# MEMO

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| To: | Will Oversby |
| From: | Martin Henson / Giles Glasson |
| Pages: | 13 inc. this page plus Figures and Appendices |
| Regarding: | Baru - Access Options |

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**Baru – Preliminary ecological survey findings for access options**

Yindjibarndi Energy Corporation (YEC), on behalf of the Yindjibarndi people, is proposing the development of the Baru project, approximately 60 kilometres (km) south-east of Karratha, Western Australia. The Baru project, which is comprised of wind and solar components with an option to include battery storage, requires the investigation of two access options, totalling approximately 65 km of easement, some of which is common to both alignments and primarily follows existing tracks.

RPS AAP Consulting Pty Ltd (RPS) was commissioned to undertake a detailed flora and vegetation assessment and basic fauna assessment of the two access options. The survey area is comprised of two site entry options including a 500 metre (m) buffer zone of each linear survey corridor (Figure A 1), and the three road intersections (Figure A 2 – A 4).

A supplementary flora and vegetation survey was conducted, prior to the primary survey from, 11 to 15 November 2024. The primary survey is proposed to be undertaken in April–May 2025 following the summer wet season to accord with the optimal surveying time for the Eremaean botanical region.

A low-intensity survey was completed in between 29 September and 01 October 2024 for the basic fauna survey in conjunction with the fauna survey being conducted by Bamford Consulting Ecologists (BCE) for the broader Baru wind and solar components.

This memorandum provides a summary of the work completed as part of the supplementary flora and vegetation and basic fauna assessments and brief overview of the findings from the field surveys.

## 1.1 Location of survey area

The Baru project is located 60 km south-east of Karratha, Western Australia. The easement(s) start at the Manuwarra Red Dog Highway (between Karratha and Tom Price), approximately 90 km south of Karratha, and travel west through the Millstream Chichester National Park, the Ngurrawaana community and finishing at the Rio Tinto rail line in the west (Figure A 1). In addition, three road intersections, required to accommodate blade transport turning circles, are considered part of the project area (Figures A 2 – A 4) and include:

- Corner of: North West Coastal Highway / Manuwarra Red Dog Highway (Figure A 2)
- Corner of: North West Coastal Highway / Cherrata Road (Roebourne, Figure A 3)
- Corner of: North West Coastal Highway / Great Northern Highway (Port Hedland, Figure A 4).

## 1.2 Objectives

### 1.1.1 Detailed flora and vegetation assessment

The detailed flora and vegetation assessment is being undertaken in accordance with the Environmental Protection Authority's (EPA) Technical Guidance: Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016)[1].

The objectives of the detailed flora and vegetation assessment are to:

- Identify and characterise the flora and vegetation within the survey area, via provision of a comprehensive flora inventory and vegetation unit and condition mapping
- Identify the presence and extent of conservation significant flora and ecological communities that are currently listed under the state *Biodiversity Conservation Act 2016* (BC Act) and the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) within the survey area
- Identify and describe the vegetation and conservation significant flora species present or likely to be present within the survey area, and any areas that may be indirectly impacted by the Baru (access options) project beyond the survey area, including an analysis of the conservation significance of flora and vegetation in local, regional and state contexts
- Map the location and extent of conservation significant flora and significant vegetation within the survey area
- Prepare a comprehensive report on the survey outcomes.

This memo report provides the results of the initial, supplementary, survey phase of the detailed flora and vegetation assessment. The findings of this memo report will be updated following the completion of the primary phase of the survey and provided as part of the detailed flora and vegetation assessment report.

### 1.1.2 Basic fauna assessment

The basic fauna assessment is being undertaken in accordance with the EPA's Technical Guidance: Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA 2020)[2].

The objectives of the basic fauna assessment are to:

- Identify and characterise the fauna habitats within the survey area
- Identify the likely presence of conservation significant fauna that are currently listed under the state BC Act and the Commonwealth EPBC Act within the survey area
- Identify and describe the fauna habitat and conservation significant fauna species present or likely to be present within the survey area, and any areas that may be indirectly impacted by the Baru (access options) project beyond the survey area, including an analysis of the fauna habitat for conservation significant species in local, regional and state contexts
- Map the location of conservation significant fauna recorded within the survey area
- Prepare a basic report on the survey outcomes.

This memo report provides the initial results of the low-intensity survey for the basic fauna assessment. The findings of this memo report will be reviewed, updated and provided in greater detail as part of the basic fauna assessment report.

[1] Environmental Protection Authority. 2016. *Technical Guidance: Flora and Vegetation Surveys for Environmental Impact Assessment.* Perth, Western Australia.

[2] Environmental Protection Authority. 2020. *Technical Guidance: Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment.* Perth, Western Australia.

# 2 Methodology

## 2.1 Flora and vegetation

### 2.1.1 Database searches

Searches of available databases were undertaken to determine a list of conservation significant flora and ecological communities (i.e. those protected under the BC Act and / or the EPBC Act or considered Priority species by the Department of Biodiversity, Conservation and Attractions (DBCA)) that may occur within and proximate to the site. The DBCA's database contains point records of where a particular species has been identified (i.e. a known occurrence), whereas the Protected Matters Search Tool (PMST) uses modelled ranges to indicate the potential presence of Matters of National Environmental Significance (MNES).

The following databases were utilised:

- Department of Climate Change, Energy, the Environment and Water's (DCCEEW) Commonwealth's EPBC Act Protected Matters Search Tool (PMST)
- DBCA's Threatened and Priority flora and ecological communities databases
- DBCA's Dandjoo data repository for conservation significant flora species protected under the BC Act and / or the EPBC Act or considered priority species by the DBCA
- WA Herbarium database.

A compilation of these results will be provided in the detailed flora and vegetation assessment report.

### 2.1.2 Field survey

As per the EPA's technical flora and vegetation guidance (EPA 2016), detailed flora and vegetation assessments require at least two seasons of field surveys to be conducted to capture flora species during optimum times. In addition, the EPA's technical guidance recommends primary surveys should be undertaken 6-8 weeks post wet season (March to June) and supplementary survey during the dry season (after winter rainfall if available) for the Eremaean region.

The supplementary survey was conducted from 11 to 15 November 2024 by experienced RPS botanist Martin Henson, assisted by RPS graduate environmental scientist Richard Storey, in addition to Port Hedland based consultancy Pilbara Ecological (PE) including Principal Botanist Nick Tidmarsh.

Mattiske Consulting (MCPL) mapped vegetation types for the broader Baru wind and solar components ahead of the RPS supplementary survey. The survey area for the broader Baru wind and solar components has considerable overlap with the access options survey area, particularly to the west of the Ngurrawaana community. The MCPL mapping (MCPL, 2025)[3] was provided to RPS ahead of the supplementary survey, with survey sites originally planned for these areas limited to relevés designed to ground-truth the Mattiske Consulting mapping and familiarise the surveyors with the vegetation types. Other sources of information referenced prior to field survey commencement included flora and vegetation reports preparing for the neighbouring Jinbi solar array.

Sixteen relevés were described by RPS within the portion of the access options survey area mapped by Mattiske Consulting. Five relevés and 19 quadrats were described by RPS within the portion of the access options survey area not mapped by Mattiske Consulting. It should be noted that the relevés mapped by Mattiske Consulting were checked for data accuracy and visual inspection. Due to the accuracy of the mapping survey result data, no field data were gathered during the inspection of these relevés.

Three roadside areas were also surveyed by relevé including:

- Corner of. North West Coastal Highway / Manuwarra Red Dog Highway (Figure A 2)
- Corner of. North West Coastal Highway / Cherrata Road (Figure A 3)

[3] Mattiske Consulting Pty. Ltd (2025) *Desktop and Detailed Flora and Vegetation Assessment. Yindjibarndi Renewable Energy Project* Unpublished report produced for Yindjibarndi Energy Corporation

- Corner of. North West Coastal Highway / Great Northern Highway (Figure A 4).

Quadrats were established at 50 metre (m) × 50 m (as per EPA requirements for the Pilbara bioregion) and had the following information recorded for each:

- Site code
- Location (GDA94 GPS coordinates)
- Size, shape and orientation of quadrat
- Photograph/s from north-west corner
- Landform and soil description
- Dominant growth form, height, cover and species for the three traditional strata (upper, mid and ground)
- Any other location information that might be useful in vegetation classification including slope, aspect, litter, fire history, vegetation/landform/soil correlations
- Assessment of vegetation and description of disturbances
- A comprehensive species list (annuals and perennials), including weeds.

During the primary phase of the survey quadrats will be revisited and rescored, with an expected increase in taxa recorded.

## 2.2 Terrestrial fauna

### 2.2.1 Database searches

Searches of available databases were undertaken to determine a list of conservation significant fauna (i.e. those protected under the BC Act and / or the EPBC Act or considered Priority species by the DBCA) that may occur within and proximate to the site. The DBCA's database contains point records of where a particular species has been identified (i.e. a known occurrence), whereas the PMST uses modelled ranges to indicate the potential presence of MNES.

The following databases were utilised:

- DCCEEW's Commonwealth EPBC Act Protected Matters Search Tool (PMST)
- DBCA's Threatened and Priority fauna database
- DBCA's Dandjoo data repository for conservation significant fauna species protected under the BC Act and / or the EPBC Act or considered priority species by the DBCA.

A compilation of these results will be provided in the basic terrestrial fauna survey report.

### 2.2.2 Field survey

The field survey was undertaken from 29 September to 01 October 2024 by RPS ecologist Dr. Vi Saffer in conjunction with BCE ecologists, who were surveying fauna for the broader Baru wind and solar components. The survey was informed by the database searches, fauna reports preparing for the neighbouring Jinbi solar array and comprised of a low intensity survey (i.e. fauna trapping and site inventory was not undertaken) to gather broad fauna and habitat information.

## 2.3 Limitations

### 2.3.1 Field survey

Practitioners who conduct ecological surveys for environmental impact assessment in Western Australia are obliged to report on the limitations and constraints in such studies. Some potential limitations / constraints on surveys may adversely impact on the scientific rigour, completeness or the validity of the survey results. EPA (2016) identifies standard limitations which can limit and constrain the validity of surveys. These limitations / constraints and their relevance to this assessment are presented in Table1 and 2.

**Table 1: Flora and vegetation survey limitations**

| Aspect | Constraint | Comment |
|---|---|---|
| Objectives | 1 | The survey scope was designed to comply with EPA requirements. |
| Proportion of flora identified | 2 | Flora taxa recorded were either identified in the field or collected and identified using the keys and resources of the Western Australian Herbarium. |
| Climatic and seasonal effects | 3 | The supplementary survey was undertaken in November during dry summer season. This is compliant with the EPA's recommendations for supplementary survey timings. Annual / ephemeral and short-live perennials taxa were not comprehensively surveyed due to their seasonal variability. This will be addressed by the primary flora and vegetation survey post rain season. |
| Availability of contextual information | 1 | Mattiske Consulting (2025) produced a detailed flora and vegetation assessment in the vicinity and several sections of the survey site. Furthermore, contextual information relevant to the survey area was readily available. |
| Completeness of the survey | 1 | The area was comprehensively surveyed. A total of 19 floristic quadrats were installed and sampled, with 17 relevés also examined. |
| Skill and knowledge of the botanists | 1 | The lead botanical practitioners, Martin Henson and Nick Tidmarsh are suitably qualified and highly experienced in conducting botanical surveys for Environmental Impact Assessment in the Pilbara bioregion of Western Australia. |
| Disturbance (fire, grazing, clearing etc.) | 2 | Most of the vegetation surveyed was in excellent condition, except for areas adjacent to Ngurrawaana Community and the Rio Tinto rail lines. Survey effort was made to avoid these disturbed areas. |

Scale

1-2 = Negligible – constraint does not affect outcomes of the survey.

3-4 = Minor – constraint has minor impact on the outcome of survey

5-6 = Moderate – constraint has a moderate impact on the outcome of survey

7-8 = Major – constraint has a major impact on the outcomes of the survey

**Table 2 Fauna survey limitations**

| Aspect | Constraint | Comment |
|---|---|---|
| Objectives | 1 | The survey scope was designed to comply with EPA requirements. |
| The proportion of fauna identified, recorded or collected | 1 | Areas proposed to be surveyed were adequately surveyed to the proposed intensity (basic, low intensity survey). |
| Climatic and seasonal effects | 1 | Given that the survey was a basic low-intensity survey, conducted at the local scale to gather broad fauna and habitat information, timing and season were not important.<br>Weather conditions at the time of the survey were conducive to the level of survey required. |
| Availability of contextual information | 2 | Contextual information relevant to the survey area were readily available. |
| Completeness of the survey | 1 | Fauna observed opportunistically during the survey periods were positively identified and recorded. No faunal collections were made. |
| Skill and knowledge of the botanists | 1 | Ecologist Dr. Vi Saffer in conjunction with BCE ecologist team are suitably qualified and experienced in conducting fauna surveys. |
| Problems with data and analysis, including sampling biases | 1 | Being a basic, low intensity survey, no problems with data, analysis or sampling biases were experienced. |
| Disturbance (fire, grazing, clearing etc.) | 1 | No fire, floods or other disturbances occurred before or during the survey period. |

Scale

1-2 = Negligible – constraint does not affect outcomes of the survey.

3-4 = Minor – constraint has minor impact on the outcome of survey

5-6 = Moderate – constraint has a moderate impact on the outcome of survey

7-8 = Major – constraint has a major impact on the outcomes of the survey

# 3 Results

## 3.1 Flora and vegetation

### 3.1.1 Database searches

The PMST identified no conservation significant flora species within or proximate to the survey area. The DBCA Dandjoo biodiversity data platform and DBCA Threatened and Priority flora and ecological communities search identified 63 conservation significant flora species (Table 3) and (Table 4) ecological communities (3) within or proximate to the survey area. No EPBC Act listed threatened flora species or ecological communities (TECs) were identified within or proximate to the survey area.

**Table 3 Conservation significant flora species recorded in database searches**

| Species | Conservation status | |
|---|---|---|
| | BC Act / DBCA listed | EPBC listed |
| *Abutilon* sp. Pritzelianum (S. van Leeuwen 5095) | Priority 3 (P3) | - |
| *Acacia bromilowiana* | Priority 4 (P4) | - |
| *Acacia daweana* | P3 | - |
| *Acacia fecunda* | Priority 1 (P1) | - |
| *Acacia ryaniana* | Priority 2 (P2) | - |
| *Astrebla lappacea* | P3 | - |
| *Atriplex lindleyi* subsp. *conduplicata* | P3 | - |
| *Bothriochloa decipiens* var. *cloncurrensis* | P1 | - |
| *Cladium procerum* | P2 | - |
| *Cyanthillium gracile* | P3 | - |
| *Dicladanthera glabra* | P2 | - |
| *Dipteracanthus chichesterensis* | P1 | - |
| *Dolichocarpa* sp. Hamersley Station (A.A. Mitchell PRP 1479) | P3 | - |
| *Eragrostis lanicaulis* | P3 | - |
| *Eremophila magnifica* subsp. *magnifica* | P4 | - |
| *Eremophila magnifica* subsp. *velutina* | P3 | - |
| *Eriochloa fatmensis* | P3 | - |
| *Euphorbia australis* var. *glabra* | P3 | - |
| *Euphorbia inappendiculata* var. *inappendiculata* | P3 | - |
| *Euphorbia inappendiculata* var. *queenslandica* | P3 | - |
| *Euphorbia stevenii* | P3 | - |
| *Euploca mutica* | P3 | - |
| *Fimbristylis sieberiana* | P3 | - |
| *Glycine falcata* | P3 | - |
| *Gompholobium karijini* | P2 | - |
| *Gomphrena axillaris* | P1 | - |
| *Gomphrena cucullata* | P3 | - |
| *Gomphrena leptophylla* | P3 | - |
| *Goodenia berringbinensis* | P4 | - |
| *Goodenia obscurata* | P3 | - |
| *Goodenia pallida* | P1 | - |
| *Gymnanthera cunninghamii* | P3 | - |
| *Helichrysum oligochaetum* | P1 | - |
| *Indigofera rivularis* | P3 | - |
| *Iotasperma sessilifolium* | P3 | - |
| *Ipomoea racemigera* | P3 | - |
| *Livistona alfredii* | P4 | - |
| *Neptunia longipila* | P2 | - |
| *Owenia acidula* | P3 | - |
| *Paspalidium retiglume* | P2 | - |
| *Pentalepis trichodesmoides* subsp. *hispida* | P2 | - |
| *Rhynchosia bungarensis* | P4 | - |
| *Rostellularia adscendens* var. *latifolia* | P3 | - |
| *Sida* sp. Barlee Range (S. van Leeuwen 1642) | P4 | - |
| *Sida* sp. Hamersley Range (K. Newbey 10692) | P3 | - |
| *Solanum albostellatum* | P3 | - |
| *Solanum* sp. Red Hill (S. van Leeuwen et al. PBS 5415) | P3 | - |
| *Stackhousia clementii* | P3 | - |
| *Swainsona thompsoniana* | P3 | - |
| *Tephrosia lithosperma* | P1 | - |
| *Tephrosia rosea* var. Port Hedland (A.S. George 1114) | P1 | - |
| *Terminalia supranitifolia* | P3 | - |
| *Teucrium pilbaranum* | P2 | - |
| *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) | P3 | - |
| *Trianthema* sp. Python Pool (G.R. Guerin & M.E. Trudgen GG 1023) | P2 | - |
| *Triodia basitricha* | P3 | - |
| *Triodia lutiteana* | P1 | - |
| *Triodia mallota* | P1 | - |
| *Triodia pisoliticola* | P3 | - |
| *Triodia* sp. Pannawonica shale (P.J. Davidson PJD 2026) | P1 | - |
| *Uvedalia clementii* | P1 | - |
| *Vigna triodiophila* | P3 | - |
| *Vittadinia* sp. Coondewanna Flats (S. van Leeuwen 4684) | P3 | - |

**Table 4 Priority ecological communities recorded in database searches**

| Community name | Description | Category (WA) |
|---|---|---|
| West Angelas Cracking-Clays | Open tussock grasslands of *Astrebla pectinata*, A*. elymoides, Aristida latifolia*, in combination with low scattered shrubs of *Sida fibulifera*, on basalt (Jerrinah formation) derived cracking-clay loam depressions and flowlines. Occurs throughout the central and eastern Hamersley Range from near Tom Price east to Newman (DBCA 2025)[4]. Threats include clearing for mining, infrastructure and solar farms, possible weed invasion, fragmentation and altered fire regimes. | P1 |
| Kanjenjie Land System | Stony clay plains supporting snakewood shrublands with tussock grasses. Supports tall shrublands of mulga, snakewood and other acacias with understorey of low shrubs or perennial grasses. Some parts support tussock grasslands of Mitchell grass or Roebourne Plains grass with few shrubs (DBCA 2025)[4]. Threats include over grazing. | P3 |
| Four plant assemblages of the Wona Land System (previously 'Cracking clays of the Chichester and Mungaroona Range') | Cracking clays of the Chichester and Mungaroona Range. This shrubless plain of stony gibber community occurs on the tablelands with very little vegetative cover during the dry season, however during the wet a suite of ephemerals / annuals and short-lived perennials emerge, many of which are poorly known and range-end taxa (DBCA 2025)[4]. Threats include grazing, clearing for mining related activities and solar farms, altered fire regimes. | P1 |
| | Annual Sorghum grasslands on self-mulching clays with a moderate-dense overlay of rocks. This community appears very rare and restricted to the Pannawonica-Robe valley end of Chichester Range. Naturally species poor when dry (DBCA 2025)[4]. Threats include weed invasion. | P1 |
| | Mitchell grass plains (*Astrebela* spp.) on gilgai. Threats include grazing, clearing for mining related activities and solar farms, altered fire regimes (DBCA 2025)[4]. | P3 |
| | Mitchell grass and Roebourne Plain grass (*Eragrostis xerophila*) plain on gilgai. *Astrebla pectinata, A. elymoides, E. xerophila, Aristida latifolia, Eriachne* and *Sida fibulifera.* Typical type, heavily grazed (DBCA 2025)[4]. Threats include grazing, clearing for mining related activities and solar farms, altered fire regimes. | P3 |
| Riparian flora and plant communities of springs and river pools with high water permanence of the Pilbara Region | The community includes flora with restricted distributions or populations that are highly disjunct or are major range extensions from northern and eastern Australia. These include *Imperata cylindrica, Cladium procerum, Schoenus falcatus* and *Fimbristylis sieberiana* (P3). In the Pilbara these taxa are almost exclusively restricted to the riparian zones of permanent wetlands with high soil moisture maintained by groundwater flows. Occurrences are disjunct with sites typically associated with groundwater discharge in gorge and valley wetlands that are often coupled with significant shading (DBCA 2025)[4]. Threats: hydrological change associated with mining, altered fire regimes, weed invasion (*Cenchrus ciliaris, Passiflora foetida*), grazing (camels), increased visitation. | P2 |

### 3.1.2 Field survey

#### 3.1.2.1 Flora

A provisional list of 89 taxa (Appendix A) were recorded in the survey area, present in quadrats and relevés as part of the supplementary survey. The Fabaceae (Pea family) recorded the highest representation with 26 taxa, followed by the Poaceae (Grasses) with 14 taxa and the Malvaceae (Mallows-Hibiscus and allied genera) with 7 taxa.

No conservation significant taxa were recorded during the supplementary survey. It is noted that the survey was undertaken during the dry season in the Pilbara and the planned site revisit following the wet season, in early 2025, will undoubtedly increase the size of the species list.

[4] DBCA. 2025. Priority Ecological Communities for Western Australia – Version 35. https://www.dbca.wa.gov.au/wildlife-and-ecosystems/threatened-ecological-communities. Accessed January 2025.

The two introduced species were recorded were:

- **Cenchrus ciliaris*, Buffel Grass, a tufted / stoloniferous grass that is widespread in the Pilbara bioregion; and
- **Vachellia farnesiana*, a small spined shrub also widespread in the Pilbara bioregion.

Neither of these species are Declared pests[5] or Weeds of National Significance. While both are listed on the Western Australian Organism List (Department of Primary Industries and Regional Development 2024)[6], both are permitted in the state.

### 3.1.2.2 Vegetation

#### 1.1.2.1.1 Access option vegetation types

Provisionally, four broad vegetation types and nine corresponding subgroups were described by the supplementary survey for the access options:

- *Acacia* spp. over *Triodia wiseana* grassland:
  - *Acacia xiphophylla* tall open shrubland over *Senna artemisioides* subsp. *helmsii*, *Acacia coriace* subsp. *pendens* low isolated shrubs over *Triodia wiseana* low isolated hummock grasses on orange-brown clay flats (~11.54 hectares (ha))
- Cracking clay communities, often dominated by *Astrebla pectinata*
  - *Acacia inaequilatera*, *Corymbia hamersleyana* low isolated trees over *Indigofera monophylla*, *Acacia pyrifolia*, *Acacia bivenosa* low sparse shrubland over *Triodia wiseana*, *Triodia epactia* low open hummock grassland on rocky sandstone hilltops and plains (~3,398.27 ha)
  - *Aristida latifolia*, *Triodia wiseana* low sparse tussock grassland over *Rhynchosia minima*, *Streptoglossa bubakii* low isolated shrubs with diverse annual herbs and grasses on friable cracking clay on hilltop flats (~2,150.88 ha)
- *Eucalyptus* or *Corymbia* spp with *Acacia* spp over *Triodia wiseana* grassland
  - *Eucalyptus leucophloia* subsp*. leucophloia* low open woodland over *Acacia bivenosa*, *Acacia* spp. (*A. ancistrocarpa*, *A. inaequilatera, A. maitlandii*, *A. pyrifolia*), *Senna glutinosa* subsp. *glutinosa* low isolated shrubs over *Triodia wiseana* low sparse hummock grassland on sandstone hilltops (~254.06 ha)
  - *Corymbia hamersleyana* low open woodland over *Acacia bivenosa*, *Acacia pyrifolia*, *Acacia arida* low isolated shrubs over *Triodia wiseana*, *Themeda triandra* low sparse hummock grassland on rocky sandstone alluvium (~1.60 ha)
  - *Eucalyptus leuophloia* subsp*. leucophloia*, *Corymbia hamersleyana* low open woodland over *Acacia ancistrocarpa*, *Hakea* spp. (*H. chordophylla*, *H.lorea*), *Acacia pyrifolia* low sparse shrubland over *Triodia wiseana*, *Triodia epactia* low open hummock grassland on orange rocky sandstone slopes (~8.76 ha)
- *Eucalyptus victrix* over mixed shrublands over *Triodia* grassland in drainage lines
  - *Eucalyptus victrix* low open woodland over *Melaleuca linophylla*, *Acacia bivenosa*, *Acacia coriacea* subsp. *pendens* mid sparse shrubland over *Cyperus vaginatus*, *Stemodia grossa*, *Tephrosia rosea* var. *clementii* low sparse shrubland in ephemeral drainage channels (~74.26 ha)
  - *Eucalyptus victrix*, *Eucalyptus camaldulensis* low woodland over *Acacia coriacea* subsp. pendens, *Melaleuca glomerata*, *Acacia* spp. (*A. bivenosa*, *A.pyrifolia* var. *pyrifolia*, *A. tumida*) mid sparse

[5] The *Biosecurity and Agriculture Management Act 2007* (BAM Act) is the principal legislation guiding weed classification in Western Australia.

[6] Department of Primary Industries and Regional Development. 2024. Western Australian Organism List search. https://www.agric.wa.gov.au/organisms. Accessed December 2024.

shrubland over *Cyperus vaginatus*, *Stemodia grossa*, *Eriachne benthamii* low sparse shrubland in drainage channels (~8.31 ha)

- *Eucalyptus victrix*, *Corymbia hamersleyana* low sparse woodland over *Acacia tumida* var. *pilbarensis*, *Acacia pyrifolia*, *Acacia bivenosa* low open shrubland over *Triodia wiseana*, *Cymbopogon ambiguus*, *Enneapogon lindleyanus* low sparse hummock grassland in minor drainage channels (~69.12 ha).

Vegetation mapping is included as Figure B. Mattiske Consulting vegetation type mapping was found to accord with the broad vegetation types described by RPS. Mattiske Consulting vegetation type mapping has been provided in Figure B to complement the RPS assessment.

These broad vegetation types will be refined as part of the primary survey, with detailed distribution mapping undertaken once the vegetation type characterisation has been finalised.

#### 1.1.2.1.2 Conservation significant vegetation

Following the results of the DBCA database search, the cracking clay assemblages encountered were assessed against the descriptions of the mapped Priority Ecological Community in the survey area.

While no definitive identification can be made at this point it is noted that the description of the PEC 'Four Plant Assemblages of the Wona Land System' (previously 'Cracking clays of the Chichester and Mungaroona Range') displayed similarities to the communities visited during this survey. The description of the PEC is listed in the Table 5 below.

**Table 5 Wona Land System priority ecological community**

| Community name | Description | Category (WA) |
|---|---|---|
| Four plant assemblages of the Wona Land System (previously 'Cracking clays of the Chichester and Mungaroona Range') | Cracking clays of the Chichester and Mungaroona Range. This shrubless plain of stony gibber community occurs on the tablelands with very little vegetative cover during the dry season, however during the wet a suite of ephemerals/annuals and short-lived perennials emerge, many of which are poorly known and range-end taxa. | P1 |
| | Annual Sorghum grasslands on self-mulching clays with a moderate-dense overlay of rocks. This community appears very rare and restricted to the Pannawonica-Robe valley end of Chichester Range. Naturally species poor when dry (DBCA 2025)[4]. Threats include weed invasion. | P1 |
| | Mitchell grass plains (*Astrebela* spp.) on gilgai. Threats include grazing, clearing for mining related activities and solar farms, altered fire regimes (DBCA 2025)[4]. | P3 |
| | Mitchell grass and Roebourne Plain grass (*Eragrostis xerophila*) plain on gilgai. *Astrebla pectinata, A. elymoides, E. xerophila, Aristida latifolia, Eriachne* and *Sida fibulifera.* Typical type, heavily grazed (DBCA 2025)[4]. Threats include grazing, clearing for mining related activities and solar farms, altered fire regimes. | P3 |

Superficially, the communities encountered on cracking clays during the survey align with three of the four Wona land system assemblages. While *Sorghum plumosum* was recorded during the survey it did not appear to be dominant enough to comprise the P1 assemblage *Annual Sorghum grasslands on self-mulching clays with a moderate-dense overlay of rocks.* The restricted range of this assemblage as described also mitigates against its presence in the survey area.

#### 1.1.2.1.3 Road junction vegetation types

The following vegetation descriptions were obtained for the three roadside areas of the project:

- Corner of North West Coastal Highway / Manuwarra Red Dog Highway (Figure A 2)
  - *Acacia bivenosa, Acacia pyrifolia* tall sparse shrubland over *Triodia epactia* hummock grassland over **Cenchrus ciliaris* tussock grassland (~4.45 ha)
- Corner of North West Coastal Highway / Cherrata Road (Figure A 3)

  - In creek: *Eucalyptus victrix* woodland over *Melaleuca argentea* tall shrubland over *Acacia trachycarpa* tall open shrubland over *Eulalia aurea*, **Cenchrus ciliaris* tussock grassland. Associated species include *Acacia ampliceps*, *Acacia coriacea* (~1.40 ha)
  - Elsewhere: *Eucalyptus victrix* sparse trees over *Triodia wiseana, T. epactia* open grassland. Sparse *Sclerolaena* sp. (~4.70 ha)
- Corner of North West Coastal Highway / Great Northern Highway (Figure A 4)
  - Isolated trees of *Owenia reticulata* over *Acacia ancistrocarpa, Acacia colei, Acacia tumida* subsp. *pilbarensis* tall sparse shrubland over A*cacia stellaticeps* low open shrubland over *Triodia epactia* hummock grassland'. Associated species include *Dolichandrone occidentalis, Abutilon* sp. Pritzelianum (P3) (a few plants observed, probably more as this taxon is very common along roadsides here. There may also be *Tephrosia rosea* var. Port Hedland (P1) as this is common along roadsides in the local area) (~5.26 ha).

#### 1.1.2.1.4 Vegetation condition

Vegetation was generally in Excellent condition (~79% of the assessed vegetation) throughout the survey areas, apart from areas near the Ngurrawaana community and adjacent to the Rio Tinto rail lines. Overall, ~95% of the assessed vegetation was in Good or better condition. Vegetation condition classifications will be refined as part of the primary survey, with detailed distribution mapping undertaken once the vegetation condition classification has been finalised.

Vegetation condition mapping for the assessed vegetation is included as Figure C. The areas where condition remains unmapped will be mapped by Mattiske Consulting.

### 3.1.2.3 Survey effort

Survey effort expended on the flora and vegetation survey, displayed by the surveyor's tracks, is shown in Figure D. GPS data was not obtained for the corner of North West Coastal Highway / Great Northern Highway, however the site was visited by the surveying botanists.

## 3.2 Terrestrial fauna

### 3.2.1 Database searches and field survey

The database searches combined identified 31 vertebrate fauna species as potentially occurring within / around the survey area including 12 Commonwealth EPBC Act-listed fauna species and 9 state listed conservation significant fauna species. In addition, the desktop assessment conducted by BCE Consulting (2024)[8] identified a total of 224 vertebrate fauna species as potentially occurring within / around the survey area, 28 of which were identified as conservation significant[7], with the key vertebrate species being the Northern quoll and Pilbara olive python.

A limited subset of these species is anticipated to occur within the terrestrial disturbance area. This subset excludes shoreline and marine bird species and species with habitat or range limitations, as there are no suitable habitats (i.e. water bodies) within the terrestrial disturbance area for these additional species.

A total of 64 fauna species were observed opportunistically in the field. This included 1 amphibian species, 4 reptile species, 10 mammal species and 54 bird species (Appendix B).

Following the field surveys and database searches, a provisional list of conservation significant species (i.e. those listed under the EPBC Act, state BC Act and DBCA listed) expected to occur within the survey area was compiled (Table 6), with the species specifically observed during the field survey highlighted in blue.

---

[7] Bamford Consulting Ecologists implement three broad levels of conservation significance for their report:

- Conservation Significance 1 (CS1) – species listed under State or Commonwealth Acts.
- Conservation Significance 2 (CS2) – species listed as Priority by DBCA but not listed under State or Commonwealth Acts.
- Conservation Significance 3 (CS3) – species not listed under Acts or in publications but considered of at least local significance because of their pattern of distribution.

The provisional list has also informed by basic fauna assessment undertaken for the neighbouring Jinbi solar array (BCE 2024) [8].

**Table 6 Provisional list of terrestrial conservation significant fauna species likely to occur within the survey area**

| Species | Conservation status | |
|---|---|---|
| | BC Act / DBCA listed | EPBC Act |
| **Birds** | | |
| *Apus pacificus*<br>Fork-tailed swift | Migratory | Migratory |
| *Erythrotriorchis radiatus*<br>Red goshawk | Vulnerable | Endangered |
| *Falco hypoleucos*<br>Grey falcon | Vulnerable | Vulnerable |
| *Falco peregrinus*<br>Peregrine Falcon | Other Specially Protected | - |
| *Motacilla cinera*<br>Grey wagtail | Migratory | Migratory |
| *Motacilla flava*<br>Yellow wagtail | Migratory | Migratory |
| *Pezoporus occidentalis*<br>Night parrot | Critically Endangered | Endangered |
| **Mammal** | | |
| *Dasyurus hallucatus*<br>Northern quoll | Endangered | Endangered |
| *Pseudomys chapmani*<br>Western pebble-mound mouse | P4 | - |
| **Reptile** | | |
| *Liasis olivaceus barroni*<br>Pilbara olive python | Vulnerable | Vulnerable |

# 4 Key findings and subsequent actions

A supplementary flora and vegetation field survey and basic fauna field survey were completed for the access option survey area during September to November 2024. A summary of the environmental values identified by the field surveys is provided below:

- Flora:
  - A total of 89 taxa were recorded during the supplementary survey including:
    - 26 taxa from the Fabaceae (Pea family)
    - 14 taxa from the Poaceae (Grasses) family
    - 7 taxa from the Malvaceae (Mallows-Hibiscus and allied genera) family
  - No Threatened or Priority flora were recorded during the survey. The likely presence / absence of conservation significant flora species will be confirmed as part of the primary survey
  - No Declared pests or Weeds of National Significance were recorded. Two weeds, **Cenchrus ciliaris* and **Vachellia farnesiana,* were recorded
- Vegetation:

[8] Bamford Consulting Ecologists. 2024 *Yinjibarndi Renewable Energy Project; Fauna Assessment Report.* Unpublished report for Yindjibarndi Energy Corporation. Kingsley, Western Australia.

  - Four broad vegetation types were identified during the survey:
    - *Acacia* spp. over *Triodia wiseana* grassland
    - Cracking clay communities, often dominated by *Astrebla pectinate*
    - *Eucalyptus* or *Corymbia* spp with *Acacia* spp over *Triodia wiseana* grassland
    - *Eucalyptus victrix* over mixed shrublands over *Triodia* grassland in drainage lines
  - The vegetation type "Cracking clay communities, often dominated by *Astrebla pectinata"*, as described by RPS, may be analogous with the DBCA-listed PEC, 'Four Plant Assemblages of the Wona Land System' (previously 'Cracking clays of the Chichester and Mungaroona Range'). Three of the four plant assemblages described by DBCA as part of the PEC appear to be present with in the survey area
  - Vegetation was generally in excellent condition
- The primary flora and vegetation survey is proposed to be undertaken in April–May 2025 following the summer wet season to accord with the optimal surveying time for the Eremaean botanical region. The primary flora and vegetation survey will resolve:
  - presence / absence of conservation significant flora species
  - vegetation type classification and distribution mapping
  - vegetation condition classification and distribution mapping
  - presence / absence of conservation significant ecological communities (e.g. Four Plant Assemblages of the Wona Land System' (previously 'Cracking clays of the Chichester and Mungaroona Range)
- Fauna:
  - A total of 64 species were identified during the field observations (Appendix B), 4 of which are of conservation significance (Table 6):
    - *Dasyurus hallucatus* (Northern quoll)
    - *Falco hypoleucos* (Grey falcon)
    - *Liasis olivaceus barroni* (Pilbara olive python)
    - *Pseudomys chapmani* (Western pebble-mound mouse).

Should you require further details or clarification, please do not hesitate to contact the undersigned or Giles Glasson.

**Martin Henson**
Lead Botanist
martin.henson@rpsconsulting.com

Attachments: Figures
Appendix A Provisional flora species list
Appendix B Provisional fauna species list

# Figures

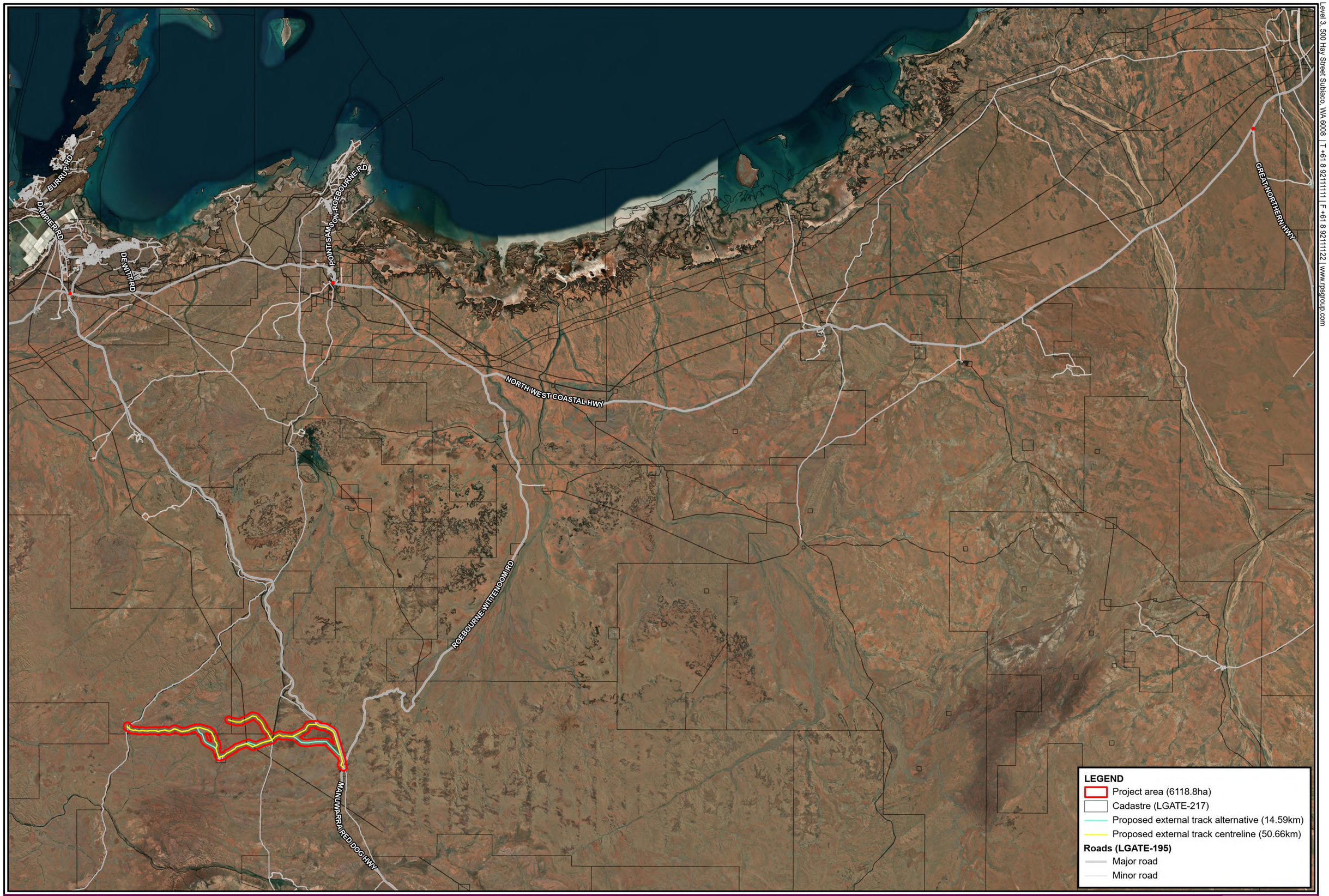


**Figure A**

**Survey area - overview**

GDA2020 MGA Zone 50

0 5 10 20 km

APRX: OEENVPER_374429_Memo
Date exported: 1/05/2025
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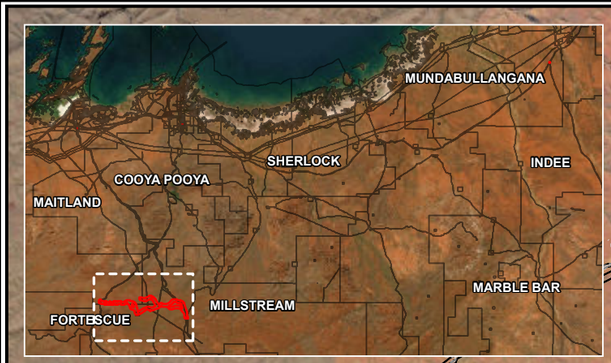


LEGEND
Project area
Cadastre (LGATE-217)
Roads (LGATE-195)
Major road
Minor road
Track

MANUWARRA-RED-DOG-HWY

ROEBOURNE-WITTENOOM RD

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**Figure A - Page 1 of 4**

**Survey area**

GDA2020 MGA Zone 50

0 1,250 2,500 5,000 m

APRX: OEENVPER_374429_Memo
Date exported: 29/04/2025
Scale: 1:93,000 @ A3
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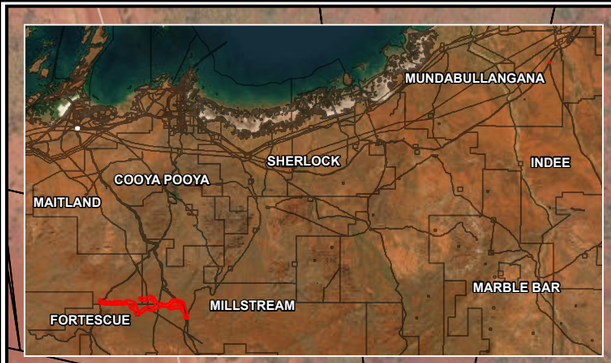


LEGEND
Project area
Cadastre (LGATE-217)
Roads (LGATE-195)
Major road
Minor road
Track

NORTH WEST COASTAL HWY
MANUWARRA RED DOG HWY
MADIGAN RD

**Figure A - Page 2 of 4**

**Survey area**

GDA2020 MGA Zone 50
0 25 50 100 m

APRX: OEENVPER_374429_Memo
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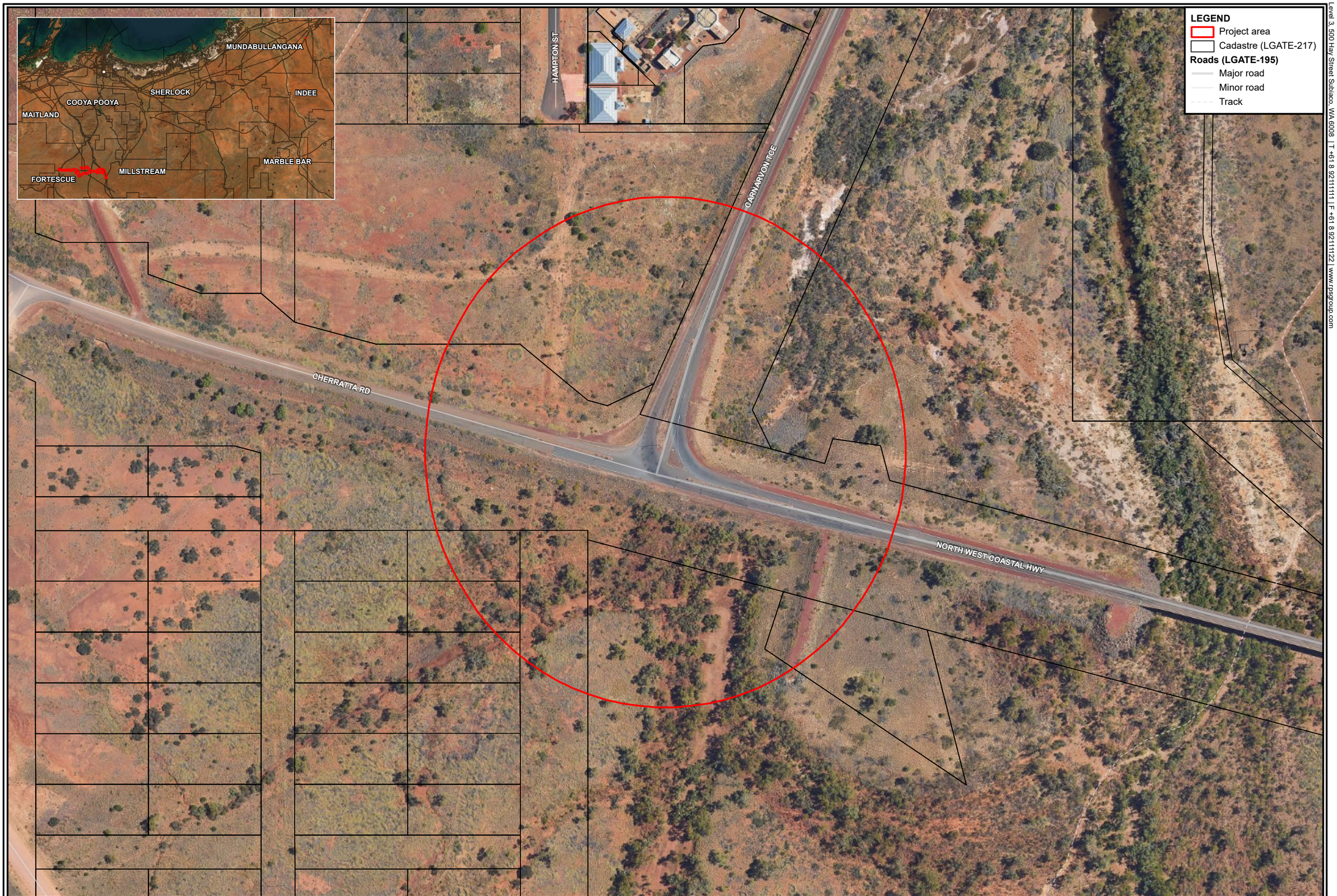


**Figure A - Page 3 of 4**

**Survey area**

GDA2020 MGA Zone 50

0 25 50 100 m

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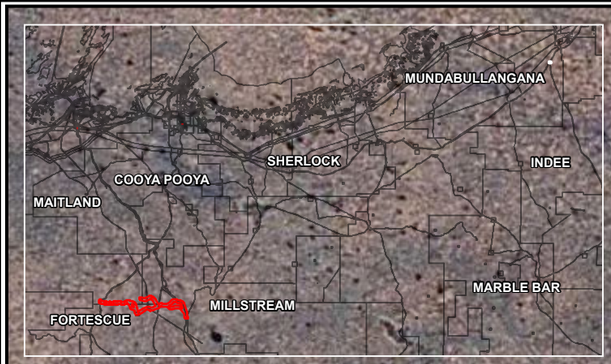


**LEGEND**

Project area

Cadastre (LGATE-217)

**Roads (LGATE-195)**

Major road

Minor road

GREAT NORTHERN HWY

NORTH WEST COASTAL HWY

**Figure A - Page 4 of 4**

**Survey area**

GDA2020 MGA Zone 50

0 25 50 100 m

APRX: OEENVPER_374429_Memo
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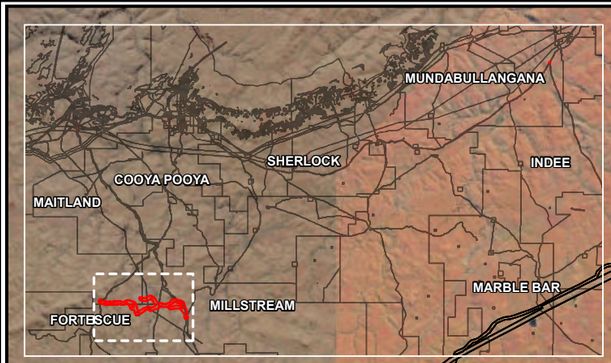


MANUWARRA RED DOG HWY

ROEBOURNE-WITTENOOM RD

**LEGEND**

Project area

Cadastre (LGATE-217)

**Vegetation type**

C1 - *Eucalyptus victrix* low open woodland over Melaleuca linophylla, Acacia bivenosa, Acacia coriacea subsp. pendens mid sparse shrubland over Cyperus vaginatus, Stemodia grossa, Tephrosia rosea var. clementii low sparse shrubland in ephemeral drainage channels.

C3 - *Eucalyptus victrix, Eucalyptus camaldulensis* low woodland over *Acacia coriacea* subsp. pendens, *Melaleuca glomerata*, Acacia spp. (*A. bivenosa, A. pyrifolia var. pyrifolia, A. tumida*) mid sparse shrubland over *Cyperus vaginatus, Stemodia grossa, Eriachne benthamii* low sparse shrubland in drainage channels.

C6 - *Eucalyptus victrix, Corymbia hamersleyana* low sparse woodland over *Acacia tumida var. pilbarensis, Acacia pyrifolia, Acacia bivenosa* low open shrubland over *Triodia wiseana, Cymbopogon ambiguus, Enneapogon lindleyanus* low sparse hummock grassland in minor drainage channels.

Cleared/Infrastructure - Cleared areas, roads and buildings

G1 - *Acacia inaequilatera, Corymbia hamersleyana* low isolated trees over *Indigofera monophylla, Acacia pyrifolia, Acacia bivenosa* low sparse shrubland over *Triodia wiseana, Triodia epactia* low open hummock grassland on rocky sandstone hilltops and plains.

G2 - *Aristida latifolia, Triodia wiseana* low sparse tussock grassland over *Rhynchosia minima, Streptoglossa bubakii* low isolated shrubs with diverse annual herbs and grasses on friable cracking clay on hilltop flats.

S2 - *Acacia xiphophylla* tall open shrubland over *Senna artemisioides* subsp. *helmsii, Acacia coriacea* subsp. pendens low isolated shrubs over *Triodia wiseana* low isolated hummock grasses on orange-brown clay flats.

W1 - *Eucalyptus leucophloia* subsp. *leucophloia* low open woodland over *Acacia bivenosa*, Acacia spp. (*A. ancistrocarpa, A. inaequilatera, A. maitlandii, A. pyrifolia), Senna glutinosa* subsp. *glutinosa* low isolated shrubs over *Triodia wiseana* low sparse hummock grassland on sandstone hilltops.

W2 - *Corymbia hamersleyana* low open woodland over *Acacia bivenosa, Acacia pyrifolia, Acacia arida* low isolated shrubs over *Triodia wiseana, Themeda triandra* low sparse hummock grassland on rocky sandstone alluvium.

W3 - *Eucalyptus leuophloia* subsp. *leucophloia, Corymbia hamersleyana* low open woodland over *Acacia ancistrocarpa*, Hakea spp. *(H. chordophylla, H. lorea), Acacia pyrifolia* low sparse shrubland over *Triodia wiseana, Triodia epactia* low open hummock grassland on orange rocky sandstone slopes.

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**Figure B - Page 1 of 4**

**Vegetation type**

GDA2020 MGA Zone 50

0 1,250 2,500 5,000 m

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NORTH WEST COASTAL HWY

MANUWARRA RED DOG HWY

MADIGAN RD

**LEGEND**

Project area

Cadastre (LGATE-217)

**Vegetation type**

*Acacia bivenosa*, *Acacia pyrifolia* tall sparse shrubland over *Triodia epactia* hummock grassland over **Cenchrus ciliaris* tussock grassland.

Cleared/Infrastructure - Cleared areas, roads and buildings

**Figure B - Page 2 of 4**

**Vegetation type**

GDA2020 MGA Zone 50

0 25 50 100 m

APRX: OEENVPER_374429_Memo
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HAMPTON ST

CARNARVON TCE

CHERRATTA RD

NORTH WEST COASTAL HWY

**LEGEND**

Project area

Cadastre (LGATE-217)

**Vegetation type**

Cleared/Infrastructure - Cleared areas, roads and buildings

*Eucalyptus victrix* sparse trees over *Triodia wiseana, T. epactia* open grassland. Sparse *Sclerolaena* sp.

*Eucalyptus victrix* woodland over *Malaleuca argentea* tall shrubland over *Acacia trachycarpa* tall open shrubland over *Eulalia aurea, *Cenchrus ciliaris* tussock grassland.; Eucalyptus victrix woodland over Melaleuca argentea tall shrubland over Acacia trachycarpa tall open shrubland over Eulalia aurea, *Cenchrus ciliaris tussock grassland.

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**Figure B - Page 3 of 4**

**Vegetation type**

GDA2020 MGA Zone 50

0 25 50 m 100

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GREAT NORTHERN HWY

NORTH WEST COASTAL HWY

**LEGEND**

Project area

Cadastre (LGATE-217)

**Vegetation type**

Cleared/Infrastructure - Cleared areas, roads and buildings

Isolated trees of *Owenia reticulata* over *Acacia ancistrocarpa, Acacia colei, Acacia tumida* subsp. *pilbarensis* tall sparse shrubland over *Acacia stellaticeps* low open shrubland over *Triodia epactia* hummock grassland. Associated species include *Dolichandrone occidentalis, Abutilon* sp. *Pritzelianum* (P3) (a few plants observed, probably more as this taxon is very common along roadsides here. There may also be *Tephrosia rosea* var Port Hedland (P1) as this is common along roadsides in the local area)

**Figure B - Page 4 of 4**

**Vegetation type**

GDA2020 MGA Zone 50

0 25 50 100 m

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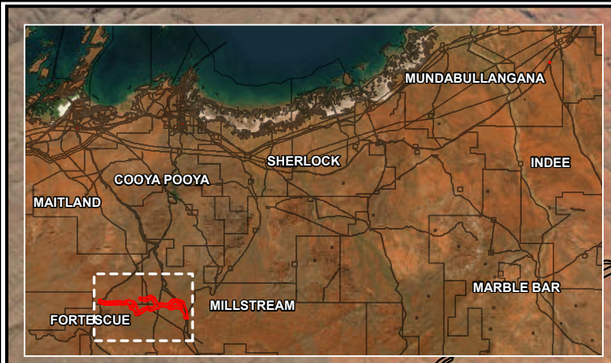


**LEGEND**

Project area

Cadastre (LGATE-217)

**Vegetation condition**

- Excellent
- Very Good to Excellent
- Very Good
- Very Good to Good
- Good to Very Good
- Good
- Good to Degraded
- Degraded
- Degraded to Completely Degraded
- Completely Degraded

MANUWARRA-RED-DOG-HWY

ROEBOURNE-WITHNOOM-RD

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**Figure C - Page 1 of 4**

**Vegetation condition**

GDA2020 MGA Zone 50

0 1,250 2,500 5,000 m

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Date exported: 1/05/2025
Scale: 1:92,500 @ A3
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LEGEND
Project area
Cadastre (LGATE-217)
Vegetation condition
Good to Completely Degraded
Completely Degraded

NORTH WEST COASTAL HWY

MADIGAN RD

MANUWARRA-RED DOG HWY

GDA2020 MGA Zone 50

0 20 40 80 m

**Figure C - Page 2 of 4**

**Vegetation condition**

APRX: OEENVPER_374429_Memo
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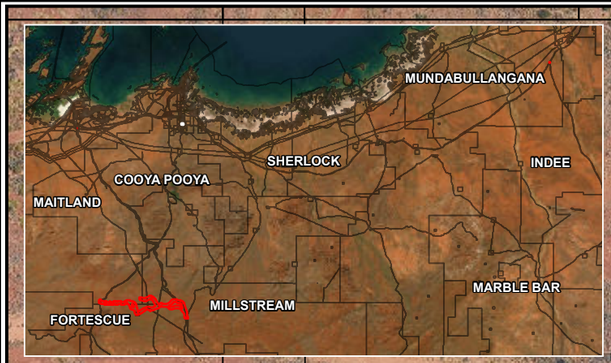


LEGEND

Project area

Cadastre (LGATE-217)

**Vegetation condition**

Good to Degraded

Degraded to Completely Degraded

Completely Degraded

CARNARVON TCE

CHERRATTA RD

NORTH WEST COASTAL HWY

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**Figure C - Page 3 of 4**

**Vegetation condition**

GDA2020 MGA Zone 50

0 20 40 80 m

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Date exported: 1/05/2025
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GREAT NORTHERN HWY

NORTH WEST COASTAL HWY

**LEGEND**

Project area

Cadastre (LGATE-217)

**Vegetation condition**

Very Good

Completely Degraded

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**Figure C - Page 4 of 4**

**Vegetation condition**

GDA2020 MGA Zone 50

0 20 40 80 m

APRX: OEENVPER_374429_Memo
Date exported: 1/05/2025
Scale: 1:1,500 @ A3
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Source: Earthstar Geographics, Landgate / SLIP

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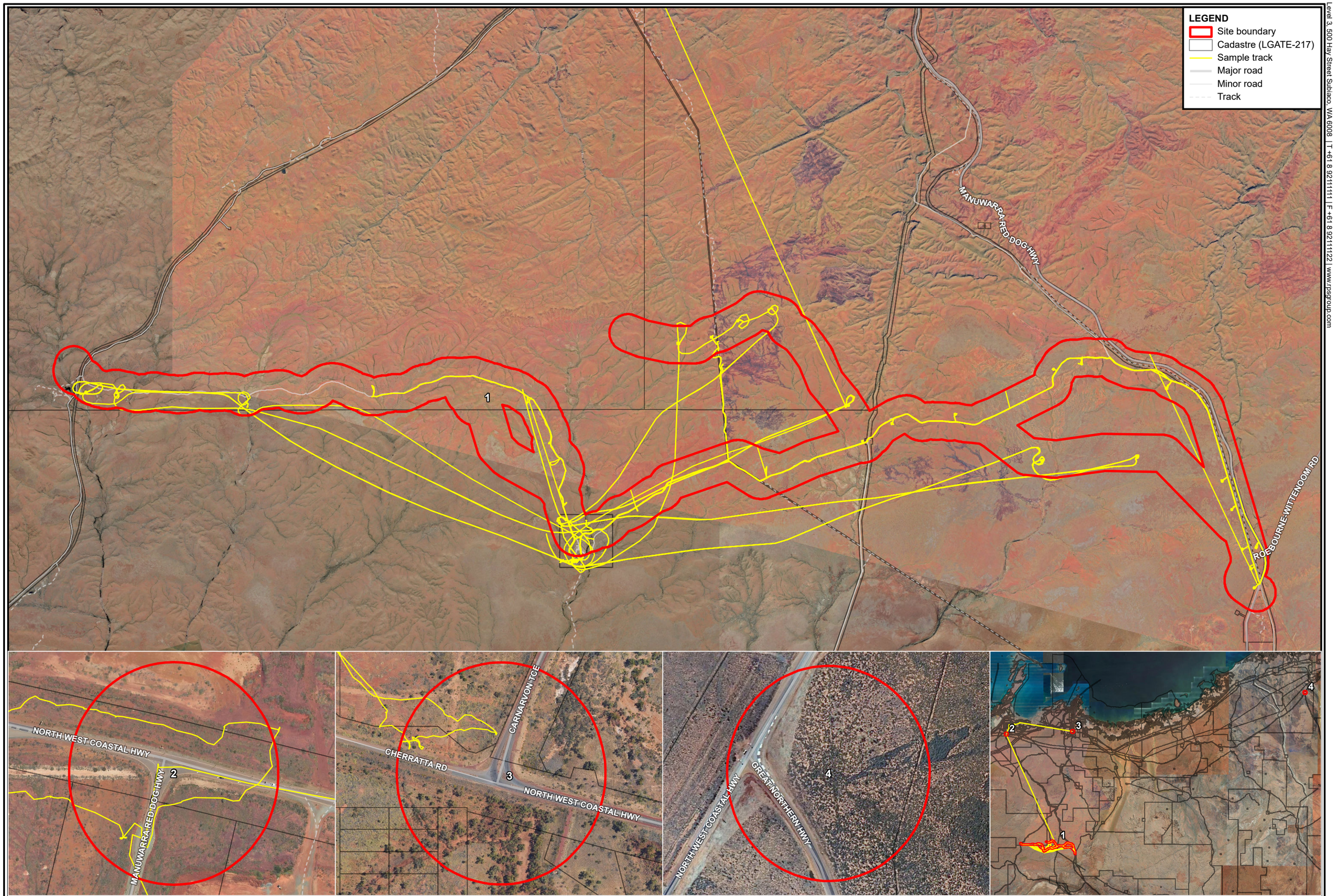


**Figure D**

**Survey effort**

GDA2020 MGA Zone 50

0 1.25 2.5 5 km

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Date exported: 29/04/2025
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# Appendix A:
## Provisional flora species list

# APPENDIX A: Provisional Species list

Flora species recorded during the field survey are presented below.

**Table A-1: Provisional species list**

| Family | Name |
|---|---|
| Aizoceae | *Trianthema turgidifolia* |
| Amaranthaceae | *Ptilotis aervoides* |
| | *Ptilotus auriculifolius* |
| | *Ptilotus calostachyus* |
| | *Ptilotus exaltatus* |
| | *Ptilotus fusiformis* |
| | *Ptilotus polystachyus* |
| | *Ptilotus rotundifolius* |
| Asteraceae | *Streptoglossa bubakii* |
| Boraginaceae | *Dolichocarpa crouchiana* |
| | *Euploca cunninghamii* |
| | *Euploca inexplicita* |
| | *Trichodesma zeylanicum* |
| Caryophyllaceae | *Polycarpaea corymbosa* |
| | *Polycarpaea holtzei* |
| | *Polycarpaea longiflora* |
| Chenopodiaceae | *Dysphania kalpari* |
| | *Salsola australis* |
| Cleomaceae | *Arivela viscosa* |
| Commelinaceae | *Commelina ensifolia* |
| Convolvulaceae | *Bonamia media* |
| | *Bonamia erecta* |
| | *Evolvulus alsinoides* var *villosicalyx* |
| | *Operculina aequisepala* |
| Euphorbiaceae | *Euphorbia boophthona* |
| | *Euphorbia aff. australis* |
| | *Acacia ampliceps* |
| | *Acacia ancistrocarpa* |
| | *Acacia aptaneura* |
| | *Acacia arida* |
| | *Acacia bivenosa* |
| | *Acacia inaequilatera* |
| | *Acacia maitlandii* |
| | *Acacia pyrifolia* |
| | *Acacia trachycarpa* |
| | *Acacia tumida* var. *pilbarensis* |
| | *Alysicarpus muelleri* |
| | *Indigofera boviperda* |
| | *Indigofera colutea* |
| | *Indigofera linifolia* |
| | *Indigofera rugosa* |

| Family | Name |
|---|---|
| | *Indigofera trita* |
| | *Neptunia dimorphantha* |
| | *Rhynchosia australis* |
| | *Rhynchosia minima* |
| | *Senna artemisioides subsp. helmsii* |
| | *Senna glutinosa subsp. glutinosa* |
| | *Senna hamersleyana* |
| | *Senna notabilis* |
| | *Tephrosia rosea* |
| | **Vachellia farnesiana* |
| Goodeniaceae | *Goodenia microptera* |
| | *Goodenia muelleriana* |
| | *Goodenia stobbsiana* |
| | *Goodenia trichophylla* |
| Malvaceae | *Corchorus walcottii* |
| | *Gossypium australe* |
| | *Hibiscus sturtii* |
| | *Sida fibulifera* |
| | *Sida* sp. Pilbara (AS Mitchell PRP1543) |
| Molluginaceae | *Trigastrotheca molluginea* |
| Myrtaceae | *Corymbia hamersleyana* |
| | *Eucalyptus leucophloia* subsp. *leucophloia* |
| | *Eucalyptus victrix* |
| | *Melaleuca linophylla* |
| Nyctaginaceae | *Boerhavia coccinea* |
| | *Boerhavia gardneri* |
| Phyllanthaceae | *Nellica maderaspatensis* |
| Plantaginaceae | *Stemodia grossa* |
| Poaceae | *Aristida contorta* |
| | *Aristida latifolia* |
| | *Astrebla pectinata* |
| | **Cenchrus ciliaris* |
| | *Chrysopogon fallax* |
| | *Cymbopogon ambiguus* |
| | *Eragrostis xerophila* |
| | *Eriachne pulchella* |
| | *Paraneurachne muelleri* |
| | *Sorghum plumosum* |
| | *Triodia epactia* |
| | *Triodia wiseana* |
| | *Yakirra australiensis* |
| Portulacaceae | *Portulaca oleracea* |
| Proteaceae | *Grevillea pyramidalis* |
| | *Hakea chordophylla* |
| Sapindaceae | *Dodonaea coriacea* |

| Family | Name |
|---|---|
| Solanaceae | *Solanum diversiflorum* |
| Violaceae | *Afrohybanthus auriantiacus* |
| Zygophyllaceae | *Tribulus hirsutus* |

# Appendix B:
## Provisional fauna species list

# APPENDIX B: Provisional Species List

Fauna species recorded during the field survey are presented below

**Table B-1: Provisional species list**

| Species name | Conservation status BC Act / DBCA or EPBC listed |
|---|---|
| **Amphibian** | |
| *Litoria rubella*<br>Little red tree frog | - |
| **Birds** | |
| *Acrocephalus australis*<br>Australian reed-warbler | - |
| *Aogotheles cristatus*<br>Australian owlet-nightjar | - |
| *Aquila audax*<br>Wedge-tailed eagle | - |
| *Artamus cinereus*<br>Black-faced woodswallow | - |
| *Artamus minor*<br>Little woodswallow | - |
| *Barnardius zonarius*<br>Australian ringneck | - |
| *Bathilda ruficauda*<br>Star finch | - |
| *Cacatua sanguinea*<br>Little corella | - |
| *Centropus phasianinus*<br>Pheasant coucal | - |
| *Charadrius melanops*<br>Black-fronted dotterel | - |
| *Chalcites basalis*<br>Horsfield's bronze-cuckoo | - |
| *Colluricincla harmonica*<br>Grey shrikethrush | - |
| *Coracina novaehollandiae*<br>Black-faced cuckooshrike | - |
| *Corvus orru*<br>Torresian crow | - |
| *Cracticus nigrogularis*<br>Pied butcherbird | - |
| *Dacelo leachii*<br>Blue-winged kookaburra | - |
| *Emblema pictum*<br>Painted finch | - |
| *Eolophus roseicapilla*<br>Galah | - |
| *Falco cenchroides*<br>Australian kestrel | - |
| *Falco berigora* | - |

| Species name | Conservation status BC Act / DBCA or EPBC listed |
|---|---|
| Brown falcon | |
| *Falco hypoleucos* Grey falcon | Vulnerable |
| *Gavicalis virescens* Singing honeyeater | - |
| *Geophaps plumifera* Spinifex pigeon | - |
| *Geopelia cuneata* Diamond dove | - |
| *Geopelia striata* Peaceful dove | - |
| *Grallina cyanoleuca* Magpie-lark | - |
| *Gymnorhina tibicen* Australian magpie | - |
| *Haliastur sphenurus* Whistling kite | - |
| *Heteroscenes pallidus* Pallid cuckoo | - |
| *Lalage tricolor* White-winged triller | - |
| *Lichmera indistincta* Brown honeyeater | - |
| *Malurus assimilis* Purple-backed fairywren | - |
| *Malurus leucopterus* White-winged fairywren | - |
| *Manorina flavigula* Yellow-throated minor | - |
| *Melopsittacus undulatus* Budgerigar | - |
| *Merops ornatus* Rainbow bee-eater | Migratory (Marine) |
| *Mirafra javanica* Horsfield's bush-lark | - |
| *Nymphicus hollandicus* Cockatiel | - |
| *Ocyphaps lophotes* Crested pigeon | - |
| *Oreoica gutturalis* Crested bellbird | - |
| *Pachycephala rufiventris* Rufous whistler | - |
| *Pardalotus rubricatus* Red-browed pardolate | - |
| *Pardalotus striatus* Striated pardalote | - |
| *Petrochelidon ariel* Fairy martin | - |

| Species name | Conservation status<br>BC Act / DBCA or EPBC listed |
|---|---|
| *Phaps chalcoptera*<br>Common bronzewing | - |
| *Poodytes carteri*<br>Spinifexbird | - |
| *Ptilotula keartlandi*<br>Grey-headed honeyeater | - |
| *Ptilotula pencillata*<br>White-plumed honeyeater | - |
| *Rhipidura leucophrys*<br>Willie wagtail | - |
| *Smicrornis brevirostris*<br>Weebill | - |
| *Synoicus ypsilophorus*<br>Brown quail | - |
| *Taeniopygia castanotis*<br>Australian zebra finch | - |
| *Todiramphus sanctus*<br>Sacred kingfisher | - |
| *Todiramphus pyrrhopygius*<br>Red-backed kingfisher | - |
| **Mammals-** | |
| *Bos primigenius taurus*<br>European cattle | - |
| *Canis familiaris*<br>Dingo | - |
| *Dasyurus hallucatus*<br>Northern quoll | Endangered |
| *Equus ferus caballus*<br>Horse | - |
| *Felis catus*<br>Cat | - |
| *Osphranter robustus erubescens*<br>Wallaroo | - |
| *Petrogale rothschildi*<br>Rothschild's rock-wallaby | - |
| *Pseudantenchinus macdonnellensis*<br>Fat-tailed Pseudantechinus | - |
| *Pseudomys chapmani*<br>Western pebble-mound mouse | Priority 4 |
| *Taphozous sp.*<br>Sheath-tailed bat | - |
| **Reptiles** | |
| *Ctenophorus caudicinctus*<br>Western ring-tailed dragon | - |
| *Hemidactylus frenatus*<br>Asian house gecko | - |
| *Liasis olivaceus*<br>Pilbara olive python | Vulnerable |

| Species name | Conservation status<br>BC Act / DBCA or EPBC listed |
|---|---|
| *Pseudonaja mengdeni*<br>Western brown snake | - |