COTERRA ENVIRONMENT

# Native Vegetation Clearing Application Supporting Information

## Monkey Mia Dolphin Resort Solar Farm

Revision 3 April 2026

CALIBRE | COMMITMENT | COLLABORATION

| | |
|---|---|
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# 1 Introduction

## 1.1 Background

RAC Tourism Assets Pty Ltd (trading as RAC Parks & Resorts; RAC) is proposing to install a solar farm comprised of a 1,280 kilowatt (kW) solar array and 3,700 kW hour (kWh) Battery Energy Storage System (BESS) and associated hardware and infrastructure to support the operations of the Monkey Mia Dolphin Resort (MMDR) and the adjacent Monkey Mia Visitor Centre operated by the Department of Biodiversity Conservation and Attractions (DBCA).

The solar farm is proposed to be developed on part of newly created Reserve 49108 which also houses the existing Monkey Mia power generation facilities, which are currently comprised of a series of diesel generators approximately 400 m south of the MMDR. This arrangement takes advantage of existing transmission and access infrastructure in this location, with a project area covering 2.89 hectares (ha) within the reserve being set aside. The project area is located on the eastern side of the Peron Peninsula in the Shire of Shark Bay, and is displayed in Figure 1.

It is anticipated that the proposed solar farm will provide 90% of the MMDR's energy requirements each year, thereby negating approximately 1.3 million kilograms of carbon dioxide emissions annually in line with the State Government's aspirations for net zero emissions by 2050.

## 1.2 Planning and Environmental Approvals

### 1.2.1 Land Use

To facilitate the proposed solar farm, a portion of Reserve 1686 was recently excised and incorporated into Reserve 49108, creating a new Lot 600 on DP 428636. Existing power generating infrastructure for Monkey Mia is already located within Reserve 49108, the purposes of which includes power generation, effluent treatment and disposal, water treatment, resort infrastructure and related purposes. Reserve 49108 now covers approximately 7.26 ha and is covered by existing facilities and remnant vegetation.

Reserve 49108 is subject to a management order to the Shire of Shark Bay, the conditions of which include a requirement for the reserve to be utilised for its designated purposes. This management order is provided at Appendix 2.

It is recognised that Reserve 49108 is located within the Shark Bay World Heritage Area, which is afforded protection at both a federal and international level. Historic aerial imagery indicates that the project area has comprised exclusively of native vegetation since at least prior to 2002.

### 1.2.2 Federal Environmental Approval

At a federal level, impacts to the environment are regulated through the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). There are nine matters protected under the Act, which are collectively referred to as Matters of National Environmental Significance (MNES). An action requires approval from the Minister if the action has, will have, or is likely to have a significant impact on an MNES.

The project area is located within the Shark Bay World Heritage Area, which is considered an MNES and afforded protection under the EPBC Act based on its designation as both a world and national heritage area. While impacts to the Shark Bay World Heritage Area are not considered significant enough to warrant approval by the Minister (less than 3 ha of complete and partial clearing is required), RAC has prepared and lodged a referral under the EPBC Act to provide legal certainty to the project. The referral was lodged with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) on November 3, 2023. On 21 November 2025, DCCEEW determined that the proposed action is not a controlled action, and does not require formal assessment under the EPBC Act.

### 1.2.3 State Planning Process

An application for development approval was submitted to the Shire of Shark Bay on the 24th of October2023, with the Shire's, DPLH's, and DBCA's written consent. On 22 February 2024, Development Approval was granted for the proposed solar farm by the Shire of Shark Bay, subject to conditions. The development approval is provided at Appendix 3.

### 1.2.4 State Environmental Approval

The MMDR and its expansion since 2005 are the subject of Ministerial Statement 709, which was issued following an assessment by the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986* (EP Act) on 28 December 2005. Key Environmental Factors identified as part of the assessment included Marine Environmental Quality, Marine Fauna, Flora and Vegetation, Terrestrial Environmental Quality, and Terrestrial Fauna.

As the project is located outside of the area subject to MS 709, and recognising that the project is not so significant as to warrant a referral under Part IV of the Act (less than 3 ha of complete and partial clearing of non-conservation significant vegetation is required), a Native Vegetation Clearing Referral (NVCR) under Part V of the EP Act is considered appropriate.

Noting that the Shark Bay World Heritage Area corresponds to an Environmentally Sensitive Area (ESA) as declared by the Minister for Environment in *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*, no exemption from the requirement for a NVCP under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* is understood to apply.

## 1.3 Purpose of this Report

To facilitate construction of the proposed solar farm, the clearing of no more than 2.89 ha of native vegetation will be required within the project area.

This report has been prepared in support of a NVCR under Part V of the EP Act.

## 1.4 Stakeholder Engagement

Stakeholder engagement for the proposed solar farm has been extensive, with RAC proactively engaging with multiple departments across all levels of government, as well as non-governmental organizations and traditional owners. While this level of engagement is proposed to continue for the duration of the project's implementation, a summary of engagement undertaken to-date is provided below in Table 1.

**Table 1: Stakeholder engagement undertaken to date**

| Stakeholder | Date | Format of engagement |
|---|---|---|
| Shire of Shark Bay (SoSB) | 9 Dec 2022 | Letter from SoSB (Appendix 2) acknowledging previous engagements on the 18/11/22 and 6/12/22 indicating advising that the SoSB had no objection to DPLH signing a DA application for the proposed array on Reserve 1686. |
| | 6 Dec 2022 | Briefing email to provide intent and seek confirmation of engagement, support for lodgement of a DA and seek feedback. |
| | 18 Nov 2022 | Preliminary discussion meeting via zoom, regarding proposal to establish a Solar Farm in Reserve 1686, adjacent to Infrastructure Lot 55, and introduction to Planning Consultant Amanda Butterworth from Allerding & Associates (AA) acting on behalf of RAC. |
| | 18 Feb 2023 | Email from DBCA (Appendix 2) which confirms that; |

| Stakeholder | Date | Format of engagement |
|---|---|---|
| Department of Biodiversity, Conservation and Attractions (DBCA) | | 1. Allerding and Associates has consulted with the Department of Biodiversity, Conservation and Attractions (DBCA) regarding an intent to lodge a development application on a proportion of Reserve 1686 (Monkey Mia Road).<br>2. DBCA do not object to DPLH signing the development application form. |
| | 9 Feb 2023 | Email from Allerding and Associates to DBCA (Appendix 2), requesting correspondence that DBCA:<br>1. has no objection to DPLH signing the development application form; or<br>2. Confirm that we have consulted in DBCA in regard to the intent to lodge the development application. |
| | 8 Feb 2023 | Site meeting to review site, discuss Development Application. |
| | 6 Dec 2022 | Briefing email to provide intent and seek confirmation of engagement, support for lodgement of a DA and seek feedback. |
| | 7 Dec 2023 | Letter received from DBCA providing comment on the Development Application. Commentary focused on the exploration of development alternatives, potential impacts to conservation significant flora and fauna species, potential for soil erosion, and recommendations on the reserve boundary realignment process. |
| | 11 Dec 2023 | Letter from the proponent to DBCA responding to DBCA's comments on the Development Application. Further information was provided on development alternatives (see section 2.4), actions to mitigate potential impacts to conservation significant flora and fauna species and mitigate soil erosion (see section 4), and the proponent's intention to accept all costs associated with the preparation of a new deposited plan for the realigned reserve boundary. |
| Department of Planning, Lands and Heritage (DPLH) | 24 Jul 2023 | Email from Aboriginal Heritage (DPLH) to Allerding and Associates, advising whilst DPLH have confirmed that the site does not intersect any recorded ACH the DPLH, it has not confirmed that "ACH reports confirm that ACH is not located in the activity area" and the consultation needs to be carried out. |
| | 30 Jun 2023 | Email to Aboriginal Heritage (DPLH) seeking that "DPLH confirm that given that the activity area is not a Registered Aboriginal Site and is not an Other Heritage Place, there is no aboriginal cultural heritage in the activity area, per its definition under the *Aboriginal Cultural Heritage Act 2021* |
| | 20 Mar 2023 | Email with Crown Land Enquiry Form attached, to DPLH seeking that DPLH sign a Development Application form to be submitted to SoSB to support the establishment of a Solar Farm within Reserve 1686. |
| Department of Climate Change, Energy, the Environment and Water (DCCEEW) | 3 Nov 2023<br>21 Nov 2025 | Referral of the proposal to the DCCEEW under the EPBC Act.<br>Decision received that *"the proposed action is not a controlled action"* |
| Shark Bay World Heritage Advisory Committee | 8 Feb 2023 | Site meeting to review site, discuss Development Application. |
| | 5 Dec 2023 | Letter received from Shark Bay World Heritage Advisory Committee providing comment on the Development Application. The proponent's commitment to green energy initiatives and to enhancing sustainability was commended. Commentary focused on the exploration of development alternatives, potential aesthetic impacts, and end of life contingencies. |

| Stakeholder | Date | Format of engagement |
|---|---|---|
| | 11 Dec 2023 | Letter from the proponent to Shark Bay World Heritage Advisory Committee responding to the committee's comments on the Development Application. Further information was provided on development alternatives (see section 2.4), sight line impacts, and the proponent's actions in the event the site is no longer required. |
| Malgana Aboriginal Corporation (MAC) | Various from 28 July 2023 | Numerous emails, phone calls and meetings regarding Aboriginal Heritage, culminating in:<br>• Establishment of a Heritage Agreement with MAC on the 12 May 2025.<br>• Undertaking an Archaeological and Ethnographic Heritage Survey, with full involvement of MAC representatives on the 1 July 2025.<br>• Development of a Heritage Report dated 2 September 2025, which found that the "RAC Monkey Mia Dolphin Resort Solar Farm is Clear for the stated works to proceed". |

# 2 Proposed Clearing

## 2.1 Proposed Works

Installation of the proposed solar farm will involve:

- Detailed design and procurement
- Application for a Building License
- Preliminary site works including clearing of native vegetation and upgrades to access roads
- Site preparation
- Construction of the array modules, frames, electrical connections, and footings
- Construction of the sub-station
- Fitting of modules
- Positioning of junction boxes, inverters and transformers
- Connection of required cabling

Once commissioned, the solar farm will have no fixed operational lifetime. It is envisaged that the solar farm will be upgraded as required to provide for the long-term generation of power for the Monkey Mia area.

A site plan detailing the proposed solar farm's layout is provided in Appendix 1.

## 2.2 Schedule

Construction works are proposed to be undertaken over a period of approximately five to seven months, commencing October 2026. Native vegetation clearing is anticipated to be limited to a one week period during this time.

## 2.3 Clearing Methodology

Prior to the commencement of clearing, the project area will be physically demarcated to ensure that over-clearing does not occur. All site personnel will undertake an induction, which will outline the environmental values of the project area and the importance of remaining within the defined clearing area.

Clearing will be undertaken by mechanical removal. Measures to mitigate potential direct and indirect impacts on the environment (detailed in Section 4) will be implemented throughout the course of both clearing and construction activities.

## 2.4 Alternatives Considered

The location of the proposed solar farm has been chosen to mitigate potential direct and indirect impacts to the environment, to the fullest extent practicable. For example, while the proposed infrastructure could be located south of Reserve 1686 in Rural zoned land, the lack of transmission infrastructure and vehicle access to this location would necessitate the construction of roads and power lines, likely through the reserve, which would necessitate the clearing of vegetation regardless. It is recognised that the total area of native vegetation clearing would be greater overall, should this alternative be pursued.

Land to the south of Reserve 49108 was also assessed for its potential to support the proposed solar farm. However, as the land in that location falls to the east it would result in higher material use, lower efficiency generation, and would likely be clearly visible from the existing Wulyibidi Yaninyina trail.

It should also be noted that for the proposed solar farm to be located outside of the Shark Bay World Heritage Area (for example, in Denham), approximately 16 km of native vegetation would need to be cleared to allow for the construction of transmission and access infrastructure. Similar clearing would also be required to connect to green hydrogen infrastructure in Denham, to facilitate the installation of piping along approximately 25 km.

Energy generation through wind was also considered, however based on the potential for greater visual impacts and wildlife risk, this option was ruled out.

# 3 Project Area Characteristics

## 3.1 Topography, Landform and Soils

Topography across the project area is generally uniform, ranging from approximately 25 meters Australian Height Datum (mAHD) in the north to 32 mAHD in the south (Geoscience Australia 2023).

At a landscape scale, rangelands land systems were classified and mapped by Tille (2006) according to similarities in landform, soil, vegetation, geology and geomorphology. The entirety of the project area is located within the Sandplain Land System, which is described as flat to gently undulating red sandplains with occasional dunes, supporting tall wanyu shrublands with mainly shrub (but locally grassy) understory. Also sometimes low woodlands of sandplain gidgee.

Soils within the project area as mapped by the Atlas of Australian Soils (Natural Resource Information Centre 1991) are identified as A19, which is described as brown calcareous dune sands.

## 3.2 Hydrology

There are no mapped wetlands or any surface water expressions within or in proximity to the project area.

There are no Public Drinking Water Source Areas within or in proximity to the project area.

There are two groundwater licenses in effect over the project area, for the abstraction of water from the Birdrong Aquifer of the Gascoyne Groundwater Area. These are:

- License No. 174898 – Registered to DBCA with an allocation of 50,000 kilolitres (kL), expiring in August 2027.
- License No. 54651 – Registered to Main Roads WA with an allocation of 203,000 kL, expiring in September 2030.

## 3.3 Flora and Vegetation

### 3.3.1 Pre-European Vegetation

Pre-European vegetation within Western Australia has been mapped at a broad scale by Beard (1975) as vegetation system associations. Within the project area, one vegetation system association has been mapped, this being LHARIDON 2081, which is described as a scrub, open scrub or sparse scrub of Wattle (*Acacia* spp), Teatree (*Melaleuca* spp), and other species. There is approximately 99.76% of this vegetation system association remaining, of which approximately 26% is within lands protected (reserved) for conservation (Government of Western Australia 2019). Vegetation within the project area represents less than 0.01 % (2.89 ha) of the total extent remaining within Western Australia (94,341 ha).

### 3.3.2 Site Assessments

The project area is relatively well understood from a floristic perspective, with a number of site-specific flora and vegetation surveys having been undertaken within the project area and broader Monkey Mia area since the early 2000's. These surveys are presented in Table 2 below.

**Table 2: Flora and vegetation assessments undertaken within the project area**

| Author | Timing | Title |
|---|---|---|
| Plant Ecology Consulting | 3rd August 2023 | RAC Solar Farm Monkey Mia Flora and Vegetation Survey |

| Author | Timing | Title |
|---|---|---|
| Strategen Environmental | 17-18th February 2017 | Monkey Mia Dolphin Resort Expansion Flora and Vegetation Survey |
| Weston, A.S. | 24-26th January 2002 | Vegetation and rare flora surveys concept development plan areas Monkey Mia Dolphin Resort |

Generally, vegetation within the project area is considered to be relatively uniform, with only one plant association identified, this being a Tall Open Shrubland of *Acacia ramulosa* subsp. *ramulosa* and *Acacia tetragonophylla* with scattered *Acacia sclerosperma* subsp. *sclerosperrma* over *Eremophila* spp. and sparse forbs (Plant Ecology 2023; Appendix 4).

The majority of vegetation within the project area (2.82 ha) is considered to be in a 'Good' condition, while the remainder (0.07 ha) is considered to be in a 'Completely Degraded' condition (Plant Ecology 2023; Appendix 4). The site's generally degraded nature was attributed in part due to significant senescence of shrubs which were observed within the project area, the prevalence of historic debris (Plate 1) as well as an absence of annual species and almost no herbaceous species being present.

Plant associations and vegetation condition within the project area is displayed in Figure 2.

**Plate 1: Historical debris observed within the project area (Plant Ecology 2023)**

In terms of flora species, a total of 13 native flora taxa have been recorded within the project area, representing 10 families and 10 genera. No conservation significant taxa (including listed Threatened or Priority taxa) have been identified to occur within the project area (Plant Ecology 2023; Appendix 4). The nearest known conservation significant taxa is *Lepidium biplicatum* (Priority 3), located approximately 1.3 km west of the site (Plant Ecology 2023).

## 3.4 Fauna and Habitat

Faunal assemblages and habitat in the Monkey Mia area has been the subject of dedicated studies since the MMDR's referral under the EP Act in the early 2000's, including both general and targeted studies for conservation significant fauna taxa. The most recent survey having been undertaken in August 2023. These fauna surveys are listed below in Table 3.

**Table 3: Fauna surveys undertaken within the Monkey Mia area (including project area)**

| Author | Timing | Survey Title | Survey Type |
|---|---|---|---|
| Harewood, G. | 4th to 7th August 2023 | Targeted Fauna Assessment Proposed Solar Farm Reserve 1686 (Part) Monkey Mia | Targeted and Reconnaissance |
| Metcalf and Bamford | 12th to 13th March 2017 | Level 1 Fauna Assessment of the proposed Monkey Mia Dolphin Resort Expansion Area | Reconnaissance |
| Strategen Environmental | 11th to 13th October 2016 | Western Grasswren nesting survey Monkey Mia Dolphin Resort | Targeted |
| Bamford | 12th to 14th July 2015 | Pre-expansion survey for the Thick-billed (Western) Grasswren at the Monkey Mia Dolphin Resort, July 2015 | Targeted |
| Bamford & Bamford | 11th to 14th February 2003 | Think-billed Grasswren Survey, Monkey Mia | Targeted |
| Metcalf and Bamford | 29th January to 1st February 2002 | Fauna survey of the concept development plan areas for the Monkey Mia Dolphin Resort | Targeted and reconnaissance |
| Metcalf and Bamford | 29th January to 1st February 2002 | Fauna survey of the 'Mini Mia' areas for the Monkey Mia Dolphin Resort | Targeted and reconnaissance |

With regard to the most recently undertaken fauna survey (Harewood 2023; Appendix 5), this survey was undertaken to document the current status of the Western Grasswren (*Amytornis textilis textilis*; Priority 4), and to determine the possible presence of other conservation significant fauna species and/or their habitat within the project area.

In terms of fauna habitat, only one habitat type was identified within the project area, this being an Open Scrub of bowgada wattle (*A. ramulosa*), dead finish (*A. tetragonophylla*) and Shark Bay poverty bush (*E. maitlandii*) over an Open Low Shrubland of pebble bush (*Stylobasium spathulatum*) and flannel bush (*Solanum lasiophyllum*) with significant expanses of bare sand. The sparsity of vegetation, particularly within the lower strata was attributed exclusively to the prevalence of introduced taxa, namely goats and rabbits.

In terms of the Western Grasswren, no evidence of this species utilising the project area was found and the habitat present appears unsuitable for the species to persist given the sparse nature/absence of low shrub species and leaf litter (Harewood 2023). This is despite a survey effort which incorporated six separately timed fauna transects within the project area, as well as audio recording units (Figure 3).

No other conservation significant fauna were identified within the project area. Based on the mapped habitat type, only one conservation significant species was considered to have the potential to utilise the site, being the Peregrine Falcon (Falco peregrinus; Other Specially Protected). However, no suitable nest sites for the species occurs within the project area.

## 3.5 Heritage

Aboriginal heritage within the Monkey Mia area has been relatively well surveyed, with at least three surveys having been undertaken within at least part of the project area to date (DPLH 2023). There are no known aboriginal heritage sites (including registered sites or other heritage places) within the project area. The nearest known aboriginal heritage place is Place 8778 (Monkey Mia), which is of the Artefacts/Scatter, Midden/Scatter type. This heritage place is located on the opposite side of the Reserve 49108 access road, and intersects the location of an existing Telstra tower. Aboriginal heritage sites in proximity to the project area are displayed in Figure 4.

In terms of non-Aboriginal heritage, the Monkey Mia Grave Site (Place Number 11733) is located approximately 380 meters northeast of the project area (Figure 4). The site is listed on the Shire of Shark Bay Municipal Inventory as a Category 3 site, and forms part of a formalised walk trail in the area.

## 3.6 Bushfire Risk

The project area is located within a mapped bushfire prone area, as defined by the Department of Fire and Emergency Services (DFES) (Landgate 2023). To mitigate the risk of bushfire associated with the proposal the following mitigation measures have been factored into the proposed solar farm's design and construction:

- Application of Asset Protect Zones (APZs), to achieve a Bushfire Attack Level (BAL) of 29 around the solar array, and BAL 12.5 around ancillary infrastructure
- Perimeter vehicle access roads, which provide both access and a non-vegetated buffer around the development
- The availability of emergency firefighting water supply (located either in Reserve 49108 or as dedicated fire water tanks within the project area
- Ongoing removal of dead vegetation and debris from within the project area.

The partial clearing of vegetation required to facilitate the application of APZ's has been factored into the proposed cleared extent (2.89 ha).

On the advice of the Shire of Shark Bay, no dedicated Bushfire Management Plan has been prepared to support the solar farm's development application, based on the nature of the proposal.

# 4 Actions to Avoid and Minimise Impacts

## 4.1 Direct Impacts

Potential direct impacts on the environment will be mitigated through the implementation of mitigation measures, including:

- Where vegetation is required to be cleared for APZ's only, these areas will only be partially cleared to the extent required by Schedule 1 of the *Guidelines for Planning in Bushfire Prone Areas: Standards for Asset Protection Zones.* Specifically, grasses less than 100 mm will be retained, which may provide ongoing habitat for small vertebrate fauna.
- The project area will be demarcated with either fencing or flagging tape prior to clearing works commencing.

## 4.2 Indirect Impacts

Potential indirect impacts on the environment will be mitigated through the implementation of mitigation measures, including:

- Not undertaking vegetation clearing in high wind speed conditions, to minimise dust emissions
- Availability of a water cart for use during clearing and construction, if required
- Speed limits to be signed and enforced within the project area to minimise the risk of fauna strike and dust emissions
- Incorporation of daily weather forecasts in prestart meetings
- The availability of spill kits on site during clearing and construction works
- The storage of organic waste within fauna proof bins so as not to attract pest species
- A requirement for vehicles and machinery to be clean on entry
- Chemical, hydrocarbon and other hazardous waste material to be stored within bunds (if stored on-site) and in accordance with the *Dangerous Goods Safety Act 2004* and *Dangerous Goods Safety (Storage and Handling of Non-explosive) Regulations 2007*
- In the event of injured, sick or deceased fauna being found on-site, these being recorded and reported immediately to the site supervisor and DBCA, if a conservation significant species.

Based on the above avoidance and mitigation measures, the proposed clearing is not considered to be significant at a local or regional scale.

# 5 Assessment Against Native Vegetation Clearing Principles

An assessment of the proposed vegetation clearing against the ten native vegetation clearing principles contained in Schedule 5 of the EP Act is provided in Table 4. Based on the outcomes of the assessment, it is considered that the proposal may be at variance with only one of the ten clearing principles, this being principle (h) (clearing of native vegetation which is likely to have an impact on the environmental values of any adjacent or nearby conservation area). However, it is recognised that based on:

- The paucity of environmental values within the project area,
- The anticipated reduction of pollution via diesel particulate matter, and the positive effects this will have on the environment,
- The increased environmental impacts associated with locating the proposed solar farm outside of the Shark Bay World Heritage Area,
- The project's alignment with the World Heritage Area's protection and management requirements (i.e., decarbonising the Monkey Mia area),
- The outcomes of preliminary engagement with the Shark Bay World Heritage Advisory Committee,
- The proximal location of the Class A Francois Peron National Park, which is afforded a higher level of protection than Reserve 1686, and

the proposed clearing is not considered to represent a significant impact on the conservation estate at a local or regional level.

**Table 4: Assessment against clearing principles**

| Clearing Principle | Discussion | Assessment |
|---|---|---|
| a) Native vegetation should not be cleared if it comprises a high level of biological diversity | Only 13 native flora species have been identified from the project area, none of which are considered to be conservation significant at a state or federal level (Plant Ecology 2023). There are no conservation significant ecological communities within or in proximity to the project area that could be directly or indirectly impacted from the proposed development.<br>The project area's faunal assemblage is similarly depauperate, with only 17 fauna species identified in the most recent fauna survey, none of which are conservation significant at the state or federal level (Harewood 2023). Fauna habitat within the project area is influenced heavily by grazing pressures for introduced goats and rabbits.<br>Based on the above, vegetation within the site is not considered to comprise a high level of biological diversity. | The proposed clearing is not considered to be at variance with this principle |
| b) Native vegetation should not be cleared if it comprises whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia | No conservation significant fauna species were identified within the project area as part of the latest fauna and habitat survey, nor are any conservation significant species considered likely to rely on habitat within the project area (Harewood 2023). The condition of habitat within the project area suggests that it is not necessary for the maintenance of any one species indigenous to Western Australia. | The proposed clearing is not considered to be at variance with this principle. |
| c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of rare flora | No conservation significant (Threatened or Priority listed) flora have been identified within the project area. The nearest recorded rare flora species is *Lepidium biplicatum* which is located approximately 1.3 km west of the site.<br>On this basis, vegetation within the project area is not considered necessary for the continued existence of rare flora. | The proposed clearing is not considered to be at variance with this principle. |
| d) Native vegetation should not be cleared if it comprises the whole, or a part of, or is necessary for the maintenance of, a threatened ecological community | Vegetation within the project area is not considered to be representative of any Threatened or Priority listed ecological community. There are no conservation significant ecological communities in proximity to the project area that could potentially be impacted by the proposed development. | The proposed clearing is not considered to be at variance with this principle. |
| e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared | Vegetation within the project area is considered to be representative of the LHARIDON pre-European vegetation system association. There is approximately 99.76 % (94,341 ha) of this vegetation remaining within Western Australia. The proposed clearing (2.89 ha) represents less than 0.01% of the total extent of this vegetation remaining.<br>On this basis, vegetation within the project area is not considered to be significant as a remnant of native vegetation in an area that has been extensively cleared. | The proposed clearing is not considered to be at variance with this principle. |
| f) Native vegetation should not be cleared if it is growing in, or in associated with, an environment associated with a watercourse or wetland | There are no watercourses or wetlands within or in proximity to the project area. | The proposed clearing is not considered to be at variance with this principle. |
| g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation | The project area's generally uniform topography means that minimal earthworks will be required to facilitate the solar farm's construction.<br>There is not anticipated to be any change to current surface water flow patterns across the site.<br>Where the requirement to clear native vegetation is limited to the extent necessary for APZ's, these areas will only be partially cleared, allowing vegetation less than 100 mm to remain in-situ and prevent soil erosion.<br>It is anticipated that following clearing, soils within the project area will be stabilised through the construction of the solar array, BESS, and associated infrastructure.<br>On this basis, the proposed clearing of native vegetation is not anticipated to cause appreciable land degradation. | The proposed clearing is not considered to be at variance with this principle. |
| h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area | The project area is located within the Shark Bay World Heritage Area. Construction of the solar farm outside of the Shark Bay World Heritage area was considered as an alternative to the proposal, however the construction of access and transmission infrastructure along a minimum distance of 16 km would result in substantial additional native vegetation clearing, resulting in a poorer environmental outcome. The solar farm's proposed location takes advantage of existing access and transmission infrastructure, and provides an opportunity for the future expansion of Reserve 49108, which includes power generation as a legislated purpose.<br>Recognising that climate change has been identified as a potential threat to the Shark Bay World Heritage Area at an international level (UNESCO n.d.), the decarbonisation of Monkey Mia is considered to align with Shark Bay's protection and management requirements (UNESCO n.d.). Further, it is considered that the positive aspects of the solar farm's installation will exceed its negative aspects, including a reduction in emissions in excess of 1.3 million kg of greenhouse gases and a considerable volume of diesel particulate matter, which is a known human carcinogen. | The proposed clearing may be at variance with this principle. |

| Clearing Principle | Discussion | Assessment |
|---|---|---|
| | Preliminary consultation with the Shark Bay World Heritage Advisory Committee (section 1.4) has been generally positive, with no fatal flaws identified. RAC is currently pursuing other opportunities for proactive engagement with the committee, the outcomes of which will inform final project detailed design and implementation.<br>Additionally, potential impacts on the Shark Bay World Heritage Area were considered by DCCEEW through the project's referral under the EPBC Act. The delegate's decision that the action is not a controlled action indicates that potential impacts on the World Heritage Area are not considered significant at a local, national, or international level. | |
| i) Native vegetation should not be cleared if the clearing of vegetation is likely to cause deterioration in the quality of the surface or underground water | The one plant community identified within the project area (Tall Open shrubland of *Acacia* spp.) is not considered to be riparian vegetation, nor groundwater dependent. There are no surface or ground water features in the local area, therefore the proposed development will not have any direct interface with groundwater or any surface water feature. Where water is required for the development (such as for watercarts to mitigate dust emissions, or cleaning), this will be sourced from water supply infrastructure already present within Lot 600. There are not anticipated to be any emissions to the environment (including ground and surface water) associated with the development.<br>On this basis, the clearing of vegetation within the project area is not considered likely to cause deterioration in the quality of the surface or underground water. | The proposed clearing is not considered to be at variance with this principle. |
| j) Native vegetation should not be cleared if the clearing of vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding. | Implementation of the proposal is not anticipated to result in a change to existing surface water flows across the project area. The project area is not located within an area identified to have a risk of flooding (Landgate 2023), nor has any evidence of flooding been recorded within the project area (e.g., scouring or alluvial deposits; Harewood 2023; Plant Ecology 2023).<br>On this basis, the proposed clearing is not anticipated to cause or exacerbate the incidence or intensity of flooding within the project area. | The proposed clearing is not considered to be at variance with this principle. |

# 6 Conclusion

Implementation of the Monkey Mia Dolphin Resort Solar Farm is expected to negate approximately 1.3 million kilograms of carbon dioxide emissions annually, which supports both the State Government's net zero aspirations and the Shark Bay World Heritage Area's protection and management requirements.

The project's siting adjacent to existing power generating facilities in Reserve 49108 has enabled the project to leverage existing access and transmission infrastructure, thereby substantially reducing the extent of native vegetation clearing that would otherwise be required.

As of 2019, approximately 99.76% of the pre-European vegetation mapped within the project area is remaining, with a significant portion being represented in the conservation estate, including the nearby Francois Peron National Park.

Recent and historical flora, vegetation and fauna surveys of the project area confirm that native vegetation within the project area has minimal environmental value, with no conservation significant (Threatened or Priority listed) flora, fauna, or ecological communities occurring within or in proximity to the project area.

The proposed clearing of 2.89 ha of Good and Completely Degraded vegetation within the project area is not considered to represent a significant impact on the environment at the local or regional scale. Rather, the project's contribution to the state's energy transition is anticipated to have a net benefit on the environment.

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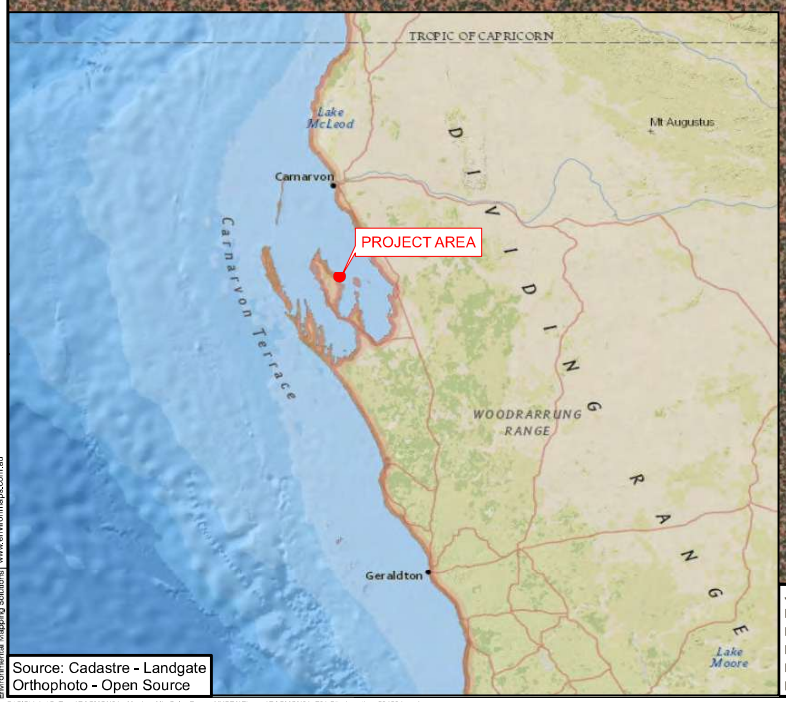
# Figures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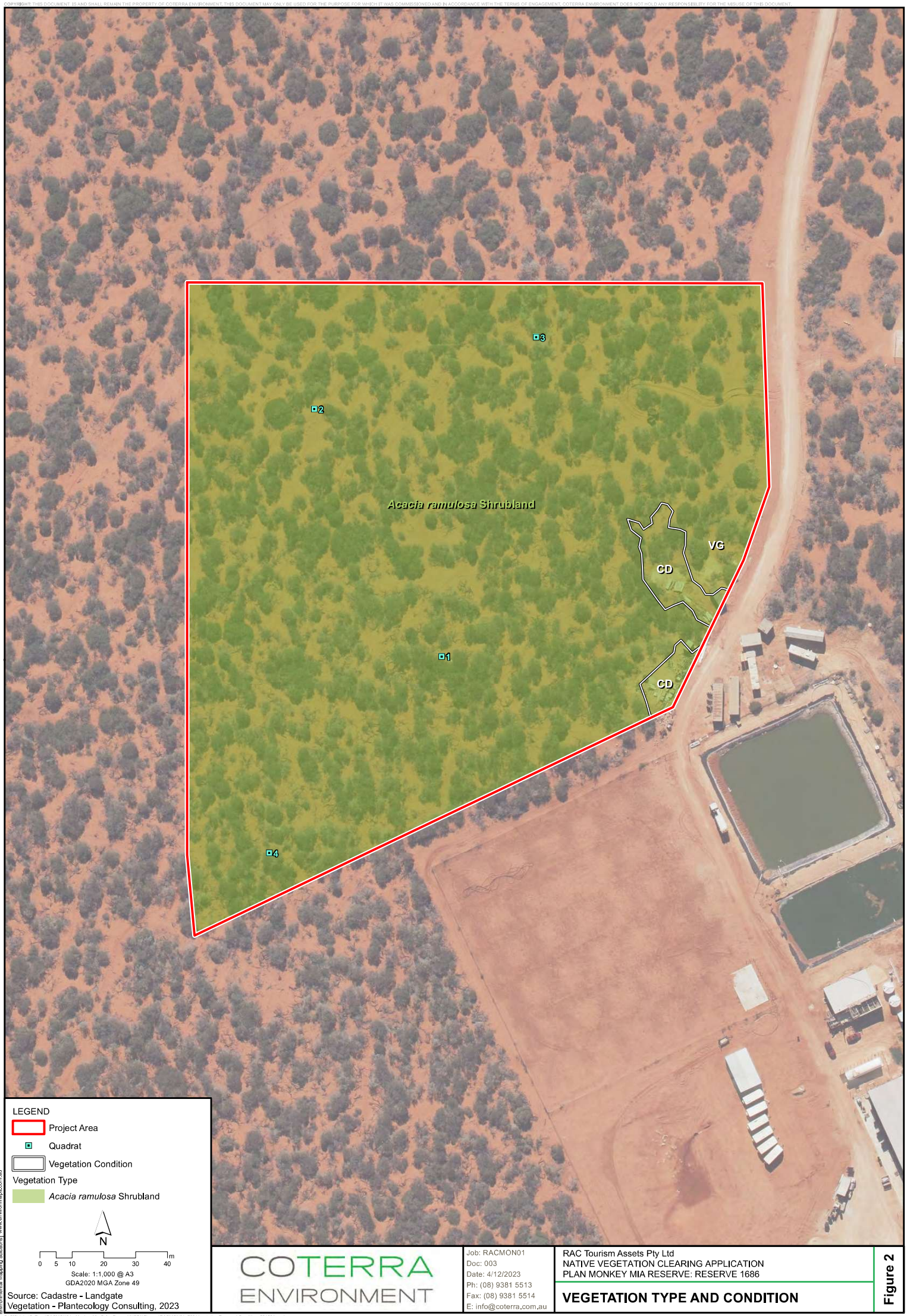
NATIVE VEGETATION CLEARING APPLICATION
MONKEY MIA RESERVE: RESERVE 1686

# SITE LOCATION

Figure 1




LEGEND

- Project Area
- Quadrat
- Vegetation Condition

Vegetation Type

- *Acacia ramulosa* Shrubland

N

0 5 10 20 30 40 m

Scale: 1:1,000 @ A3
GDA2020 MGA Zone 49

Source: Cadastre - Landgate
Vegetation - Plantecology Consulting, 2023

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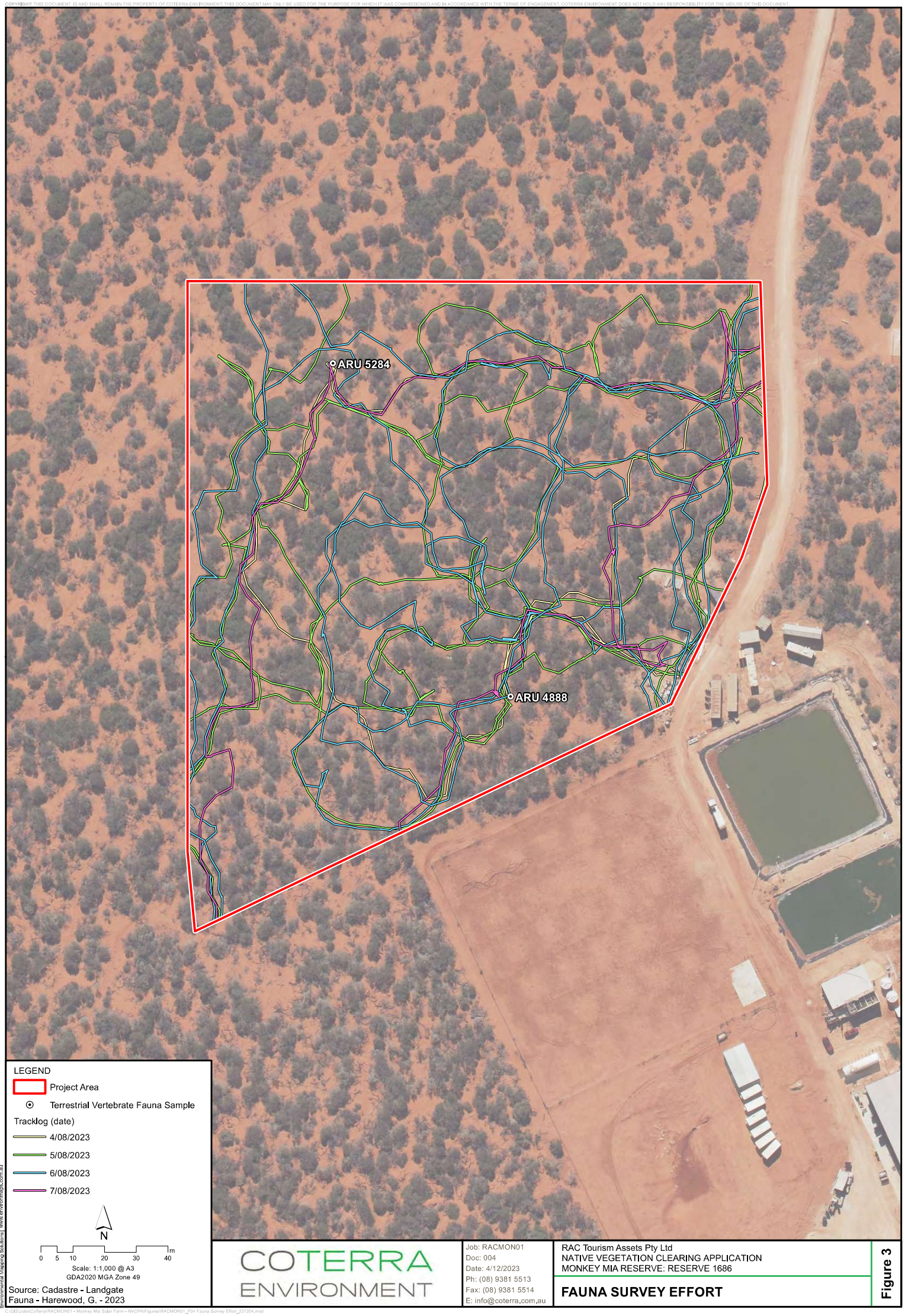
# VEGETATION TYPE AND CONDITION

Figure 2




LEGEND

- Project Area
- Terrestrial Vertebrate Fauna Sample

Tracklog (date)

- 4/08/2023
- 5/08/2023
- 6/08/2023
- 7/08/2023

N

0 5 10 20 30 40 m

Scale: 1:1,000 @ A3
GDA2020 MGA Zone 49

Source: Cadastre - Landgate
Fauna - Harewood, G. - 2023

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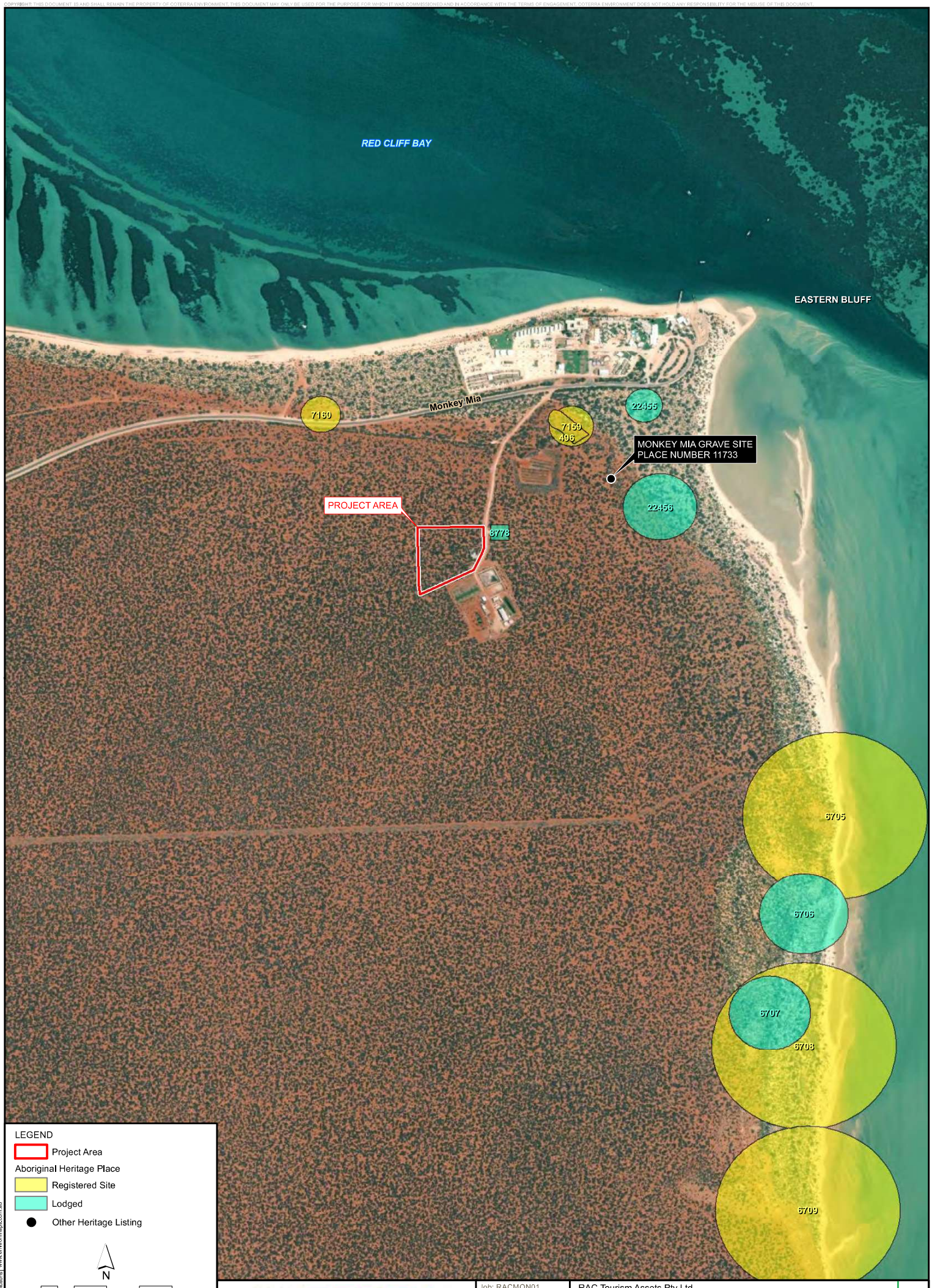
# FAUNA SURVEY EFFORT

Figure 3




LEGEND

- Project Area
- Aboriginal Heritage Place
- Registered Site
- Lodged
- Other Heritage Listing

N

0 50 100 200 300 400 m

Scale: 1:10,000 @ A3
GCS GDA 1994

Source: Cadastre - Landgate
Heritage Places - DPLH

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# HERITAGE PLACES

Figure 4

# Appendix 1 Site Plans (Stantec 2023)

# Appendix 2 Reserve 49108 – Management Order

# Appendix 3 Development Approval

# Appendix 4 Plant Ecology (2023). Planned Solar Farm Monkey Mia: Flora and Vegetation Survey

# Appendix 5 Harewood, G. (2023). *Targeted Fauna Assessment: Proposed Solar Array: Reserve 1686 (Part), Monkey Mia.*