COTERRA ENVIRONMENT

Native Vegetation Clearing Referral Supporting Information

RAC Ningaloo Reef Resort

Rev 0 January 2024

CALIBRE | COMMITMENT | COLLABORATION

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1 Introduction

1.1 Background

The RAC Tourism Assets Pty Ltd (RAC) currently operates the RAC Ningaloo Reef Resort located on Robinson Street, Coral Bay in the Shire of Carnarvon (Figure 1). RAC are proposing redevelopment of the resort to include new facilities across Lots 1 (No. 14), 54 (No. 6) and 68 (No. 2) Robinson Street, as well as a temporary access way to the south of the resort as an extension to Banksia Drive (collectively referred to herein as 'the site'; Figure 2).

Redevelopment of the site is proposed to create up to 90 new holiday units, allowing for up to 270 people to stay at the resort. New facilities will also include a pool, clubhouse and reception area and additional supporting infrastructure available to the broader Coral Bay community, such as additional parking bays to facilitate beach access, electric vehicle charging stations and function spaces (RAC, 2023).

1.2 Proposal Details and Proposed Clearing Extent

To facilitate the proposed development and supporting access road, the proponent will be required to clear some small patches of remnant native vegetation, comprising no more than 0.184 ha within a site boundary of 3.079 ha.

It is recognised that the clearing of a site for the lawful construction of a building or other structure is exempt from the requirement for clearing approval under Regulation 5, Item 1 of the *Environmental Protection (Clearing of Native Vegetation) Regulations* (2004). The total extent of native vegetation subject to this referral application is limited to those areas outside of the footprint of proposed buildings/permanent structures such as for landscaping purposes and the temporary access road.

1.3 Land Use and Previous Approvals

Originally a part of Cardabia Station, the site was initially cleared for development in the 1960's. While initially only a small cluster of buildings were constructed on Lot 1, further native vegetation was cleared in the 1980's to facilitate development of the broader Coral Bay townsite. It is understood that the buildings currently comprising the RAC Ningaloo Reef Resort are the same as those constructed in the 1960's.

At a federal level, RAC has been proactively engaging with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) on its obligations under the *Environment Protection and Biodiversity Conservation Act 1999*. Most recently, RAC has consulted with the Department on the view that referral under the Act would not be required, based on the absence of potentially significant impacts to Matters of National Environmental Significance. As an outcome of this consultation, the proposed redevelopment will not be referred under the Act.

In 2014, the Environmental Protection Authority (EPA) reviewed a scheme amendment to rezone the site from 'Natural Environs Precinct' to 'Tourism Precinct' under the Shire of Carnarvon Local Planning Scheme No. 13 (EPA ref: 14-868058). The EPA determined not to assess the scheme amendment, on the basis that potential environmental impacts can be adequately managed by the Ningaloo Coast Regional Strategy Carnarvon to Exmouth and the (then) Draft Shire of Carnarvon Coral Bay Settlement Structure Plan in conjunction with the planning process.

Approval for the resort's redevelopment was granted under the *Planning and Development Act 2005* by the regional Joint Development Assessment Panel (JDAP) on 4 January 2024 (DAP Ref: DAP/23/02582), with conditions.

Lot 1 is under the ownership of RAC, and is currently zoned 'Tourism' under the Shire of Carnarvon Local Planning Scheme No. 13 (LPS 13), and therefore zoning is appropriate for the proposed development/land

use (Appendix 1). Lots 54 and 68 comprise crown land, with condition 30 the development approval requiring Lots 1 and 54 to be amalgamated. Lot 68 is to remain crown land with shared access between the proponent and Water Corporation.

The temporary accessway will be located within a lot zoned 'Local Road' under LPS 13 (Appendix 1). Subject to the *Main Roads Act 1930* and the *Public Works Act 1902*, the local government within the district of which a road is situated has the care, control and management of the road. Authorisation from the Shire of Carnarvon as the responsible managing authority for the use of this location as a temporary accessway is included with this application package. Preliminary design for the constructed access track is provided in Appendix 2.

1.4 Proposed Clearing Approval Process

The proposed clearing has been identified as potentially suitable to be approved through the Native Vegetation Clearing Referral (NVCR) process based on the clearing extent and condition of vegetation at the site, which has been considered as very low impact clearing. Assessment against the NVCR criteria is provided in Section 3.

1.5 Alternatives Considered/Actions to Minimise Clearing Impacts

The location of the development has been chosen to reduce the amount of native vegetation to be cleared, whilst also providing community benefit in the form of tourism and recreational opportunities. The redevelopment of the current resort site reduces the requirement for clearing of better-quality vegetation in alternate locations where vegetation is in more intact condition, as well as avoiding disturbance to the Ningaloo Marine Park, located to the north and west of the site (Figure 1).

The temporary accessway extending from Banksia Drive to the south of the resort is proposed to follow the informal accessways which currently exist at the site. Aerial imagery indicates that these accessways have remained unvegetated since the 2019 surveys, and vegetation recorded during the survey is likely in worse condition than previously recorded due to further degradation of the vegetation abutting the informal accessways. To ensure that minimal vegetation is cleared for the temporary accessway, the exact location of the access route will be subject to ground conditions observed by the construction team. As such, this application addresses the clearing as a 'worst case scenario', with significantly less vegetation likely to be cleared than is nominated in this application.

As per condition 29 of the development approval, the proponent has prepared and will implement a Construction Management Plan (CMP) for the duration of clearing and construction works. The CMP (Coterra 2024) prescribes methods by which impacts on the environment will be minimised to the fullest extent practicable, and addresses matters including:

- Dust generation
- Noise and vibration
- Erosion control
- Site access
- Impacts on flora and vegetation
- Impacts of fauna and habitat
- Cyclones
- Bushfire

The CMP (Coterra 2024) has been provided as a supporting document with this clearing application.

1.6 Proposed Development Timeframes

The proponent endeavours to begin groundworks in late summer to early autumn 2024 to ideally allow opening of the new facility in 2026. It is expected that clearing will occur between February 2024 to April 2024.

2 Site Characteristics

2.1 Topography, Landforms and Soils

2.1.1 Topography and Landform

Topography within the proposed clearing area is generally flat, with contours ranging from 5 metres Australian Height Datum (mAHD) in the north to approximately 8 mAHD in the south (DWER, 2024). The site and the Ningaloo Marine Park are separated by undulating sand dunes in the west, and an existing roadway (Robinson Street) to the north (Figure 3).

The site does not contain any outstanding natural landform features.

2.1.2 Geology and Soils

Coral Bay lies in a geological structure known as the Carnarvon Basin (Beard, 1990). The western coastline of the Carnarvon Basin houses a substantial width (up to 4 km) of recent dunes, including sandhills and sandy country up to 16 km in width (Beard, 1975).

The Department of Primary Industries and Regional Development (DPIRD) maps the soils at the site as part of the following (DPIRD, 2024; Figure 3):

- Coast System (204Cs): Large coastal dunes (some unvegetated) with narrow swales, limestone plains, wave-cut platforms and beaches, supporting diverse tall and low shrublands.

2.1.3 Acid Sulphate Soils

The site does not contain any areas regionally mapped as being at risk of acid sulphate soils (ASS) (Landgate, 2024).

2.2 Hydrology

2.2.1 Groundwater

Galt Geotechnics undertook geotechnical investigations in 2018 at the site, which recorded groundwater occurring at depths of between 3.2 to 4.4 m below ground level (mBGL). Groundwater levels at this location are considered to correspond with sea level and may be influenced by tidal movements (Galt, 2018).

The site maintains one groundwater licence (No, 151681), with an allocation of 200,000 KL, expiring on 23/12/2025 (DWER, 2024).

2.2.2 Surface Water and Drainage

The site does not contain any existing surface water features. Drainage from the site after major rainfall events is to the north of the site, toward Robinson Street, where it is collected by street kerbing (Pritchard Francis, 2022).

2.2.3 Wetlands

No regional wetland mapping is available for the site, due to its geographic location. However, the following inferences can be made:

- The site does not contain any Ramsar Sites (Landgate, 2024)
- Vegetation mapped at the site does not contain any wetland type or riparian vegetation (Coterra, 2019)

It is therefore considered that the site does not contain any wetlands, or wetland features.

2.3 Flora and Vegetation

2.3.1 Pre-European Vegetation

Broad Scale mapping of Western Australian vegetation was undertaken by Beard (1975) to define boundaries by vegetation systems and associations. The site is within the boundary of the Coastal Dunes 662 system association, described as 'Hummock grassland with scattered low trees over dwarf shrubs or mixed sort grass and spinifex (*Triodia*) mixed species' (Beard, 1975). This vegetation association occurs currently at 99.11% (total of 278,627 ha) of its original extent in Western Australia (GoWA, 2019).

2.3.2 Site Assessment

A detailed flora and vegetation survey was undertaken by Coterra Environment in August 2019 (Appendix 3) to map the vegetation of the site, as well as across two surrounding areas. Three vegetation types were recorded across the broader survey area, with all occurring within the site boundary (Table 2-1; Figure 5).

The site is predominantly in a completely degraded condition, with the majority of the site already cleared of native vegetation as a result of the existing infrastructure (Figure 6).

Table 2-1: Vegetation Units within the site

Vegetation Unit	Description
AsMm	*Acacia sclerosperma subsp. sclerosperma*, (*Myoporum montanum*) open to closed scrub over *Rhagodia preissii subsp. obovata* scattered shrubs over **Cenchrus ciliaris* open grassland (forms a grassland around the scrub). Associated species include *Acacia coriacea subsp. Coriacea*, *Stylobasium spathulatum, Abutilon cunninghamii* and *Threlkeldia diffusa*.
AcAoRp	*Acacia coriacea subsp. coriacea, Alectryon oleifolius subsp. oleifolius, Acacia tetragonophylla, Rhagodia preissii subsp. obovata* open shrubland over *Roepera fruticulosa, Senna glutinosa subsp. chatelainiana, Scaevola tomentosa, Threlkeldia diffusa* scattered low shrubs over **Cenchrus ciliaris* grassland.
AcRpPL	*Acacia coriacea* subsp*. coriacea* open shrubland over *Rhagodia preissii* subsp. *obovata, Santalum spicatum*, *Pileanthus limacis, Roepera fruticulosa* low open shrubland over *Threlkeldia diffusa, Carpobrotus* sp Thevenard Island (M. White 050*), Ptilotus villosiflorus* scattered herbs with **Cenchrus ciliaris* very open grassland.

Source: Coterra 2019

2.3.3 Conservation Significant Flora and Vegetation

The flora and vegetation survey recorded one conservation significant species within the site (Figure 5). The *Acacia ryaniana* species was a singular prostrate, spreading low shrub approximately 60 cm in height. This species is known to inhabit the Carnarvon locality and is usually found on coastal sand dunes (WA Herbarium, 1998-). It is listed as a Priority 2 (P2) species that is defined as 'poorly known species which are known from one or a few locations (generally 5 or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.' (EPA, 2018).

It is noted that this individual is located outside of the proposed access track alignment (Appendix 2). The proponent has committed to the avoidance of this individual during clearing works.

2.4 Fauna and Habitat

2.4.1 Fauna Survey

A level 1 (basic) fauna survey was undertaken by Western Ecological in April 2019, in accordance with EPA technical guidance for fauna surveys (Appendix 4). Database searches outlined two possible migratory species to be present during the surveys (being the Fork-tailed swift - *Apus pacificus* and the Barn swallow - *Hirundo rustica*), however neither species were observed during the survey and are not considered to be reliant on habitat present in the survey area (Western Ecological, 2019).

Database searches recorded several marine species potentially present within the survey areas, however given the site is 30 m from the high tide mark at its closest point, and the vegetation buffer between the ocean and the site is one which marine turtles will not cross, it is not expected that any marine species utilise the area (Western Ecological, 2019).

The field survey recorded the following results (Western Ecological, 2019):

- Amphibians: no amphibians were recorded during the survey
- Reptiles: two reptile species were recorded, being one *Ctenophorus* sp. and one goanna species. The *Ctenophorus* sp. was unable to be identified due to being an opportunistic observation of several lizards scattering away from the zoologist traversing the site. The goanna species were observed through secondary evidence of burrows, which were attributed to the Sand Goanna (*Varanus gouldii*), based on database results, habitat present and geographical location. Burrows attributed to an Agamid lizard were also recorded (sites 2 and 3 only).
- Birds: 17 bird species from 14 families were recorded across the three survey areas. Six of these species were recorded during the survey, with the remaining 11 species recorded opportunistically around the Coral Bay locality. The Zebra Finch (*Taeniopygia guttata*) was the most commonly recorded species.
- Mammals: One mammal species was recorded, being the Red Kangaroo (*Macropus rufus*).

2.4.2 Fauna Habitat

The Western Ecological (2019) field survey also included a fauna habitat assessment, which recorded one fauna habitat across all sites (Figure 7). The habitat is described as:

- Dune habitat – Very dry vegetation that has limited and low vegetation structure, cover and flora species diversity, no midstory and a sparse ground layer consisting mostly of dry Buffel grass with no spinifex hummocks present.

Fauna habitat is very limited within the site boundary, as most of the site consists of highly disturbed areas and poor-quality vegetation. It is not considered that any common or conservation significant fauna are reliant on the habitat or associated resources at the site (Western Ecological, 2019).

2.5 Conservation Areas

The site is located adjacent to Lot 501, which is currently zoned as Foreshore Reserve under the LPS. This reserve extends north to include Lot 45 on the opposite side of Robinson Street encompassing land vested with the Conservation and Parks Commission of Western Australia, and managed on the commission's behalf by DBCA (Unnamed reserve; R 37500). While Lot 501 is currently zoned Foreshore Reserve, parts of the Lot have been identified in the approved Coral Bay Settlement Structure Plan as Local Road – General Use.

The marine environment surrounding Coral Bay forms part of the Ningaloo World Heritage Area, a World Heritage Listing covering 604,500 ha of the marine environment, spanning 300 km along the Western Australian coast. While the Ningaloo World Heritage Area encompasses a number of marine parks and reserves, the coastal area around Coral Bay comprises the Ningaloo Marine Park, a Class A reserve vested with the Conservation and Parks Commission and managed on the commission's behalf by DBCA. It is understood that both the Ningaloo World Heritage Area and Ningaloo Marine Park are applicable to the marine environment only, and do not intersect any terrestrial areas. These conservation areas are separated from the site by approximately 50 m of roadway, remnant vegetation and beach land at the narrowest point.

The Ningaloo World Heritage Area forms the basis for an Environmentally Sensitive Area (ESA), which was declared by the Minister for Environment in *Environmental Protection (Environmentally Sensitive Area) Notice 2005.* The site is separated from this ESA by approximately 40 m of roadway and remnant vegetation at its closest point and therefore site development and native vegetation clearing is not restricted by this ESA (Landgate, 2024).

The Coral Bay townsite is situated in an area that is regionally mapped as containing expansive native vegetation (Landgate, 2024). As such, the concept of ecological linkages is not applicable in this instance as the entirety of the surrounding area is mapped as native vegetation and the site does not form part of an isolated patch that interconnects other isolated patches.

2.6 Heritage

2.6.1 Indigenous Heritage

A search of the Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Inquiry System identified that the site does not contain any known Registered Sites or Other Aboriginal Heritage Places (DPLH, 2024). The nearest registered site is approximately 500 m east of the development and is listed as Artefacts/Scatter, Midden/Scatter (Place ID 6616; Figure 8).

The following two surveys are known to have been undertaken within proximity of the site (Figure 8).

- Veth, P. & Wright, G. (1989). Report of an Archaeological and Ethnographic Survey of the Coral Bay Access Road, North West Australia
- Morse, K. (No Date). Preliminary Report of a Survey for Aboriginal Archaeological Sites in the Cape Range National Park, North West Cape, Western Australia.

RAC has and continues to proactively consult with local Indigenous stakeholder groups on the resort's redevelopment, including:

- Gnulli Group (previous regional native title determination): Various dates of consultation, discussions including Native Title, workforce village and resort intent, cultural and historical input and employment opportunities
- Nganhurra Thanardi Garrbu Aboriginal Corporation: Various dates of consultation, discussions including Native Title, Heritage survey cultural and historical input and employment opportunities
- Baiyungu Aboriginal Corporation: Numerous dates of consultation, discussions including heritage and cultural investigations and general intent
- Baiyungu Aboriginal Corporation Village: Numerous dates of consultation, discussing general intent and associated workforce village

Liaison between the Baiyungu Aboriginal Corporation, Gnuli Native Title Working Group, Yamatki Marlpa Aboriginal Corporation and the WA Department for Regional Development and Land has reached a successful outcome allowing Traditional Owners to maintain connection with the land, whilst creating jobs, economic development and enhancing community value.

2.6.2 European Heritage

A review of the State Heritage Office's InHerit database identified the presence of one non-aboriginal heritage place within Lot 54 known as French's Shack (Place No. 25560; GoWA, 2024). While French's Shack is listed on the Shire of Carnarvon's Municipal Inventory, research undertaken by Element (2022) indicates that the building on Lot 54 is actually a different structure built in 1975, and which is not heritage listed. Subsequent correspondence with the Shire of Carnarvon has confirmed that the location of French's Shack has been mis-identified, and that there are no non-aboriginal heritage places within Lot 54.

Therefore, the nearest known non-indigenous heritage site is Maud's Landing, located approximately 3 km north of Coral Bay (Place Number 04230). Maud's Landing is listed on the Shire of Carnarvon's municipal inventory.

No other heritage places are known to exist within or in proximity to the proposed development.

2.7 Bushfire

The site is located in a bushfire prone area, as mapped by the Department of Fire and Emergency Services (DFES) (Landgate, 2024). These areas are defined as being subject to, or likely to be subject to, bushfire attack, and are identified by the presence of and proximity to bush fire prone vegetation, including both the area containing the bush fire prone vegetation and a 100 m buffer zone immediately surrounding it.

To address the risk of bushfire to the development proposal, a dedicated Bushfire Management Plan (BMP) has been developed by Emerge Associates. This BMP has been submitted in support of the development application.

2.8 Contamination

A search of the Department of Water and Environmental Regulation (DWER) Contaminated Sites Database (2024) did not identify the presence of known contaminated sites within or immediately surrounding the site. The nearest potentially contaminated site is located approximately 0.6 km north-east of the site and is associated with a pond based sewage treatment facility. This location is mapped as being Remediated for restricted use, and does not intersect nor affect the current or proposed development of the site (DWER, 2023).

The building on Lot 54 has been identified as having the potential to contain contaminating material (namely asbestos). Prior to demolition commencing, a Hazardous Materials (HAZMAT) assessment will be undertaken. Appropriate management will be implemented during based on the outcomes of the HAZMAT assessment.

3 Native Vegetation Clearing Referral Assessment Criteria

3.1 Criterion 1: The area proposed to be cleared is small relative to the total remaining vegetation

Assessment against the suitability of the clearing to be assessed as a referral is outlined below (Table 3-1).

Table 3-1: NVCR Assessment Criteria Review – Criteria 1

Factor	DWER Threshold and criteria used to determine if a clearing permit is required for 'Remaining areas of WA north of the 26 South latitude line'	Assessment Against Clearing Proposed
Extent of proposed clearing for each referral	If more than 10 ha is proposed to be cleared, a permit is required.	No more than 0.184 ha of native vegetation will be cleared as part of the proposed development.
Threshold for remaining extent of that native vegetation association or complex in the relevant IBRA bioregion	If less than 10% of that native vegetation association or complex is remaining within the relevant IBRA bioregion, a permit is required	The site is mapped as having vegetation in the Coastal Dunes 662 vegetation association, which is mapped as occurring at 99.11% in the Carnarvon IBRA region.
Threshold for remaining native vegetation surrounding the boundary of the proposed clearing	If less than 10% native vegetation is remaining within a 5 km buffer of the proposed clearing, a permit is required.	Regional mapping indicates that the coral bay townsite is the only location in a 5 km radius where native vegetation does not occur, excluding regional roads.

3.2 Criterion 2: There are no known or likely significant environmental values within the area

The potential impacts of the proposed clearing on significant environmental values within the site and surrounding area are outlined in the below table (Table 3-2).

Table 3-2: NVCR Assessment Criteria Review – Criteria 2

Factor	DWER Considerations used to determine if a permit is required	Assessment Against Clearing Proposed
Vegetation condition	The quality of the existing remnant vegetation within and nearby the area to be cleared, based on the Keighery (1994) and/or Trudgen (1988) vegetation condition scales.	A total of 0.184 ha of native vegetation will be cleared to facilitate the proposed redevelopment. The majority of which is in either a Poor to Degraded or Poor to Good condition (Figure 6).
Significant fauna	Whether the proposed clearing area provides habitat for any threatened, priority, or specially protected fauna.	The fauna survey concluded that no threatened, priority or specially protected fauna utilise or rely on the site, due to the degraded and sparse presence of native vegetation as a result of the historical development of the site (Section 2.4).

Factor	DWER Considerations used to determine if a permit is required	Assessment Against Clearing Proposed
Fauna habitat	Whether the proposed clearing area provides critical habitat for fauna.	The site does not contain any critical habitat for fauna, based on the limited native vegetation extent, presence of infrastructure and better quality vegetation in proximity to the site (Section 2.4).
Significant ecological linkage	Whether the proposed clearing is part of a significant ecological linkage.	Given the expansive nature of the surrounding area to the site (being that typical of the Shire of Carnarvon coastline) it is not expected that an ecological linkage is present or applicable for this site (Section 2.5).
Mapped ecological community	The proximity of the proposed clearing to any threatened ecological communities (TEC) or priority ecological communities (PEC).	No TECs or PECs were recorded at the site during the flora and vegetation survey (Appendix 3).
Significant flora	The proximity of the proposed clearing to any records of threatened or priority flora.	One priority 2 taxon (*Acacia ryaniana*) was recorded during the survey at the site (Figure 5). RAC's commitment to avoiding this individual has been included within the CMP, which will be implemented throughout the course of clearing and construction works
Mapped wetland	The proximity of the proposed clearing to any wetlands listed under the Convention on Wetlands of International Importance (Ramsar Convention) or the Directory of Important Wetlands in Australia, or wetlands classified as 'Conservation category' or 'Resource Enhancement'.	The site does not contain any mapped wetlands or vegetation which could be considering wetland or riparian vegetation (2.2.3).
Mapped watercourse	Whether the proposed clearing may impact on a watercourse (e.g., the structural stability of a watercourse or deterioration of water quality).	The site does not contain any mapped watercourses or watercourse features, nor any vegetation which could be considered wetland or riparian vegetation (Section 2.2.2).
Water resources (e.g., public drinking water supply areas)	Whether the clearing is in an area with high risk of decreasing water quality, rising groundwater levels, or increasing salinity.	The site is not located within a Public Drinking Water Source Area. Depth to groundwater is recorded to vary between 3.2 to 4.4 mBGL and fluctuates naturally with tidal movements (Section 2.2).
Conservation reserve	Whether the proposed clearing is within a 'conservation reserve' (e.g., Bush Forever; Environmental Protection Policy areas; land managed by the Department of Biodiversity, Conservation and Attractions; Regional Open Spaces; crown reserves vested for conservation purposes).	The site does not contain any conservation reserves (Section 2.5).
Land and soil quality	Whether the clearing is in an area with high risk of land and/or soil	The proposed clearing does not appear to present a high risk of land degradation as it

Factor	DWER Considerations used to determine if a permit is required	Assessment Against Clearing Proposed
	degradation. Factors to determine this may include (among other matters) contaminated sites records, risk of dieback disease or acid sulfate soils (ASS), and susceptibility to erosion.	does not contain any contaminated sites and is not mapped as having any risk of ASS. Development will involve little additional ground disturbance to what has been already undertaken for the current resort facilities. Installation of a temporary access way may serve to limit the number of informal access routes which currently exist in the road reserve (Section 2.1; and Section 2.8).
Heritage-related values and native title matters	Proximity to heritage-related values, including sites of Aboriginal significance, and native title matters.	No sites of Aboriginal or European heritage are recorded within or adjacent to the site (Section 2.6).

3.3 Criterion 3: The state of scientific knowledge of native vegetation within the region is adequate

The site is located within the Carnarvon Botanical District, within the Eremaean Botanical Province of Western Australia (Beard, 1975). A variety of online resources can be consulted for information on the region, such as:

- DBCA Threatened and Priority Flora Database
- DBCA Threatened and Priority Ecological Community Database
- DBCA NatureMap Species Report / DBCA Dandjoo system
- DBCA vegetation statistics (DBCA, 2019)
- Flora and vegetation datasets available through the Landgate Shared Land Information Platform (SLIP)

In addition, the following site specific assessments have been undertaken:

- Coral Bay Flora and Vegetation Survey Report (Coterra, 2019)
- Fauna Assessment at Coral Bay for RAC Parks and Resorts (Western Ecological, 2019)

3.4 Criterion 4: Conditions will not be required to manage environmental impacts.

Management of environmental impacts of the site are not required beyond those the proponent has already committed to. Further details are outlined in Table 3-3.

Table 3-3: NVCR Assessment Criteria Review – Criteria 4

Factor	Comments Provided
Conditions will not be required to manage environmental impacts	The proponent is committed to ensuring appropriate management is in place to reduce environmental impacts. These include (but are not limited to): • Implementation of the CMP, which is a requirement of condition 29 of the Development Approval.

Factor	Comments Provided
	• Site selection based on the existing resort and reduced requirement to clear vegetation, if an alternate location was selected • Clearing only within what is required for the development. It is noted that the extent of clearing is clearly shown on the Development Application documentation which reflects this NVCR application area. • Directional and slow clearing toward retained vegetation/habitat to reduce impacts on any fauna that may be present during clearing. This management action is included in the CMP (Coterra, 2023). • Preparation and subsequent Shire approval of a Bushfire Management Plan submitted to the Shire of Carnarvon as a part of the Development Application As such, conditions will not be required to manage environmental impacts associated with this proposal

4 Conclusion

The proposed redevelopment of the RAC Ningaloo Reef Resort will require clearing of no more than 0.184 ha of native vegetation within a 3.079 ha site boundary. The redevelopment of the current resort avoids the requirement to clear better condition native vegetation nearby to the site, whilst also providing additional tourism and recreational opportunities for the Coral Bay and Western Australian community.

No ecological communities or flora species listed as Priority or Threatened at a state or federal level will be impacted by the proposed clearing. The majority of native mapped within the site boundary is in either a Poor to Degraded or Poor to Good condition.

The area proposed to be cleared is considered small relative to the total native vegetation extent within the local Carnarvon IBRA region, existing at > 99% of remnant vegetation.

The clearing extent has not been identified as critical habitat for any fauna species, and areas surrounding the site contain better quality vegetation that is protected in reserves.

The proponent has prepared and will implement a CMP (Coterra Environment, 2024) for the duration of clearing and construction works to ensure that potential environmental impacts are minimised to the fullest extent practicable. Implementation of the CMP is required as per condition 29 of the development approval.

Based on the above, the proposed clearing is not anticipated to be significant at a local or regional scale.

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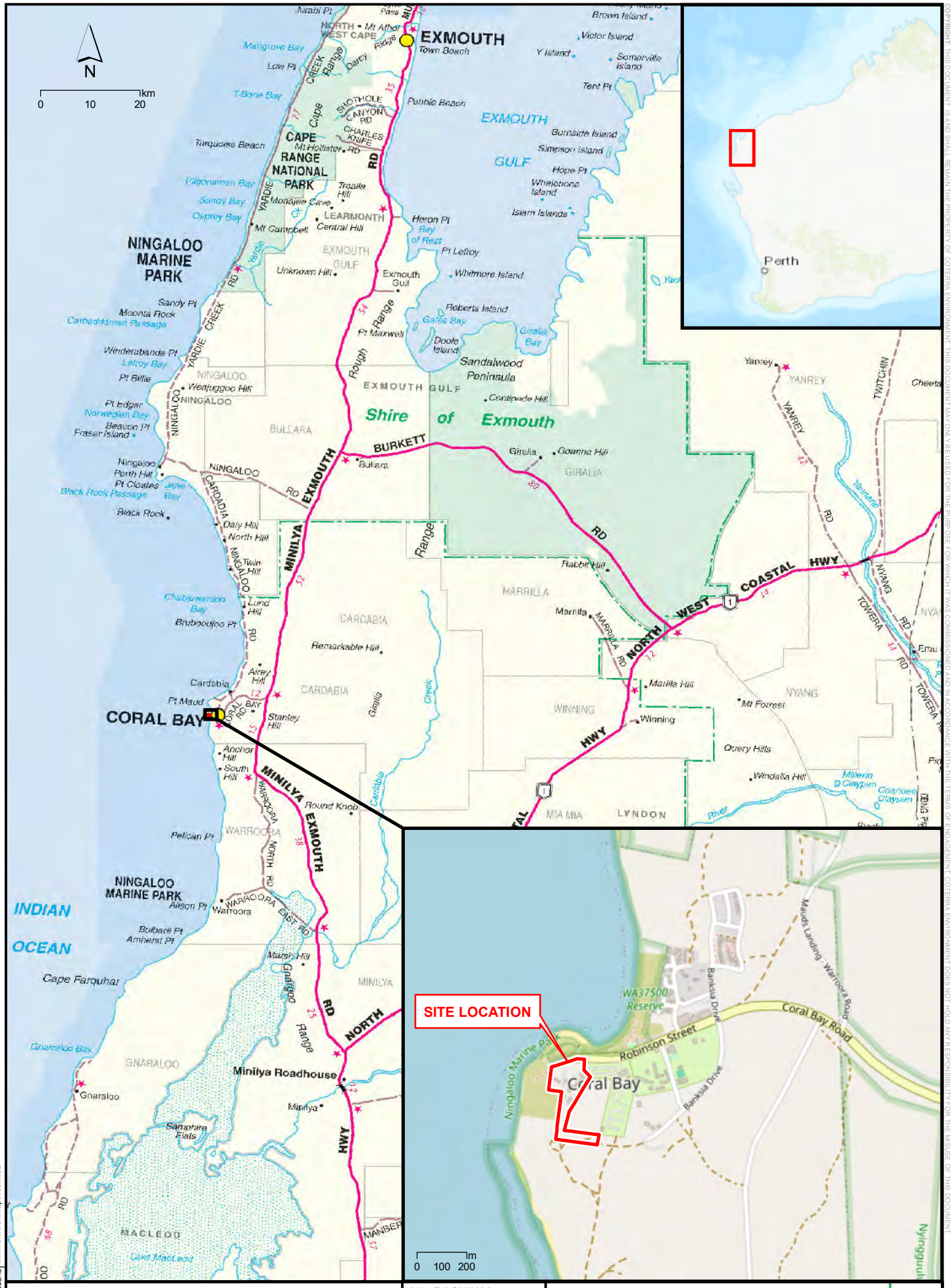
Figures



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RAC Tourism Assets Pty Ltd
NATIVE VEGETATION CLEARING REFERRAL
CORAL BAY, WESTERN AUSTRALIA

SITE LOCATION

Figure 1

C:\GIS\Jobs\CoTerra\RACNIN02 - Coral Bay RAC Tourism, ESR\Figures_NVCR\RACNIN02_NVCR_F01 Site Location_240115.mxd

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CORAL BAY, WESTERN AUSTRALIA

AERIAL PHOTOGRAPH

Figure 2

LEGEND

Site Boundary

GEOLOGY

Qb: BUNDERA CALCARENITE : undifferentiated; eolian and marine.

Qbe: Calcarenite with calcrete soils, dune shapes locally preserved; eolian.

Ql: Coastal lacustrine deposits - calcareous and gypsiferous clay, silt and sand, evaporitic deposits.

Qs: Coastal dunes, beaches and beach ridges - calcarenite, variably quartzose.

Ocean

Elevation (mAHD)

38.1

-0.3

N

0 50 100 200 300 400 m

Scale: 1:10,000 @ A3

GDA 1994 MGA Zone 49

Mauds Landing-Warroora Rd

Ql

Wahoo Ct

Sailfish Dr

Bay Lane

Robinson St

French St

Banksia Dr

Qs

Sanctuary Rd

Coral Bay Rd

Ocean

Monck Head Dr

Qb

Qbe

Source: Orthophoto - Open Source
Elevation - ANZLIC DEM
Geology - DoIR: Geological Survey of W.A., 1999

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NATIVE VEGETATION CLEARING REFERRAL
CORAL BAY, WESTERN AUSTRALIA

TOPOGRAPHY AND SOILS

Figure 3

C:\GIS\Jobs\CoTerra\RACNIN02 - Coral Bay RAC Tourism, ESR\Figures_NVCR\RACNIN02_NVCR_F03 Topography and Soils_240115.mxd

LEGEND

Site Boundary

Legislated Lands and Waters

Marine Park

Section 5(1)(h) Reserve

Section 5(1)(g) Reserve

N

0 50 100 200 300 400 m

Scale: 1:10,000 @ A3

GDA 1994 MGA Zone 49

NINGALOO MARINE PARK

NYINGGULU (NINGALOO) COASTAL RESERVES

Mauds Landing-Warroora Rd

Robinson St

French St

Banksia Dr

Sanctuary Rd

Coral Bay Rd

Monck Head Dr

Source: Orthophoto - Open Source
Legislated Lands and Waters - DBCA

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NATIVE VEGETATION CLEARING REFERRAL
CORAL BAY, WESTERN AUSTRALIA

LEGISLATED LANDS AND WATERS

Figure 4

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C:\GIS\Jobs\CoTerra\RACNIN02 - Coral Bay RAC Tourism, ESR\Figures_NVCR\RACNIN02_NVCR_F04 Legislated Lands and Waters_240122.mxd

ROBINSON STREET

AsMm

LOT 54

CBR02

LOT 68

CD

AcAoRp

LOT 1

CBQ01 *Carpobrotus sp. Thevenard Island (M. White 050)*

Acacia ryaniana

AcAoRp

CD

LEGEND

- Site Boundary
- Cadastre
- Quadrat
- Releve

Rare Flora Location

- *Acacia ryaniana* (P2)
- *Carpobrotus sp.* Thevenard Island (M. White 050) (P3)

Vegetation Units

- AcAoRp: *Acacia coriacea subsp. coriacea, Alectryon oleifolius subsp. oleifolius, Acacia tetragonophylla, Rhagodia preissii subsp. obovata* open shrubland over *Roepera fruticulosa, Senna glutinosa subsp. chatelainiana, Scaevola tomentosa, Threlkeldia diffusa* scattered low shrubs over **Cenchrus ciliaris* grassland.
- AsMm: *Acacia sclerosperma subsp. sclerosperma, Myoporum montanum* open to closed scrub over *Rhagodia preissii subsp. obovata* scattered shrubs over **Cenchrus ciliaris* open grassland.
- CD Completely Degraded vegetation

N

0 5 10 20 30 40 m

Scale: 1:1,000 @ A3

GDA 1994 MGA Zone 49

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RAC Tourism Assets Pty Ltd
NATIVE VEGETATION CLEARING REFERRAL
CORAL BAY, WESTERN AUSTRALIA

FLORA AND VEGETATION TYPES

Figure 5

ROBINSON STREET

LOT 54

P-G

CBR02

LOT 68

P-D

CD

LOT 1

CBQ01

P-D

D

CD

LEGEND

Site Boundary

Cadastre

Quadrat

Releve

Vegetation Condition

P-G: Poor to Good

D: Degraded

P-D: Poor to Degraded

CD: Completely Degraded

N

0 5 10 20 30 40 m

Scale: 1:1,000 @ A3

GDA 1994 MGA Zone 49

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NATIVE VEGETATION CLEARING REFERRAL
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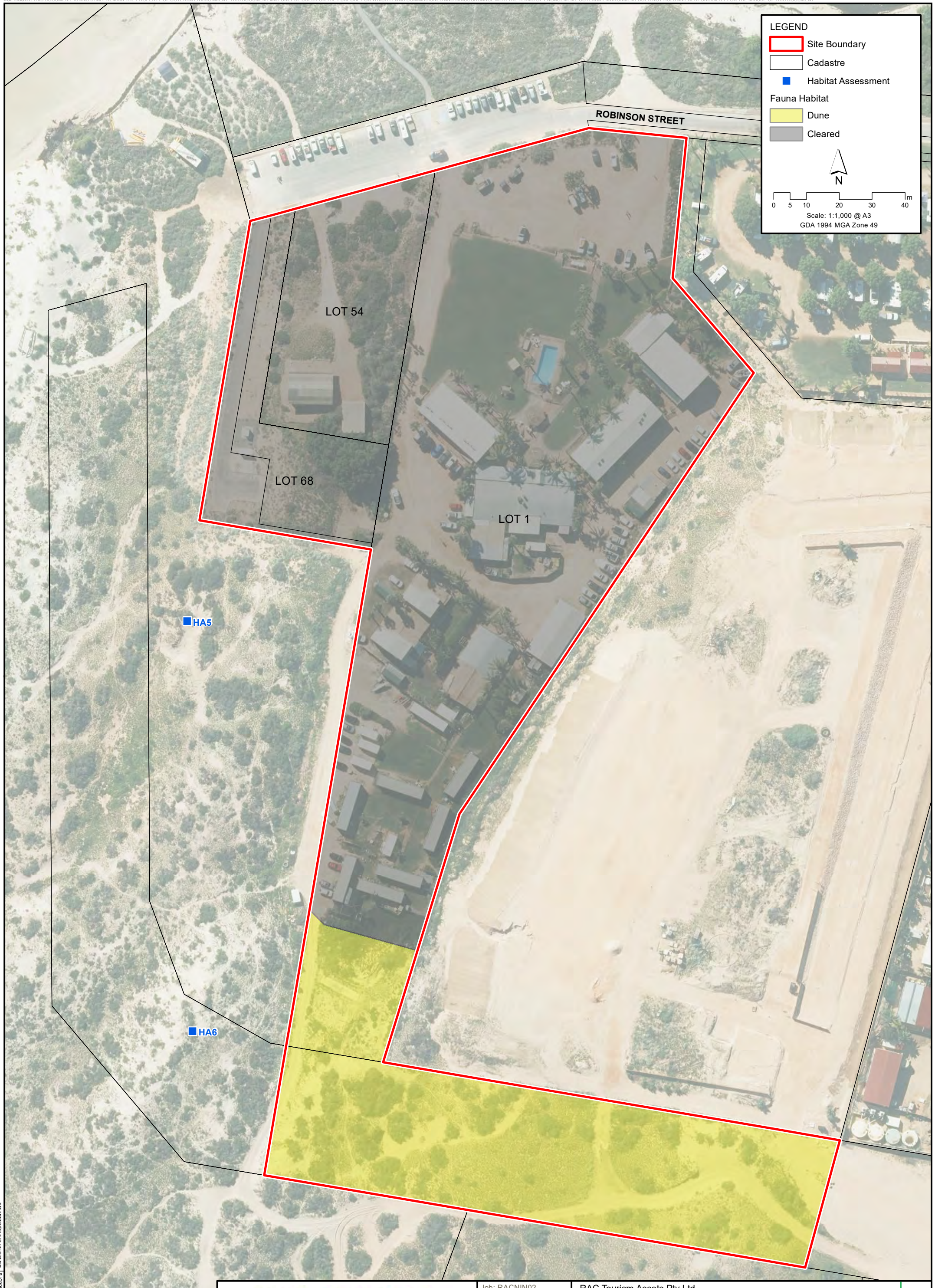
FLORA AND VEGETATION CONDITION

Figure 6

C:\GIS\Jobs\CoTerra\RACNIN02 - Coral Bay RAC Tourism, ESR\Figures_NVCR\RACNIN02_NVCR_F06 Flora and Vegetation Condition_240122.mxd



Source: Orthophoto - Open Source
Fauna - Western Ecological, 2019

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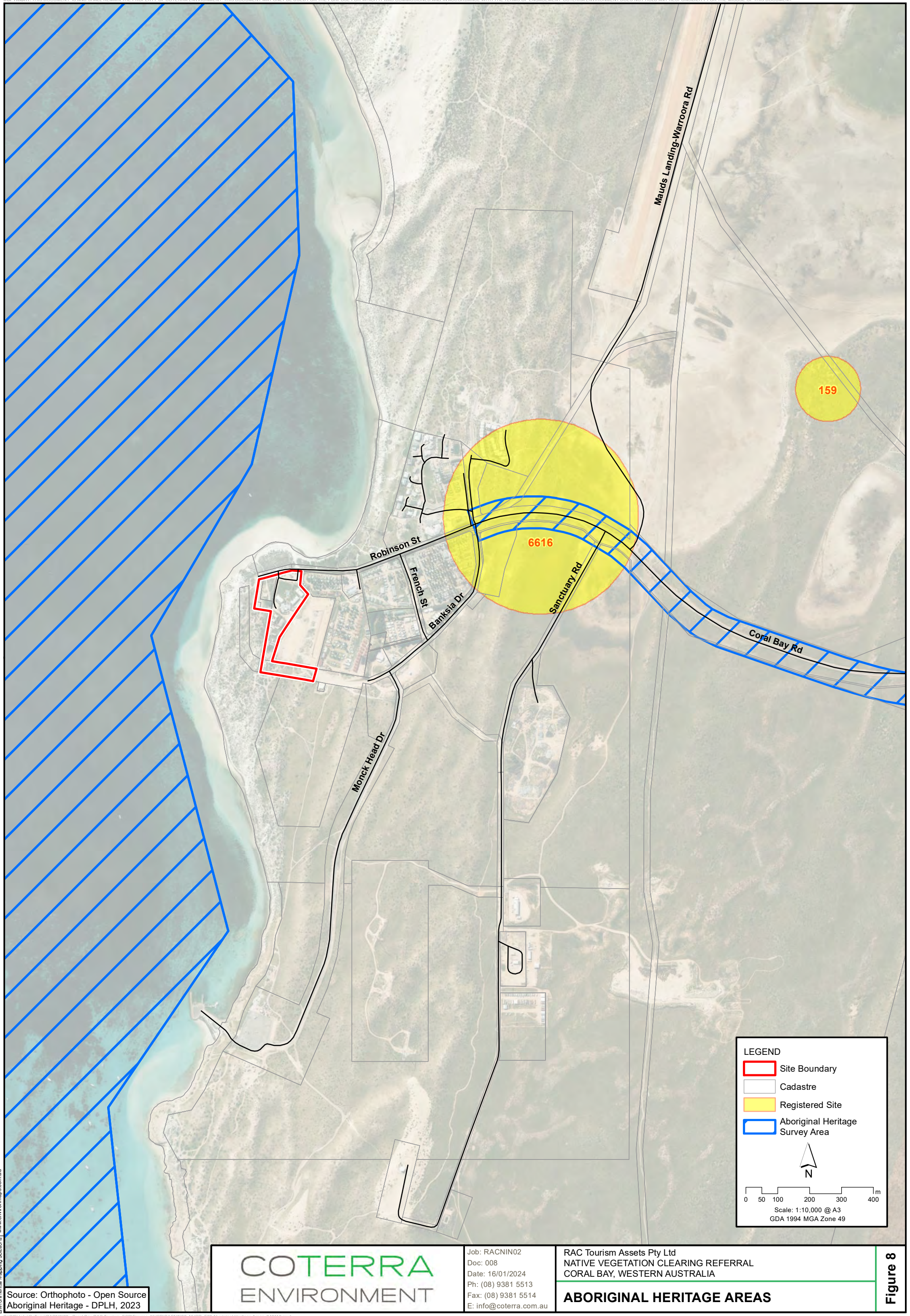
NATIVE VEGETATION CLEARING REFERRAL
CORAL BAY, WESTERN AUSTRALIA

FAUNA HABITAT

Figure 7

C:\GIS\Jobs\CoTerra\RACNIN02 - Coral Bay RAC Tourism, ESRI\Figures_NVCR\RACNIN02_NVCR_F07 Fauna Habitat_240122.mxd



Source: Orthophoto - Open Source
Aboriginal Heritage - DPLH, 2023

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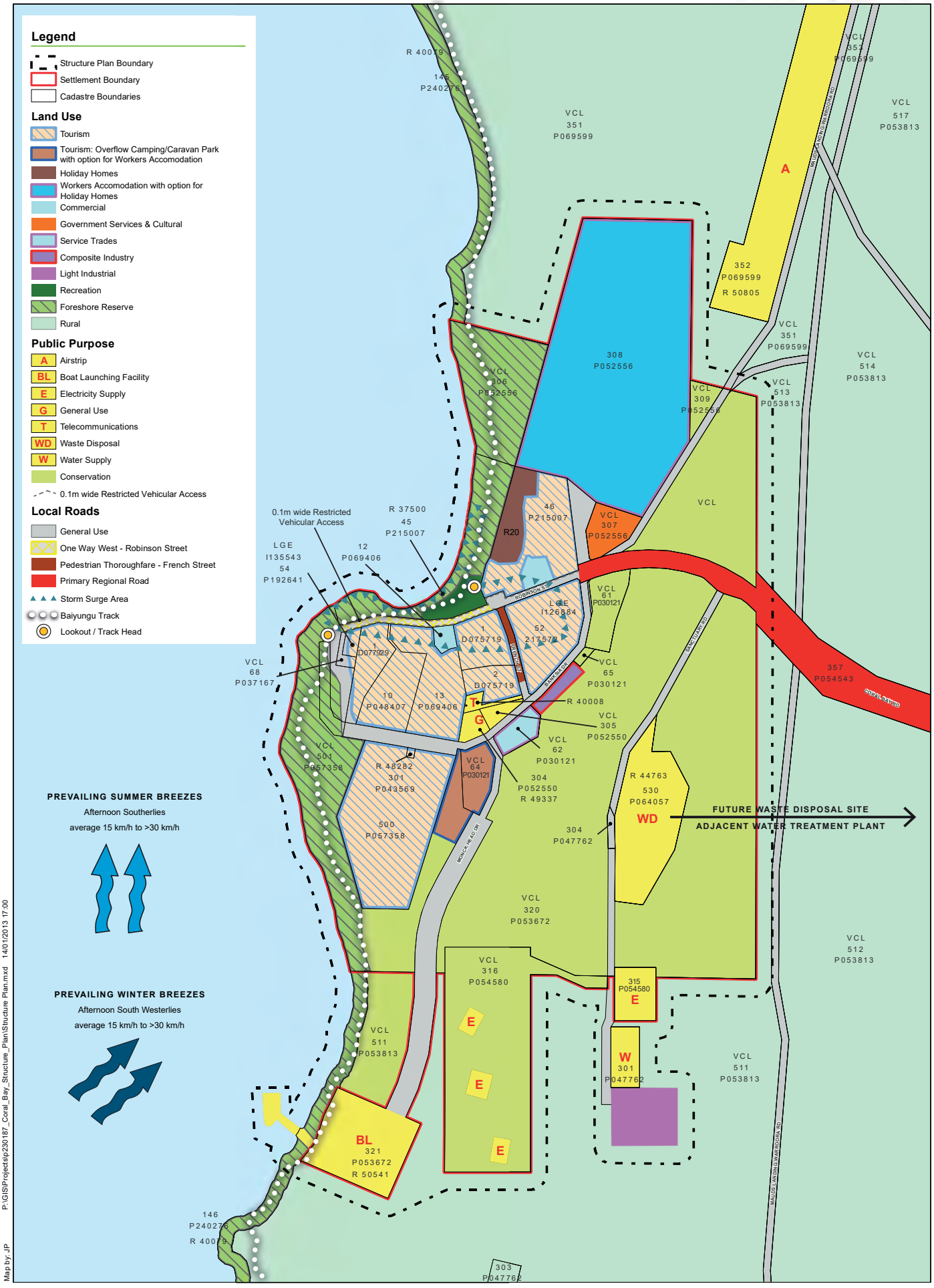
NATIVE VEGETATION CLEARING REFERRAL
CORAL BAY, WESTERN AUSTRALIA

ABORIGINAL HERITAGE AREAS

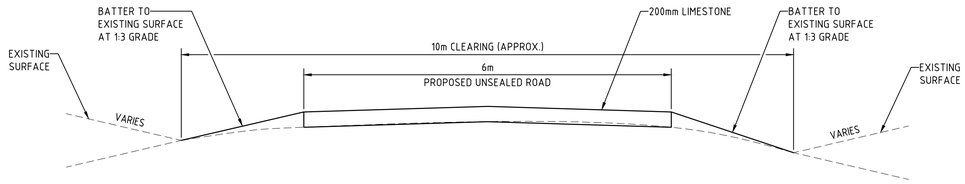
Figure 8

C:\GIS\Jobs\CoTerra\RACNIN02 - Coral Bay RAC Tourism, ESR\Figures_NVCR\RACNIN02_NVCR_F08 Aboriginal Heritage Areas_240116.mxd

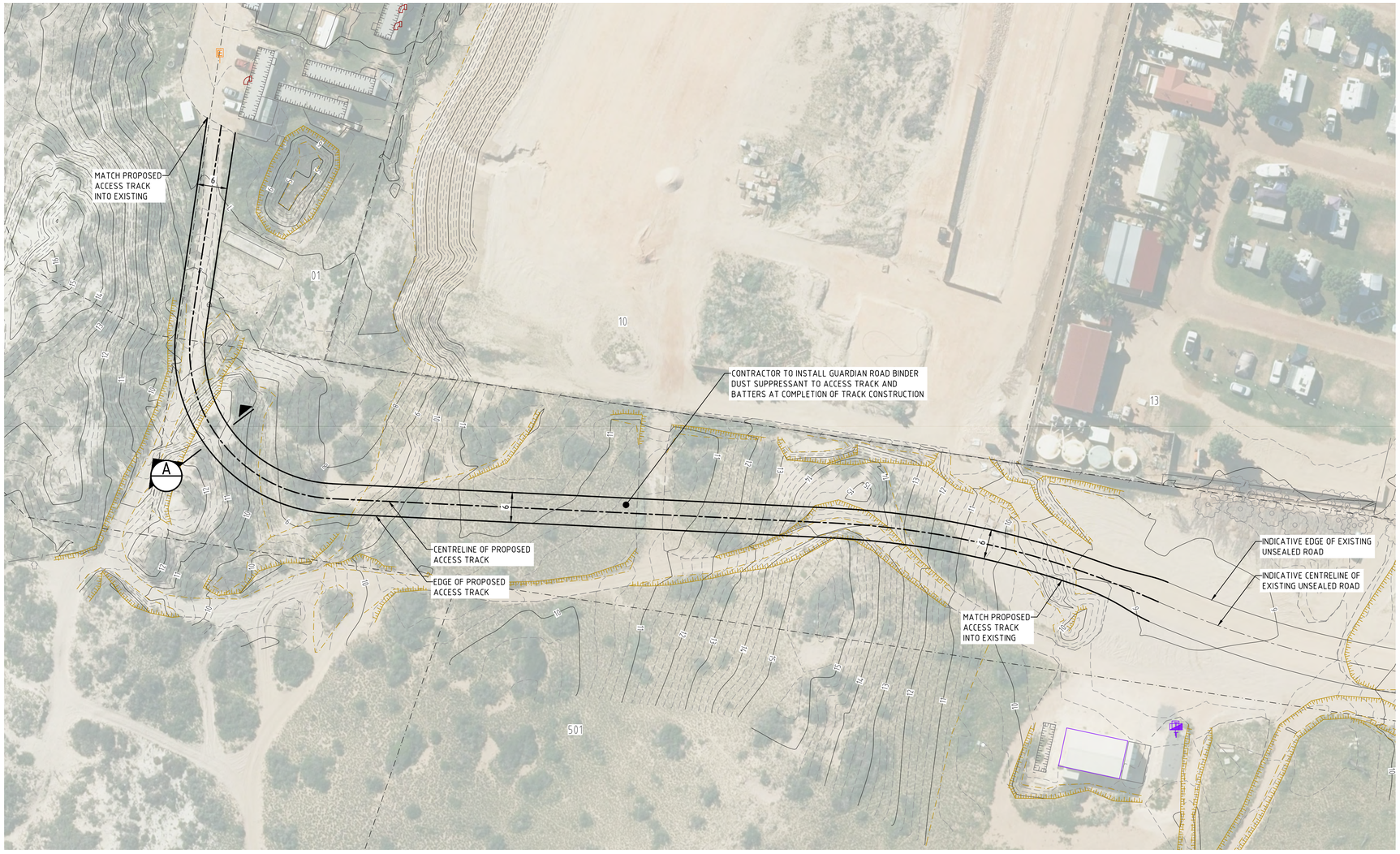
Appendix 1 Coral Bay Settlement Structure Plan


Legend
Structure Plan Boundary
Settlement Boundary
Cadastre Boundaries
Land Use
Tourism
Tourism: Overflow Camping/Caravan Park with option for Workers Accomodation
Holiday Homes
Workers Accomodation with option for Holiday Homes
Commercial
Government Services & Cultural
Service Trades
Composite Industry
Light Industrial
Recreation
Foreshore Reserve
Rural
Public Purpose
A Airstrip
BL Boat Launching Facility
E Electricity Supply
G General Use
T Telecommunications
WD Waste Disposal
W Water Supply
Conservation
0.1m wide Restricted Vehicular Access
Local Roads
General Use
One Way West - Robinson Street
Pedestrian Thoroughfare - French Street
Primary Regional Road
Storm Surge Area
Baiyungu Track
Lookout / Track Head
PREVAILING SUMMER BREEZES
Afternoon Southerlies
average 15 km/h to >30 km/h
PREVAILING WINTER BREEZES
Afternoon South Westerlies
average 15 km/h to >30 km/h
FUTURE WASTE DISPOSAL SITE
ADJACENT WATER TREATMENT PLANT
0.1m wide Restricted Vehicular Access
R 37500
45
P215007
LGE
I135543
54
P192641
12
P069406
R 40079
146
P240276
VCL
351
P069599
VCL
352
P069599
R 50805
VCL
517
P053813
VCL
514
P053813
VCL
513
P053813
VCL
309
P052556
308
P052556
VCL
306
P052556
46
P215007
R20
VCL
307
P052556
VCL
61
P030121
LGE
I126884
52
217572
1
D075719
1
D077929
2
D075719
VCL
68
P037167
19
P048407
13
P069406
R 40008
VCL
65
P030121
VCL
305
P052550
VCL
62
P030121
VCL
64
P030121
304
P052550
R 49337
VCL
501
P057358
R 48282
301
P043569
500
P057358
R 44763
530
P064057
WD
304
P047762
VCL
320
P053672
VCL
316
P054580
315
P054580
E
W
301
P047762
VCL
511
P053813
VCL
512
P053813
BL
321
P053672
R 50541
303
P047762
357
P054543
ROBINSON ST
BARRETT DR
SANCTUARY RD
MONCHE HEAD DR
MAUDS LANDING/WARROORA RD
Map by: JP
P:\GIS\Projects\p230187_Coral_Bay_Structure_Plan\Structure Plan.mxd 14/01/2013 17:00
A3 scale: 1:10,000
0 100 200 300 400 m
Date: 30/01/2013 Version: 1
Coordinate system: MGA Zone 49 Job No: 230187
Shire of Carnarvon Coral Bay Settlement Structure Plan
Figure 1: Structure Plan

Appendix 2 Preliminary Construction Access Track Alignment



A TYPICAL ACCESS TRACK SECTION
SECTION NOT TO SCALE



ROAD NOTES

1. VERTICAL DATUM : AUSTRALIAN HEIGHT DATUM.
   HORIZONTAL DATUM : EXMOUTH PROJECT GRID 1994 (EXM94)
2. SERVICES, SUCH AS SEWER, WATER, GAS, TELEPHONE, ELECTRICITY, AND DRAINAGE MAY BE ENCOUNTERED DURING CONSTRUCTION OF THE WORKS. SERVICES INFORMATION SHOWN ON DRAWINGS IS INDICATIVE ONLY AND MAY NOT BE COMPLETE. BEFORE EXCAVATION COMMENCES THE LOCATION OF ALL SUCH SERVICES SHALL BE OBTAINED FROM THE RELEVANT AUTHORITIES.
3. THE CONTRACTOR SHALL CO-ORDINATE THE LOCATION OF ALL EXISTING AND PROPOSED SERVICES PRIOR TO COMMENCEMENT OF WORK. ANY CONFLICTS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
4. ALL WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATION, BUT WHERE NO DETAIL PROVIDED, TO THE REQUIREMENTS OF THE LOCAL AUTHORITY.
5. CONTRACTOR SHALL PROVIDE ALL SIGNING, LIGHTING AND FLAGMEN NECESSARY TO ENSURE SAFETY OF THE PUBLIC AND OF THE WORKS.
6. LOCATE ALL LEVELS FROM EXISTING SURVEY MARKS. ALL SURVEY MARKS SHALL BE PROTECTED.
7. EXISTING VERGES SHALL NOT BE DISTURBED BEYOND THE EXTENT OF WORK.
8. ALL FILL SHALL BE CLEAN NON PLASTIC MATERIAL FREE FROM VEGETATION AND OTHER DELETERIOUS MATERIAL AND CERTIFIED AS SUITABLE FOR RESIDENTIAL LANDUSE.
9. ALL FILL SHALL BE PLACED IN UNIFORM LAYERS NOT EXCEEDING 300mm THICKNESS AND COMPACTED TO A DENSITY NOT LESS THAN 95% MAXIMUM DRY DENSITY.
10. CONTRACTOR SHALL TIE IN NEW SURFACE TO FINISH FLUSH WITH EXISTING SURFACE.
11. THE CONTRACTOR SHALL PREPARE AS-CONSTRUCTED ROADS AND PATH DRAWINGS (INCLUDING SURVEY) TO THE SATISFACTION OF THE LOCAL AUTHORITY. AS CONSTRUCTED PLANS SHALL BE ISSUED TO THE ENGINEER FOR SIGNING AND PRESENTATION TO THE LOCAL AUTHORITY.
12. IT IS DEEMED THAT THE AS CONSTRUCTED DOCUMENTS FORM PART OF THE WORKS. PRACTICAL COMPLETION CAN NOT BE AWARDED IF ACCEPTABLE AS CONSTRUCTED DOCUMENTS HAVE NOT BEEN PROVIDED TO THE ENGINEER.

LEGEND

- CENTRELINE OF PROPOSED ACCESS TRACK
- EDGE OF PROPOSED ACCESS TRACK
- INDICATIVE CENTRELINE OF EXISTING UNSEALED ROAD
- INDICATIVE EDGE OF EXISTING UNSEALED ROAD
- EXISTING GROUND MAJOR CONTOUR (1.0m INTERVAL)
- EXISTING GROUND MINOR CONTOUR (0.1m INTERVAL)
- EXISTING CADASTRAL BOUNDARY
- EXISTING TOP OF BANK
- EXISTING BOTTOM OF BANK
- EXISTING FENCE
- EXISTING COMMUNICATION STRUCTURE
- EXISTING COMMUNICATION MARKER
- EXISTING COMMUNICATION PIT
- EXISTING ELECTRICAL MARKER
- EXISTING SEWER VENT
- EXISTING SIGN POLE
- EXISTING TREE
- 10 EXISTING LOT NUMBER

0m 10 20 30m
1:500

DATE	BY	APP'D	AMENDMENT
22/01/2024	TN	BIH	RE-ISSUED FOR CONCEPT
19/01/2024	TN	BIH	ISSUED FOR CONCEPT

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TUOAD Pty Ltd ACN 078 097 548 as trustee for the Consulting Engineering Unit Trust trading as Porter Consulting Engineers ABN 78 636 396 385

CONSULTANTS PROJECT NUMBER	
24-1-5	
DESIGNED DLC	DATE 16/01/2024
CHECKED DLC	DATE 22/01/2024
APPROVED BIH	DATE 22/01/2024
PROJECT MANAGER	DATE

RAC APPROVED APPROVED DATE

SCALE (A1) 1:500
DATUM HORIZONTAL EXM94
VERTICAL AHD
RAC PROJECT MANAGER

PROJECT BANKSIA ACCESS TRACK
TITLE CONSTRUCTION ACCESS TRACK LAYOUT
DRAWING No CRB-003-CIV-DWG-001
REV B

Appendix 3 Detailed Vegetation and Flora Survey, Coral Bay Sites (Coterra, 2019)

Appendix 4 Fauna Assessment at Coral Bay (Western Ecological, 2019)