub-bird (*Atrichornis clamosus*) – may occur within the area

Species listed as Vulnerable under the EPBC Act

- Malleefowl (*Leipoa ocellata*) - likely to occur within the area
- Southern Whiteface (*Aphelocephala leucopsis*) - may occur within the area
- Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) – is known to occur within the area
- Sharp-tailed Sandpiper (*Calidris acuminata*) - may occur within the area
- Quokka (*Setonix brachyurus*) - known to occur within the area
- Chuditch (*Dasyurus geoffroii*) - known to occur within the area
- Carter's Freshwater Mussel (*Westralunio carteri*) - known occur within the area
- Grey Falcon (*Falco hypoleucos*) – may occur within area

### 2.8.2 DBCA data

Publicly available datasets are available on <https://data.wa.gov.au/>. DBCA black cockatoos datasets indicate:

- Two confirmed Carnaby's cockatoo roost sites (DBCA-050) are within 500 m of the POCA.
- At least five buffered black cockatoo roost sites (DBCA-064) are within 3 km of the POCA.

The DBCA threatened and priority fauna search request (obtained June 2024) contained records for fauna species classified as threatened or priority (P1 to P4) fauna under the BC

Act. Species recorded within the POCA include Carnaby's (and/or Baudin's) cockatoo, forest red-tailed black cockatoo, woylie, chuditch, quokka, quenda and western false pipistrelle.

The DBCA records have two records\occurrences of Baudin's cockatoo (2002 & 2006) and >20 records\occurrences of Carnaby's cockatoo (2003 -2010) and forest red-tailed black cockatoo (2005-2023). A cluster of records of Carnaby's and forest red-tailed black cockatoo to the east of the POCA from 2020 are associated with Alcoa surveys for the Holyoake mine region. The DBCA records indicate there are around 10 potential roost sites in and around the POCA and one recorded potential nest tree (artificial hollow) ~2.7 km away.

The DBCA reported approximately 14 records\occurrences of chuditch in and around the POCA, ranging from 1972 through to 2022. Only one record\occurrence of woylie is in the DBCA dataset, an opportunistic sighting from 2019. Quokka have been reported in the eastern portion of the POCA, with six records\occurrences ranging from 1982 to 2021.

The DBCA (2024) previously mapped areas across the forest landscape to be excluded from timber harvesting to a) provide a refuge for animals vulnerable to disturbance and b) provide habitat areas that fauna could reside in whilst harvested areas regenerated. These fauna habitat zones were intended to help meet the 2014-2023 Forest Management Plan (CCWA 2013) objective of ensuring that biodiversity recovers between one timber harvest and the next. Fauna habitat zones were carefully selected to include a broad range of soil and landform types like those in the existing formal conservation reserve system. This helps establish and maintain a diverse range of habitats, and several stages of growth and regeneration (DBCA 2024). One interim<sup>10</sup> fauna habitat zone is mapped within the POCA, and one adjoining the POCA.

### 2.8.3 Fauna Habitat assessment

Following desktop assessment and database searches it can be concluded the proposed offset conservation area is highly likely to hold suitable and appropriate habitat for threatened fauna species as follows:

- The POCA is predominantly jarrah-marri forest, likely to provide suitable foraging, roosting and breeding habitats for all three species of black cockatoo. Black cockatoos have been recorded in the POCA. Known roost sites are within 500 m of the POCA.
- DBCA records indicate chuditch are present in the area. The density\abundance of feral predators in the POCA is not known, however given the proximity to rural properties it is likely feral predators are present in or around the POCA. It is possible that while the jarrah-marri forest is suitable habitat for chuditch, the presence of feral predators may make it non-functional. With management actions this area could provide refuge for chuditch.

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<sup>10</sup> According to the Guidelines for the Selection of Fauna Habitat Zones, Department of Environment and Conservation (2010), Sustainable Forest Management Series, SFM Guideline No. 6, a fauna habitat zone that has been approved by the Director Sustainable Forest Management (Division) as final will have an "interim" status where it is located within a Mineral lease State Agreement. Interim FHZs will be finalised once mining and rehabilitation operations are completed in the area and the WA Government has accepted back from the company responsibility for management of the mined areas.

- DBCA records indicate woylie is potentially present in the area. Woylie is a cryptic species that is challenging to detect even with targeted surveys. The POCA contains habitat suitable for a woylie if the presence of feral predators is minimised.
- The POCA is likely to provide important habitat for quokka given the most recent sighting. Management to survey and reduce the number of feral pigs in the area will provide beneficial outcomes for quokka in the POCA.

## 2.9 Ecological and/or habitat features

Water is an important habitat feature for threatened species. Black cockatoos need to drink water at least once per day (Craig et al., 2022), while species such as quokka, chuditch and woylie may use stream zones as movement corridors. The following water features have been identified in the POCA:

- The Murray River generally runs within 1 km of the POCA's southern boundary. Dwellingup and Archies Brook, minor tributaries of the Murray River, are not within but weave through the eastern side of the POCA (DWER-031).
- Davis Brook, a minor river, runs to the directly along and/or to east of the POCA, with Holyoake Brook, a minor non-perennial watercourse, also weaving through the eastern side of the POCA (DWER-031).
- Marrinup Brook runs through the northern portion of the POCA (DWER-031).
- An unnamed minor tributary intersects the western portion of the POCA (DWER-031).
- Alcoa has mapped numerous streams across the POCA.
- An extensive network of farm dams is present within the private properties that are scattered throughout the POCA (DPRID-083). In some cases, these dams may provide drinking water sources for black cockatoos. Forest red-tailed black cockatoos, generally prefer not to drink from large open areas.

## 2.10 Ecological Linkages

The POCA adjoins the Lane Poole Reserve to the south.

The South West Regional Ecological Linkages (SWREL) Axis Lines dataset identifies regional ecological linkage axis lines that aim to link patches of remnant vegetation judged to be of regional significance by retaining the best (condition) and/or most contiguous patches available to act as stepping stones for flora and fauna between regionally significant areas. SWREL axis line (number 38) runs along the western edge of the POCA and along the southern boundary of the POCA (number 191).

## 2.11 Social

State Forest provides recreational access for the community. The POCA contains mapped tracks and trails as follows:

- The Munda Biddi track, a long-distance mountain biking trail.
- The Bibbulmun Track, a long-distance hiking trail.
- The Hotham Valley Tourist Railway.
- A series of mountain biking tracks including Whistler, Blaze, Ripper, Marrinup, BFG and Solitary.
- Bushwalking tracks including Murray Valley Circuit and Marrinup Falls.

Alcoa intends for all trails within the POCA to remain open and unrestricted during the offset period.

## 2.12 Heritage

In and around the POCA there are places with Aboriginal and European (Historical) heritage value; the management of these areas is likely to be compatible with management of land for offsets.

Aboriginal heritage places include:

- The Murray River, which is a Registered Aboriginal Site of mythological importance, that runs along the POCA's eastern boundary; and
- A small artefact scatter and two scarred trees, which are also Registered Aboriginal Sites.

It is likely that these known places represent only a very small proportion of the Aboriginal heritage places within the POCA. In the parts of Alcoa's mining lease adjacent to the POCA, heritage surveys have identified and recorded a significant number of archaeological sites, showing that evidence of Aboriginal use of the forests is widespread. This reflects the importance of the forest prior to European settlement.

European heritage places within the POCA include:

- The Holyoake Swimming Hole
- Marrinup Townsite (Ruins).

Additional heritage places are located in and around the Dwellingup townsite, such as the Dwellingup Mill, RSL Hall, Precinct Dwellings, Dwellingup Nursing Post, Marginata Crescent Heritage Area, the Railway Line Precinct - Boddington to Dwellingup and Phillipson's House. Together, these places evidence how the forest was used for timber harvesting from early colonial times through to the present.

### **3. Contribution to Offset Proposal outcomes**

The POCA has not been surveyed, and therefore the specific habitat types have not been mapped, however the desktop assessment indicates the POCA contains approximately 4,665 hectares of native vegetation. Therefore, the POCA is expected to contribute towards the outcomes in the Offset Proposal through improvements in habitat for threatened species of approximately 4,665 hectares.

Improvements will be achieved through the implementation of environmental offset projects.

## 4. Indicative Conservation Actions

Indicative conservation actions for the proposed offset conservation area are outlined in the Environmental Offset Proposal (Alcoa, 2025a).

### 4.1 Protection mechanism

The WA government intends to expand the conservation reserve system across the FMP Planning area (CPC 2023) through implementing existing reserve recommendations and progressing indicative areas for increased protection that will cumulatively lead to a change in the reserve category for more than 700,000 hectares. This includes 41,000 hectares proposed to be Forest Conservation Area; with the intent to provide a higher level of security of classification for areas that have some impediment to being considered for a formal conservation reserve category (CPC 2023).

Alcoa propose to work with government agencies to support additions to the conservation reserve system and protect the POCA in an enduring way whilst being actively managed to maintain or improve the habitat. The steps proposed to be undertaken are to:

- Consult with the Conservation and Parks Commission and the DBCA around the options for enduring protection of the POCA.
- Request permission from the Conservation and Parks Commission and the DBCA to enable Alcoa to implement management actions within the POCA.
- Consult with other WA Government agencies including the Forest Products Commission (FPC), Water Corporation, Department of Energy, Mines, Industry Regulation and Safety (DEMIRS), Main Roads Western Australia, Department of Jobs, Tourism, Science and Innovation (DJTSI) and Department of Planning, Lands and Heritage (DPLH) and local government agencies (LGAs).

In terms of Alcoa's freehold land tenure within the POCA, Alcoa will consult with the Conservation and Parks Commission on the prospect of the site being ceded to the WA Government for the purpose of conservation of flora and fauna, once the land use of the site has been agreed. Alternatively, if the site will be used for conservation purposes, Alcoa could place a conservation covenant over the site.

### 4.2 Baseline habitat assessment

Alcoa will conduct field surveys that provide a baseline from which the improvements in habitat and/or increases in species populations can be demonstrated over time in a scientific, measurable and repeatable way. Field surveys will include mapping flora and vegetation (including weeds and dieback) and fauna and/or their habitat.

Alcoa will consult with the DBCA, ecologists and species experts or specialists to refine the proposed baseline surveys so that the data collected can:

- Spatially map threatened (and/or priority) species habitat structure, extent and condition.

- Determine threatened (and/or priority) species presence, distribution and/or abundance within the area.
- Estimate threatened (and/or priority) species populations within the area.

It is important that field survey data is collected in a co-ordinated and consistent manner to enable the data to be included in WA Government datasets and mapping. This will allow for a better understanding of the state of the forest and threatened species recovery.

The methodology and timing of surveys will be provided in Environmental Offset Project Plans.

### 4.3 Habitat Management Zones

The POCA has been separated into habitat management areas, based on the desktop assessment and survey data available<sup>11</sup>. The areas are described below and shown in Figure 4-1. Indicative management actions by habitat management zones are in Table 4-1.

- Black cockatoo foraging / roosting habitat is likely to occur across most of the POCA.
- Black cockatoo breeding habitat area(s)<sup>12</sup> are areas in which black cockatoo known and suitable nesting trees have been identified or mapped.
- Chuditch habitat is likely to be found across most of the POCA, similarly most of the POCA could provide habitat suitable for woylie.
- At present, quokka tend to be found within riparian or fringing vegetation.
- Cleared areas, essentially the Alcoa freehold land parcels.

**Table 4-1: Indicative conservation actions by habitat management zones**

Habitat management area	Indicative Management Action	Indicative Environmental Offset Project Plan
Black cockatoo foraging / roosting areas	<p>Map and monitor black cockatoo potential nesting trees.</p> <p>Locate and maintain known permanent fresh water suitable for black cockatoos within the POCA and surrounds.</p> <p>Rehabilitation of vegetation.</p>	<p>Black cockatoo (draft)</p> <p>Forest health: understory and overstory rehabilitation (to be developed)</p>
Black cockatoo breeding areas	<p>Map, monitor and manage black cockatoo known and suitable nesting trees.</p>	<p>Black cockatoo (draft)</p> <p>Forest health: dieback and disease management (to be developed)</p>

<sup>11</sup> No survey data is available for the POCA for Version 1. Section 4.3 will be revised following desktop assessments, initial and baseline surveys.

<sup>12</sup> To be confirmed following surveys.

Habitat management area	Indicative Management Action	Indicative Environmental Offset Project Plan
	Dieback mapping and management. Rehabilitation of vegetation.	Forest health: understory and overstory rehabilitation (to be developed)
Chuditch and woylie habitat	Implement feral fox and cat control. Rehabilitation of vegetation.	Feral fox and cat control (draft) Forest health: understory and overstory rehabilitation (to be developed)
Quokka habitat	Implement feral pig control. Dieback mapping and management. Rehabilitation of vegetation.	Feral pig control (under development) Forest health: dieback and disease management (to be developed) Forest health: understory and overstory rehabilitation (to be developed) Forest health: ecological corridors (to be developed)
Cleared areas	TBC	See Section 4.3.1

### 4.3.1 Alcoa freehold land

Alcoa owns two sites within the POCA – the former Marrinup Nursery site and a small site around Dwellingup. These sites may be suitable for revegetation and rehabilitation or may be suitable as a base for management activities.

#### Marrinup Nursery Site

The POCA contains the former Alcoa Marrinup nursery site, an 82 hectare area owned freehold by Alcoa. This site is accessed via Marrinup Road. All infrastructure has been removed, leaving a hardstand area of around 2 hectares, around 18 hectares of cleared area and dense jarrah-marri forest across the rest of the site. Three small water bodies are in the southern portion of the site. The Marrinup Spring is present within the survey area.

According to the PMST obtained for the site (no buffer applied) in January 2025, Carnaby's cockatoo are known to occur and roosting for Baudin's cockatoo is also known to occur. Forest red-tailed black cockatoo, quokka and chuditch and/or their habitat is likely to occur within the site. Habitat for eastern curlew, curlew sandpiper, Australian painted snipe, grey falcon, sharp-tailed sandpiper, malleefowl, western ringtail possum and/or numbat may be present on site. The site may also have habitat for threatened flora including star sun-orchid, Purdie's donkey-orchid, dwarf bee-orchid.

At present the site is likely to contain ~62 hectares of foraging and roosting habitat for black cockatoos. Chuditch are common in the Northern Jarrah Forest and would be expected to be present in or around the site, perhaps using the site for dispersal. Quokka may be present

within the swamp areas, but surveys are required to confirm absence or presence. The general area around the site may provide suitable habitat for woylie.

#### Dwellingup Site

The POCA contains a small (19 hectare) parcel of land owned freehold by Alcoa. The site is accessible off Nanga Road. The site contains some infrastructure (homestead and sheds), a farm dam on the western side and a small water body on the eastern side and is surrounded by jarrah-marri (State) forest.

According to the Species of National Environment Significance dataset, restricted to the site (i.e. no buffer applied), Carnaby's and forest red-tailed black cockatoo are known to occur and roosting for Baudin's cockatoo is also known to occur. Quokka and chuditch and/or their habitat are likely to occur. Western ring-tail possum and numbat and/or their habitat may occur. Habitat for eastern curlew, curlew sandpiper, Australian painted snipe, grey falcon, and sharp-tailed sandpiper may occur on the site. Purdie's donkey-orchid, slender tailflower and dwarf bee-orchid species of habitat may also occur on the site.

#### **4.3.1.1 Option 1 – Revegetation**

Revegetation of the cleared areas, broadly using the same jarrah-marri rehabilitation practices currently utilised by Alcoa, is likely to provide foraging habitat for black cockatoos within 8-10 years, understorey cover for chuditch (and possibly woylie) within 10-12 years and ecological connectivity for quokka through the stream zone areas.

#### **4.3.1.2 Option 2 - Management centre**

One or both sites may provide a suitable operations centre to manage the POCA. The sheds and cleared areas can be used for storage, vehicle and equipment parking or as laydown areas. The perimeter may provide a suitable location to install a watering point for black cockatoos, close to the forest edge for cockatoos to be able to post sentries, high perches for protection and away from roads or urban areas. The residence could provide accommodation for DBCA staff, rangers or caretakers.

#### **4.3.1.3 Option 3 - Leasing**

The site(s) may be retained by Alcoa for leasing to private citizens. Agreements can be made with the tenant to ensure their activities and actions on the site do not hamper conservation actions. The tenant would be provided with guidance in the management of feral predators and weeds, maintenance of vegetation and the stream zone and maintenance of the water feature; however, these actions are likely to be included in the management of the wider POCA.

#### **4.3.1.4 Consideration**

Alcoa will need to undertake a cost-benefit analysis on the use of the site(s) and consult with the DBCA and other stakeholders before confirming how the site(s) can be best used as an environmental offset.

**Figure 4-1: Habitat Management Zones<sup>13</sup>**

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<sup>13</sup> Figure to be provided in the Plan following the baseline survey.

## 4.4 Deliverables and milestones

Conservation actions within the POCA are expected to be delivered for the long-term (over the offset period). The aim is to maintain or improve the habitat for each species such that the health and condition of the habitat is self-sufficient and requires minimal management and intervention when it reverts to the WA Government as the land manager.

Alcoa will continue to consult with the stakeholders in the development of this area for conservation and as an offset. Alcoa are seeking an in-principle agreement with the WA Government to use the area as an offset.

Following agreement, Alcoa will undertake the Baseline survey, preferably in mid-2025, as this is an appropriate time in which to undertaken surveys for ground-dwelling threatened mammals. The results from the Baseline survey can be used to finalise this Plan, including confirmation of management areas and spatial mapping of monitoring locations. If the Proposal is approved, on-ground management and conservation actions can commence in Q2 2026.

A high-level indicative schedule of deliverables and milestones is in Table 4-2.

**Table 4-2: Indicative Schedule**

Milestone	Timing
Agreement to use the POCA as an environmental offset	Q2 2025
Baseline Survey completed	Q4 2025
Offset Area Management Plan finalised	Q4 2025
Conservation actions commence	Q2 2026

## 4.5 Monitoring program

A monitoring program specific to each project is in the Environmental Offset Project Plans. This includes target criteria, performance indicators, trigger, threshold and response actions, the monitoring methodology and schedule, reporting requirements and evaluation and response actions.

The location of monitoring points will be spatially identified and mapped in this Plan following baseline surveys, see Figure 4-2.

### 4.5.1 Indicative Performance Indicators

The monitoring program specific to each project includes a series of indicative performance indicators. These performance indicators will be used to provide evidence that the conservation actions are on a positive trajectory towards the outcomes for each species. The performance indicators will be measured through field surveys within the POCA. Indicative performance indicators include:

- Vegetation structure and condition
- Key habitat features (presence/condition)

- Habitat patch size and/or connectivity
- Presence/abundance of threatened fauna species
- Presence/abundance of feral/invasive/pest species
- Time since last burn.

#### 4.5.2 Response actions

Response actions describe the management actions that will be undertaken if the trigger or threshold criteria are met for the indicators. The response actions specific to each project are in the Environmental Offset Project Plan.

#### 4.5.3 Reporting

Each Environmental Offset Project Plan contains a schedule of reporting details of offset implementation. Reports showing the progress of the environmental offset projects will be provided to regulators on an annual basis and key stakeholders (as required). Alcoa will also provide information<sup>14</sup> on the progress of the environmental offset projects on its website.

Reports will include information specific to the POCA, for example:

- Changes in extent and/or condition of habitat for each species
- Changes in presence/absence or condition of habitat features
- Changes in usage within the POCA (foraging, roosting or breeding evidence, movement corridors, dispersal routes, etc)
- Species population estimates or observations
- Application of the habitat scoring tools.

#### 4.5.4 Evaluation

The Alcoa Environmental Offset Team will review all information relevant to the environmental offset project and POCA including but not limited to the annual reports, field surveys, habitat assessments and any current peer-reviewed scientific literature.

A technical assessment of the results from the monitoring program will be assessed against the baseline data and reference sites to determine progress towards outcomes. The team will also consider the outcomes in the context of the wider state of the environment to understand if broader issues in the jarrah forest are having an effect (positive or negative) on the outcomes.

Where a performance indicator suggests the targets are not on a positive trajectory, the Environmental Offset Team will work with the delivery partner, ecologists, DBCA, species experts, researchers or other appropriately trained personnel to adapt the management action(s) to resolve the issue.

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<sup>14</sup> Environmentally or commercially sensitive information will not be made publicly available.

**Figure 4-2: Monitoring locations<sup>15</sup>**

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<sup>15</sup> Figure to be provided in the Plan following the baseline survey.

## 4.6 Key risks and management strategies

Risks to the implementation of this Offset Area Management Plan can be through proponent-based events, environmental stochastic events or external events. Alcoa has considered the specific risks to use the POCA as an environmental offset in Table 4-3, along with proposed mitigation and contingency actions.

## 4.7 Adaptive management and continual improvement

An adaptive management framework ensures there are mechanisms in place to take account of the risk of the POCA not meeting its objectives in the timeframe predicted, and to manage any unforeseen consequences.

Alcoa has built flexibility into the offset area management plan through:

- Procedures – reviewing and evaluating the progress of on-ground management allows Alcoa to adapt the decision-making process over time.
- Resources – engaging the most appropriate contractor or delivery agent for the action(s). Allows the distribution of works to be shared across businesses, agencies and conservation groups. Built in contingency to account for unanticipated events.
- Actions – undertake continuous review of the outcomes of management actions, surveys and reports. Applying best practice or emerging technologies.

Reports will be reviewed by species or subject matter experts to ensure appropriate responses are developed to potential or actual events.

Alcoa proposes to manage risks associated with the Offset Area Management Plan through the following actions.

- On-going consultation with stakeholders and delivery partners (section 6).
- Clearly defined outcomes, indicators and response actions (section 4.5).
- Reporting and evaluation mechanisms (section 4.5).
- Clear governance arrangements (section 5).
- Ensuring sufficient funding is available, including for contingency actions (section 5).

**Table 4-3: Risk Management**

Potential Risk	Mitigation	Contingency Action
Alcoa is unable to secure agreement to use this POCA as an environmental offset.	<ul style="list-style-type: none"> <li>Alcoa has undertaken an assessment to demonstrate the suitability of this area as an environmental offset</li> <li>Alcoa will continue consultation with the WA Government around the use of the POCA as an offset</li> </ul>	<ul style="list-style-type: none"> <li>Alcoa will work with the WA Government to identify land areas that may be preferable as an environmental offset area</li> </ul>
Proximity to townships and semi-urban/rural areas results in vandalism or illegal activities (illegal firewood collection, flytipping, off-road vehicles) that undermine conservation actions.	<ul style="list-style-type: none"> <li>Alcoa will seek the support of the local community to protect and enhance the environmental values in and around their area</li> <li>Erect signs stating the POCA is a conservation area</li> </ul>	<ul style="list-style-type: none"> <li>Install fences, gates or roadblocks in access points used for illegal activities</li> <li>Implement security measures within the POCA and/or at access points</li> </ul>
Private property owners are unable or unwilling to support management actions for protection of drinking water for black cockatoos or control of feral animals.	<ul style="list-style-type: none"> <li>Alcoa will consult with the private property owners prior to commencing the offset</li> <li>Alcoa will ensure the private property owners are provided with the information, resources and/or funding required to implement conservation actions</li> </ul>	<ul style="list-style-type: none"> <li>Continue to work with and educate landowners.</li> <li>Intensify feral animal controls on the boundary between the private properties and the POCA.</li> <li>Install safe drinking water areas within the POCA, outside private properties.</li> </ul>

## 5. Governance arrangements

Alcoa propose to form a dedicated Environmental Offset Team. The team will be responsible for delivering approved environmental offsets conditioned in Ministerial Statements, EPBC Act Approvals or other regulatory instruments; and developing environmental offsets during approvals and assessment processes.

### 5.1 Agreements

Any agreements between Alcoa and delivery partners will be legally binding, such as contracts, grant agreements or service agreements. Governance documents will include requirements for timeframes, reporting, financial management, milestones, deliverables, completion criteria and other legal or governance requirements as appropriate.

Likewise, agreements between the landowner and Alcoa to operate and implement the environmental offsets will be appropriately binding and secure.

### 5.2 Responsibilities

Delivery of management actions may be undertaken by different environmental practitioners, consultants or specialists. Alcoa and delivery partners will enter into legally binding agreements such as contracts, grant agreements or service agreements.

However, Alcoa will remain responsible for ensuring the conservation actions are implemented in a safe manner in accordance with any agreements with the landowner.

### 5.3 Financial commitments

Alcoa will be responsible for funding the implementation of the Offset Proposal, including all Environmental Offset Projects and associated administration, monitoring and reporting.

## 6. Stakeholder Consultation

Alcoa has identified key stakeholders for the development and implementation of this Offset Area Management Plan.

Alcoa has discussed key recovery actions and threatening processes for targeted threatened fauna species in the Northern Jarrah Forest with species and forest ecology experts. The outcome from these informal discussions indicated the POCA is likely to hold the environmental values required to be offset and would benefit from the implementation of additional conservation measures. Alcoa intend to continue discussions with subject matter experts through the on-going development of this Offset Area Management Plan.

Alcoa will continue to consult with Traditional Owners to understand ways in which traditional land management practices can be incorporated into the POCA and agree the role local people can play in the delivery of this offset.

Stakeholders that are specific and relevant to supporting the implementation of conservation actions within the POCA, and their role, are in Table 6-1.

**Table 6-1: Key Stakeholders**

Stakeholder	Role
Conservation and Parks Commission (WA)	The POCA overlays land vested to the Conservation and Parks Commission. Alcoa will seek endorsement / agreement to implement additional conservation actions on land vested to the Commission.
DBCA (WA)	State Forest within the POCA is managed on behalf of the Commission by the DBCA. Alcoa will seek endorsement / agreement to implement additional conservation actions with the DBCA. Conservation actions will be additional to management actions within the Forest Management Plan 2024-2033 (CPC 2023)
DEMIRS (WA)	DEMIRS role is to build WA's economy and ensuring resources are developed in a sustainable and responsible manner. Alcoa will seek endorsement / agreement with DEMIRS to use the POCA as an environmental (conservation) offset. Use of the area as an offset will support Alcoa's proposal to implement mining in an ecologically sustainable manner.
DJSTI (WA)	DJSTI oversees Alcoa's operations under the State Agreement. Alcoa will seek support from DJSTI to use the area as an offset in the context of the State Agreement.

Stakeholder	Role
Traditional Owners	Alcoa operate on land of the Bindjareb people, the Whadjuk people and the Wardandi people of the Noongar nation. The POCA contains Registered Aboriginal Sites. Alcoa will seek to partner with the Traditional Owners to implement the conservation actions and obtain relevant approvals (if required) to implement conservation actions within registered sites.
EPA	Alcoa will engage with the EPA to demonstrate the suitability of the POCA as an environmental offset for the Proposal.
DCCEEW	Alcoa will engage with DCCEEW to demonstrate the suitability of the POCA as an environmental offset for the Proposal.

Alcoa will also consult with the additional stakeholders, as appropriate, including but not limited to the Forest Products Commission, the Shire of Serpentine-Jarrahdale, the Department of Planning, Lands and Heritage, the Department of Water and Environmental Regulation, Main Roads Western Australia the Water Corporation and conservation or environmental non-government organisations.

A high-level summary of stakeholder engagement relevant to this POCA to December 2024 is in Table 6-2

**Table 6-2: Stakeholder Consultation on the POCA**

Stakeholder	Date	Purpose of engagement	Outcome
DBCA	August 2022	Alcoa met with DBCA Conservation and Ecosystem Management branch to introduce Alcoa's offset roadmap.	<p>DBCA requested further information around areas Alcoa considers may be appropriate and suitable as environmental offsets. Information was provided by Alcoa following the meeting.</p> <p>Following the meeting, Alcoa sent a request to the DBCA seeking information on specific land offsets, consideration of regional parks, possible protection measures and research opportunities.</p>
DBCA EPA Services DCCEEW	November 2022	Collective discussion on Alcoa's proposed offset approach for the Pinjarra Alumina Refinery Revised Proposal.	<p>Acknowledgement of the challenges surrounding provision of environmental offsets at scale in the NJF.</p> <p>Alcoa to engage with the WA Government agencies around use of Crown land for offsets.</p> <p>Alcoa to ensure details of the tenure, timeframes, outcomes and commitments to mitigate the risks of the offset approach is provided in offset documents.</p>
DBCA	December 2022	Alcoa provided spatial data of proposed offset conservation areas with DBCA for discussion.	<p>DBCA gave advice on obtaining further information on proposed offset conservation areas.</p> <p>Alcoa to continue to engage with DBCA around management areas and actions within the NJF.</p>

Stakeholder	Date	Purpose of engagement	Outcome
DBCA	February 2023	Discuss alignment between Alcoa's proposed offset strategy with DBCA priority areas for the protection and management of the Northern Jarrah Forest under the draft 2024-2033 Forest Management Plan (FMP).	Acknowledgement that there is interest from both the DBCA and the public to see an increase in the extent of land under conservation tenure in the State Agreement areas.
Black cockatoo subject matter experts (SMEs)	January 2024	Informal group discussion and information exchange on threats, priority actions and potential conservation actions for black cockatoos relevant to the NJF.	Information provided by SMEs has been used to inform the proposed conservation actions and the environmental offset project plans.
Critical weight mammal (CWM) SMEs	March 2024	Informal group discussion and information exchange on threats, priority actions and potential conservation actions for threatened CWM (chuditch, quokka and woylie) relevant to the NJF.	Information provided by SMEs has been used to inform the proposed conservation actions and the environmental offset project plans.
Black cockatoo subject matter experts (SMEs)	May 2024	Technical discussion on potential black cockatoo conservation actions.	<p>Advised that permanent suitable drinking water points was a key requirement for black cockatoos.</p> <p>Installation of a network of permanent suitable drinking water points has been incorporated in the draft black cockatoo environmental offset project.</p>

Stakeholder	Date	Purpose of engagement	Outcome
Critical weight mammal (CWM) SMEs	May 2024	Technical discussion on potential quokka conservation actions.	<p>Advised that feral pigs were a major threat to quokka and/or their habitat in the NJF. Feral pig control was an ongoing challenge for land managers.</p> <p>Alcoa propose to develop a feral pig control environmental offset project plan for proposed offset conservation areas.</p>
DBCA	July 2024	<p>DBCA provided an opportunity for Alcoa to present its current position on offsets to the Executive Director of the Conservation and Ecosystem Management branch, the Policy and Legislation team, the Forest Management team, species and communities branch and the Swan region.</p> <p>Alcoa presented an overview of proposed offset program and some indicative land areas as examples.</p> <p>Discussions centred on engagement with other WA Government agencies and the Gnaala Karla Booja Aboriginal Corporation; options for land tenure improvements, additionality, monitoring and ecological thinning.</p>	<p>DBCA confirmed that they are not a decision-making authority on offsets, rather have an advisory function within Government.</p> <p>DBCA were receptive to the challenges Alcoa faces in delivering offsets at scale across the NJF and the unique tenure arrangements with underlying State Forest the primary tenure overlapping ML1SA.</p> <p>DBCA to meet with EPA Services to discuss offset proposal.</p>
DCCEEW EPA Services	August 2024	Alcoa presented progress on offset program: document framework, offset areas, proposed surveys, performance indicators, projects/management actions.	Information to address queries raised by DCCEEW not included or incorporated into offset documents has been added.

Stakeholder	Date	Purpose of engagement	Outcome
EPA Board	November 2024	<p>Alcoa presented the proposed environmental offset strategy to the board.</p> <p>Request the board consider if Alcoa's proposed offset approach meets their expectations and public advice on regional offsets, provide advice and feedback via EPA Services officers.</p> <p>Respond to board queries on the offset proposal.</p>	<p>Alcoa to incorporate feedback into the offset proposal.</p> <p>Alcoa to arrange for a site visit for new EPA Board members (at the EPA Chair's request).</p>

## 7. Key Offset Concepts

Proponents need to demonstrate how their proposed offsets are consistent with WA Government and Commonwealth offset policy and guidance documents.

The WA Environmental Offset Policy (GoWA 2011) contains principles related to the use of environmental offsets and are not relevant to the specifics of the Offset Area Management Plan. The Offset Proposal and Environmental Offset Project Plans provide information on how the principles in the WA Environmental Offset Policy have been addressed.

The WA Environmental Offsets Guidelines (GoWA2014) expand on the WA Environmental Offset Policy (GoWA 2011) and provide further context on clarifying the determination and application of environmental offsets in Western Australia. Table 7-1 shows how this POCA aligns with the key concepts in the WA Environmental Offsets Guidelines.

The EPBC Act - Environmental Offset Policy (DSEWPC 2012a) also contains a set of requirements for environmental offsets. Table 7-1 shows how this POCA aligns with the relevant requirements in the EPBC Act - Environmental Offset Policy.

**Table 7-1: Principles in the WA Environmental Offset Guidelines**

WA Environmental Offsets Guidelines concept	EPBC Act - Environmental Offset Policy concept	Consideration
Offset type	<p>Direct offsets are those actions that provide a measurable conservation gain for an impacted protected matter.</p> <p>Suitable offsets must be built around direct offsets. A minimum of 90 per cent of the offset requirements for any given impact must be met through direct offsets.</p>	<p>Direct offset. Alcoa will implement on-ground management actions within the POCA that will result in a tangible improvement to environmental values in the offset area.</p>
In proximity to area of impact	<p>Suitability of the location of the offset site. In most cases this will be as close to the impact site as possible.</p>	<p>The POCA is around 2 km west of the Holyoake Development Envelope and is therefore in close proximity to the impact areas.</p>

WA Environmental Offsets Guidelines concept	EPBC Act - Environmental Offset Policy concept	Consideration
<p>Similar or better vegetation condition than area impacted</p> <p>Similar habitat structure to undisturbed examples of impacted vegetation type</p>	<p>The condition of an offset site in relation to the ecological requirements of a threatened species or ecological community. This includes considerations such as vegetation condition and structure, the diversity of habitat species present, and the number of relevant habitat features.</p>	<p>The POCA contains similar vegetation and habitat structure (predominantly jarrah-marri forest) to the area proposed for mining operations, noting both the impact area and POCA have been previously disturbed by timber harvesting, fire and dieback.</p>
<p>Has a better area to perimeter ratio than the area impacted</p>	<p>No specific reference to area to perimeter ratio in the EPBC Act - Environmental Offset Policy</p>	<p>Bauxite occurs as tabular ore pods that vary in depth from 2 – 10m with an average depth of about 3.5m. Mine pits range in size from a single hectare to tens of hectares but average around 30 hectares. Due to the nature of the ore pods, the mine is characterised by a constantly moving mining footprint followed by progressive rehabilitation. The mine consists of a mosaic of shallow mine pits, located within the ore pods, linked via a network of haul roads to a centrally located crusher and facilities area. Therefore, the mining footprint can be considered pods connected by linear corridors.</p> <p>The POCA has a better area to perimeter ratio than the area impacted given the POCA consists of multiple large patches of vegetation.</p>
<p>Contains additional rare or otherwise significant species and threatened species of community compared with the impact site</p>	<p>No specific reference to containing additional species in the EPBC Act - Environmental Offset Policy</p>	<p>The POCA is likely to contain habitat for conservation significant flora and vegetation (section 2.6, 2.7) and fauna (section 2.8).</p>
<p>Close to or contiguous with an existing conservation area</p>	<p>The relative importance of a site in terms of its position in the landscape, taking into</p>	<p>The POCA's southern boundary is connected to Lane Poole Reserve.</p>

WA Environmental Offsets Guidelines concept	EPBC Act - Environmental Offset Policy concept	Consideration
Likely to enhance biological corridors or ecological linkages between conservation areas	<p>account the connectivity needs of a threatened species or ecological community. This includes considerations such as movement patterns of the species, the proximity of the site in relation to other areas of suitable habitat, and the role of the site in relation to the overall population or extent of a species or community.</p> <p>(from How to use the Offsets assessment guide (DSEWPC 2012b))</p>	The POCA contains or is near to mapped regional linkages (section 2.9).
It includes actions to address threatening processes	<p>Conservation gain is the benefit that a direct offset delivers to the protected matter, which maintains or increases its viability or reduces any threats of damage, destruction or extinction.</p>	<p>This management plan contains actions to address threatening processes (section 4) including:</p> <ul style="list-style-type: none"> <li>Reducing habitat loss</li> <li>Controlling feral species</li> <li>Rehabilitation of vegetation</li> <li>Climate Change mitigations</li> </ul>
Allows for secure management arrangements in place that will provide for long term conservation	<p>Current land tenure of the offset and the proposed method of securing and managing the offset for the life of the impact.</p> <p>Offsets on public lands</p> <ul style="list-style-type: none"> <li>• should be legally secured for conservation purposes for at least the duration of the impact</li> <li>• should be statutorily defined and resourced</li> <li>• any change in management status should require Ministerial or statutory approval.</li> </ul>	<p>The POCA overlays State Forest on Crown land, vested to the Conservation and Parks Commission and managed on behalf of the Commission by the DBCA.</p> <p>Alcoa are seeking to agree formal arrangements with the WA government to allow for the conservation actions to be delivered within the POCA.</p> <p>Following the conclusion of offset period, the management of the POCA will revert to the landowner (WA government) or manager (DBCA or equivalent government agency).</p>

WA Environmental Offsets Guidelines concept	EPBC Act - Environmental Offset Policy concept	Consideration
<p>Sound knowledge and adaptive management</p>	<p>Offsets must be based on both scientifically robust and transparent information that sufficiently analyses and documents the benefit to a protected matter's ecological function or values. This includes undertaking desktop modelling of offset benefits and conducting relevant field work as appropriate.</p>	<p>This Offset Area Management Plan has been informed by desktop assessment and discussions with subject-matter/species experts.</p> <p>Alcoa will commission a baseline survey (section 4.2) to refine habitat management areas.</p> <p>The adaptive management framework has been outlined in section 4.7. Findings from the implementation of on-ground management actions (effectively applied research) will be evaluated and used to inform future actions within the POCA.</p>
<p>Likely offset success.</p> <p>Can the values be defined and measured?</p> <p>What is the operator experience / evidence of previous success?</p>	<p>Offset proposals will need to include clearly articulated measures of success that are linked to the purpose of the offsets and provide clear benchmarks about their success or failure.</p>	<p>Alcoa considers implementing on-ground management within this POCA has a very high likelihood of success. Projects that have employed similar management actions have proven the outcomes are achievable.</p> <p>Fauna habitat extent and condition can be defined and measured. Fauna presence, abundance and density can be measured or estimated using existing methodologies (section 4.5.1).</p> <p>Alcoa has been operating in the Northern Jarrah Forest for over 60 years. Alcoa's rehabilitation program has successfully returned fauna habitat following mining and its research program has provided valuable information to the broader scientific community.</p>
<p>Time lag</p>	<p>Time it will take an offset to yield a conservation gain for the protected matter.</p>	<p>Alcoa propose to commence implementing this Offset Area Management Plan following</p>

WA Environmental Offsets Guidelines concept	EPBC Act - Environmental Offset Policy concept	Consideration
		<p>approval (if obtained). Indicative timeframes are in section 4.4.</p> <p>It is estimated that the on-ground actions will provide tangible benefits for all species within 5 years (for example through installation of black cockatoo watering points, fox, feral cat and feral pig control).</p>
<p>Long term strategic outcomes</p>	<p>Offsets can help to achieve long-term environmental outcomes for matters protected under the EPBC Act.</p> <p>Social and economic or environmental co-benefits may be delivered where an offset aligns with broader strategic environmental objectives. For example: an offset contributing to an area recognised as important to increasing landscape connectivity, above and beyond what is required by the impacted protected matter.</p>	<p>The commitment to fund, manage and monitor key fauna habitat within the POCA for the long term (offset period) provides confidence that the habitat will be maintained for the foreseeable future. This long-term management will promote species resilience to threats, but also a rapid response to emerging or unforeseen threats.</p>

## 8. References

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### **Datasets used**

DBCA-011 DBCA - Legislated Lands and Waters (DBCA-011) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) 29 January 2025

DBCA-019 Geomorphic Wetlands, Swan Coastal Plain (DBCA-019) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-024 Forest Disease Risk Areas (DBCA-024) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-047 Vegetation Complexes - South West forest region of Western Australia (DBCA-047) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-050 Carnabys Cockatoo Confirmed Roost Sites (DBCA-050) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-051 Carnabys Cockatoo Unconfirmed Roost Sites (DBCA-051) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-052 Carnabys Cockatoo Confirmed Roost Sites Buffered 6km (DBCA-052) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-053 Carnabys Cockatoo Unconfirmed Roost Sites Buffered 6km (DBCA-053) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-054 Carnabys Cockatoo Confirmed Breeding Areas within the Swan Coastal Plain and Jarrah Forest IBRA Regions (DBCA-054) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-055 Carnabys Cockatoo Unconfirmed Breeding Areas within the Swan Coastal Plain and Jarrah Forest IBRA Regions (DBCA-055) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

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DBCA-060 DBCA Fire History (DBCA-060) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-064 Black Cockatoo Roosting Sites - Buffered (DBCA-064) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-065 Black Cockatoo Breeding Sites - Buffered (DBCA-063) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-080 Forest Management Plan (FMP) Boundary: 2024 - 2033 (DBCA-080) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DBCA-081 Regional Forest Agreement (RFA) Boundary (DBCA-081) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DCCEEW Interim Biogeographic Regionalisation for Australia (IBRA), Version 7 (Subregions) accessed from [www.data.gov.au](http://www.data.gov.au) on 29 January 2025. Commonwealth of Australia and Department of Climate Change, Energy, the Environment and Water 2024.

DMIRS-003 Mining Tenements (DMIRS-003) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) 29 January 2025

DPIRD-005 Native Vegetation Extent (DPIRD-005) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DPIRD-083 Farm dams of Western Australia (DPIRD-083) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

DPRID-006 Pre-European Vegetation (DPIRD-006) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) 29 January 2025

DWER-031 Hydrography, Linear (Hierarchy) (DWER-031) accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

Perth Regional Ecological Linkages accessed from [www.data.wa.gov.au](http://www.data.wa.gov.au) on 29 January 2025

## **Appendix A - DCCEEW Protected Matters Search Tool Report**



Australian Government

Department of Climate Change, Energy,  
the Environment and Water

# EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report obtained for POCA005 -  
Dwellingup

Report created: 05-Sep-2024

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

# Summary

## Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	1
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	1
<a href="#">Listed Threatened Species:</a>	24
<a href="#">Listed Migratory Species:</a>	8

## Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

<a href="#">Commonwealth Lands:</a>	2
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	13
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	None

## Extra Information

This part of the report provides information that may also be relevant to the area you have

<a href="#">State and Territory Reserves:</a>	2
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">EPBC Act Referrals:</a>	10
<a href="#">Key Ecological Features (Marine):</a>	None
<a href="#">Biologically Important Areas:</a>	None
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

# Details

## Matters of National Environmental Significance

### Wetlands of International Importance (Ramsar Wetlands) [\[ Resource Information \]](#)

Ramsar Site Name	Proximity	Buffer Status
<a href="#">Peel-yalgorup system</a>	10 - 20km upstream from Ramsar site	In feature area

### Listed Threatened Ecological Communities [\[ Resource Information \]](#)

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Banksia Woodlands of the Swan Coastal Plain ecological community</a>	Endangered	Community may occur within area	In feature area

### Listed Threatened Species [\[ Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
<b>BIRD</b>			
<a href="#">Atrichornis clamosus</a> Noisy Scrub-bird, Tjimiluk [654]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Calyptorhynchus banksii naso</a> Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Falco hypoleucos</a> Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Leipoa ocellata</a> Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Zanda baudinii listed as Calyptorhynchus baudinii</a> Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo [87736]	Endangered	Roosting known to occur within area	In feature area
<a href="#">Zanda latirostris listed as Calyptorhynchus latirostris</a> Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Species or species habitat known to occur within area	In feature area
<b>MAMMAL</b>			
<a href="#">Bettongia penicillata ogilbyi</a> Woylie [66844]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Dasyurus geoffroii</a> Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Myrmecobius fasciatus</a> Numbat [294]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Pseudocheirus occidentalis</a> Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Setonix brachyurus</a> Quokka [229]	Vulnerable	Species or species habitat known to occur within area	In feature area
<b>OTHER</b>			
<a href="#">Westralunio carteri</a> Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat likely to occur within area	In feature area

**PLANT**

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Anthocercis gracilis</a> Slender Tailflower [11103]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Banksia mimica</a> Summer Honeypot [82765]	Endangered	Species or species habitat may occur within area	In buffer area only
<a href="#">Diuris micrantha</a> Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat known to occur within area	In feature area
<a href="#">Diuris purdiei</a> Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Morelotia australiensis listed as Tetraria australiensis</a> Southern Tetraria [92784]	Vulnerable	Species or species habitat likely to occur within area	In feature area
<a href="#">Synaphea sp. Fairbridge Farm (D.Papenfus 696)</a> Selena's Synaphea [82881]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
<a href="#">Synaphea sp. Pinjarra Plain (A.S.George 17182)</a> [86878]	Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Thelymitra stellata</a> Star Sun-orchid [7060]	Endangered	Species or species habitat may occur within area	In feature area

### Listed Migratory Species [ [Resource Information](#) ]

Scientific Name	Threatened Category	Presence Text	Buffer Status
<b>Migratory Marine Birds</b>			
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
<b>Migratory Terrestrial Species</b>			
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
<b>Migratory Wetlands Species</b>			

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat likely to occur within area	In feature area

## Other Matters Protected by the EPBC Act

### Commonwealth Lands [\[ Resource Information \]](#)

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Unknown		
Commonwealth Land - [51522]	WA	In feature area
Commonwealth Land - [51521]	WA	In feature area

### Listed Marine Species [\[ Resource Information \]](#)

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Bubulcus ibis as Ardea ibis</a> Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In feature area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
<a href="#">Rostratula australis as Rostratula benghalensis (sensu lato)</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
<a href="#">Thinornis cucullatus as Thinornis rubricollis</a> Hooded Plover, Hooded Dotterel [87735]		Species or species habitat may occur within area overfly marine area	In feature area

## Extra Information

State and Territory Reserves			[ Resource Information ]
Protected Area Name	Reserve Type	State	Buffer Status
Lane Poole Reserve	5(1)(g) Reserve	WA	In feature area
Lane Poole Reserve	Conservation Park	WA	In feature area

## Regional Forest Agreements

[ Resource Information ]

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

RFA Name	State	Buffer Status
<a href="#">South West WA RFA</a>	Western Australia	In feature area

## EPBC Act Referrals

[ Resource Information ]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<a href="#">Huntly Bauxite Mine Transition</a>	2022/09204		Assessment	In buffer area only
<b>Controlled action</b>				
<a href="#">Alcoa Pinjarra Refinery Production Increase and Bauxite Export</a>	2020/8743	Controlled Action	Completed	In buffer area only
<b>Not controlled action</b>				
<a href="#">Dwellingup Community Village, Lots 556 and 251 Del Park Rd, Dwellingup, WA</a>	2016/7716	Not Controlled Action	Completed	In feature area
<a href="#">Dwellingup Water Supply New Source and Supply Pipeline WA</a>	2011/6077	Not Controlled Action	Completed	In feature area
<a href="#">Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</a>	2015/7522	Not Controlled Action	Completed	In feature area
<a href="#">INDIGO Central Submarine Telecommunications Cable</a>	2017/8127	Not Controlled Action	Completed	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
<b>Not controlled action</b>				
<a href="#">Pinjarra Williams road widening and realignments (SLK 13.8 - 21.5)</a>	2014/7368	Not Controlled Action	Completed	In feature area
<a href="#">Upgrade Pinjarra Williams Road (M053) (24.00 ??? 40.00 SLK), WA</a>	2017/8015	Not Controlled Action	Completed	In feature area
<a href="#">Waroona mineral sand mine</a>	2005/2345	Not Controlled Action	Completed	In feature area
<b>Not controlled action (particular manner)</b>				
<a href="#">INDIGO Marine Cable Route Survey (INDIGO)</a>	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

# Caveat

## 1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

## 2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

## 3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

## 4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

# Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Department of Land and Resource Management, Northern Territory](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- [-Australian Tropical Herbarium, Cairns](#)
- [-eBird Australia](#)
- [-Australian Government – Australian Antarctic Data Centre](#)
- [-Museum and Art Gallery of the Northern Territory](#)
- [-Australian Government National Environmental Science Program](#)
- [-Australian Institute of Marine Science](#)
- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
- [-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [-Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact us](#) page.

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Department of Climate Change, Energy, the Environment and Water

GPO Box 3090

Canberra ACT 2601 Australia

+61 2 6274 1111



Australian Government

Department of Climate Change, Energy,  
the Environment and Water

# EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report obtained for Alcoa  
Marrinup Nursery site

Report created: 13-Jan-2025

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

# Summary

## Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	1
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	None
<a href="#">Listed Threatened Species:</a>	16
<a href="#">Listed Migratory Species:</a>	7

## Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

<a href="#">Commonwealth Lands:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	11
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	None

## Extra Information

This part of the report provides information that may also be relevant to the area you have

<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">EPBC Act Referrals:</a>	4
<a href="#">Key Ecological Features (Marine):</a>	None
<a href="#">Biologically Important Areas:</a>	None
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

# Details

## Matters of National Environmental Significance

### Wetlands of International Importance (Ramsar Wetlands)

[\[ Resource Information \]](#)

Ramsar Site Name

[Peel-yalgorup system](#)

Proximity

20 - 30km upstream  
from Ramsar site

### Listed Threatened Species

[\[ Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.  
Number is the current name ID.

Scientific Name

Threatened Category

Presence Text

BIRD

[Calidris acuminata](#)

Sharp-tailed Sandpiper [874]

Vulnerable

Species or species  
habitat may occur  
within area

[Calidris ferruginea](#)

Curlew Sandpiper [856]

Critically Endangered

Species or species  
habitat may occur  
within area

[Calyptorhynchus banksii naso](#)

Forest Red-tailed Black-Cockatoo,  
Karrak [67034]

Vulnerable

Species or species  
habitat likely to occur  
within area

[Falco hypoleucos](#)

Grey Falcon [929]

Vulnerable

Species or species  
habitat may occur  
within area

[Leipoa ocellata](#)

Malleefowl [934]

Vulnerable

Species or species  
habitat may occur  
within area

[Numenius madagascariensis](#)

Eastern Curlew, Far Eastern Curlew  
[847]

Critically Endangered

Species or species  
habitat may occur  
within area

[Rostratula australis](#)

Australian Painted Snipe [77037]

Endangered

Species or species  
habitat may occur  
within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Zanda baudinii listed as Calyptorhynchus baudinii</a>		
Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo [87736]	Endangered	Roosting known to occur within area
<a href="#">Zanda latirostris listed as Calyptorhynchus latirostris</a>		
Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Species or species habitat known to occur within area

## MAMMAL

<a href="#">Dasyurus geoffroii</a>		
Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Myrmecobius fasciatus</a>		
Numbat [294]	Endangered	Species or species habitat may occur within area
<a href="#">Pseudocheirus occidentalis</a>		
Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Setonix brachyurus</a>		
Quokka [229]	Vulnerable	Species or species habitat likely to occur within area

## PLANT

<a href="#">Diuris micrantha</a>		
Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat may occur within area
<a href="#">Diuris purdiei</a>		
Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat may occur within area
<a href="#">Thelymitra stellata</a>		
Star Sun-orchid [7060]	Endangered	Species or species habitat may occur within area

## Listed Migratory Species [\[ Resource Information \]](#)

Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
<a href="#">Apus pacificus</a>		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area

## Migratory Terrestrial Species

Scientific Name	Threatened Category	Presence Text
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

## Other Matters Protected by the EPBC Act

Listed Marine Species		[ Resource Information ]
Scientific Name	Threatened Category	Presence Text
<b>Bird</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
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<a href="#">Rostratula australis as Rostratula benghalensis (sensu lato)</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area overfly marine area

## Extra Information

### Regional Forest Agreements

[\[ Resource Information \]](#)

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

### RFA Name

[South West WA RFA](#)

### State

Western Australia

## EPBC Act Referrals

[\[ Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
<a href="#">Dwellingup Water Supply New Source and Supply Pipeline WA</a>	2011/6077	Not Controlled Action	Completed
<a href="#">Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</a>	2015/7522	Not Controlled Action	Completed
<a href="#">INDIGO Central Submarine Telecommunications Cable</a>	2017/8127	Not Controlled Action	Completed
Not controlled action (particular manner)			
<a href="#">INDIGO Marine Cable Route Survey (INDIGO)</a>	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval

# Caveat

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## 3 DATA SOURCES

### Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

### Threatened, migratory and marine species

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- Other groups and individuals

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Department of Climate Change, Energy, the Environment and Water

GPO Box 3090

Canberra ACT 2601 Australia

+61 2 6274 1111



Australian Government

Department of Climate Change, Energy,  
the Environment and Water

# EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report obtained for Alcoa  
Dwellingup site

Report created: 13-Jan-2025

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

# Summary

## Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance (Ramsar)</a>	1
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	None
<a href="#">Listed Threatened Species:</a>	16
<a href="#">Listed Migratory Species:</a>	7

## Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

<a href="#">Commonwealth Lands:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	11
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None
<a href="#">Habitat Critical to the Survival of Marine Turtles:</a>	None

## Extra Information

This part of the report provides information that may also be relevant to the area you have

<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">EPBC Act Referrals:</a>	4
<a href="#">Key Ecological Features (Marine):</a>	None
<a href="#">Biologically Important Areas:</a>	None
<a href="#">Bioregional Assessments:</a>	None
<a href="#">Geological and Bioregional Assessments:</a>	None

# Details

## Matters of National Environmental Significance

### Wetlands of International Importance (Ramsar Wetlands)

[\[ Resource Information \]](#)

Ramsar Site Name

[Peel-yalgorup system](#)

Proximity

20 - 30km upstream  
from Ramsar site

### Listed Threatened Species

[\[ Resource Information \]](#)

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

Scientific Name

Threatened Category

Presence Text

BIRD

[Calidris acuminata](#)

Sharp-tailed Sandpiper [874]

Vulnerable

Species or species  
habitat may occur  
within area

[Calidris ferruginea](#)

Curlew Sandpiper [856]

Critically Endangered

Species or species  
habitat may occur  
within area

[Calyptorhynchus banksii naso](#)

Forest Red-tailed Black-Cockatoo,  
Karrak [67034]

Vulnerable

Species or species  
habitat known to  
occur within area

[Falco hypoleucos](#)

Grey Falcon [929]

Vulnerable

Species or species  
habitat may occur  
within area

[Leipoa ocellata](#)

Malleefowl [934]

Vulnerable

Species or species  
habitat may occur  
within area

[Numenius madagascariensis](#)

Eastern Curlew, Far Eastern Curlew  
[847]

Critically Endangered

Species or species  
habitat may occur  
within area

[Rostratula australis](#)

Australian Painted Snipe [77037]

Endangered

Species or species  
habitat may occur  
within area

Scientific Name	Threatened Category	Presence Text
<a href="#">Zanda baudinii listed as Calyptorhynchus baudinii</a>		
Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo [87736]	Endangered	Roosting known to occur within area
<a href="#">Zanda latirostris listed as Calyptorhynchus latirostris</a>		
Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Species or species habitat known to occur within area

## MAMMAL

<a href="#">Dasyurus geoffroii</a>		
Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Myrmecobius fasciatus</a>		
Numbat [294]	Endangered	Species or species habitat may occur within area
<a href="#">Pseudocheirus occidentalis</a>		
Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Setonix brachyurus</a>		
Quokka [229]	Vulnerable	Species or species habitat likely to occur within area

## PLANT

<a href="#">Anthocercis gracilis</a>		
Slender Tailflower [11103]	Vulnerable	Species or species habitat may occur within area
<a href="#">Diuris micrantha</a>		
Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat may occur within area
<a href="#">Diuris purdiei</a>		
Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat may occur within area

## Listed Migratory Species [ [Resource Information](#) ]

Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
<a href="#">Apus pacificus</a>		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area

## Migratory Terrestrial Species

Scientific Name	Threatened Category	Presence Text
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

## Other Matters Protected by the EPBC Act

Listed Marine Species		[ Resource Information ]
Scientific Name	Threatened Category	Presence Text
<b>Bird</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat may occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
<a href="#">Bubulcus ibis as Ardea ibis</a> Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat may occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Rostratula australis as Rostratula benghalensis (sensu lato)</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area overfly marine area

## Extra Information

### Regional Forest Agreements

[\[ Resource Information \]](#)

Note that all areas with completed RFAs have been included. Please see the associated resource information for specific caveats and use limitations associated with RFA boundary information.

### RFA Name

[South West WA RFA](#)

### State

Western Australia

## EPBC Act Referrals

[\[ Resource Information \]](#)

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
<a href="#">Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia</a>	2015/7522	Not Controlled Action	Completed
<a href="#">INDIGO Central Submarine Telecommunications Cable</a>	2017/8127	Not Controlled Action	Completed
<a href="#">Upgrade Pinjarra Williams Road (M053) (24.00 ??? 40.00 SLK), WA</a>	2017/8015	Not Controlled Action	Completed
Not controlled action (particular manner)			
<a href="#">INDIGO Marine Cable Route Survey (INDIGO)</a>	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval

# Caveat

## 1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

## 2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

## 3 DATA SOURCES

### Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

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