WOODSIDE POWER PROJECT
FLORA AND VEGETATION SURVEYS
DESKTOP ASSESSMENT REPORT

JULY 2019

Prepared for Woodside Power Pty Ltd

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Abbreviation	Definition
BAM Act	*Biosecurity and Agriculture Management Act 2007*
BESS	Battery Energy Storage System
BOM	Bureau of Meteorology
°C	Degrees Celsius
DBCA	Department of Biodiversity, Conservation and Attractions
DBNGP	Dampier Bunbury Natural Gas Pipeline
DEC	Department of Environment and Conservation
DoEE	Department of the Environment and Energy
DRF	Declared Rare Flora
EPA	Environmental Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ESA	Environmentally Sensitive Area
ha	hectares
IBRA	Interim Biogeographic Regionalisation for Australia
km	Kilometers
m^2	Meters squared
mm	Millimeters
Main Roads	Main Roads Western Australia
MGA50	Map Grid of Australia
MNES	Matters of National Significance
MSIA	Maitland Strategic Industrial Area
NAC	Ngarluma Aboriginal Corporation
NOx	Nitrous Oxide Emissions
P	Priority
PEC	Priority Ecological Community
PP	Power Plant
Solar PV	Solar Photovoltaic Farm
SOx	Sulfur Dioxide Emissions
sp.	Species (singular)
subsp.	Subspecies
T	Threatened
TEC	Threatened Ecological Community
TO	Traditional Owner
TPFL	Threatened and Priority Flora Database (administered by DBCA)
TP List	Threatened and Priority Flora List (administered by DBCA)
WA Herb	Western Australian Herbarium
WC Act	*Wildlife Conservation Act 1950*
WoNS	Weeds of National Significance

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1. INTRODUCTION

1.1 Project Background

Woodside Power Pty Ltd (Woodside) is proposing to establish a Hybrid Renewable Power Plant (the Proposal), located approximately 15 km south-west of Karratha, Western Australia (WA) (Figure 1). The proposal will generate and supply electricity to third party industrial customers on the Burrup Peninsula.

The Proposal will generate electricity from a large scale solar photovoltaic farm (Solar PV Farm), complemented by a high efficiency gas-fired power plant (Gas Power Plant). This hybrid generator will ensure that a consistent energy supply is provided. The Gas Power Plant is proposed to be located at the Maitland Strategic Industrial Area (MSIA) with the Solar PV Farm located on the adjacent MSIA Industrial Buffer Area (Buffer Area). The electricity generated will be transported along a 31 km transmission corridor, via overhead transmission lines with up to three interposing substations on the Burrup Peninsula for distribution to third party industrial customers. The substations will include a Battery Energy Storage System (BESS) to provide increased electrical system stability as a spinning reserve.

Woodside is referring the Proposal to the WA Environmental Protection Authority (EPA) under Section 38 of the *Environmental Protection Act 1986* (EP Act), as a Proposal that has potential to have a significant impact on the environment. Woodside is also referring the Proposal to the Australian Department of the Environment and Energy (DoEE) under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) as a Proposal that has potential to impact matters of national environmental significance (MNES).

Vicki Long and Associates (VLA) was engaged by GHD on behalf of Woodside, to undertake a single season, reconnaissance (previously known as Level 1) flora and vegetation survey of the development envelope (Gas Power Plant, Solar PV Farm and Transmission Corridor) defined in this document as the "Survey Area" (Figure 1). The flora and vegetation survey has been undertaken to support the referral of the Proposal to the EPA and DoEE.

1.2 Scope and Objectives

The scope of work was to undertake the following:

- A Level 1 desktop and reconnaissance flora and vegetation survey for the Survey Area to assess and record the vegetation communities present, the vegetation condition, weeds species and the location of any vegetation or flora of conservation significance.

The flora and vegetation assessment included:

- A desktop assessment to review existing information for the Survey Area (at a local scale) to determine the likelihood of occurrence of conservation significant species and communities. The desktop assessment included a review of all available data including databases, existing studies and geospatial information, including but not limited to the following:

- A review of existing flora and vegetation surveys available for the study area, to understand the vegetation communities present (e.g. dominant species, common Families and diversity).
- A review of the Department of the Environment and Energy (DoEE) Protected Matters database to identify species and communities listed under the EPBC Act potentially occurring within the survey area.
- A review of the Department of Biodiversity Conservation and Attractions (DBCA) NatureMap database for flora species previously recorded within a 40 km buffer of the study area.
- A review of DBCA Threatened and Priority Ecological Communities (TECs and PECs) and threatened and priority flora databases. These databases were used to identify conservation significant communities and flora species present within the survey areas and surrounds, which are contained in DBCA records.
- Previous broad scale vegetation mapping of the survey area (Beard (1975); Trudgen (2002)) and land system mapping.
- Aerial photography, geology/soils and hydrology information: these datasets were reviewed to provide background information on the variability of the environment and likely vegetation types.

- Preparation of a final report which addresses the tasks outlined above, relevant contextual information, methodology, timing and limitations for the flora and vegetation survey.

1.3 Guidance and Legislation

1.3.1 Survey Guidance

The Environmental Protection Authority (EPA) provides guidance on flora and vegetation surveys to ensure that adequate data are obtained to an appropriate standard:

- *Technical Guidance - Flora and Vegetation surveys for Environmental Impact Assessment* (EPA 2016).

The guidance document provides advice on:

- survey preparation and desktop assessment;
- determining the type of survey required;
- sampling techniques and survey design; and
- data analysis and reporting.

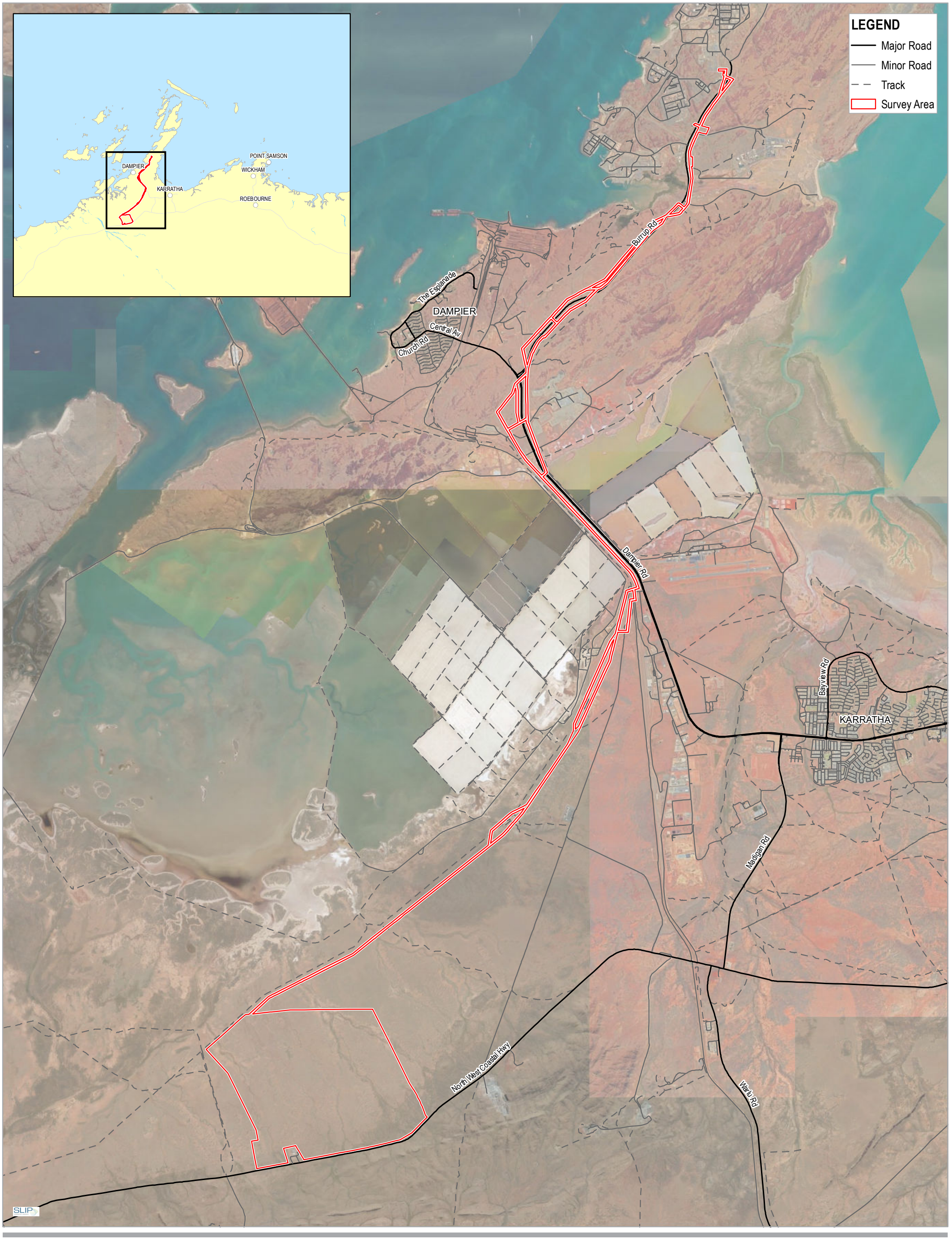
1.3.2 Flora and Vegetation Protection

Flora and vegetation within Western Australia are protected by a range of legislative and non-legislative instruments. A short description of these is provided in Table 1. Definitions for categories of conservation significant species and ecological communities are provided in Appendix A.

Table 1. Flora and vegetation protection - Legislation and Guidance

Legislation and Guidance	Description
COMMONWEALTH	
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	The EPBC Act provides a legal framework to protect and manage Matters of National Environmental Significance (MNES), which includes Threatened Ecological Communities (TECs) and Threatened Species (DoEE 2019a, DoEE 2019b). Under the EPBC Act, the Commonwealth Department of the Environment and Energy (DoEE) lists threatened species and communities in categories determined by criteria set out in the Act. These categories are summarized in Table A.1 and A.2 in Appendix A. Projects likely to cause a significant impact on MNES should be referred to the DoEE for assessment under the EPBC Act.
Weeds of National Significance (WONS)	The Australian Government along with the State and Territory governments has endorsed 32 WONS, each of which has a national strategy. WONS must be reported and are regarded the worst weeds in Australia because of their invasiveness, potential for spread, and economic and environmental impacts.
WA STATE	
Biodiversity Conservation Act 2016 (BC Act)	The BC Act came into effect in January 2019 to provide for the conservation and protection of biodiversity and biodiversity components in Western Australia; repealing the WC Act. The BC Act provides for native plant species to be specially protected when they are under identifiable threat of extinction, are rare, or otherwise in need of special protection (Table A.3 - Appendix A). (Department of Biodiversity, Conservation, and Attractions (DBCA) 2018a). Such specially protected flora is considered under the BC Act to be 'declared rare' (Threatened). The BC Act also provides for the statutory listing of Threatened Ecological Communities (TECs) by the Minister for Environment. The Department of Biodiversity, Conservation and Attractions (DBCA) lists WA TECs endorsed by the Minister as protected according to their need (DBCA 2018b). The categories of these TECs and PECs are given in Table A.4 and A.5 in Appendix A.
DBCA Priority Lists	The DBCA lists 'Priority' flora that have not been assigned statutory protection as Declared Rare or 'Scheduled' under the WC Act (DBCA 2019b). Flora assessed as Priority 1-3 are in urgent need of further survey. Priority 4 flora require monitoring every 5-10 years and Priority 5 flora are subject to a specific conservation program. Priority flora are categorized according to level of threat and other information; the conservation categories area described in Table A.6 in Appendix A. The DBCA also maintains a list of Priority Ecological Communities (PECs) which identifies ecologically valuable communities that need further investigation before possible nomination for TEC status (DBCA 2019a).
Environmental Protection Act 1986 (EP Act)	Threatened Flora and TECs are given special consideration in environmental impact assessments and have special status as Environmentally Sensitive Areas (ESAs) under the EP Act and the Environmental Protection (Clearing of Native Vegetation) Regulations 2004. Exemptions for a clearing permit do not apply in an ESA.

Legislation and Guidance	Description
Biosecurity and Agriculture Management Act 2007 (BAM Act)	Pests may be 'Declared' by the Minister for Agriculture under the BAM Act 2007. The Western Australian Organism List (WAOL) provides the status of organisms which have been categorised under BAM Act. A declaration may apply to the whole State, to districts, individual properties or even to single paddocks. If a plant is 'Declared', landholders are obliged to control that plant on their properties. Declared pest categories and listed weeds species' priority rankings are presented in Table A.7 in Appendix A.
Informal Recognition of Flora	Certain populations or communities of flora may be of local significance or interest because of their patterns of distribution and abundance (i.e. range extensions or unusual species composition). Many species are also in decline because of threatening processes (land clearing, grazing, changed fire regimes), and relict populations of such species assume local importance for the DBCA.



Paper Size ISO A3

0 0.5 1 1.5 2

Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

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GHD

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Location of the Woodside Power Project Survey Area

Project No. **61-37808**
Revision No. **0**
Date **27 Nov 2019**

FIGURE 1

G:\61\37808\05\GIS\Maps\Working\Report Figures\613780805_Fig1ProjectLocation_Rev0.mxd
Print date: 27 Nov 2019 - 11:58

Data source: GHD: Survey area - 20190719; Landgate: Roads - 20190128, Imagery: 20180408 (accessed: 20190730). Created by: afeeney

2. METHODS

2.1 Desktop Assessment

The purpose of the desktop assessment is to gather contextual information and to identify potential flora and vegetation prior to the field survey.

2.1.1 Physical Environment

A desktop assessment was undertaken of the physical factors of the region and the local area, including climate, geology, land systems, soils, and hydrology. Unusual or restricted geological features (e.g. outcropping, distinctive soil types or hydrological features) were identified and targeted during the survey as they may support significant/unique flora and vegetation to the area.

Database searches included GeoVIEW (Geology 1:50,000, DMIRS 2019), Bureau of Meteorology (Climate Data Online, BoM 2019), Soil Landscape Mapping (DPIRD-027), Soil Landscape Mapping - Systems (DPIRD-064), as well as aerial photography and satellite imagery.

2.1.2 Vegetation

An evaluation of known and likely vegetation within the Survey Area was based on an assessment of regional and local mapping and databases, including:

- Statewide Vegetation Mapping (Beard 1975)
- Regional vegetation mapping (Trudgen 2002)
- EPBC Act List of Threatened Ecological Communities (Protected Matters Search Tool, DoEE 2019c)
- DBCA threatened and priority ecological communities' databases (DBCA 2019c)
- Recovery Plans and other reports/documents containing information on the preferred habitats and distributions of TECs of relevance to the survey areas
- Survey reports or references in the region or locality.
- General environmental databases to identify environmental values of the area and further site characteristics:
    - GeoVIEW to identified geology types for the Survey Area (DMIRS 2019)
    - NationalMap (Commonwealth of Australia 2019)
    - Environmental Planning Tool (WALGA 2019)
    - Locate (via SLIP and Landgate) (Government of Western Australia 2019a)
    - DBCA - Lands and Waters of Interest (DBCA 2018c)
    - DBCA - Legislated Lands and Waters (DBCA 2018d)

2.1.3 Flora

An evaluation of flora known within the area was undertaken to help develop an understanding of dominant flora species, typical families and potential diversity. The desktop flora assessment output consisted of an inventory of known and/or expected flora species within a 20km radius of the Solar PV Farm and Power Plant survey areas and a 5km radius of the Transmission Corridor, based on the following database searches:

- EPBC Act listed Threatened Flora (DoEE 2019a)
- DBCA's Threatened and Priority Flora databases (DBCA 2019b)
- NatureMap custom reports of recorded species in the locality (DBCA 2019d)
- FloraBase (Western Australian Herbarium 2019)
- Survey reports or references in the region or locality.

A 20 km database search radius was used instead of the standard 40 km search radius because the survey habitat, particularly that of both the Burrup Peninsula and Roebourne Plains grasslands, are unique. A larger radius search would identify species from the surrounding Ranges which are not relevant to this specialised habitat.

Details of the database searches conducted are summarised in Table 2 and the search results are presented in Appendix B.

Table 2. Database searches undertaken

Database	Search focus	Search area
Department of the Environment and Energy Protected Matters Search Tool (DoEE 2019b)	MNES – Flora	20 km buffer around coordinates -20.81552 116.67903
Threatened and Priority Flora Database (TPFL) (DBCA 2019b)	Listed threatened and priority flora	20 km radius around survey area shapefiles provided
Western Australia Herbarium Flora Database (WA Herb) (WA Herbarium 2019)		20 km radius around survey area shapefiles provided
Threatened and Priority Ecological Communities Database DBCA 2019c)	Listed threatened and priority ecological communities	20 km radius around survey area shapefiles provided
NatureMap (DBCA 2019d)	Flora of conservation significance	20 km buffer around coordinates -20.81552 116.67903

2.1.4 Introduced Flora

Flora and vegetation surveys undertaken by Trudgen (2002) and Long (numerous surveys), identified a number of introduced flora species as having the potential to occur within the proposed survey areas and surrounds. These species were compared to the Department of Primary Industries and Regional Development list, to determine if any have been listed as declared pests under the BAM Act 2007 (Department of Primary Industries and Regional Development 2019), and the WONS list (Australian Weeds Committee 2012). Introduced flora categories are presented in Appendix A.

2.1.5 Environmentally Sensitive Areas

A search for Environmentally Sensitive Areas (ESAs) in the vicinity of the survey area was conducted using the DBCA Legislated Lands and Waters, and Lands and Waters of Interest datasets (DBCA 2018c, 2018d).

2.2 Field Survey

The flora and vegetation surveys were conducted by VLA's Principal Botanist Vicki Long between the 3 and 5 June 2019 (northern section) and the 22 and 23 July 2019 (southern section). Due to access restrictions in the southern survey areas, only the Transmission Corridor alignment from the Burrup Substation to the Causeway on Dampier Highway (northern section) was able to be surveyed in early

June. Access to the southern survey areas, from south of the Causeway to the proposed Gas Power Plant and Solar PV Farm sites was available in July 2019.

The methods adopted for the flora and vegetation survey were formulated, as far as practicable, in context with:

- EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (Environmental Protection Authority 2016);

Information acquired during the desktop assessment assisted in the design of the field surveys. The survey locations were clearly delineated on aerial imagery, produced both as hard paper copies and on a field Trimble. Previously recorded conservation significant flora records and associated habitat preference information assisted in identifying vegetation types and habitats within the survey locations that have the potential to support conservation significant flora.

The National Vegetation Information System (NVIS) (ESCAVI 2003) is the nationally adopted classification system used for vegetation description for EIA in Western Australia.

Broadly, the vegetation classification uses vegetation structure and dominant species to describe differences between vegetation units. Structural vegetation classification provides information on height of strata, foliar cover and dominant species.

2.2.1 Northern survey area

Forty-seven relevés, approximately equating to 50 m x 50 m each were assessed on the northern part of the alignment (Burrup Substation to the Causeway on Dampier Highway). Site selection was based on the review of aerial photography, ground truthing of habitat and vegetation boundaries in the field (according to Trudgen 2002) and distinct changes of vegetation type as encountered. The following information was collected for each relevé:

- Survey area name and site number
- Date
- Photo number
- Approximate size of area
- Location – coordinates taken using a handheld GPS (MGA50, GDA94) at SE and NW corners.
- Species - vascular plant species present, including weed species.
- Foliar cover – the estimated percentage cover for each species.
- Vegetation condition – assessed according to the vegetation condition scale adapted from Trudgen (1988) in The Technical Guide – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016) (Table C.1, Appendix C).
- Habitat - a broad description of the surrounding landscape based on landform, topography and soil.
- Disturbance - records of any obvious disturbances such as fire (and estimated fire age), tracks, weed infestation, or grazing.
- Priority flora (or any suspect Priority flora) and the respective GPS location

- Photographs - a photograph was taken of each relevé.

For the northern survey area, local scale vegetation units have been described at NVIS Level V which is termed 'vegetation type' and classified according to the Aplin (1979) modification of the vegetation classification system of Specht (1970) (Table C.2, Appendix C). Vegetation type mapping is presented in Appendix D and vegetation condition mapping in Appendix E.

The northern area reconnaissance survey allowed for PECs and Priority flora to be recorded within relevés and opportunistically, beyond relevés. These records indicated where PECs and Priority flora were most likely to be found and once a decision on the final alignment is made, a targeted search will be conducted to obtain actual numbers of both species and communities of conservation significance.

2.2.2 Southern survey area (Power Plant, Solar PV and Transmission Corridor)

The majority of the southern survey area Transmission Corridor and the entire area of the proposed Gas Power Plant and Solar PV Farm leases consisted of Roebourne plains grassland, which, depending on associated species present and gilgai type, contains both Priority 3 and Priority 1 Ecological Communities (PECs). Identification of these PECs relies on live, identifiable component grass species, other than the persisting perennial *Eragrostis xerophila* (Roebourne Plains grass). It was immediately obvious that, due to the dry conditions, these associated species could not be identified in the field during the July survey, and that the southern section would require a follow up wet season survey. Therefore, this current survey only recorded vegetation types based on species present. Vegetation types were recorded for 36 inspection sites along the Transmission Corridor and throughout the larger Gas Power Plant and Solar PV Farm areas. These descriptions did not include PECs which could not be identified.

At each inspection site, the following was recorded:

- Site number
- GPS co-ordinates
- Vegetation (based on dominant species identifiable at the time)
- Condition.

Species were identified in the field by Principal botanist Vicki Long. Any species not able to be identified in the field were collected, labelled and pressed for later identification by Vicki Long (utilising the Pilbara Regional Herbarium) or sent to the WA Herbarium. Priority species identified in the field or any suspected Priority species were located with GPS, photographed and collected for confirmation / identification by the WA Herbarium.

2.3 Limitations

A review of any limitations that may have affected a complete assessment of the data collected from the desktop assessment and field surveys is presented in Table 3. The limitations listed are based on those suggested as considerations in EPA's Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016).

Table 3. Statement of limitations

Potential limitation	Statement regarding potential limitations	Constraint
(i) Sources of information and availability of contextual information Is the region well documented?	Previous biological surveys have been conducted in the broader regional area, and broad-scale information is available from Beard (1975) and van Vreeswyk 2004. More specifically, Trudgen (2000, 2001) conducted a detailed survey and mapping of the Burrup Peninsula, and numerous surveys for the resource industry have been conducted by the author (Astron Environmental) from 1999 to 2019. The southern section was also surveyed and well documented for the establishment of the Maitland Heavy Industrial Estate (AGC Woodward-Clyde 1994, Mattiske, 1994) and later Astron Environmental (2002). Therefore contextual information for this project is not a limiting factor for this survey.	Nil
(ii) Scope The level of survey and detail required to undertake the survey. Was there adequate time to complete the survey to the desired standard?	There was adequate time to complete the reconnaissance flora survey as indicated in the Scope. Over the Northern Survey Area PECs and Priority species were recorded within relevés, as well as opportunistically, but this did not include all PECs and Priority Species that may be present. A targeted search following adequate rainfall will address this. Similarly, due the dry conditions not all weed species may have been present, and of those that were, abundance was difficult to estimate. Time for a reconnaissance survey, as per the scope, was not considered a limiting factor. In the Southern Survey Area, it was not possible to record Priority Species or PECs due to the dry conditions of the coastal grasslands; the Scope could not be completed to the level of survey required.	Northern Survey Area - Nil Southern Survey Area Major

Potential limitation	Statement regarding potential limitations	Constraint
(iii) Proportion of flora and fauna identified, recorded and/or collected Was the survey sampling, timing and intensity considered adequate? Was the survey conducted at what was considered an appropriate time of the year for plant identification? Were any taxonomic groups considered to be under-represented?	Summer rainfall was well below average (Section 3.3.1), however the many protected rocky areas in the northern section (Burrup) housed many annuals which had not been expected, given the limited rainfall. The first survey (3-5 June) was conducted approximately 12 weeks following rainfall, giving annuals time to establish and flower. Ephemerals and short lived annual grasses were generally dead, but often still detectable. It was considered that flora recorded during the northern survey was representative of species expected on the Burrup. Some short lived ephemeral species expected to occur in this area were not recorded. However, none of these ephemeral species would be categorized as Priority species. Burrup Rockpile PECs were able to be recorded within the context of PEC information available and the Botanist's knowledge. It is considered that it was an appropriate time to survey the northern section of the Burrup. The southern section was surveyed later between the 22 and 23 July, due to access restrictions. Although 20 mm of rain was received on 21 June 2019, this was insufficient for grasslands to recover. Additionally, these grasslands respond to summer rainfall, not winter rainfall. Timing was not considered appropriate for survey of the Roebourne Plains grassland, nor for identification of the probable PECs which occur there. Grasses were either dead or had died back to rootstock. Identification of the Roebourne grassland PECs relies on sound identification of the variety of grass species that comprise the PEC which was not possible during the July survey. A second survey following adequate summer rainfall is necessary.	Northern Survey Area – Nil Southern Survey Area - Major
(iv) Completeness Is there further work which may be required i.e. was the relevant area fully surveyed?	The northern survey area was considered adequately surveyed to compile representative lists of species, as well as describe vegetation at a level appropriate for management decisions. The southern survey area was not considered adequately surveyed due to the dry condition of the grasslands and the inability to identify component grass species, due to dormancy or die back to rootstock. A second survey following summer rainfall is necessary.	Northern Survey Area – Nil Southern Survey Area - Major
(v) Mapping reliability Were the aerial photographs, satellite images and site maps available considered adequate to fully understand the area surveyed? Was the mapping generated considered to have a high degree of reliability?	Colour aerial photography at a scale of 1:5,000 was used to locate the survey areas and to assist in navigation and delineation of vegetation boundaries. The aerial photography was of good resolution and, in general, accurately represented ground conditions. As such mapping reliability was not considered a limiting factor.	Nil

Potential limitation	Statement regarding potential limitations	Constraint
(vi) Timing When was the survey conducted in terms of season, rainfall, severe weather events etc. Was the survey conducted at an appropriate time for access, observation of the optimal suite of species and for identification of flowering and fruiting species?	See (iii) above – grassland surveys must be conducted following adequate summer rainfall.	Northern Survey Area – Nil Southern Survey Area - Major
(vii) Disturbance Had the survey area been impacted by any disturbance which may have limited the survey, i.e. fire, flood, accidental human intervention etc.?	The alignment in the northern section of the survey area is for all of its length paralleled by Burrup Road, two different gas pipeline alignments, a power line alignment and other off road tracks. Whilst the surveyed alignment is parallel to and not within these areas, it has been impacted by weeds (primarily buffel grass and kapok) from surrounding areas. Some surveyed areas were free of weeds, but the majority have some weed presence. None of these disturbances limited the survey, but need to be noted. The Dampier to Bunbury Natural Gas pipeline (DBNGP) runs in close proximity to, but does not directly impact the proposed Transmission Corridor. However, indirect impacts in the form of weeds at various densities, are apparent along the pipeline in some areas. The larger Power Plant and Solar PV proposed lease areas are not significantly impacted by the DBNGP but the areas have been subject to heavy grazing in the past. Neither of these were considered a limitation to the survey.	Nil
(viii) Intensity In retrospect, was the intensity considered to be adequate?	The intensity of the survey was considered adequate for the northern section to compile representative species lists. Intensity was not considered a limiting factor for the northern section. Intensity was not adequate in the southern section due to a significant portion of the study area, grasslands, being too dead/dormant to be identifiable.	Northern Survey Area – Nil Southern Survey Area - Major
(ix) Resources Were the appropriate tools and materials available to complete the task effectively?	Resources were adequate to complete the survey and all appropriate tools and materials required to complete the task were available. Resources were not considered a limiting factor.	Nil

Potential limitation	Statement regarding potential limitations	Constraint
(x) Access Were there any factors limiting access to the survey area?	The northern section survey area was able to be accessed by a short walk in from Burrup Road. Access for the majority of the northern survey area is not considered a limiting factor for the northern section. The southern section included the large areas of the Power Plant and Solar PV neither of which could, for most of the area, be accessed easily from existing tracks. Areas of apparently different vegetation were assessed from aerial photographs and each was walked into and surveyed at various points. The lack of access was not a limiting factor.	Nil
(xi) Experience Were personnel undertaking the field survey and plant identification trained and/or experienced in undertaking the required tasks?	The botanist responsible for undertaking the field survey has considerable experience (34 years) in conducting vegetation and flora surveys in the local Karratha area. The identification of specimens brought back from the field was conducted either by the lead field botanist or by botanists at the WA Herbarium. Personnel experience was not considered a limiting factor.	Nil

3. RESULTS

3.1 Desktop Assessment

3.1.1 Physical Environment

3.1.1.1 Climate

The climate of the Pilbara region of Western Australia is classified as arid tropical with two distinct seasons: a hot, wet summer (October to April) and a mild, dry winter (May to September) (Bureau of Meteorology 2019).

Based on long-term climatic data from the nearest Bureau of Meteorology weather station at Karratha Airport (Station 004083), approximately 12 km south of the survey area, the mean annual rainfall since 1972 is 297 millimeters (mm) (Figure 2). . The mean maximum temperatures range between 26.3°C in July and 35.9°C in January, and average above 30°C for much of the year (Bureau of Meteorology 2019).

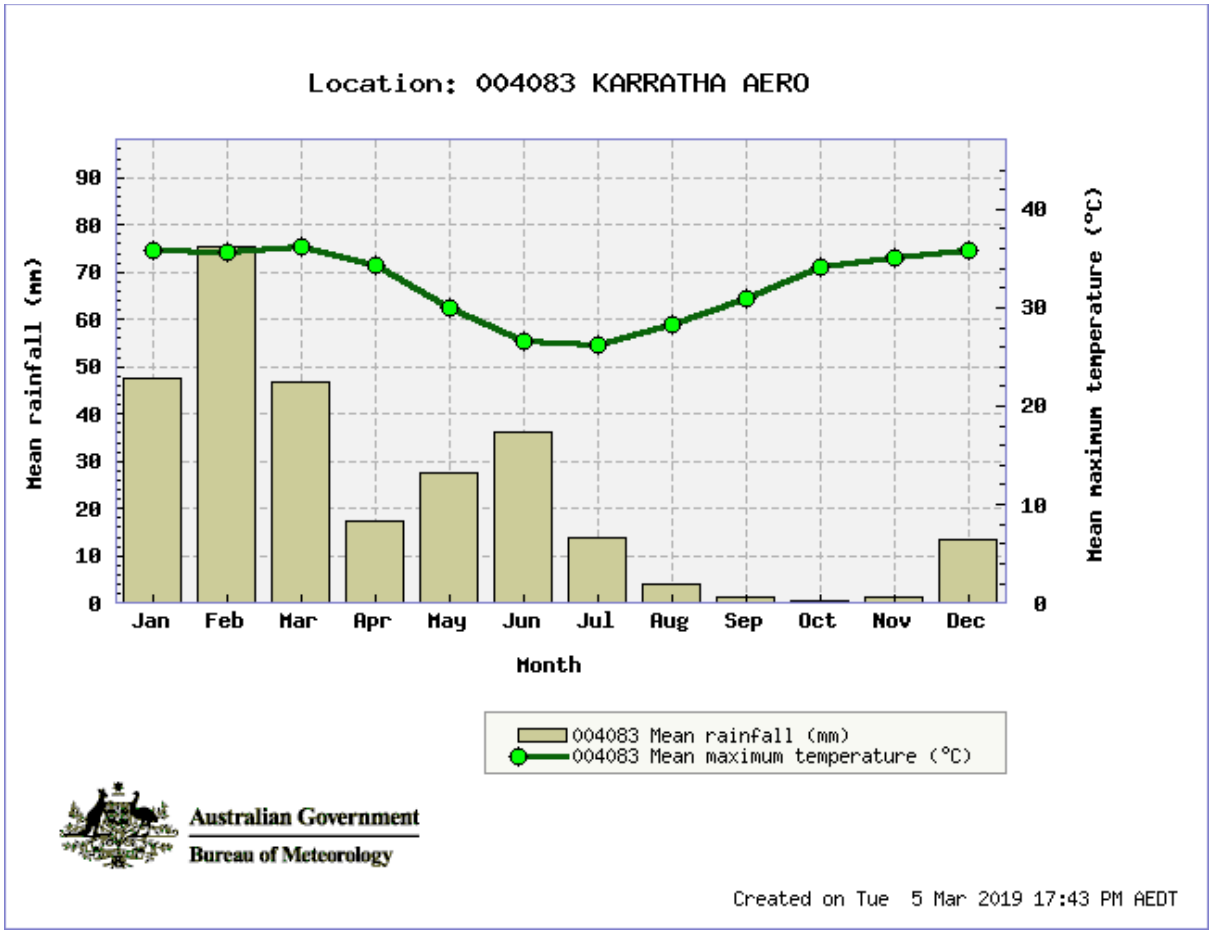


Figure 2. Climate data for Karratha Aero (Station 004083). Mean annual rainfall data has been calculated from 1972 - 2019 and mean maximum temperature has been calculated from 1993-2019 (Bureau of Meteorology 2019)

3.1.1.2 Geology

The surface geology of the survey area is comprised of a number of units (Stewart et al. 2008) (Table 4).

Table 4: Surface geology within the survey area (Stewart et al. 2008)

Geological name	Label	Description	Survey Area Location
Alluvium	Qaa	Sand and gravel in rivers and creeks; clay, silt and sand in channels on floodplains	Drainage lines within the Power Plant, Solar PV and southern section of the Transmission Corridor
Sheetwash	Qwb	Sheetwash sand, silt and clay in distal outwash fans, with gilgai surface in areas of expansive clay	Within the Power Plant and Solar PV areas and within sections of the southern Transmission Corridor
Ferricrete	Czrf	Ferruginous duricrust and pisolitic ironstone on lateritic surface	Sections of the southern Transmission Corridor
Calcrete	Czrk	Massive, nodular, and cavernous limestone, variably silicified; residual origin	Sections of the southern Transmission Corridor
Gidley Granophyre	AyG	Fine- to medium-grained granophyre; commonly porphyritic; underlain by gabbro	Majority of the northern Transmission Corridor
Silt and Mud	Qhmu	Silt and mud in supratidal to intertidal flats and lagoons	Small section of the northern Transmission Corridor, just north of the causeway
Granite to Granodiorite	AgDm	Locally seriate; includes biotite-rich phases, leucocratic syenogranite and pegmatite veins; metamorphosed.	Northern Transmission Corridor
Eolian sand	Qs	Red-yellow wind blown sand; local sand ridges	Small section of the northern Transmission Corridor, just north of the causeway.

3.1.1.3 Land Systems

The Western Australian rangelands have been surveyed by the Department of Primary Industries and Regional Development (previously the Department of Agriculture) with subsequent reports identifying the condition of soils, landforms, vegetation, habitat and the presence of declared plants and animals. Land systems across the surveyed areas were classified according to predominant biophysical features. The Pilbara region was surveyed between 1995 and 1999 with 102 land systems mapped (van Vreeswyk et al. 2004).

The survey area occurs within the Horseflat (Power Plant, Solar PV, Transmission Corridor), Boolgeeda (southern section of Solar PV), Littoral (Transmission Corridor), Calcrete (Transmission Corridor) and Granitic (Transmission Corridor) land systems. Descriptions of the land systems are given below.

- **Horseflat**: Gilgaied clay plains supporting tussock grasslands and minor grassy snakewood shrublands. They consist of depositional surfaces of clay plains, stony plains, narrow linear drainage depressions and dissected slopes marginal to the River land system; mostly internally drained.
- **Boolgeeda**: Stony lower slopes and plains below hill systems supporting hard and soft spinifex grasslands and mulga shrublands. Predominantly deposition surfaces of very gently inclined stony slopes and plains becoming almost level further downslope

- **Littoral**: bare coastal mudflats with mangroves on seaward fringes, samphire flats, sandy islands, coastal dunes and beaches. Depositional surfaces of saline coastal flat, and estuarine and littoral surfaces with extensive bare saline tidal flats subject to infrequent tidal inundation, slightly higher samphire flats and alluvial plains, mangrove seaward fringes with dense branching patterns of shallow tidal creeks, minor coastal dunes, limestone ridges, sandy plains and beaches.
- **Calcrete**: Granitic: rugged granitic hills supporting shrubby hard and soft spinifex grasslands.
- **Granitic**: rugged granitic hills supporting shrubby hard and soft spinifex grassland

3.1.1.4 Surface Water and Hydrology

The Survey Areas lie within the Coastal Catchment of the Port Hedland Coast Basin and do not fall within a Public Drinking Water Source Area (Government of Western Australia 2019a).

The survey areas lie within a *Rights in Water and Irrigation Act* (RIWI) Groundwater Proclamation Area (Pilbara Groundwater Area) and a RIWI Surface Water Proclamation Area (Pilbara Surface Water Area) (Government of Western Australia 2019a).

3.1.1.5 Wetlands

No wetlands of international importance (i.e. Ramsar wetlands) or nationally important wetlands occur within or near the survey area (DoEE 2019d).

3.1.1.6 Conservation Reserves

The Pilbara bioregion has 7.75% of its land area under some form of conservation tenure. The Roebourne PIL04 subregion in which the survey area is located has 9.56% of its area reserved. The Roebourne subregion contains the Cane River, Mount Minnie and Barlee Range Conservation Parks, a number of island Nature Reserves, a portion of the Millstream – Chichester National Park and Murujuga National Park (Kendrick and Stanley 2001).

No conservation reserves occur within the survey area. One national park (Murujuga National Park), one unnamed nature reserve and six unnamed Section 5(1)(h) reserves are located within a 20 km radius from the survey area (Table 5) (DBCA 2018d).

Table 5: Conservation Reserves located within a 20 km radius of the survey area (DBCA 2018d).

Reserve name	Classification	Distance from closest point of survey area (km)
Murujuga National Park	National Park	0.3
Unnamed (R 36915)	Nature Reserve	5.6
Unnamed (R 36907)	Section 5(1)(h) Reserve	9.3
Unnamed (R 36909)	Section 5(1)(h) Reserve	11.5
Unnamed (R 36910)	Section 5(1)(h) Reserve	13.3
Unnamed (R 38287)	Section 5(1)(h) Reserve	18.3
Unnamed (R 32144)	Section 5(1)(h) Reserve	19.2
Unnamed (R 37089)	Section 5(1)(h) Reserve	19.8

3.1.1.7 Environmentally Sensitive Areas

There are no Environmentally Sensitive Areas (ESA) as defined by the Native Vegetation Clearing Regulations within the Survey Area. The closest ESAs are located approximately 20km north of the Solar PV Farm and Gas Power Plant areas, on East Lewis and West Lewis Islands and 10km north-east of the Burrup Substation, in Murujuga National Park.

3.1.2 Vegetation

3.1.2.1 Interim Biogeographic Regionalisation of Australia (IBRA 7)

The Interim Biogeographic Regionalisation for Australia (IBRA version 7) divides the Australian continent into 89 bioregions and 419 subregions (Department of the Environment and Energy 2012). The IBRA regions represent a landscape-based approach to classifying the land surface, including attributes of climate, geomorphology, landform, lithology, and characteristic flora and fauna. The survey area occurs in the Pilbara Bioregion, of which 5% to 10% is represented in the national reserve system (Department of the Environment and Energy 2016).

The biodiversity of the 53 subregions recognised in Western Australia was documented as part of a national audit to provide priorities for conservation action (Department of Conservation and Land Management 2002). The survey area occurs within the Roebourne subregion of the Pilbara region and is described in the audit as:

- Roebourne PIL 4 – Quaternary alluvial and older colluvial coastal and sub-coastal plains with vegetation described as grass savannah of mixed bunch and hummock grasses, and dwarf shrub steppe of Acacia species and ephemeral drainage lines support *Eucalyptus victrix* or *Corymbia hamersleyana* woodlands. Samphire, *Sporobolus* and mangal occur on marine alluvial flats and river deltas (Kendrick and Stanley 2001).

3.1.2.2 Pre-European Vegetation

The Pre-European vegetation mapping of Western Australia dataset maps original natural vegetation presumed to have existed prior to European settlement. Beard (1975) completed broad-scale (1:1,000,000) pre-European vegetation mapping at an association level.

The pre-European vegetation association units mapped within the survey area include:

- 117 (Abydos Plain – Roebourne); hummock grassland, grass steppe; soft spinifex *Triodia* species (Shepherd, Beeston, and Hopkins 2002; Government of Western Australia 2019b)
- 589 (Abydos Plain – Roebourne); Short bunch-grass savanna / Grass-steppe
- 127 (Abydos Plain – Roebourne); Tidal mud flat

The extent of each of the pre-European vegetation units found in the survey areas is summarized in Table 6.

Table 6: Extent of pre-European vegetation in the survey area (Government of Western Australia 2019b).

Vegetation association	Mapping unit (Beard 1975)	Current extent in subregion PIL04 (ha)	Pre-European extent (ha) in subregion PIL04 (ha)	Proportion of pre-European extent remaining (%) in subregion PIL04 (ha)	Pre-European extent with formal protection (%)in subregion PIL04 (ha)
Abydos Plain – Roebourne	117	46,901	50,962	92.0%	32.5%
	589	671,327	675,392	99.4	1.78
	127	159,024	177,179	89.75	0.01

3.1.2.3 Threatened and Priority Ecological Communities

No State or Commonwealth listed TECs are known to occur within the vicinity of the survey area (DBCA 2019c).

Northern Survey Area

Two PECs have previously been recorded for the Burrup Peninsula (Northern Transmission Corridor and Substation sites)

- *Burrup Peninsula rock pile communities* (P1) pockets of vegetation in rock piles, rock pockets and outcrops. Comprises a mixture of Pilbara and Kimberley species, communities are different from those of the Hamersley and Chichester Ranges. Includes short-range endemic land snails. and
- *Burrup Peninsula rock pool communities* (P1): calcareous tufa deposits. Habitat for interesting aquatic snails.

Both Burrup PECs are under threat from industrial development, dust emissions, recreational impacts, possibility of NO_X and sulfur dioxide (SO_X) emissions and weed invasion, including **Cenchrus ciliaris* (buffel grass), **Aerva javanica* (kapok) and **Passiflora foetida* (stinking passionflower).

The location of the PECs in the northern survey area identified from the DBCA database search are presented in Figure 3.

Southern Survey Area

Several PECs are associated with the Roebourne subregion:

- Roebourne Plains coastal grasslands with gilgai microrelief on deep cracking clays (P1) (eastern section of the Transmission Corridor in the southern survey area, close to the causeway)
- Horseflat land system of the Roebourne plains (P3) (northern section of the Power Plant / Solar PV survey area and/or surrounds)

The 'Roebourne Plains coastal grasslands with gilgai microrelief on deep cracking clays' (Roebourne Plains gilgai grasslands) PEC (P1) are self-mulching and emerge on depositional surfaces. The Roebourne Plains gilgai grasslands occur on microrelief of deep cracking clays, surrounded by clay plains /flats and sandy coastal and alluvial plains. The gilgai depressions supports ephemeral and perennial tussock grasslands dominated by Sorghum sp. and *Eragrostis xerophila* (Roebourne Plains

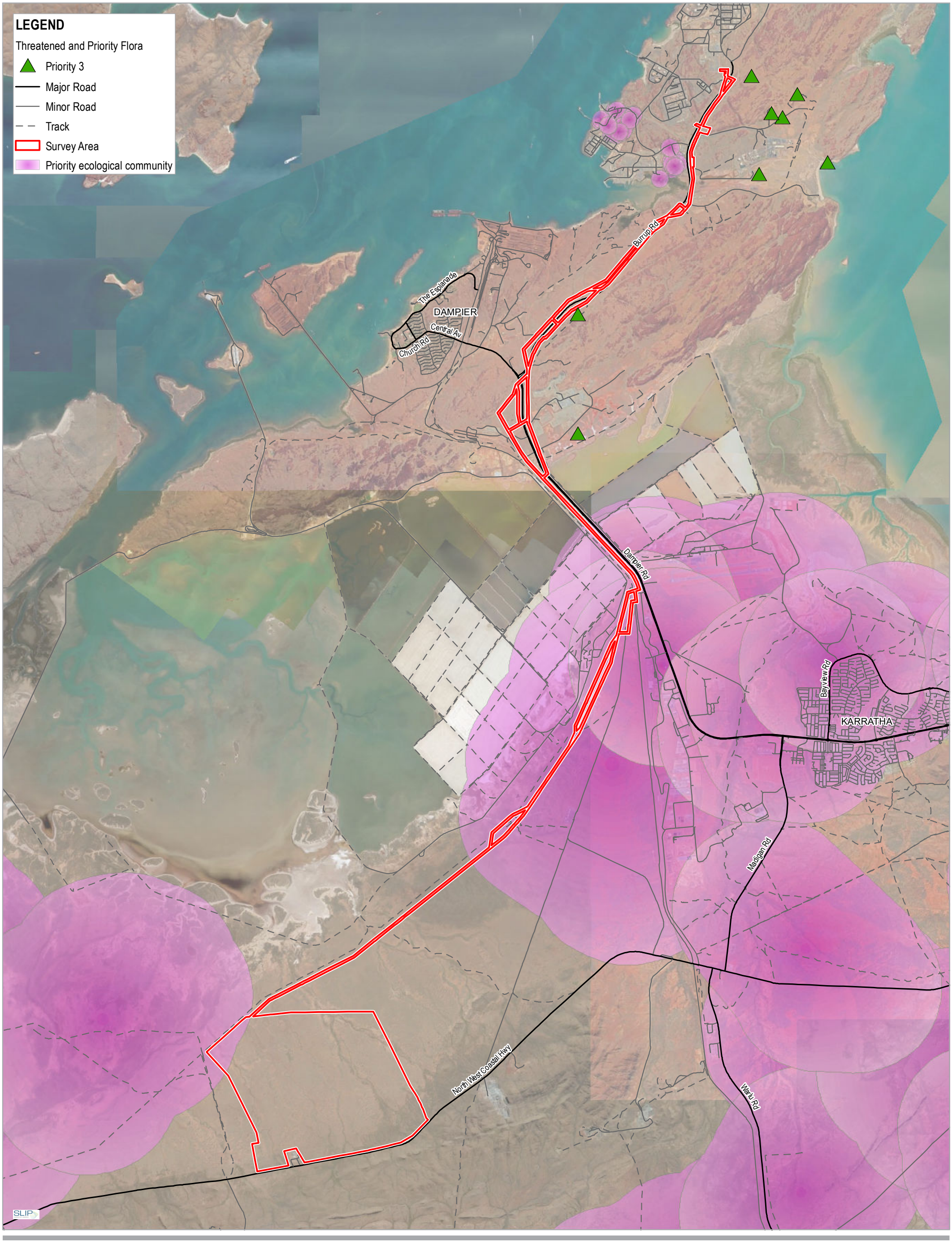
grass) along with other native species including *Astrebla pectinata* (barley mitchell grass), *Eriachne benthamii* (swamp wanderrie grass), *Chrysopogon fallax* (golden beard grass) and *Panicum decompositum* (native millet). They are restricted to the Karratha area but a large proportion of this PEC has been removed during the development of the Gap Ridge Light Industrial Estate.

The Horseflat land system PEC, has been subject to varying degrees of degradation resulting from historical clearing and weed invasion. The Horseflat land system PEC does not include the P1 PECs 'Roebourne plains gilgai grasslands' and the "Chenopod association of the Roebourne Plains area' and is described as:

The Horseflat Land System of the Roebourne Plains are extensive, weakly gilgai clay plains dominated by tussock grasslands on mostly alluvial non-gilgaied, red clay loams or heavy clay loams. Perennial tussock grasses include *Eragrostis xerophila* (Roebourne Plains grass) and other *Eragrostis* spp, *Eriachne* spp and *Dicanthium* spp. The community also supports a suite of annual grasses including *Sorghum* spp and rare *Astrebla* spp. The community extends from Cape Preston to Balla Balla surrounding the towns of Karratha and Roebourne.

The 'Chenopod association of the Roebourne Plains area' PEC (P1) is currently only mapped as occurring near Roebourne Airport (DBCA 2019c). Recent work by VLA (V Long pers comm) has mapped occurrences of it closer to Karratha, hence it is known to occur within 10 km of the survey area.

The location of the PECs in the northern and southern survey areas identified from the DBCA database search (2019c) are presented in Figure 3.



Paper Size ISO A3

0 0.5 1 1.5 2

Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Conservation Significant Flora and Communities

Project No. **61-3780805**
Revision No. **0**
Date **27 Nov 2019**

Figure 3

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_Fig3ConSigFloraandCommunities_Rev0.mxd
Print date: 27 Nov 2019 - 11:55

Data source: GHD: Survey area - 20190719; DBCA: Cons Sig Flora, Threatened Ecological Community - 20190612; Landgate: Roads - 20190128, Imagery: 20180408 (accessed: 20190730). Created by: afeeney

3.1.3 Flora

3.1.3.1 Conservation Significant Flora

Database searches of NatureMap (DBCA 2019d), the DBCA Threatened and Priority Flora (DBCA 2019b), and the WA Herbarium Threatened Flora Databases (WA Herbarium 2019) as well as the DoEE protected matters database (DoEE 2019c) were undertaken to determine whether any Threatened or Priority flora are known from within a 5 km radius of the Transmission Corridor and a 20km radius of the Power Plant and Solar PV survey areas. There were no threatened flora species or species listed as MNES under the EPBC Act reported within 20 km of the survey areas.

The literature review and database searches identified 15 previously recorded conservation significant species in proximity of the Survey Area. Of the 15 conservation significant species recorded, five P3 and one P4 species were recorded less than 2km from the Transmission Corridor on the Burrup Peninsula and three P3 species were recorded less than 2km from the Transmission Corridor in the southern survey area, near the causeway.

A summary of the database search results, including conservation significant flora, is presented in Appendix B.

3.1.3.2. Determination of Likelihood of Occurrence of Conservation Significant Species within the Survey Areas

Potential habitat types were identified prior to conducting the field survey using aerial imagery. The conservation significant flora species listed in the database search results were then categorised according to the criteria in Table 7 which were used by VLA to assess potential occurrence within the survey area.

Table 7.Likelihood of occurrence of conservation significant flora criteria.

Likelihood of Occurrence	Desktop Criteria
Likely	○ Species has been recorded before in survey area or within 10 km of the Survey Areas ○ Known to be present in the Survey Areas based on site observations (expert advice) ○ Species has been recorded within the same habitat as occurs in the Survey Areas
Potential	○ Species has been recorded within 20 km of the Survey Areas ○ Species reported as known in the Survey Areas by local community ○ Species has been recorded within the same habitat type as occurs in the Survey Areas.
Unlikely	○ Species has not been recorded within 20 km of the Survey Areas ○ No suitable habitat occurs in the Survey Areas

Of the 15 conservation significant species identified from the database searches as occurring within proximity of the survey area, the pre-survey desktop assessment indicated that five species are considered as being 'likely to occur', four with the 'potential to occur' and the remaining six as 'unlikely to occur' in the survey locations (Table F.1, Appendix F).

Following the surveys, the conservation significant flora species identified during the desktop assessment as having the highest potential to occur within the survey locations, but not recorded during the current survey, will be assessed to determine their likelihood of occurrence within the

survey locations. Post-field survey likelihood will be primarily based on validating the presence of suitable habitats within each of the survey locations, combined with life form, habitat and flowering information for each flora species.

3.1.4 Introduced Flora

Trudgen M., (2002) recorded fourteen weed species during the 2000 survey. Long V. (various numerous surveys) has recorded twenty-three weed species, predominantly associated with areas of industry and Burrup road verge. A further 25 weeds have been recorded in the Karratha area and have the potential to invade the Burrup Peninsula.

Five Declared Plants (listed under the BAM Act 2007) and WONS species (**Jatropha gossypifolia, *Lantana camara, *Parkinsonia aculeata, *Opuntia stricta and *Tamarix aphylla*) are represented in the area, but not yet recorded on the Burrup Peninsula. One plant (*Tribulus terrestris*) not currently a WONS species has been recorded on the Burrup. It is regarded as a 'Pest' plant but is not 'Declared'.

Table 8 indicates weeds recorded on the Burrup (B) and also weeds recorded in the Karratha area with the potential to invade the Burrup.

Table 8 Weeds recorded on the Burrup Peninsula (Long 1986-2019) and in the Karratha area with potential to invade the Burrup Peninsula.

Scientific Name	Common Name	B	Scientific Name	Common Name	B
Achyranthes aspers	Chaff flower	+	*Malvastrum americium*	Spiked malvastrum	+
Aerva javanica	Kapok bush	+	*Merremia dissecta*	Hairy merremia	
Albizia lebbeck	Rain tree		*Nerium oleander*	Oleander	
Alternanthera pungens	Khaki weed		***Parkinsonia aculeata*	Parkinsonia	
Arundo donax	Giant reed		***Opuntia stricta*	Common prickly pear	
Bidens bipinnata	Binpinnate beggartick	+	*Passiflora foetida*	Stinking passionflower	+
Calotropis procera	Calotropis, Rubber plant		*Pennisetum setaceum*	Fountain grass	+
Cenchrus ciliaris	Buffel grass	+	*Phoenix dactylifera*	Date palm	+
Cenchrus setiger	Birdwood grass	+	*Phyllanthus tenellus*	Phyllanthus	
Cenchrus enchinatus	Mossman river grass		*Physalis angulata*	Wild gooseberry	+
Clitorea ternata	Butterfly pea		*Raphanus raphanistrum*	Wild radish	
Chloris barbata	Purple top chloris	+	*Rumex vesciarius*	Ruby dock	+
Conyza sumatrensis	Tall fleabane	+	*Schinus terebinthidfolia*	Japanese pepper	
Cotoneaster pannosa	Cotoneaster	+	*Sonchus asper*	Prickly sow thistle	
Dactyloctenium aegyptium	Coastal button grass		*Sonchus oleraceus*	Milk thistle	+
Digitaria ciliaris	Summer grass	+	*Solanum nigrum*	Nightshade	+
Euphorbia hirta	Strawberry weed	+	*Stylosanthes hamata*	Carribbean stylo	+
Gossypium hirsutum	Upland cotton		*#Tamarix aphylla*	Athel pine, tamarisk	
***Jatropha gossypifolia*	Belly ache bush		*Typha sp*	Bull rush	+

Indigofera oblongifolia			*Tecoma stans*	Tecoma	
Indigofera sessliliflora		+	*Trianthema portulacastrum*	Giant pigweed	+
Lactuca saligna	Wild lettuce		*Tribulus terrestris*	Caltrope	+
***Lantana camara*	Lantana		*Tridax procumbens*	Tridax	+
Leucaena leucocephala	Lead tree, coffee bush		*Washingtonia filifera*	Cotton palm	
Macroptilium atropurpureum	Siratro				

** Declared plants and WONS species represented in the region but not currently found on the Burrup Peninsula
# Declared plant and a WONS species.

3.2 Literature Searches and Reviews

3.2.1 Northern Survey Area

The most recent and comprehensive studies of the flora and vegetation of the Burrup Peninsula and adjacent islands were undertaken by Trudgen and Griffin (2001) and Trudgen (2002). These reports included descriptions of the plants surveyed and their habitats, floristic groups and the presence of geographically restricted, rare and newly identified plants in the area. Vegetation mapping of the peninsula (with the exception of immediate coastline vegetation) has also been undertaken at a scale of 1:5 000 (Jackson, Paling, and Stoddart 2006).

A total of 393 vascular plant species were identified as occurring on the Burrup Peninsula and adjacent islands with the area displaying a rich flora for its size, and a high number of geographically restricted or uncommon species (Trudgen 2002).

Some 200 vegetation associations (now referred to as vegetation types) were identified on the Burrup Peninsula alone and Trudgen (2002) concluded that vegetation of the Burrup Peninsula is unique from that of the surrounding area due to a combination of geology, microclimates and episodes of isolation from the mainland at times of higher sea level. Trudgen (2002) mapped the occurrence of all vegetation associations identified during the Burrup survey on a scale of 1-100+. He used seven frequency categories, 1, 2-4, 5-9, 10-24, 25-49, 50-99 and 100+. This map is useful in assessing the regional significance of individual vegetation types. Trudgen (2002) suggests that ten or fewer occurrences of any vegetation association should be treated as significant especially if those occurrences are not represented in areas designated for conservation on the Burrup Peninsula.

Table 9 lists vegetation associations with <9 occurrences that occur along the proposed Transmission Corridor in the northern section. These would be considered, due to the low number of occurrences, to have high conservation value and be vulnerable to any development within the area.

Table 9. Description of Vegetation Associations known to occur along the Transmission Corridor northern survey area which have a high conservation value.

Trudgen Vegetation Code	Description	**Comments from 2019 Survey**
Frequency 5-9 known occurrences on the Burrup – High Conservation Value		
AbCgTe	*Acacia bivenosa, Cassia glutinosa* open shrubland to shrubland over *Triodia epactia* (Burrup form) hummock grassland (can be some **Cenchrus ciliaris*).	Not recorded in this survey
AiImTe	*Acacia inaequilatera, Acacia bivenosa, Grevillea pyramidalis* subsp *pyramidalis* scattered tall shrubs to high open shrubland over *Indigofera monophylla* (Burrup form), scattered low shrubs to low shrubland over *Triodia epactia* (Burrup form) hummock grassland.	Due to dry conditions *Indigofera monophylla* was not a key component in the vegetation therefore this vegetation type was not recorded as such but as AiTe (BaTs)
AiFdTe	*Acacia inaequilatera, Hakea chordophylla, Grevillea pyramidalis* subsp *pyramidalis* scattered shrubs to open shrubland over *Corchorus walcottii* scattered low shrubs over *Triodia epactia* (Burrup form) dense hummock grassland over *Fimristylis* aff *dichotoma* (M75-4) low open sedgeland.	Not recorded – *Fimbristylis dichotoma* is a very short lived annual and was not present (or not in abundance). This was mapped as AiTe (BaTs)
EvAa	*Eucalyptus victrix* low woodland over *Acacia ampliceps* open heath over *Cyperus vaginatus, Eriachne tenuiculmis, Triodia angusta* (Burrup form) sedgeland and tussock/hummock grassland.	Not recorded as *Acacia ampliceps* was not found as a key component in any of the *Eucalyptus victrix* areas surveyed.
ChThSg	*Corymbia hamersleyana* low open woodland to scattered low trees over *Themeda sp* Burrup (B84), *Triodia epactia* (Burrup form) tussock hummock grassland with *Stemodia grossa* low very open herbland.	Not recorded this survey due to the abundance of *Themeda triandra* which was present but not a key component of the *Corymbia hamersleyana* vegetation present. Due to dry conditions, *Stemodia grossa* was not as abundant as it may present following sufficient rainfall. Following rainfall this may split as a different vegetation type of VLA ChAbTe. However VLA considers the *Corymbia* woodland to be of conservation value as stated in Section 3.3.2.2 below
Frequency 2-4 known occurrences on the Burrup -Very High Conservation Value		
AbImTe/TeRm	*Acacia bivenosa* high open shrubland to high shrubland over *Indigofera monophylla* (Burrup form) scattered low shrubs to low open shrubland over *Triodia epactia* (Burrup form) hummock grassland to closed hummock grassland with *Rhynchosia* cf. *minima* lianes. .	This is a difficult combination to assess -AbImTe was recorded but the combination of *Triodia epactia* / *Rhynchosia* minima was not present due to the drier conditions.

Trudgen Vegetation Code	Description	**Comments from 2019 Survey**
BaTsTh	*Brachychiton acuminatus, Terminalia supranitifolia* low open woodland over *Ipomoea costata, Dichrostachys spicata* shrubland over *Themeda* sp Burrup (B84), *Triodia epactia* (Burrup form) tussock/hummock grassland.	The outstanding component of this vegetation is the inclusion of *Themeda triandra* grassland – this was not abundantly present during the 2019 survey and did not warrant being included as a major vegetation component.
EvTaTh	*Eucalyptus victrix* low woodland to low open forest over *Acacia coriacea* subsp *coriacea* scattered shrubs over *Dichrostachys spicata, Stylobasium spathulatum* scattered shrubs to open heath over *Triodia angusta* (Burrup form), *Themeda* sp Burrup (B84) hummock tussock grassland with *Dicliptera armata* open herbland.	Comments regarding *Themeda triandra* as above - mapped as EvAcTa in 2019
GpRmTsTe	*Grevillea pyramidalis* subsp *pyramidalis* scattered shrubs over *Triumfetta appendiculata* (Burrup form) low open shrubland over *Triodia epactia* (Burrup form) hummock grassland with *Rhynchosia* cf *minima* lianes with *Tephrosia* af *supina* (MET12, 357) herbland.	Key component species *Rhynchosia minima* and *Tephrosia supina* were not present (or in very low numbers) and did not warrant inclusion in the vegetation description.

These all occur immediately adjacent to the eastern side of Burrup Road.

Of these nine vegetation associations, seven would be very difficult to fully identify and compare with the Trudgen description due to the current dry conditions and consequent dormancy of at least major component of the vegetation.

Welker Environmental Consultancy (Welker) (2002) reviewed the statistical analysis of Trudgen and Griffin (2001) in order to provide advice on areas of the Burrup Peninsula that may require special consideration in development planning (Jackson, Paling, and Stoddart 2006). Welker (2002) concluded that the vegetation of the Burrup Peninsula should be considered a different floristic sub-region of the west Pilbara, with a high level of conservation value at a regional level.

The vegetation within the mainland portion of the MSIA includes tussock and hummock grasslands not represented on the Burrup, but widespread on the Abydos Plain (Astron Environmental, 2002).

3.2.2 Southern Survey Area

A flora and vegetation survey of the Maitland Industrial Estate was conducted by Mattiske in 1994.

Thirty four vascular plant species, including two introduced species from 16 families and 30 genera, were recorded for Karratha Station and the proposed transmission corridor. The species composition was dominated by the families of Poaceae, Mimosaceae and Papilionaceae (Mattiske 1994). (NOTE: Papilionaceae and Mimosaceae have now been grouped together as Fabaceae).

The two species recorded during the Mattiske (1994) survey as being Priority species *Brachychiton acuminatus* and *Triumfetta appendiculata* are no longer listed as Priority species.

The species composition from this area during the Mattiske (1994) survey was particularly low, due to the poor conditions of the rangeland.

Mattiske (1994) described the area as a relatively flat, coastal plain characterised by hummock grasslands of *Triodia pungens* (now identified as *Triodia epactia*) and tussock grasslands of *Eragrostris xerophila* with low-lying areas dominated by the grass *Xerochloa barbata* and seasonal ephemerals. Emergent shrubs of *Acacia inequilateral, Acacia coriacea* and *Hakea suberea* (now known as *Hakea lorea*) occur in drainage lines.

Table 10 summarises the plant communities identified in the Mattiske (1994) survey and compares them with those identified by VLA in this survey

Table 10. Comparison of Mattiske (1994) Vegetation Units with VLA (2019) Vegetation Units

Site No	Mattiske (1994) Mapping	Comments from 2019 Mapping
K1	Sandy surfaced alluvial plain of hummock grassland of *Triodia pungens* and tussock grassland of *Eragrostis xerophila* with scattered shrubs and trees of *Acacia coriacea, Acacia inequilatera, Hakea subarea*. Some parts severely degraded and eroded.	Matches VLA AbTeEx vegetation type. Note that *Triodia pungens* is not *T. epactia*
K2	Mosaic of tussock grassland of *Eragrostis xerophila* and depressions of *Xerochloa barbata* with seasonal ephemerals on weakly gilgaied soils.	This probably matches VLA Ex spp – to be determined following wet season. VLA mapped this currently as *Eragrostis xerophila* tussock grassland with intrusions of *Eriachne benthamii* and grass species currently not identifiable (spp). It may be that *Xerochloa barbata* is more abundant following rains.
K3	Mosaic of tussock grassland of *Eragrostis xerophila* and hummock grassland of *Triodia pungens* and *Triodia wiseana* with depressions of *Xerochloa barbata* with seasonal ephemerals on weakly gilgaied soils	VLA described this as two separate vegetation types, TW (*Triodia wiseana)* and *Eragrostis xerophila* but in reality they can be mapped as a mosaic over the larger areas.
K4	Coastal mudflats of Chenopods such as *Halosarcia halocnemnoides* ssp. *halocnemnoides*, *Halosarcia indica* ssp.*leiostachya, Muellerolimon salicorniaceum* and grasses such as *Eragrostis xerophila* and *Sporobolus virginicus*	Coastal mudflats were not part of the survey area, however one borrowed area with retained water did house *Tectornia* (was *Halosarcia* – pending identification) This area does not match coastal mudflats.
K5	Sandy coastal plain of hummock grassland of *Triodia pungens* and *Triodia wiseana* with littoral drainage of Chenopods. Some parts severely eroded and degraded.	This habitat not included in the survey area.

3.3 Flora and Vegetation Survey

The single season, reconnaissance flora and vegetation survey was undertaken over a period of three days during June 2019, for the northern survey alignments (Burrup Substation to Causeway) and three days during July 2019, for the southern survey (Solar PV Farm, Gas Power Plant and southern Transmission Corridor).

The survey was conducted by lead Botanist, Vicki Long who has considerable experience in identifying both flora and vegetation and introduced flora of the Eremaean Zone and specifically, 34 years' experience, working on the Burrup Peninsula. The surveys were undertaken in accordance with the requirements of the Scope of Works as outlined in Section 1.2. Representatives of the Ngarluma Aboriginal Corporation (NAC) accompanied the field botanist for the southern section.

A total of 47 relevés were made throughout the northern survey area (Figure 1) and these resulted in the identification of 15 Broad Floristic Formations (NVIS Level 3) and 23 Vegetation Types (NVIS Level 5). These are summarised in Table 11.

Thirty six inspection points were made along the southern section Transmission Corridor, the proposed Solar PV Farm and Gas Power Plan, resulting in the identification of 18 Level 3 Broad Floristic Formations and 25 Level 5 (NVIS) Vegetation Types. These are presented in Table 12.

3.3.1 Weather

Daily weather observations recorded from the Bureau of Meteorology Karratha Aero weather station (004083) were used to describe local rainfall and temperatures in the 6 months preceding the survey (Figure 4) (Bureau of Meteorology 2019). In the 6 months preceding the survey, 88 mm of rainfall was recorded, 142 mm below the long term average. The last significant rainfall (71 mm) was recorded in March 2019 associated with Cyclone Veronica. The average maximum temperature during the survey was 26°C (Bureau of Meteorology 2019).

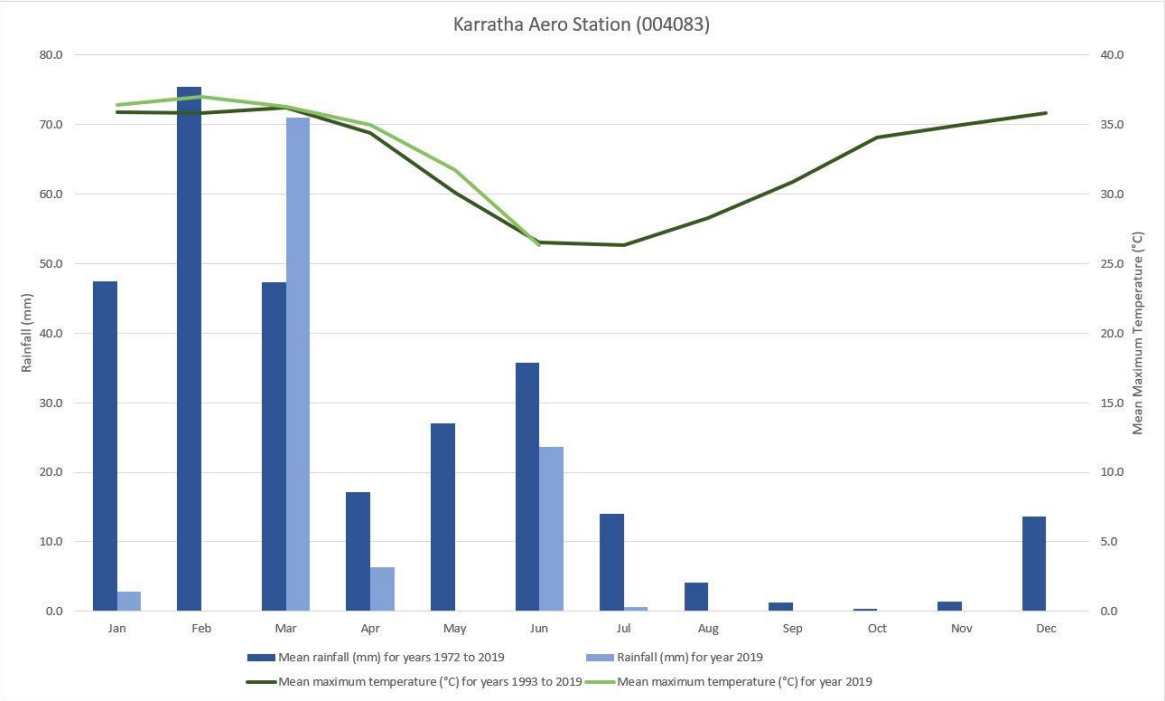


Figure 4. Mean and actual monthly rainfall and temperature data for Karratha Aero weather station (004083)

3.3.2 Vegetation

Northern Survey Area

Broad floristic formations and vegetation types recorded within the northern survey area, together with their condition are summarised in Table 11.

Vegetation recorded throughout the survey sites was comparable to that documented by Trudgen (2002) (Table G.1, Appendix G). The Trudgen (2002) field survey was conducted in 2000 after several seasons of good rainfall. The author was one of the lead botanists on this survey. Species diversity due to good rainfall was high and annual and short lived perennial shrub species (eg *Indigofera monophylla, Corchorus walcottii, Stemoda grossa*) were abundant and were therefore included in vegetation descriptions.

The 2019 survey followed two years of relatively dry conditions, which accounted for the lack of many of these species and consequently, differences between Trudgen (2002) and VLA 2019 vegetation descriptions (Table G.1, Appendix G). It should be remembered that the Trudgen survey was conducted 19 years ago. Since then, there has been infrastructure installed close to the proposed alignment and much of the area has been burnt by wildfire. Both these events have had a significant impact on vegetation – the spread of weeds resulting from infrastructure and changing dominance of species due to fire.

Table 11. Vegetation by broad floristic formation and type and its condition within the northern survey area

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
Acacia bivenosa tall shrubland over tussock and/or hummock grassland.					
1	**AbCc** *Acacia bivenosa* tall open to shrubland over **Cenchrus ciliaris* tussock grassland, sometimes closed tussock grassland, with patchy *Triodia angusta.* Occurs on previously disturbed areas on valley floor or low undulating hill slopes, often with stony and/or imported fill.	11 16b 15	Degraded	6.8	
2	**AbTe** *Acacia bivenosa* with occasional *Dichrostachys spicata, Acacia ancistrocarpa* open tall shrubland over mixed *Triodia epactia/T. angusta* hummock and **Cenchrus ciliaris* tussock grassland. Occurs on previously disturbed areas on valley floor or low undulating hill slopes, often with stony and/or imported fill and also on red sands	13 36	Poor	6.8	

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
3	**AbTa** *Acacia bivenosa, Grevillea pyramidalis, Hakea lorea* subsp *lorea* tall shrubland over closed *Triodia angusta* hummock grassland. Occurs on valley floor, red-brown silty with moderate stony mantle.	16a	Good	none	
4	**AbImTe** *Acacia bivenosa, Acacia pyrifolia* subsp *morrisonii , Grevillea pyramidalis* open shrubland over *Indigofera monophylla, Corchorus walcottii* open low shrubland over *Triodia epactia* hummock grassland with patchy **Cenchrus ciliaris* tussock grassland. Occurs on undulating low hill slopes with stony mantle over red silts.	20a 20b	Good	3.6	

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
Acacia bivenosa tall shrubland over *Acacia stellaticeps* shrubland over *Diplopeltis eriocarpa* low shrubland over *Triodia angusta, T. epactia* hummock grassland.					
5	**AbAsTe** *Acacia bivenosa* with *Dolichandrone heterophylla* tall shrubland over *Acacia stellaticeps* open to shrubland over *Diplopeltis eriocarpa* low shrubland over *Triodia angusta* or *T. epactia* hummock grassland to closed hummock grassland with patchy *Eriachne obtuse.* Occurs on flats between hills slopes and causeway on red medium grained sands.	38 39	Excellent	3.6	
Acacia inaequilatera tall shrubland over *Triodia epactia* hummock grassland with low trees on rockpiles					
6	**AiTe (BaTs)** *Acacia inaequilatera* tall open shrubland with *Grevillea pyramidalis, Ipomoea costata, Acacia orthocarpa* over *Triodia epactia* hummock grassland with patchy *Themeda triandra* and with low trees of *Brachychiton acuminatus, Terminalia supranitifolia* on small outcropping rocks. Occurs on stony hill slopes and rises, stone and small boulder mantle over red-brown skeletal silts.	26	Excellent	0.4	

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
Grevillea pyramidalis tall shrubland over *Triodia epactia / T. angusta* hummock grassland.					
7	**GpTeBaTs** *Grevillea pyramidalis* scattered to open tall shrubland, sometimes with scattered *Hakea lorea* subsp *lorea, Ipomoea costata, Acacia inaequilatera* over *Triodia epactia* hummock grassland, sometimes patchy *T. angusta*. There can be open low *Indigofera monophylla* shrubland. There are scattered *Brachychiton acuminatus, Terminalia supranitifolia, Dichrostachys spicata* on small rock outcrops. Occurs on low undulating rises, lower hill slopes and higher plateaux with dense stone and boulder mantle over skeletal red silts.	1, 3 18a(i) 18a (ii) 29 32	Excellent	29.2	
8	**GpCc** *Grevillea pyramidalis* (regenetrating) scattered to open tall shrubland over **Cenchrus ciliaris* tussock and *Triodia epactia* hummock grassland Occurs on low undulating rises and lower hill slopes usually in close proximity to a previous disturbed corridor.	18b	Poor	1.5	

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
9	**GpIcTe** *Grevillea pyramidalis, Ipomoea costata* tall open shrubland over *Triodia epactia* hummock grassland with scattered *Terminalia circumalata, Brachychiton acuminatus, Erythrina vespertilio* on frequent rockpiles and outcrops. Occurs low and higher rocky hill slopes with frequent larger boulders and small outcropping rockpiles over dense stony mantle and red brown skeletal silts.	34a 34b	Excellent	8.7	
Grevillea pyramidalis, Acacia inaequilatera tall shrubland over mixed low shrubland over *Triodia epactia* hummock grassland with patchy **Cenchrus ciliaris* sometimes *Themeda triandra.*					
10	**GpAiTe** *Grevillea pyramidalis, Acacia inaequilatera, Ehretia saligna, Santalum lanceolatum,* tall shrubland over open mixed low shrubland, *Scaevola spinescens, Acacia orthocarpa, Solanum phlomoides, Indigofera monophylla* over *Triodia epactia* hummock grassland with patchy **Cenchrus ciliaris* Occurs on red-brown sands on sandy plain, areas of which have been disturbed historically but have regenerated with no weeds.	33	Good	2.6	

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
Dichrostachys spicata, Acacia inaequilatera, tall shrubland over open low mixed shrubland over *Triodia epactia / T. angusta* hummock grassland.					
11	**DsAiTe** *Dichrostachys spicata, Acacia inaequilatera, Acacia coriacea* tall shrubland over *Scaevola spinescens, Alectryon oleifolius* open low mixed shrubland over *Triodia epactia / T. angusta* hummock grassland. There can be scattered *Eucalyptus victrix* and *Terminalia circumalata.* Occurs along broader shallow drainage lines with moderate cover of stones and over red-brown alluvial silts.	23a 23b 25	Very good	2.5	
Terminalia circumalata low open woodland over mixed *Dichrostachys spicata* open shrubland over *Triodia epactia / T. angusta* open hummock grassland and *Cyperus vaginatus* open sedgeland.					
12	**TcDsTe/Ta** *Terminalia circumalata* low woodland with occasional *Eucalyptus victrix, Brachychiton acuminatus,* over *Dichrostachys spicata, Acacia coriacea, Ipomoea costata, Flueggea virosa* mixed open shrubland over *Triodia epactia / T. angusta* open hummock grassland and *Cyperus vaginatus* open sedgeland. Occurs along rocky drainage lines, in narrow valley floors between rockpiles and in rock pockets on rock piles and on rockpile ridge.	5a 5b 8 21b	Very Good	2.4	

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
					
Eucalyptus victrix low woodland over mixed shrubland over *Triodia angusta / T. epactia* hummock grassland.					
13	**EvAcTa** *Eucalyptus victrix* open low woodland over *Acacia coriacea, Dichrostachys spicata* open shrubland over *Triodia angusta* hummock and **Cenchrus ciliaris* tussock grassland sometimes patchy. Can have dense *Adriana tomentosa*. Occurs along stony broad shallow drainage lines with grey brown stones and rocks over brown grey alluvial silts.	12a 12b 21a	Good	0.5	

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
					
14	**EvAbTa** *Eucalyptus victrix* open to scattered low woodland with scattered *Corymbia hamersleyana* over *Acacia bivenosa* tall open shrubland over *Adriana tomentosa / Indigofera monophylla* open low shrubland over *Triodia angusta / T. epactia* open to hummock grassland. Occurs along shallow, broad drainage lines and along valley floors with grey-brown stones over grey-brown alluvial silts.	9a 9c 19	Very Good	3.7	

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
Corymbia hamersleyana open to low woodland over mixed shrubland over *Triodia epactia / T. angusta* hummock grassland					
15	**ChAbTe** *Corymbia hamersleyana* open to low woodland over *Acacia bivenosa / Acacia coriacea / DIchrostachys spicata* tall shrubland, sometimes *Adriana tomentosa / Stemodia grossa* low shrubland over open *Triodia epactia / T. angusta* hummock and sometimes **Cenchrus ciliaris* tussock grassland. Occurs on outer perimeters of drainage lines, on lower stony areas, in broad valley floor, on lower slopes over moderate to dense stony mantle and red-brown silts or on plain with red-brown medium grained sands.	9b 37 22	Poor to Very Good	4.8	
16	**ChImTe** *Corymbia hamersleyana* open to low woodland over *Indigofera monophylla* open low shrubland over *Triodia epactia* hummock grassland. Occurs on broad valley floor with dense stony mantle over deeper red-brown silts.	10	Excellent	1.6	

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
Brachychiton acuminatus mixed low woodland over scattered *Triodia epactia* hummock and *Cymbopogon ambiguous/ *Cenchrus ciliaris* tussock grasses.					
17	**BaDslc** *Brachychiton acuminatus* mixed low woodland with *Dichrostachys spicata* over, *Ipomoea costata, Acacia coriacea, Terminalia supranitifolia* open shrubland over scattered *Triodia epactia / Cymbopogon ambiguus/ *Cenchrus ciliaris* grasses. Occasional *Ficus brachypoda* trees. Occurs on large areas of scree and rockpiles, along rocky gullies and on small outcropping rockpiles on hill slopes. Usually a PEC on areas of large rockpile and scree but not on smaller outcropping rocks.	2 4	Good to Very Good	4.4	 

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
18	**BaEsErv** *Brachychiton acuminatus* mixed low woodland with *Ehretia saligna, Erythrina vespertilio, Terminalia circumalata* over *Ipomoea costata, Acacia coriacea* open shrubland over *Triodia epactia* hummock grassland. Scattered **Cenchrus ciliaris.* On rockpiles ridges and outcropping rocks on western end of the alignment on darker brown rocks.	27b 35	Very Good	5.6	
Terminalia supranitifolia low open woodland over *Ipomoea costata, Acacia coriacea* shrubland over scattered to open *Triodia epactia* hummock grass.					
19	**TsIcTe** *Terminalia supranitifolia* low open woodland over *Ipomoea costata, Acacia coriacea, Dichrostachys spicata, Grevillea pyramidalis* mixed shrubland over scattered to open *Triodia epactia* hummock grass sometimes *Themeda triandra*. Scattered *Brachychiton acuminatus* Occurs on and around the base of large rockpiles, scree slopes and on small outcropping rockpiles on higher and lower hill slopes.	27a 28 30	Very Good to Excellent	4.7	

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
Triodia epactia hummock grassland					
20	**Te** *Triodia epactia* hummock grassland. Scattered *Grevillea pyramidalis, Hakea lorea* subsp *lorea, Acacia inaequilatera*. Occurs on lower hillslopes and rises, stony valley floor, plains and corridors between rockpiles with dense stony mantle over red-brown skeletal silts.	6 24	Excellent	4.8	
Triodia angusta hummock grassland					
21	**Ta**-*Triodia angusta* hummock grassland	40	Excellent	0.8	No photo

Vegetation Map No.	Vegetation Type code and Description	Sites	Vegetation Condition	Extent of Vegetation Type (ha)	Representative Photograph
Ipomoea costata shrubland over *Triodia epactia* hummock grassland.					
22	**IcHlTe** *Ipomoea costata* open shrubland with *Hakea lorea* subsp *lorea* over *Triodia epactia* hummock grassland. Patchy **Cenchrus ciliaris* along tracks. Scattered *Brachychiton acuminatus, Terminalia supranitifolia.* Occurs on undulating rocky hill slopes with numerous large boulders and boulder outcrops and rock piles. Very dense stone and boulder mantle.	17	Very good	1.1	
Tecticornia ssp low open shrubland					
23	**Tspp** *Tecticornia halocnemoides* subsp *tenuis, T. pruinosa, T. indica* subsp *leiostachya,* with *Muellerolimon salicorniaceum* open low shrubland with patchy *Avicennia marina* trees. Occurs on edges of saline inlet on grey-brown saline silty loams.	14	Excellent	6.3	

Southern Survey Area

Broad floristic vegetation formations, vegetation types and their condition are summarised in Table 12. Note that the more detailed vegetation types were based on species present during a dry period and these descriptions may change when the wet season survey occurs. The field botanist was relatively confident to assign names to *Triodia* (*T. epactia, T. wiseana, T. angusta), Eragrostis xerophila* (Roebourne plains grass), **Cenchrus ciliaris and *C. setiger* and in most cases *Eriachne benthamii,* without the presence of identifying material, but many other grasses present, only occurred as dry culms and identification could not be verified. These are indicated by a "?" in Table 12 below.

Plates 1 and 2 illustrate the dry conditions found in the southern survey area and hence the difficulty with identifying species.

Plates 1 and 2. Grasslands in the southern survey area illustrating the difficulty associated with identification of species.

Table 12. Vegetation by Broad Floristic Formation and Type and its condition within the Southern Survey Area

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
Acacia bivenosa mixed shrubland over mosaic *Triodia wiseana* hummock and *Eragrostis xerophila* tussock grassland.					
24	**AbTeEx** *Acacia bivenosa, A. coriacea, A. synchronicia* open or scattered shrubland over mosaic *Triodia epactia* hummock and *Eragrostis xerophila* tussock grassland. On flat plain with mosaiced red brown non cracking clays and red shallow loams with scattered pebble mantle.	1	Good	8.0	
Acacia bivenosa mixed shrubland over mixed *Triodia* grassland					
25	**AbTw** *Acacia bivenosa* shrubland to open shrubland with scattered *A. inaequilatera, A coriacea, A. ancistrocarpa, Eremophila longifolia,* over *Triodia wiseana* hummock grassland. There can be patchy *T. epactia* and patches of **Cenchrus ciliiaris* on some scald areas. On flat or very gently sloping plains with non-gilgaied red brown non cracking clays with scattered dark brown and quartz pebbles. There are areas of scald.	5, 10a and 10b	Very Good to Excellent	23.8	

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
Acacia bivenosa shrubland over **Cenchrus ciliaris* tussock grassland.					
26	**AbCc** *Acacia bivenosa* closed to shrubland over **Cenchrus ciliaris, *Cenchrus setiger* tussock grassland. There can be patchy *Eragrostis xerophila, Triodia wiseana, T. epactia.* Occurs on disturbed or in close proximity to disturbed areas on silty loams with varying stones and pebbles.	8	Poor	17.4	
Acacia inaequilatera tall open shrubland over *Triodia epactia* hummock grassland					
27	**AiTe** *Acacia inaequilatera* tall open shrubland with some *Ehretia saligna, Acacia bivenosa* over *Triodia epactia* hummock grassland, patchy *Eragrostis xerophila.* On flat or very gently sloping plains with calcareous red brown loams, scattered to moderate dark brown and quartz pebbles.	4	Very Good	1.0	

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
Acacia inaequilatera A. coriacea tall shrubland over mixed tussock grassland.					
28	**AiAc?Eb** *Acacia inaequilatera, A. coriacea* tall shrubland, sometimes open shrubland over *?Eriachne benthamii, Chrysopogon fallax* patchy **Cenchrus ciliaris* tussock grassland. On broad, shallow drainage line with shallow pinky brown loams and areas of exposed bedrock.	30	Very Good	1.9	
Acacia inaequilatera tall open mixed shrubland over *Triodia wiseana* hummock grassland.					

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
29	**AiTw** *Acacia inaequilatera* tall open shrubland, or scattered shrubs occasional *A. synchronicia, A. coriacea, Hakea lorea* sometimes over *Acacia bivenosa* open shrubs over *Triodia wiseana* hummock grassland. On flat plain with pinky brown calcareous shallow loams with moderate to abundant calcrete and quartz stone and pebbles.	11 & 12 28b	Very Good to Excellent	108.4	
30	**AiAcTw** *Acacia inaequilatera* open shrubland, occasional *A. coriacea* over *Triodia wiseana* closed hummock grassland. Occurs in shallow drainage area with red brown alluvial loam.	16	Excellent	0.9	
**Tamarix aphylla* low open woodland over *Tecticornia* ssp **Aerva javanica* low shrubland					

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
31	**TaTCc** **Tamarix aphylla* (WONS Species) low open woodland over *Tecticornia* species open low shrubland with **Aerva javanica* over open **Cenchrus ciliaris* tussock grassland. Previously disturbed site which has been borrowed and now retains semi saline water – pinky brown disturbed soils and rubble	6	Degraded	2.3	
Tecticornia spp closed low shrubland					
32	**T spp** *Tecticornia haloocnemoides* subsp *tenuis, Tecticornia* ? *indica* closed low shrubland. (Surrounded by Site 6 vegetation) Potentially previously disturbed site now with brown semi saline clays	7	Good	3.4	
Acacia coriacea tall shrubland over *Acacia ampliceps* or **Vachellia farnesiana* shrubland over mixed tussock and hummock grasses					

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
33	**AcCc** *Acacia coriacea* tall shrubland to open tall shrubland over *Acacia ampliceps* or **Vachellia farnesiana* shrubland sometimes over *Stemodia grossa* closed low shrubland over mixed **Cenchrus ciliaris* tussock with *Triodia epactia* scattered grasses. Occurs on narrow drainage line with incised channel, red brown alluvial loams with scattered stones.	14a and site 2 (site 2 disturbed)	Poor to Good	1.1	No Photo
34	**AaAcC?v** *Acacia ampliceps* tall shrubland to closed shrubland with *Acacia coriacea* over *Myoporum montanum* shrubland with occasional *Stemodia grossa* over *Cyperus* sp and *Typha sp* (dead) sedgeland (man made pond in drainage line) Occurs around an artificially created pool in drainage line.	14b	Poor	0.8	No Photo
Acacia coriacea / A. inaequilatera tall shrubland over mixed scattered *Acacia* shrubs over mixed tussock grassland					

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
35	**AcAi** *Acacia coriacea / A.inaequilatera,* tall mixed shrubland over **Vachellia farnesiana* open shrubs over mixed open tussock grassland (too dead to id) and scattered *Triodia wisena* hummocks Occurs on broad drainage line, with incised channel, with red-brown loamy soils.	20	Poor to good	23.7	
36	**Ac?Tt** *Acacia coriacea* with tall shrubland over scattered *Acacia inaequilatera, A. ancistrocarpa* shrubs over ? *Themeda triandra* (dead / dormant) ? with some **Cenchrus ciliaris* (dead)tussock grassland. Occurs on minor shallow drainage line with red brown loams and calcrete fragments. Some erosion evident.	18	Good	0.4	
Acacia coriacea, A. xiphophylla low woodland over mixed tussock grassland					

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
37	**AcAx?Tt** *Acacia coriacea* with *A. xiphophylla* low (old) woodland over scattered **Vachellia farnesiana* shrubs over *?Themeda triandra* and **Cenchrus ciliaris* tussock grassland. Occurs on broad major drainage channel shallowly incised in landscape with red brown clay loams, sometimes skeletal over granite.	19	Very Good	12.2	
**Vachellia farnesiana* shrubland over **Cenchrus ciliaris* tussock grassland					
38	**VfCc** **Vachellia farnesiana* shrubland to closed shrubland over **Cenchrus ciliaris* tussock grassland Minor shallow drainage line on very gently inclined plain with weakly cracking red brown clay loam	24	Poor	4.2	

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
Senna hamersleyensis low shrubland over *Eragrostis xerophila* tussock grassland.					
39	**ShEx** *Senna hamersleyensis* low shrubland (senescing?) over scattered *Eragrostis xerophila* tussocks Occurs on very gently inclined plain with soft spongy red brown clay loam.	25	Poor	1.3	
Acacia xiphophylla open shrubland over *Eragrostis xerophila* tussock grassland					
40	**AxEx** *Acacia xiphophylla* scattered to open shrubland over *Eragrostis xerophila* open tussock grassland. Occurs on gently inclined plain, mosaiced surfaces of weakly cracking and non-cracking clays, silty clay loams with areas of gibber on sandier surfaces.	26	Good	70.5	

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
Corymbia hamersleyana open low woodland over *Acacia coriacea/ *Vachellia farnesiana* open shrubland over mixed hummock and tussock grassland					
41	**ChAcTa** *Corymbia hamersleyana* scattered to open low woodland over *Acacia coriacea, *Vachellia farnesiana* open shrubland to shrubland over *Triodia angusta/T. epactia/*Cenchrus ciliaris* mixed grassland. Occurs on broad shallow drainage line with red brown silty loams, scattered to moderate stones.	27	Poor to Very Good	13.8	
Triodia epactia hummock grassland					
42	**Te** *Triodia epactia* hummock grassland. There can be very scattered *Acacia bivenosa, A. coriacea, A. xiphophylla, Ehretia saligna.* Occurs on flat plain with red brown sandy loams with scattered to moderate stones.	3	Very Good	1.9	

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
Triodia wiseana hummock grassland					
43	**Tw** *Triodia wiseana* hummock grassland. Sometimes scattered *Acacia inaequilatera, A. coriacea, A pyrifolia, A. bivenosa.* Occurs on flat plain with red brown sandy loams with scattered to moderate stones.	22 28a	Excellent	42.9	
Eriachne benthamii tussock grassland					
44	**Eb?Cf** *?Eriachne benthamii, ?Chrysopogon fallax* tussock grassland with other annual grass species (all too dead/dormant to identify). There can be scattered **Vachellia farnesiana, Acacia coriacea* shrubs Very shallow drainage line with red brown soft weakly gilgai light clays	29, 32, 33	Good	20.5	

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
Eragrostis xerophila tussock grassland (with associated dry season remnant grasses)					
45	**Ex spp** *Eragrostis xerophila* tussock grassland. (has apparent *Sorghum plumosum, Panicum sp, Aristida sp* – determine following wet season) with intrusions of ?*Eriachne benthamii* on low areas. Occurs on flat plain with deep red brown weakly to moderate cracking clays. Varying areas of scald.	9, 17, 31	Good to Very Good	27.5	
Eragrostis xerophila tussock grassland (associated species not evident this survey)					
46	**Ex** *Eragrostis xerophila* tussock grassland. Sometimes scattered **Vachellia farnesiana* shrubs. Occurs on flat alluvial plain with deep red brown weakly cracking clays.	21, 23	Good	784.6	

Vegetation Map No.	Vegetation Code and Description	Site	Vegetation Condition	Vegetation Type Extent (ha)	Representative Photograph
**Cenchrus ciliaris* tussock grassland					
47	**Cc** **Cenchrus ciliaris* tussock grassland with scattered shrubs of *Acacia bivenosa, A. inaequilatera.* Occurs on a disturbed site which has been disturbed with tracks, potential laydown areas, has been compacted and had imported soils and gravels.	13	Degraded	177.8	
Mosaic *Triodia wiseana* hummock *Eragrostis xerophila* tussock grassland					
48	*Triodia wiseana* hummock and *Eragrostis xerophila* tussock mosaiced grassland. Occurs on mosaic gilgai or non-gilgai red brown clays and stony silty loams.	15	Very good	10.2	

3.3.2.1 Vegetation Condition

Northern Survey Area

Vegetation condition was assessed using the Trudgen (1988) condition scale, as recommended by the EPA (2016). Vegetation condition results for the 23 vegetation types are summarised in Table 11. Vegetation condition within the survey corridor ranged from 'degraded' to 'excellent'.

Eight vegetation types were disturbance and weed free, hence in excellent condition. One of the most represented along the northern section of the Transmission Corridor, GpTeBaTs, was classified as being generally in excellent condition but the gas pipeline running immediately parallel to it was totally degraded by weeds, indicating the susceptibility of vegetation to disturbance. Rockpile vegetation in some cases had been invaded by weeds spreading from these previously disturbed areas, hence vegetation condition scores were lower than would be expected. Large areas of previous disturbance such as the old laydown and borrow areas, were significantly degraded by dense buffel grass and kapok. These degraded sites had very low species diversity, and even the *Acacia bivenosa* shrub cover which co-existed with the weeds, has now come to the end of its lifespan, leaving large areas of dead shrubs.

Vegetation condition mapping for the northern survey area is presented as Figure E.1, in Appendix E.

Southern Survey Area

Vegetation condition over much of the southern survey area was difficult to estimate due to the dormancy of grasses and weed species. However, from rootstock present, it was apparent to the field botanist that the DBNGP alignment housed varying amounts of buffel grass (**Cenchrus ciliaris*) and some kapok (**Aerva javanica*). This was potentially due to imported gravelly soil imported to stabilise the pipeline. Therefore, vegetation condition along the proposed Woodside Power Transmission Corridor was often considered in good or very good condition, but the adjacent DBNGP pipeline would not be accorded this rating. Buffel grass was also found along some drainage lines, around some of the stonier scalds throughout the area and in areas of disturbance within or in close proximity to the Rio Tinto Dampier Salt lease. Buffel grass and kapok do not favour clay soils and were generally absent from sites with these soil types.

The Roebourne Plains grasslands were difficult to assess for condition. In most cases, they appeared to be dormant, dry and with much reduced foliar cover. This could be due to either over-grazing by stock, a result of the two relatively dry seasons preceding the survey, or a combination of both. Vegetation condition therefore, was rated on what would be expected in a dry season (ie reduced foliar cover and dormancy), which does not necessarily mean the species is in "poor condition" - this is a natural survival strategy.

The shrub **Vachellia farnesiana* is classified as a weed species. It is not a Declared Pest or WoNS species (other *Vachellia* species are Declared Pests). It occurs widely throughout the Pilbara and can become a problem when it occurs in spiny thickets, near water courses. The seeds of the species provide high nutritional value to stock. The plant was recorded as scattered shrubs on the Roebourne Plains grasslands (it tolerates heavy clays) and along a few drainage lines. It is not considered

necessary to control this species at present, but it should be monitored in the future to ensure it does not spread unnaturally as a result of any disturbance.

Vegetation condition mapping for the southern survey area is presented as Figure E.2, in Appendix E.

A summary of the extents of vegetation condition within the northern and southern survey areas is given in Table 13.

Table 13. Extent of vegetation condition within the northern and southern survey areas.

Vegetation Condition	Extent in Northern Survey Area (ha)	Extent in Southern Survey Area (ha)
Cleared	19.2	2.4
Degraded	6.8	3.6
Poor	9.7	48.8
Good	8.0	883.6
Very Good	27.8	258.9
Excellent	54.1	167.0

3.3.2.2 Conservation Significance of Vegetation

The vegetation recorded during the reconnaissance survey, vegetation condition and the likelihood of PECs and conservation significant flora within each vegetation type are summarised in Table H.1, H.2 and H.3 (Appendix H).

No TECs were recorded in the survey area.

Northern Survey Area

PECs were present in the northern survey area on large rockpiles and rockpile ridges, but also occurred on smaller rockpiles on rocky slopes. 'Burrup Peninsula rock pile communities' (P1) PECs are significant because they consist of a combination of Kimberley, Pilbara inland, Pilbara coastal and southern species, most of which are fire sensitive. PECs do not contain weed species. It was noted however, that weeds are ingressing into the rockpile PECs as a result of previous disturbances, which then degrades and negates the PEC.

The reconnaissance survey recorded rockpile PECs as being abundant in vegetation types 'BaEsErv' – and 'TsIcTe' and as represented in low to moderate abundance in 'AiTe' ('BaTS'), 'GpIcTe','IcHlTe' (Table H.1, Appendix H).

A targeted survey needs to be conducted once the final Transmission Corridor alignment has been decided, to determine the location and exact number of PECs present in the whole survey area.

Indicative locations of PECs within the northern survey area based on vegetation types are shown in Appendix H, Figure H.1.

The nine vegetation associations listed by Trudgen as having high to very high conservation significance (Table 9) were generally difficult to identify due to the dry conditions masking abundance

of some of the key flora in his descriptions. The Trudgen survey was conducted following several years of good rainfall meaning that some shorter lived, perennial low shrubs which feature in the Trudgen descriptions were not present in 2019. Weed invasion and fire have also impacted the vegetation since then, changing species dominance. However, VLA agrees with Trudgen that wooded areas, (those which are dominated by *Eucalyptus victrix, Corymbia hamersleyana, Terminalia circumalata)* especially where these occur on broader valley habitats, should be given high conservation value. These wooded areas provide shade and refugia to both fauna and flora in an area which is relatively exposed and lacking in woodland.

Southern Survey Area

The Roebourne Plains grassland was too dry to allow for identification of either of the two potential PECs (a P1 and a P3) (Figure 3, Section 3.1.2.3), both of which depend on a suite of associated grasses and annual species. However, at this stage, the substrate at the inspection points and traverses, indicated that the P1 PEC is less likely to be present, and if it is, only in relatively small areas. Identification of PECs will be undertaken following a wet season survey.

Tree and shrub species found in the drainage lines varies between the proposed Transmission Corridor and those drainage lines that traverse the Solar PV Farm and Gas Power Plant envelopes. One of the larger drainage lines running though the north-east corner of the Solar PV Farm contains large *Acacia coriacea* (wirewood) and *Acacia xiphophylla* (snakewood) trees of considerable age (Plate 3). Both wirewood and snakewood trees are fire sensitive and it is thought they have reached this age due to the fact that the fuel load of the Roebourne Plains grasslands is not sufficient to maintain a large fire. Trees of this age and size in the region, and particularly on the Pilbara coastal plain are unusual and considered by the field botanist to have high conservation value. In addition, they provide shade and refuge for fauna. This drainage line should be preserved. If this is not achievable, any impact should be minimised. This includes direct (removal of vegetation) and indirect (impediment of water flow, erosion, spread of weeds) impacts.

Plate 3. Large Snakewood tree in drainage line, vegetation type AcAx?Tt

3.3.3 Flora

Northern Survey Area

From the reconnaissance survey within the northern area, a total of 138 plant taxa (including subspecies and varieties), comprising 40 families and 91 genera were identified. The Fabaceae, Poaceae and Malvaceae families had the highest levels of species richness (Table 14). Of the 73 genera present, *Acacia*, *Indigofera*, *Senna* and *Solanum* were the most represented genera surveyed, with ten species in the *Acacia* genus and four species recorded for the others. At the time of survey, most species were dormant and there was an absence of annual or ephemeral species. A flora species list is provided in Table I.1 (Appendix I). Despite the dry conditions, it is considered that a diverse range of species were present or were able to be identified from their dormant state.

Table 14. Taxa most frequently recorded in the survey area.

Family	Number of species
Fabaceae	34
Poaceae	15
Malvaceae	13

Site data sheets area summarised in Appendix J.

Southern Survey Area

A total of 106 plant taxa from 26 families were recorded during the reconnaissance survey in the southern area. However, this is not a true representation of the total number of species occurring within the area. Only dominant species were recorded, together with a few identifiable plants that were observed at inspection points throughout the Solar PV, PP and Transmission Corridor areas. This list will be added to following the wet season survey.

Inspection point data sheets are summarised in Appendix J.

3.3.3.1 Conservation Significant Flora

No State or Commonwealth listed Threatened flora were recorded within the survey locations.

Northern Survey Area

Three State listed priority (P) flora species were located within the northern survey area; *Vigna tridiophila* (P3), *Terminalia supranitifolia* (P3) and *Rhynchosia bungarensis* (P4) (Plates 4 to 9). The locations and number of plants of these conservation significant species are summarised in Table H.3 and shown in Figure H.1 (Appendix H). These priority species only represent those found within the relevés and observed opportunistically within the area, not the total number likely to be present. The vegetation types in which these priority species were recorded are summarised in Table H.1 (Appendix H).


Plates 4 and 5. *Vigna triodiophila* (P3)


Plates 6 and 7. *Terminalia supranitifolia* (P3)


Plates 8 and 9. *Rhynchosia bungarensis* (P4)

Southern Survey Area

Species of conservation significance that are likely to occur within the southern survey area are predominantly annual or herbaceous perennial species, which typically die back to rootstock during the dry season. During the 2019 July survey, no flora species of conservation significance were recorded.

Very old, fire sensitive *Acacia coriacea* and *Acacia xiphophylla* trees were recorded as discussed in Section 3.3.2.2. Maslin (World Wide Wattle vers. 2) notes that *A. xiphophylla* is a slow growing species and is readily killed by hot and even moderately hot fires. Maslin also states that where habitat is

infested with a transformer species (buffel grass) such as on the Pilbara coastal plain, fire response of *Acacia coriacea* is extremely poor and typically plants succumb and do not even regenerate from seed (World Wide Wattle vers 2).

3.3.3.2 Introduced Flora (Weeds)

Northern Survey Area

Five weed species were recorded during the northern reconnaissance survey:

- **Aerva javanica* (kapok) – was recorded in 4 locations, <5%. This species is likely to be more abundant than could be detected. Its growth favours the third quarter of the year.
- **Cenchrus ciliaris* (buffel grass) - Buffel grass has significantly dominated previously disturbed sites on the Burrup including the road verge and pipeline alignment running parallel to the proposed Transmission Corridor. It should be noted that buffel grass was generally no more than 10% cover along the proposed Transmission Corridor and a significant 18 of the 47 sites sampled were considered in excellent condition with <1% buffel grass. Buffel grass was more abundant where the alignment runs through old borrow pit areas. The grass is gradually invading rockpile PEC communities – rocks provide shelter and moisture for wind-blown seed.
- **Cenchrus setiger* (birdwood grass)– was recorded in three locations.
- **Malvastrum americanum* (Spiked malvastrum) – (1 site only)
- **Passiflora foetida* (stinking passion flower) – was recorded at one location within the alignment (in a drainage line within 'EvAbTa' at location 0474521E 7719338N) and at one location which was not directly on the alignment, but within 30 m and is of note because it is spreading rapidly on many disturbed Burrup sites and is therefore potentially a threat. Dr Bruce Webber (CSIRO) has indicated that stinking passion flower is currently the biggest weed threat to Northern Australia (2014).

Southern Survey Area

Five weed species, one of which is a Declared Pest under the BAM Act (Department of Primary Industries and Regional Development 2019) and a WoNS (Australian Weeds Committee 2012), species, were recorded during the reconnaissance survey undertaken in July in the southern area, but that number and location of weeds may increase following the wet season survey. The species recorded are:

- **Aerva javanica* (kapok) was recorded along the DBNGP alignment, but rarely along the proposed Transmission Corridor apart from where it crosses though previously disturbed areas (RioTinto Dampier Salt and some areas of imported fill for the gas pipeline) and in three drainage lines where the proposed alignment will cross.
- **Cenchrus ciliaris* (buffel grass) was recorded along the DBNGP alignment and other semi disturbed areas within the Power Plant, Solar PV and Transmission Corridor areas – predominantly along drainage lines and around the edges of scalds.
- **Cenchrus setiger* (Birdwood grass) was not as frequent as buffel grass and was predominantly recorded around semi saline areas of disturbance in the Rio Tinto lease area.
- **Vachellia farnesiana* (mimosa bush) was widespread in its occurrence over the entire southern survey area but was generally not abundant, occurring as individual scattered shrubs

on the plains. It was dense in one drainage line and as scattered understorey in many other drainage lines.

- **Tamarix aphylla* (tamarisk, athel pine), was recorded at one disturbed location associated with the Rio Tinto Dampier Salt lease where soil has been borrowed leaving a semi-saline low area which retains water (GPS 0473702E 7706857N to 0473583 7706475N). Approximately 100 small trees occur in the area and new seedlings are emerging. It is a Declared pest and a WoNs species so it must be removed. This would need to occur prior to any disturbance taking place within the area.

Each of the weeds apart from the **Tamarix aphylla* and **Malvastrum americanum* are classified as having high ecological impact and rapid invasiveness (DPAW 2013) and their further spread should be addressed in a Weed Management Plan.

Because of the relatively dry conditions, it is probable that many other weeds are present and more widely distributed within the survey areas, than that recorded, but were not evident during the survey.

3.3.4 Traditional Owner Participation

The Maitland Industrial Estate (southern survey area) occurs on Ngarluma country and therefore two Traditional Owners (TOs), Kerry Churnside and Darren Lockyer, representing the Ngarluma Aboriginal Corporation (NAC), accompanied the field botanist and zoologist for that part of the survey. Ms Churnside was keen to share her traditional knowledge of the plants and artefact sites we encountered. Ms Churnside made some requests with regard to plants and these have been presented to Woodside in separate correspondence.

4. CONCLUSIONS

The northern survey area comprises lower hillslopes, rocky undulating slopes with outcropping rock, large rockpiles and drainage lines. There were no TECs or ESAs located within the survey area. Several occurrences of the *Burrup Peninsula rock pile community* PEC were recorded within the northern survey area. The two Burrup Peninsula PECs have been described since Trudgen did his survey (Trudgen did not survey rockpile vegetation). PECs are vital to the biodiversity of the Burrup Peninsula – they contain remnant species not found elsewhere as a result of increased humidity on the Burrup, due to the surrounding ocean. Additionally, they house fire sensitive species which have been significantly reduced elsewhere in the region by wild fire. Burrup Peninsula rockpile PECs are being degraded by invasion of weeds in many parts of the area zoned for industry.

Wooded areas, particularly along valleys and broader drainage areas provide rarely occurring shade and protection to both fauna and flora. Trudgen lists two of these has having high (ChThSg) and very high (EvTaTh) conservation value. Any wooded areas along the northern section Transmission Corridor should be minimized to prevent both direct (removal of trees) and indirect (changes to landform and water flow) impacts.

A total of 138 plant taxa were recorded during the reconnaissance survey in the northern survey area. Below average rainfall in the wet season preceding the June survey resulted in the absence of many annual and all ephemeral flora species.

No Threatened flora were located within the northern survey area. Three Priority flora species: *Terminalia supranitifolia* P3, *Vigna tridio*phila P3 and *Rhynchosia bungarensis* P4 were recorded.
T. supranitifolia P3 was recorded in rockpile, lower hillslope and drainage line habitats. *V. tridiophila* P3 was recorded in rockpile habitats, whilst *R. bungarensis* P4 was recorded across a variety of habitats including rocky hillslopes, rockpiles and a drainage gully. Generally only a single plant was recorded from each location, apart from *Terminalia supranitifolia* where sometimes 2 or 3 plants were recorded on one rockpile. These three species are considered widespread on the Burrup Peninsula and have been recorded outside the survey area in similar habitats to those observed. However, it should be noted that *Terminalia supranitifolia* is a slow growing, long lived species, hence new juvenile plants are rarely encountered. The cumulative impact on the population on the Burrup Peninsula, with the establishment of the many industries and associated infrastructure that has occurred over the years since the Blackwell et al. (1979) report, has never been considered. In the past, there has never been any effort, by any industry on the Burrup to try to propagate and replace plants lost, either through rehabilitation or via landscaping (V Long pers com).

Most of the vegetation mapped during the survey was comparable to that recorded by Trudgen (2002). Differences were potentially due to the fact that the Trudgen survey was conducted over a very large area, following several years of good rainfall, compared with this reconnaissance survey. Changes in vegetation structure have occurred over the past 19 years since the Trudgen survey, mainly due to a large portion of the area having been burnt. In addition, some perennial species (such as the shrub *Indigofera monophylla*) had lower foliage cover than average, due to dry seasonal conditions; therefore, they featured less prominently in vegetation descriptions than they would have under more favorable seasonal conditions.

The condition of the vegetation along the Transmission Corridor varies according to proximity to previous disturbance. However, it should be noted that the number of 'excellent' condition (no weeds)

vegetation types exceeded the 'poor – degraded' vegetation types in excess of twofold. The spread and abundance of weeds on the Burrup Peninsula has increased significantly since the Trudgen (2002) survey. Corridor type disturbances, such as this project, can play a significant role in the spread of weeds through otherwise clean vegetation and therefore, careful weed management needs to be addressed. One weed in particular, *Passiflora foetida*, has recently been described as one of the biggest weed threats to northern Australia (Webber 2014) and every effort should be made to remove it from the survey area before any work is conducted to prevent its spread down the alignment.

The southern section of the project area, which includes the Transmission Corridor and two large areas for a proposed Power Plant and Solar PV farm, occurs on relatively flat coastal plain characterised by areas of hummock grassland, areas of sandy surfaced alluvial soils and tussock grasslands over weakly gilgaied clays, intersected by both shallow grassy and deeper incised wooded drainage lines.

The predominantly grassland nature of the vegetation in the southern survey area meant that most species being annuals, were either sterile, dormant, had died back to rootstock or were dead. This meant that the survey could only superficially identify grasslands. The field botanist was able to confidently identify 25 vegetation types within this survey area, but the identification of any PECs was not possible. It had been decided that given the dry conditions preceding the survey, this would only be a preliminary survey and that a wet season survey would need to be undertaken following decent rain. A flora list comprising 106 identifiable species was recorded for this area. The number of flora species present within this area should increase following rainfall and greater numbers should be observed in the wet season survey.

Although PECs could not be identified, one vegetation type was considered by the field botanist to be of high conservation value. This is vegetation type AcAx?Tt which contained very old, large trees of *Acacia xiphophylla* and *A. coriacea*, both of which are fire sensitive (do not regenerate following fire) and are slow growing species. Both species are experiencing a decline in numbers due to fire (WorldWideWattle) and the field botanist, who does extensive work in the area, rarely sees trees, particularly *A. xiphophylla* (Snakewood), of this size. This vegetation type should be protected from any direct or indirect impacts from the project.

The condition of the Transmission Corridor and the larger development envelopes (Gas Power Plant and Solar PV Farm) was generally rated as being very good, based on what would be expected of the key species during a dry period, the lack of weeds on those areas and minimal cattle damage. Grasslands rely on sufficient summer rainfall (much less on winter rainfall) to respond with growth and flower/seed production. This has not occurred for the past two years. The tussock grassland in particular, appeared impacted by the dry weather conditions and potentially by being overgrazed in the past.

The WoNS and Declared pest, tamarisk or athel pine (*Tamarix aphylla*) occurs on a previously disturbed area. New trees continue to emerge in the area. Both alternative Transmission Corridor options will run through tamarisk infestation. Plants will need to be reported, removed prior to and monitored following, construction. The weeds buffel grass and kapok were recorded in very low percentages (<2%), except along drainage lines, where buffel grass was denser. Buffel grass is a pastoral fodder grass and it is not expected that any control of this species would need to occur, unless PECs are identified. Invasion of buffel grass and kapok into PECs would need to be managed.

The shrub weed, **Vachellia farnesiana* is not considered by the author to warrant control in this area. The weed is not considered a "problem" in the Pilbara where it usually occurs as individuals or small thickets along occasional drainage lines (A. Mitchell pers comm 30/7/19)

The presence of two NAC TOs during the southern survey, provided an opportunity for knowledge sharing and building of trust and positive relationships.

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Appendix A: Conservation Categories for Flora, Fauna and Ecological Communities, and Categories for Introduced Flora

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Table A.1: Categories and definitions for threatened flora and fauna species listed under the *Environment Protection and Biodiversity Conservation Act 1999*.

Conservation category	Definition
Extinct	Taxa with no reasonable doubt that the last member of the species has died.
Extinct in the wild	Taxa known to survive only in cultivation, in captivity or as a naturalised population well outside its past range; or it has not been recorded in its known and/or expected habitat, at appropriated seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
Critically endangered (CR)	Taxa facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
Endangered (E)	Taxa are not critically endangered; and are facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
Vulnerable (V)	Taxa are not critically endangered or endangered; and are facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
Conservation dependent (CD)	Taxa are the focus of a specific conservation program the cessation of which would result in the species becoming vulnerable, endangered or critically endangered; or the following subparagraphs are satisfied: i) the taxa is a species of fish; ii) the taxa is the focus of a management plan that provides management actions necessary to stop the decline of, and support the recovery of, the taxa so that its chances of long term survival in nature are maximized; iii) the management plan is in force under a law of the Commonwealth or of a State or Territory; iv) Cessation of the management plan would adversely affect the conservation status of the taxa Fish includes all taxa of bony fish, sharks, rays, crustaceans, molluscs and other marine organisms, but does not include marine mammals/reptiles.

Table A.2: Definitions and criteria for threatened ecological communities under the *Environment Protection and Biodiversity Conservation Act 1999*.

Categories of ecological communities	
Critically endangered	If, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
Endangered	If, at that time, it is not critically endangered and is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
Vulnerable	If, at that time, it is not critically endangered or endangered, and is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

Table A.3: Conservation codes for Western Australian flora and fauna under the *Biodiversity Conservation Act 2016*.

Code	Conservation category	Definition
Threatened		
CR	Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for critically endangered fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for critically endangered flora.	Threatened species considered to be "facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines"
EN	Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for endangered fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for endangered flora.	Threatened species considered to be "facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines"
VU	Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for vulnerable fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for vulnerable flora.	Threatened species considered to be "facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines"
Extinct		
EX	Published as presumed extinct under schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018 for extinct fauna or the Wildlife Conservation (Rare Flora) Notice 2018 for extinct flora.	Species where "there is no reasonable doubt that the last member of the species has died", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).
EW	Species that "is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).	Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.
Specially Protected Species		
MI	Published as migratory birds protected under an international agreement under schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018	Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

CD	Published as conservation dependent fauna under schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018.	Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).
OS	Published as other specially protected fauna under schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice 2018.	Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Table A.4: Categories of Threatened Ecological Communities (Department of Environment and Conservation 2013).

PD: Presumed Totally Destroyed
An ecological community that has been adequately searched for but for which no representative occurrences have been located. The community has been found to be totally destroyed or so extensively modified throughout its range that no occurrence of it is likely to recover its species composition and/or structure in the foreseeable future. An ecological community will be listed as presumed totally destroyed if there are no recent records of the community being extant **and either** of the following applies (A or B): A) Records within the last 50 years have not been confirmed despite thorough searches of known or likely habitats **or** B) All occurrences recorded within the last 50 years have since been destroyed.
CR : Critically Endangered
An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or that was originally of limited distribution and is facing severe modification or destruction throughout its range in the immediate future, or is already severely degraded throughout its range but capable of being substantially restored or rehabilitated. An ecological community will be listed as **Critically Endangered** when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future. This will be determined on the basis of the best available information, by it meeting **any one or more of** the following criteria (A, B or C): A) The estimated geographic range, and/or total area occupied, and/or number of discrete occurrences since European settlement have been reduced by at least 90% **and either or both** of the following apply (i or ii): i) geographic range, and/or total area occupied and/or number of discrete occurrences are continuing to decline such that total destruction of the community is imminent (within approximately 10 years); ii) modification throughout its range is continuing such that in the immediate future (within approximately 10 years) the community is unlikely to be capable of being substantially rehabilitated. B) Current distribution is limited, **and one or more** of the following apply (i, ii or iii): i) geographic range and/or number of discrete occurrences, and/or area occupied is highly restricted and the community is currently subject to known threatening processes which are likely to result in total destruction throughout its range in the immediate future (within approximately 10 years); ii) there are very few occurrences, each of which is small and/or isolated and extremely vulnerable to known threatening processes; iii) there may be many occurrences but total area is very small and each occurrence is small and/or isolated and extremely vulnerable to known threatening processes. C) The ecological community exists only as highly modified occurrences that may be capable of being rehabilitated if such work begins in the immediate future (within approximately 10 years).
En: Endangered

An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or was originally of limited distribution and is in danger of significant modification throughout its range or severe modification or destruction over most of its range in the near future.

An ecological community will be listed as **Endangered** when it has been adequately surveyed and is not Critically Endangered but is facing a very high risk of total destruction in the near future. This will be determined on the basis of the best available information by it meeting **any one or more** of the following criteria (A, B, or C):

A) The geographic range, and/or total area occupied, and/or number of discrete occurrences have been reduced by at least 70% since European settlement **and either or both** of the following apply (i or ii):

i) the estimated geographic range, and/or total area occupied and/or number of discrete occurrences are continuing to decline such that total destruction of the community is likely in the short term future (within approximately 20 years);

ii) modification throughout its range is continuing such that in the short term future (within approximately 20 years) the community is unlikely to be capable of being substantially restored or rehabilitated.

B) Current distribution is limited, **and one or more** of the following apply (i, ii or iii):

i) geographic range and/or number of discrete occurrences, and/or area occupied is highly restricted and the community is currently subject to known threatening processes which are likely to result in total destruction throughout its range in the short term future (within approximately 20 years);

ii) there are few occurrences, each of which is small and/or isolated and all or most occurrences are very vulnerable to known threatening processes;

iii) there may be many occurrences but total area is small and all or most occurrences are small and/or isolated and very vulnerable to known threatening processes.

C) The ecological community exists only as very modified occurrences that may be capable of being substantially restored or rehabilitated if such work begins in the short-term future (within approximately 20 years).

VU: Vulnerable

An ecological community that has been adequately surveyed and is found to be declining and/or has declined in distribution and/or condition and whose ultimate security has not yet been assured and/or a community that is still widespread but is believed likely to move into a category of higher threat in the near future if threatening processes continue or begin operating throughout its range.

An ecological community will be listed as **Vulnerable** when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing a high risk of total destruction or significant modification in the medium to long-term future. This will be determined on the basis of the best available information by it meeting **any one or more of** the following criteria (A, B or C):

A) The ecological community exists largely as modified occurrences that are likely to be capable of being substantially restored or rehabilitated.

B) The ecological community may already be modified and would be vulnerable to threatening processes, is restricted in area and/or range and/or is only found at a few locations.

C) The ecological community may be still widespread but is believed likely to move into a category of higher threat in the medium to long term future because of existing or impending threatening processes.

Possible Threatened Ecological Communities that do not meet survey criteria or that are not adequately defined are added to the Priority Ecological Community Lists under Priorities 1, 2 and 3. Ecological communities that are adequately known, and are rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list, are placed in Priority 4. These ecological communities require regular monitoring. Conservation Dependent ecological communities are placed in Priority 5 (Table A.6).

Table A.5: Definitions and criteria for Priority Ecological Communities (Department of Parks and Wildlife 2017).

P1: Priority One – Poorly-known ecological communities
Ecological communities that are known from very few occurrences with a very restricted distribution (generally ≤5 occurrences or a total area of ≤ 100 ha). Occurrences are believed to be under threat either due to limited extent, or being on lands under immediate threat (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) or for which current threats exist. May include communities with occurrences on protected lands. Communities may be included if they are comparatively well-known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under immediate threat from known threatening processes across their range.
P2: Priority Two – Poorly-known ecological communities
Communities that are known from few occurrences with a restricted distribution (generally ≤10 occurrences or a total area of ≤200 ha). At least some occurrences are not believed to be under immediate threat of destruction or degradation. Communities may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under threat from known threatening processes.
P3: Priority Three – Poorly-known ecological communities
(i) Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation or: (ii) communities known from a few widespread occurrences, which are either large or within significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat, or; (iii) communities made up of large, and/or widespread occurrences, that may or not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing by domestic and/or feral stock, and inappropriate fire regimes. Communities may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and/or are not well defined, and known threatening processes exist that could affect them.
P4: Priority Four
Ecological communities that are adequately known, rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list. These communities require regular monitoring. (i) Rare. Ecological communities known from few occurrences that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These communities are usually represented on conservation lands. (ii) Near Threatened. Ecological communities that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable. (iii) Ecological communities that have been removed from the list of threatened communities during the past five years.
P5: Priority Five – Conservation dependent ecological communities
Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

Table A.6: Priority species under *Western Australian Biodiversity Conservation Act 2016.*

P1: Priority One – Poorly known taxa
Taxa that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, Shire, Westrail and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Taxa may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes.
P2: Priority Two – Poorly known taxa
Taxa that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. Taxa may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes.
P3: Priority Three – Poorly known taxa
Taxa that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Taxa may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.
P4: Priority Four: Rare, near threatened and other taxa in need of monitoring
(a)Rare Taxa that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands. (b) Near Threatened. Taxa that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable. (c) Taxa that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.
P5: Priority Five: Conservation dependent taxa
Taxa that are not threatened but are subject to a specific conservation program, the cessation of which would result in the taxa becoming threatened within five years.

The management of introduced flora species in Western Australia is now regulated through the Biosecurity and Agriculture Management Act 2007 (BAM Act). A list of declared pests, including 'pest' plants is provided under the BAM Act, which has been updated to incorporate a number of other Acts that are administered by Department of Agriculture and Food Western Australia (Department of Agriculture and Food Western Australia 2016). Declared pests can fall into two categories: one that relates to the prevention of introducing the species or eradicating it; and the other relates to managing the species and whether it can be kept (i.e. for scientific purposes, education or other purpose).

The threat and risk posed to site-specific biodiversity values, influences to rehabilitation success, primary production, infrastructure assets or human health will differ depending on the unique characteristics of each site and the associated land management practice or operation. Therefore site or project specific weed assessments and priorities should be reviewed for each project.

As per introduced flora species, the BAM Act seeks to establish a modern biosecurity regulatory scheme to prevent serious animal pests from entering the State and becoming established, and to

minimise the spread and impact of any that are already present within the State. Declared animal pests fall into three categories as Gazetted under the *Biosecurity and Agriculture Management Regulations 2013*. These categories are outlined in Table A.7.

Table A.7: Declared pests control categories as gazetted under the *Biosecurity and Agriculture Management Regulations 2013*.

Category	Description
C1 (Exclusion)	Pests will be assigned to this category if they are not established in Western Australia and control measures are to be taken, including border checks, in order to prevent them entering and establishing in the State.
C2 (Eradication)	Pests will be assigned to this category if they are present in Western Australia in low enough numbers or in sufficiently limited areas that their eradication is still a possibility.
C3 (Management)	Pests will be assigned to this category if they are established in Western Australia but it is feasible, or desirable, to manage them in order to limit their damage. Control measures can prevent a C3 pest from increasing in population size or density or moving from an area in which it is established into an area which currently is free of that pest.

Appendix B: Database Search Results

NatureMap
Mapping Western Australia's biodiversity

NatureMap Species Report

Created By Guest user on 05/03/2019

Power Plant and Solar PV Survey Areas

Current Names Only Yes
Core Datasets Only Yes
Method 'By Circle'
Centre 116° 40' 49" E,20° 48' 08" S
Buffer 20km
Group By Kingdom

Kingdom	Species	Records
Animalia	575	5236
Chromista	17	25
Fungi	7	8
Plantae	595	2175
TOTAL	**1194**	**7444**

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
Animalia					
1.		*? ?*			
2.	25332	*Acanthophis wellsi (Pilbara Death Adder)*			
3.		*Acariformes sp.*			
4.	25535	*Accipiter cirrocephalus (Collared Sparrowhawk)*			
5.	25536	*Accipiter fasciatus (Brown Goshawk)*			
6.		*Achnanthidium minutissima (Kütz.) Czarnecki*			
7.	25755	*Acrocephalus australis (Australian Reed Warbler)*			
8.		*Actacarus pacificus*			
9.	41323	*Actitis hypoleucos (Common Sandpiper)*		IA	
10.	25544	*Aegotheles cristatus (Australian Owlet-nightjar)*			
11.		*Aeshnidae sp.*			
12.		*Alepes apercna*			
13.		*Allodessus bistrigatus*			
14.		*Alona anodonta*			
15.		*Ambassis vachellii*			
16.		*Amblygobius bynoensis*			
17.		*Amniataba caudavittata*			
18.		*Amniataba percoides*			
19.	30831	*Amphibolurus gilberti (Ta-ta, Gilbert's Dragon)*			
20.	30833	*Amphibolurus longirostris (Long-nosed Dragon)*			
21.		*Aname mellosa*			
22.	24312	*Anas gracilis (Grey Teal)*			
23.	24316	*Anas superciliosa (Pacific Black Duck)*			
24.	47414	*Anhinga novaehollandiae (Australasian Darter)*			
25.		*Anisops canaliculatus*			
26.		*Anomalohalacarus dampierensis*			Y
27.		*Anopheles annulipes s.l.*			
28.	25318	*Antaresia perthensis (Pygmy Python)*			
29.	25241	*Antaresia stimsoni subsp. stimsoni (Stimson's Python)*			
30.	25670	*Anthus australis (Australian Pipit)*			
31.		*Anuraeopsis navicula*			
32.	25554	*Apus pacificus (Fork-tailed Swift, Pacific Swift)*		IA	
33.	24285	*Aquila audax (Wedge-tailed Eagle)*			
34.		*Arcella sp.*			
35.	25559	*Ardea intermedia (Intermediate Egret)*			
36.	41324	*Ardea modesta (great egret, white egret)*			
37.	24341	*Ardea pacifica (White-necked Heron)*			
38.	24610	*Ardeotis australis (Australian Bustard)*			
39.	25736	*Arenaria interpres (Ruddy Turnstone)*		IA	
40.		*Arius leptaspis*			Y
41.	25566	*Artamus cinereus (Black-faced Woodswallow)*			
42.	25567	*Artamus leucorynchus (White-breasted Woodswallow)*			
43.	24354	*Artamus leucorynchus subsp. leucopygialis (White-breasted Woodswallow)*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
44.	24357	*Artamus superciliosus (White-browed Woodswallow)*			
45.		*Arthrorhabdus paucispinus*			
46.	25320	*Aspidites melanocephalus (Black-headed Python)*			
47.	25236	*Aspidites ramsayi (Woma)*			
48.	24318	*Aythya australis (Hardhead)*			
49.		*Baetidae sp.*			
50.		*Barnardius zonarius*			
51.		*Bathygobius fuscus*			
52.		*Bathygobius laddi*			
53.		*Bdelloidea sp. 2:2*			
54.		*Bdelloidea sp. 3:3*			
55.		*Belostomatidae sp.*			
56.		*Bennelongia minimus*			
57.		*Berosus pulchellus*			
58.		*Boeckella triarticulata*			
59.		*Bolboleaus truncatus*			
60.		*Boreohesperus undulatus*			
61.		*Brachionus n sp P2 (PSW)*			
62.		*Brachionus quadridentatus*			
63.	25331	*Brachyurophis approximans (North-western Shovel-nosed Snake)*			
64.	24359	*Burhinus grallarius (Bush Stone-curlew)*			
65.	47897	*Butorides striata (Striated Heron, Mangrove Heron)*			
66.	25715	*Cacatua roseicapilla (Galah)*			
67.	25716	*Cacatua sanguinea (Little Corella)*			
68.	42307	*Cacomantis pallidus (Pallid Cuckoo)*			
69.		*Caenidae sp.*			
70.	24779	*Calidris acuminata (Sharp-tailed Sandpiper)*		IA	
71.	24780	*Calidris alba (Sanderling)*		IA	
72.	25738	*Calidris canutus (Red Knot, knot)*		IA	
73.	24784	*Calidris ferruginea (Curlew Sandpiper)*		T	
74.	24788	*Calidris ruficollis (Red-necked Stint)*		IA	
75.	24789	*Calidris subminuta (Long-toed Stint)*		IA	
76.	24790	*Calidris tenuirostris (Great Knot)*		T	
77.		*Callionymus japonicus*			Y
78.		*Caloneis silicula (Ehr.) Cl.*			
79.	24253	*Capra hircus (Goat)*	Y		
80.		*Caranx sexfasciatus*			
81.		*Carcharhinus brachyurus*			
82.		*Carenum pulchrum*			
83.		*Carenum subplanatum*			
84.		*Carenum venustum*			
85.	25015	*Carlia munda (Shaded-litter Rainbow Skink)*			
86.	25017	*Carlia triacantha (Desert Rainbow Skink)*			
87.		*Catadromus lacordairei*			
88.	25600	*Centropus phasianinus (Pheasant Coucal)*			
89.		*Cephalodella biungulata*			
90.		*Cephalodella cf forficula*			
91.		*Cephalodella gibba*			
92.		*Ceratopogonidae sp.*			
93.	24181	*Chaerephon jobensis (Greater Northern Freetail-bat, Northern Mastiff Bat)*			
94.		*Chanos chanos*			
95.	25575	*Charadrius leschenaultii (Greater Sand Plover)*		T	
96.	25576	*Charadrius mongolus (Lesser Sand Plover)*		T	
97.	24377	*Charadrius ruficapillus (Red-capped Plover)*			
98.	24378	*Charadrius veredus (Oriental Plover)*		IA	
99.		*Chelmon marginalis*			
100.		*Chelmon muelleri*			
101.	25336	*Chelonia mydas (Green Turtle)*		T	
102.	24321	*Chenonetta jubata (Australian Wood Duck, Wood Duck)*			
103.		*Chironominae sp.*			
104.		*Chironomus aff. alternans (V24) (CB)*			
105.		*Chlaenius australis*			
106.	41332	*Chlidonias leucopterus (White-winged Black Tern, white-winged tern)*		IA	
107.		*Choerodon vitta*			
108.		*Chroicocephalus novaehollandiae*			
109.	24431	*Chrysococcyx basalis (Horsfield's Bronze Cuckoo)*			
110.	24288	*Circus approximans (Swamp Harrier)*			
111.	24289	*Circus assimilis (Spotted Harrier)*			
112.	24774	*Cladorhynchus leucocephalus (Banded Stilt)*			
113.		*Cloeon sp.*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
114.		*Coenagrionidae sp.*			
115.	24399	*Columba livia (Domestic Pigeon)*	Y		
116.		*Copidognathus meridianus*			
117.	25568	*Coracina novaehollandiae (Black-faced Cuckoo-shrike)*			
118.		*Corixidae sp.*			
119.	24416	*Corvus bennetti (Little Crow)*			
120.	25593	*Corvus orru (Torresian Crow)*			
121.	25701	*Coturnix ypsilophora (Brown Quail)*			
122.	24420	*Cracticus nigrogularis (Pied Butcherbird)*			
123.	25595	*Cracticus tibicen (Australian Magpie)*			
124.	30893	*Cryptoblepharus buchananii*			
125.	25020	*Cryptoblepharus plagiocephalus*			
126.	30892	*Cryptoblepharus ustulatus*			
127.		*Cryptochironomus griseidorsum*			
128.		*Cryptoerithus halli*			
129.		*Cryptoerithus occultus*			
130.	25458	*Ctenophorus caudicinctus (Ring-tailed Dragon)*			
131.	24865	*Ctenophorus caudicinctus subsp. caudicinctus (Ring-tailed Dragon)*			
132.	24876	*Ctenophorus isolepis subsp. isolepis (Crested Dragon, Military Dragon)*			
133.	24882	*Ctenophorus nuchalis (Central Netted Dragon)*			
134.	24886	*Ctenophorus reticulatus (Western Netted Dragon)*			
135.	25036	*Ctenotus duricola*			
136.	25462	*Ctenotus grandis*			
137.	25043	*Ctenotus grandis subsp. titan*			
138.	25045	*Ctenotus helenae*			
139.	25463	*Ctenotus pantherinus (Leopard Ctenotus)*			
140.	25064	*Ctenotus pantherinus subsp. ocellifer (Leopard Ctenotus)*			
141.	25070	*Ctenotus robustus*			
142.	25072	*Ctenotus rubicundus*			
143.	25073	*Ctenotus saxatilis (Rock Ctenotus)*			
144.	25074	*Ctenotus schomburgkii*			
145.	25077	*Ctenotus serventyi*			
146.	25465	*Ctenotus uber (Spotted Ctenotus)*			
147.		*Culex (Culex) annulirostris*			
148.		*Culex nr. crinicauda (PSW)*			
149.		*Culicidae sp.*			
150.	25466	*Cyclodomorphus melanops (Slender Blue-tongue)*			
151.	25090	*Cyclodomorphus melanops subsp. melanops (Slender Blue-tongue)*			
152.	25375	*Cyclorana maini (Sheep Frog)*			
153.	24322	*Cygnus atratus (Black Swan)*			
154.		*Cymbella delicatula Kütz.*			
155.		*Cypretta ?lutea*			
156.		*Cypretta seurati*			
157.		*Cypricercus salinus*			
158.		*Cypricercus sp. 422 (CB)*			
159.	25547	*Dacelo leachii (Blue-winged Kookaburra)*			
160.	24091	*Dasykaluta rosamondae (Little Red Kaluta)*			
161.	24093	*Dasyurus hallucatus (Northern Quoll)*		T	
162.	25001	*Delma nasuta*			
163.	25002	*Delma pax*			
164.	25004	*Delma tincta*			
165.	25468	*Demansia psammophis (Yellow-faced Whipsnake)*			
166.	25295	*Demansia psammophis subsp. cupreiceps (Yellow-faced Whipsnake)*			
167.	25297	*Demansia rufescens (Rufous Whipsnake)*			
168.	24324	*Dendrocygna arcuata (Wandering Whistling Duck, Chestnut Whistling Duck)*			
169.	24325	*Dendrocygna eytoni (Plumed Whistling Duck)*			
170.		*Diaphanosoma excisum*			
171.	25607	*Dicaeum hirundinaceum (Mistletoebird)*			
172.	24926	*Diplodactylus conspicillatus (Fat-tailed Gecko)*			
173.	41404	*Diplodactylus galaxias (Northern Pilbara Beak-faced Gecko)*			
174.	24937	*Diplodactylus mitchelli*			
175.	24944	*Diplodactylus savagei (Southern Pilbara Beak-faced Gecko)*			
176.	24084	*Dugong dugon (Dugong)*		S	
177.		*Dytiscidae sp.*			
178.		*Ecnomidae sp.*			
179.	41406	*Egernia cygnitos (Western Pilbara Spiny-tailed Skink)*			
180.	25101	*Egernia pilbarensis (Pilbara Skink)*			
181.		*Egretta garzetta*			
182.		*Egretta novaehollandiae*			
183.		*Elanus axillaris*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
184.		*Elops hawaiensis*			
185.	47937	*Elseyornis melanops (Black-fronted Dotterel)*			
186.	24631	*Emblema pictum (Painted Finch)*			
187.		*Enochrus sp.*			
188.		*Eolophus roseicapillus*			
189.	24653	*Eopsaltria pulverulenta (Mangrove Robin)*			
190.		*Ephemeroporus barroisi s.l.*			
191.	25578	*Ephippiorhynchus asiaticus (Black-necked Stork)*			
192.		*Ephydridae sp.*			
193.		*Epinephelus coioides*			
194.		*Epinephelus malabaricus*			
195.		*Epistylis sp*			
196.	24568	*Epthianura aurifrons (Orange Chat)*			
197.	24570	*Epthianura tricolor (Crimson Chat)*			
198.	42404	*Eremiascincus isolepis*			
199.	41409	*Eremiascincus musivus (Mosaic Desert Skink)*			
200.	24837	*Eremiornis carteri (Spinifex-bird)*			
201.		*Eretes australis*			
202.	24379	*Erythrogonys cinctus (Red-kneed Dotterel)*			
203.	47938	*Esacus magnirostris (Beach Stone-curlew, Beach Thick-knee)*			
204.		*Ethmostigmus curtipes*			
205.		*Euchlanis dilatata*			
206.		*Eulimnadia dahli*			Y
207.		*Eulimnadia sp. P1 (PSW)*			Y
208.	24368	*Eurostopodus argus (Spotted Nightjar)*			
209.		*Eviota queenslandica*			
210.	25621	*Falco berigora (Brown Falcon)*			
211.	25622	*Falco cenchroides (Australian Kestrel, Nankeen Kestrel)*			
212.	25623	*Falco longipennis (Australian Hobby)*			
213.	25624	*Falco peregrinus (Peregrine Falcon)*		S	
214.	24475	*Falco peregrinus subsp. macropus (Australian Peregrine Falcon)*		S	
215.	24476	*Falco subniger (Black Falcon)*			
216.		*Favonigobius melanobranchus*			
217.	24041	*Felis catus (Cat)*	Y		
218.	25327	*Fordonia leucobalia (White-bellied Mangrove Snake)*			
219.	25727	*Fulica atra (Eurasian Coot)*			
220.	25301	*Furina ornata (Moon Snake)*			
221.	24793	*Gallinago stenura (Pin-tailed Snipe)*		IA	
222.	25730	*Gallirallus philippensis (Buff-banded Rail)*			
223.	24765	*Gallirallus philippensis subsp. mellori (Buff-banded Rail)*			
224.	42314	*Gavicalis virescens (Singing Honeyeater)*			
225.	24956	*Gehyra pilbara*			
226.	24958	*Gehyra punctata*			
227.	24959	*Gehyra variegata*			
228.	47954	*Gelochelidon nilotica (Gull-billed Tern)*		IA	
229.	24401	*Geopelia cuneata (Diamond Dove)*			
230.	24402	*Geopelia humeralis (Bar-shouldered Dove)*			
231.	25585	*Geopelia striata (Zebra Dove)*			
232.	24404	*Geophaps plumifera (Spinifex Pigeon)*			
233.		*Geoscaptus laevissimus*			
234.		*Gerres filamentosus*			
235.		*Gerres subfasciatus*			
236.	25530	*Gerygone fusca (Western Gerygone)*			
237.	24276	*Gerygone tenebrosa (Dusky Gerygone)*			
238.	24481	*Glareola maldivarum (Oriental Pratincole)*		IA	
239.		*Glossogobius giuris*			
240.		*Glossogobius sp.*			
241.		*Gnatholepis argus*			
242.		*Gomphidae sp.*			
243.	24443	*Grallina cyanoleuca (Magpie-lark)*			
244.		*Grayenulla waldockae*			
245.	24484	*Grus rubicunda (Brolga)*			
246.		*Gymnothorax thrysoideus*			
247.		*Gymnothorax undulatus*			
248.	25627	*Haematopus fuliginosus (Sooty Oystercatcher)*			
249.	24487	*Haematopus longirostris (Pied Oystercatcher)*			
250.		*Halacaridae sp.*			
251.	24293	*Haliaeetus leucogaster (White-bellied Sea-Eagle)*			
252.	25541	*Haliastur indus (Brahminy Kite)*			
253.	24295	*Haliastur sphenurus (Whistling Kite)*			

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254.		*Halieutaea brevicaudata?*			
255.	24297	*Hamirostra melanosternon (Black-breasted Buzzard)*			
256.		*Hantzschia amphioxys (Ehr.) Grun.*			
257.		*Hebridae sp.*			
258.		*Hemicypris megalops*			
259.		*Hemiramphus sp.*			
260.		*Heterocypris sp.*			
261.	24633	*Heteromunia pectoralis (Pictorella Mannikin)*			
262.	24961	*Heteronotia binoei (Bynoe's Gecko)*			
263.		*Heteronyx mimus*			
264.		*Heteronyx tepperi*			
265.		*Hexarthra cf brandorffi (PSW)*			
266.		*Hexarthra sp P3 5-2/5-2 (PSW)*			Y
267.	47965	*Hieraaetus morphnoides (Little Eagle)*			
268.	25734	*Himantopus himantopus (Black-winged Stilt)*			
269.	24491	*Hirundo neoxena (Welcome Swallow)*			
270.	25630	*Hirundo rustica (Barn Swallow)*		IA	
271.		*Hogna crispipes*			
272.		*Hydrachna sp. 4/5 (PSW)*			
273.		*Hydraenidae sp.*			
274.	25363	*Hydrelaps darwiniensis*			
275.		*Hydrobiidae sp P1 (not assimineid) (PSW)*			
276.		*Hydroglyphus grammopterus (=trilineatus)*			
277.		*Hydroglyphus orthogrammus*			
278.		*Hydrometridae sp.*			
279.		*Hydrophilidae sp.*			
280.	48587	*Hydroprogne caspia (Caspian Tern)*		IA	
281.		*Hydroptilidae sp.*			
282.		*Hyphydrus lyratus*			
283.		*Hyphydrus sp.*			
284.		*Ilyocypris australiensis*			
285.		*Ilyodromus sp. PB*			
286.		*Inegocia japonica*			
287.		*Ischnura aurora aurora*			
288.		*Isobactrus obesus*			
289.		*Isocypris williamsi (ex Ilyodromus sp. 413)*			
290.		*Isopedella tindalei*			
291.	25562	*Ixobrychus flavicollis (Black Bittern)*			
292.		*Knoelle clara*			
293.		*Lacinularia flosculosa*			
294.	24057	*Lagenodelphis hosei (Fraser's Dolphin)*			
295.	24367	*Lalage tricolor (White-winged Triller)*			
296.		*Lampona ampeinna*			
297.		*Lampona cylindrata*			
298.		*Lamponina scutata*			
299.		*Larsia albiceps*			
300.	25637	*Larus novaehollandiae (Silver Gull)*			
301.		*Latrodectus geometricus*			
302.		*Lecane bifastigata*			Y
303.		*Lecane bulla*			
304.		*Lecane cf. ludwigii (PSW)*			
305.		*Lecane cf. rhenana (SAP)*			
306.		*Lecane luna*			
307.		*Lecane papuana*			
308.		*Lecane ungulata*			
309.	24217	*Leggadina lakedownensis (Northern Short-tailed Mouse, Lakeland Downs Mouse, Kerakenga)*		P4	
310.		*Leiopotherapon unicolor*			
311.		*Lepidotrigla sp.*			
312.		*Leptoceridae sp.*			
313.	25125	*Lerista bipes*			
314.	30928	*Lerista clara*			
315.	30929	*Lerista jacksoni*			
316.	25155	*Lerista muelleri*			
317.	30925	*Lerista verhmens*			
318.	25005	*Lialis burtonis*			
319.	25238	*Liasis olivaceus subsp. barroni (Pilbara Olive Python)*		T	
320.		*Libellulidae sp.*			
321.	25661	*Lichmera indistincta (Brown Honeyeater)*			
322.		*Limbodessus compactus*			

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323.	25739	*Limicola falcinellus (Broad-billed Sandpiper)*		IA	
324.		*Limnadopsis birchii*			
325.	30932	*Limosa lapponica (Bar-tailed Godwit)*		IA	
326.		*Liocranium praepositum*			
327.	41417	*Liopholis striata (Night Skink)*			
328.	25392	*Litoria rubella (Little Red Tree Frog)*			
329.		*Liza subviridis*			
330.		*Lophiocharon hutchinsi*			
331.		*Lophiocharon trisignatus*			
332.		*Loxandrus micantior*			
333.	30933	*Lucasium stenodactylum*			
334.		*Luticola mutica (Kütz.) Mann*			
335.		*Lutjanus argentimaculatus*			
336.		*Lychas sp. 2*			
337.		*Lymnaeidae sp.*			
338.	24180	*Macroderma gigas (Ghost Bat)*		T	
339.	25489	*Macropus robustus (Euro, Biggada)*			
340.	24135	*Macropus robustus subsp. erubescens (Euro, Biggada)*			
341.	24136	*Macropus rufus (Red Kangaroo, Marlu)*			
342.		*Macrothrix sp.*			
343.	24326	*Malacorhynchus membranaceus (Pink-eared Duck)*			
344.	25651	*Malurus lamberti (Variegated Fairy-wren)*			
345.	25652	*Malurus leucopterus (White-winged Fairy-wren)*			
346.	24583	*Manorina flavigula (Yellow-throated Miner)*			
347.		*Meedo houstoni*			
348.		*Megacephala greyana*			
349.		*Melanotaenia australis*			
350.	24589	*Melithreptus gularis subsp. laetior (Black-chinned Honeyeater)*			
351.	24736	*Melopsittacus undulatus (Budgerigar)*			
352.	25184	*Menetia greyii*			
353.	24598	*Merops ornatus (Rainbow Bee-eater)*			
354.		*Mesocyclops brooksi*			
355.		*Mesoveliidae sp.*			
356.		*Metavelifer multiradiatus*			
357.		*Microcarbo melanoleucos*			
358.		*Microcyclops varicans*			
359.		*Micrognathus micronotopterus*			
360.		*Micronecta gracilis*			
361.		*Micronecta sp.*			
362.	25542	*Milvus migrans (Black Kite)*			
363.		*Minasteron minusculum*			
364.	25545	*Mirafra javanica (Horsfield's Bushlark, Singing Bushlark)*			
365.	24302	*Mirafra javanica subsp. horsfieldii (Horsfield's Bushlark, Singing Bushlark)*			
366.		*Moina micrura s.l.*			
367.		*Monacanthus chinensis*			
368.		*Monodactylus argenteus*			
369.	25495	*Morethia ruficauda*			
370.	25193	*Morethia ruficauda subsp. exquisita*			
371.		*Mormopterus (Ozimops) cobourgianus*			
372.	24183	*Mormopterus loriae (Little Northern Freetail-bat)*			
373.		*Mugil cephalus*			
374.	24223	*Mus musculus (House Mouse)*	Y		
375.	25344	*Natator depressus (Flatback Turtle)*		T	
376.		*Nematalosa erebi*			
377.		*Nematoda sp. P2/P4 (PSW)*			
378.		*Nemipterus celebicus*			
379.	25422	*Neobatrachus aquilonius (Northern Burrowing Frog)*			
380.	25685	*Neochmia ruficauda (Star Finch)*			
381.		*Neopsephotus bourkii*			
382.		*Neosilurus hyrtlii*			
383.		*Nephila edulis*			
384.	24969	*Nephrurus levis subsp. pilbarensis*			
385.		*Nepidae sp.*			
386.	24327	*Nettapus pulchellus (Green Pygmy-goose)*			
387.		*Netuma bilineata*			
388.		*Netuma proxima*			
389.	24095	*Ningaui timealeyi (Pilbara Ningaui)*			
390.	25747	*Ninox connivens (Barking Owl)*			
391.		*Nitzschia microcephala Grun.*			
392.		*Nitzschia perminuta (Grun.) M. Peragallo*			

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393.		*Nitzschia sigma (Kütz.) W. Sm.*			
394.	25430	*Notaden nichollsi (Desert Spadefoot)*			
395.	24224	*Notomys alexis (Spinifex Hopping-mouse)*			
396.		*Notonectidae sp.*			
397.	25196	*Notoscincus butleri (lined soil-crevice skink (Dampier))*		P4	
398.	25197	*Notoscincus ornatus subsp. ornatus*			
399.	24798	*Numenius madagascariensis (Eastern Curlew)*		T	
400.	24799	*Numenius minutus (Little Curlew, Little Whimbrel)*		IA	
401.	25742	*Numenius phaeopus (Whimbrel)*		IA	
402.	25564	*Nycticorax caledonicus (Rufous Night Heron)*			
403.	24192	*Nyctophilus arnhemensis (Arnhem Land Long-eared Bat)*			
404.	42365	*Nyctophilus daedalus (Northwestern Long-eared Bat, Pallid Long-eared Bat)*			
405.		*Nyctophilus geoffroyi subsp. pallescens*			
406.	24742	*Nymphicus hollandicus (Cockatiel)*			
407.	24407	*Ocyphaps lophotes (Crested Pigeon)*			
408.	24976	*Oedura marmorata (Marbled Velvet Gecko)*			
409.		*Oligochaeta sp.*			
410.		*Omobranchus rotundiceps*			
411.		*Omoedus orbiculatus*			
412.	41347	*Onychoprion anaethetus (Bridled Tern)*		IA	
413.		*Opistognathus darwiniensis*			
414.		*Orthocladiinae sp.*			
415.		*Orthomorpha coarctata*			
416.	24085	*Oryctolagus cuniculus (Rabbit)*	Y		
417.	48034	*Osphranter robustus (Euro, Biggada)*			
418.		*Ostracoda (unident.)*			
419.		*Ovatalona cf. cambouei*			
420.		*Oxyopes variabilis*			
421.		*Ozestheria packardi*			
422.	24620	*Pachycephala lanioides (White-breasted Whistler)*			
423.	24621	*Pachycephala melanura subsp. melanura (Mangrove Golden Whistler)*			
424.	25680	*Pachycephala rufiventris (Rufous Whistler)*			
425.	48591	*Pandion cristatus (Osprey, Eastern Osprey)*		IA	
426.		*Paramonacanthus choirocephalus*			
427.	24627	*Pardalotus rubricatus (Red-browed Pardalote)*			
428.	25682	*Pardalotus striatus (Striated Pardalote)*			
429.	25687	*Passer domesticus (House Sparrow)*	Y		
430.	24642	*Passer montanus (Eurasian Tree Sparrow)*	Y		
431.	24648	*Pelecanus conspicillatus (Australian Pelican)*			
432.		*Peneoenanthe pulverulenta*			
433.		*Pentapodus porosus*			
434.		*Pentapodus sp.*			
435.	48060	*Petrochelidon ariel (Fairy Martin)*			
436.	48061	*Petrochelidon nigricans (Tree Martin)*			
437.	25697	*Phalacrocorax carbo (Great Cormorant)*			
438.	24667	*Phalacrocorax sulcirostris (Little Black Cormorant)*			
439.	25699	*Phalacrocorax varius (Pied Cormorant)*			
440.	24409	*Phaps chalcoptera (Common Bronzewing)*			
441.	24411	*Phaps histrionica (Flock Bronzewing, Flock Pigeon)*			
442.		*Pheropsophus verticalis*			
443.		*Phreodrilid with dissimilar ventral chaetae*			
444.		*Phreodrilid with similar ventral chaetae*			
445.		*Pilbarascutigera incola*			
446.		*Pinnularia divergens W. Sm.*			
447.		*Pinnularia subrostrata (A. Cl.) Cl.-Euler*			
448.		*Planigale sp. nov.*			
449.		*Planorbidae sp.*			
450.	24842	*Platalea regia (Royal Spoonbill)*			
451.	25721	*Platycercus zonarius (Australian Ringneck, Ring-necked Parrot)*			
452.	24843	*Plegadis falcinellus (Glossy Ibis)*		IA	
453.		*Pleidae sp.*			
454.	24382	*Pluvialis fulva (Pacific Golden Plover)*		IA	
455.	24383	*Pluvialis squatarola (Grey Plover)*		IA	
456.	25703	*Podargus strigoides (Tawny Frogmouth)*			
457.	25510	*Pogona minor (Dwarf Bearded Dragon)*			
458.	24907	*Pogona minor subsp. minor (Dwarf Bearded Dragon)*			
459.	24681	*Poliocephalus poliocephalus (Hoary-headed Grebe)*			
460.		*Polyarthra dolichoptera*			
461.	25706	*Pomatostomus temporalis (Grey-crowned Babbler)*			
462.	24684	*Pomatostomus temporalis subsp. rubeculus (Grey-crowned Babbler)*			

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463.	25731	*Porphyrio porphyrio (Purple Swamphen)*			
464.	25732	*Porzana pusilla (Baillon's Crake)*			
465.	24771	*Porzana tabuensis (Spotless Crake)*			
466.		*Pristina longiseta*			
467.		*Prodidomus woodleigh*			
468.		*Protonibea diacanthus*			
469.	24106	*Pseudantechinus woolleyae (Woolley's Pseudantechinus)*			
470.	25261	*Pseudechis australis (Mulga Snake)*			
471.	24234	*Pseudomys delicatulus (Delicate Mouse)*			
472.	24237	*Pseudomys hermannsburgensis (Sandy Inland Mouse)*			
473.	42416	*Pseudonaja mengdeni (Western Brown Snake)*			
474.	25263	*Pseudonaja modesta (Ringed Brown Snake)*			
475.	24172	*Pteropus alecto (Black Flying-fox)*			
476.		*Ptilonorhynchus guttatus*			
477.	42344	*Purnella albifrons (White-fronted Honeyeater)*			
478.		*Pyralidae sp.*			
479.		*Quistrachia legendrei*			
480.	24245	*Rattus rattus (Black Rat)*	Y		
481.	24776	*Recurvirostra novaehollandiae (Red-necked Avocet)*			
482.		*Regimbartia attenuata*			
483.		*Repomucenus calcaratus*			
484.		*Rhagada convicta*			
485.	43368	*Rhinonicteris aurantia (Orange Leaf-nosed bat)*		P4	
486.	48096	*Rhipidura albiscapa (Grey Fantail)*			
487.	25614	*Rhipidura leucophrys (Willie Wagtail)*			
488.	24457	*Rhipidura phasiana (Mangrove Grey Fantail)*			
489.		*Rhombognathus dispar*			Y
490.		*Rhombognathus scutulatus*			
491.	24982	*Rhynchoedura ornata (Western Beaked Gecko)*			
492.		*Scaptognathides hawaiiensis*			Y
493.		*Scaptognathides ornatus*			Y
494.		*Scatophagus argus*			
495.		*Scolecenchelys macroptera*			
496.		*Scolopendra laeta*			
497.		*Scolopendra morsitans*			
498.		*Selenotoca multifasciata*			
499.		*Selenotoca sp.*			Y
500.		*Simaetha tenuior*			
501.		*Simognathus salebrosus*			
502.		*Simognathus tener*			Y
503.	30948	*Smicrornis brevirostris (Weebill)*			
504.	24116	*Sminthopsis macroura (Stripe-faced Dunnart)*			
505.		*Sorsogona tuberculata*			
506.		*Sphyraena barracuda*			
507.		*Stauroneis anceps Ehr.*			
508.		*Stauroneis phoenicenteron (Nitz.) Ehr.*			
509.	24521	*Sterna bengalensis (Lesser Crested Tern)*			
510.	25642	*Sterna hirundo (Common Tern)*		IA	
511.	48593	*Sternula albifrons (Little Tern)*		IA	
512.	48594	*Sternula nereis (Fairy Tern)*			
513.	24329	*Stictonetta naevosa (Freckled Duck)*			
514.	24482	*Stiltia isabella (Australian Pratincole)*			
515.	25589	*Streptopelia chinensis (Spotted Turtle-Dove)*	Y		
516.	24924	*Strophurus ciliaris subsp. aberrans*			
517.	24927	*Strophurus elderi*			
518.		*Supunna picta*			
519.	25269	*Suta fasciata (Rosen's Snake)*			
520.	25307	*Suta punctata (Spotted Snake)*			
521.		*Synanceia horrida*			
522.		*Tabanidae sp.*			
523.	25705	*Tachybaptus novaehollandiae (Australasian Grebe, Black-throated Grebe)*			
524.	24207	*Tachyglossus aculeatus (Short-beaked Echidna)*			
525.	30870	*Taeniopygia guttata (Zebra Finch)*			
526.		*Tanypodinae sp.*			
527.		*Tanytarsus fuscithorax/semibarbitarsus*			
528.		*Tanytarsus sp. P8 (PSW)*			
529.		*Terapon jarbua*			
530.		*Testudinella patina*			
531.		*Thalasseus bengalensis*			
532.	48597	*Thalasseus bergii (Crested Tern)*		IA	

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533.		*Thermocyclops decipiens*			
534.		*Thiaridae sp.*			
535.	24845	*Threskiornis spinicollis (Straw-necked Ibis)*			
536.	25202	*Tiliqua multifasciata (Central Blue-tongue)*			
537.	25548	*Todiramphus chloris (Collared Kingfisher)*			
538.	24306	*Todiramphus chloris subsp. pilbara (Pilbara Collared Kingfisher)*			
539.	42351	*Todiramphus pyrrhopygius (Red-backed Kingfisher)*			
540.	25549	*Todiramphus sanctus (Sacred Kingfisher)*			
541.	48141	*Tribonyx ventralis (Black-tailed Native-hen)*			
542.		*Trichocerca similis*			
543.		*Trichocyclus nigropunctatus*			
544.	24803	*Tringa brevipes (Grey-tailed Tattler)*		P4	
545.	24806	*Tringa glareola (Wood Sandpiper)*		IA	
546.	24808	*Tringa nebularia (Common Greenshank, greenshank)*		IA	
547.	24809	*Tringa stagnatilis (Marsh Sandpiper, little greenshank)*		IA	
548.		*Triops australiensis australiensis*			
549.		*Triops nr australiensis (PSW) (?nsp BVT)*			Y
550.		*Turbellaria sp.*			
551.	24851	*Turnix velox (Little Button-quail)*			
552.	30954	*Tursiops aduncus (Indo-Pacific Bottlenose Dolphin)*			
553.		*Tylosurus crocodilus*			
554.	30814	*Tympanocryptis cephalus (Pebble Dragon)*			
555.	25445	*Uperoleia russelli (Northwest Toadlet)*			
556.	41428	*Uperoleia saxatilis (Pilbara Toadlet)*			
557.		*Valamugil seheli*			
558.		*Valenciennea muralis*			
559.	24386	*Vanellus tricolor (Banded Lapwing)*			
560.	25209	*Varanus acanthurus (Spiny-tailed Monitor)*			
561.	25210	*Varanus brevicauda (Short-tailed Pygmy Monitor)*			
562.	25223	*Varanus panoptes subsp. rubidus*			
563.	25224	*Varanus pilbarensis (Pilbara Rock Monitor, Northern Pilbara Rock Goanna)*			
564.		*Veliidae sp.*			
565.		*Venatrix arenaris*			
566.	24205	*Vespadelus finlaysoni (Finlayson's Cave Bat)*			
567.	24040	*Vulpes vulpes (Red Fox)*	Y		
568.		*Wesmaldra nixaut*			
569.		*Wydundra kennedy*			
570.		*Wydundra nixaut*			Y
571.	41351	*Xenus cinereus (Terek Sandpiper)*		IA	
572.		*Yongeichthys nebulosus*			
573.		*Zenodorus orbiculatus*			
574.	24857	*Zosterops luteus (Yellow White-eye)*			
575.	24248	*Zyzomys argurus (Common Rock-rat)*			
Chromista					
576.	35220	*Canistrocarpus cervicornis*			
577.	35910	*Canistrocarpus crispatus*			
578.	26694	*Colpomenia sinuosa*			
579.	26764	*Dictyopteris australis*			
580.	29954	*Dictyopteris woodwardia*			
581.	26775	*Dictyota ciliolata*			
582.	26946	*Hormophysa cuneiformis*			
583.	26949	*Hydroclathrus clathratus*			
584.	27113	*Padina australis*			
585.	48304	*Padina tetrastromatica*			Y
586.	27248	*Sargassum ligulatum*			
587.	27253	*Sargassum peronii*			
588.	42785	*Sirophysalis trinodis*			
589.	27282	*Spatoglossum macrodontum*			
590.	27293	*Sphacelaria rigidula*			
591.		*Turbinaria mesenterina*			
592.		*Turbinaria reniformis*			
Fungi					
593.	27576	*Acarospora nodulosa*			
594.	44918	*Caloplaca michelagoensis*			
595.		*Caloplaca sp.*			
596.	27715	*Diploschistes actinostomus*			
597.	27932	*Peltula bolanderi*			
598.	46616	*Triodiomyces altilis*			
599.	28194	*Xanthoria parietina*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
Plantae					
600.	4886	*Abutilon amplum*			
601.	4891	*Abutilon fraseri (Lantern Bush)*			
602.	18120	*Abutilon fraseri subsp. fraseri*			
603.	4895	*Abutilon lepidum*			
604.	4899	*Abutilon malvifolium (Bastard Marshmallow)*			
605.	4901	*Abutilon otocarpum (Desert Chinese Lantern)*			
606.	4902	*Abutilon oxycarpum (Flannel Weed)*			
607.	43020	*Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)*			
608.	3209	*Acacia ampliceps*			
609.	44580	*Acacia ampliceps x bivenosa*			
610.	44586	*Acacia ampliceps x sclerosperma subsp. sclerosperma*			
611.	3214	*Acacia ancistrocarpa (Fitzroy Wattle)*			
612.	3223	*Acacia arida*			
613.	3241	*Acacia bivenosa*			
614.	44588	*Acacia bivenosa x sclerosperma subsp. sclerosperma*			
615.	17013	*Acacia colei var. colei*			
616.	13500	*Acacia coriacea subsp. coriacea*			
617.	13502	*Acacia coriacea subsp. pendens*			
618.	16174	*Acacia elachantha*			
619.	12673	*Acacia glaucocaesia*			
620.	3356	*Acacia gregorii (Gregory's Wattle)*			
621.	3377	*Acacia inaequilatera (Baderi)*			
622.	3434	*Acacia maitlandii (Maitland's Wattle)*			
623.	3471	*Acacia orthocarpa (Needleleaf Wattle)*			
624.	3506	*Acacia pyrifolia (Ranji Bush, Kandji)*			
625.	29016	*Acacia pyrifolia var. morrisonii*			
626.	29015	*Acacia pyrifolia var. pyrifolia*			
627.	13078	*Acacia sclerosperma subsp. sclerosperma*			
628.	29135	*Acacia sericophylla*			
629.	3551	*Acacia sphaerostachya*			
630.	19456	*Acacia stellaticeps*			
631.	13070	*Acacia synchronicia*			
632.	3573	*Acacia tenuissima*			
633.	3579	*Acacia trachycarpa (Minni Ritchi, Balgali)*			
634.	20319	*Acacia tumida var. pilbarensis*			
635.	3606	*Acacia xiphophylla*			
636.	26441	*Acanthophora spicifera*			
637.	48409	*Acetabularia caliculus*			
638.	17422	*Adriana tomentosa var. tomentosa*			
639.	2646	*Aerva javanica (Kapok Bush)*	Y		
640.	3680	*Aeschynomene indica (Budda Pea)*			
641.	3609	*Albizia lebbeck*			
642.	4739	*Alectryon oleifolius*			
643.	11487	*Alectryon oleifolius subsp. oleifolius*			
644.	2647	*Alternanthera angustifolia*			
645.	2651	*Alternanthera nana (Hairy Joyweed)*			
646.	2652	*Alternanthera nodiflora (Common Joyweed)*			
647.	17147	*Alysicarpus muelleri*			
648.	2660	*Amaranthus cuspidifolius*			
649.	20018	*Amaranthus undulatus*			
650.	5277	*Ammannia baccifera*			
651.	5278	*Ammannia multiflora*			
652.	26462	*Amphiroa fragilissima*			
653.	2383	*Amyema preissii (Wireleaf Mistletoe)*			
654.	11874	*Amyema sanguinea var. sanguinea*			
655.	204	*Aristida burbidgeae*			
656.	207	*Aristida contorta (Bunched Kerosene Grass)*			
657.	215	*Aristida latifolia (Feathertop Wiregrass)*			
658.	226	*Arundo donax (Giant Reed)*	Y		
659.	26486	*Asparagopsis taxiformis*			
660.	229	*Astrebla pectinata (Barley Mitchell Grass)*			
661.	4740	*Atalaya hemiglauca (Whitewood)*			
662.	2450	*Atriplex amnicola (Swamp Saltbush)*			
663.	2451	*Atriplex bunburyana (Silver Saltbush)*			
664.	2453	*Atriplex codonocarpa (Flat-topped Saltbush)*			
665.	2463	*Atriplex isatidea (Coast Saltbush)*			
666.	2466	*Atriplex lindleyi*			
667.	17520	*Atriplex lindleyi subsp. conduplicata*		P3	
668.	2476	*Atriplex semilunaris (Annual Saltbush)*			

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669.	6828	*Avicennia marina (White Mangrove)*			
670.	5183	*Bergia ammannioides*			
671.	5186	*Bergia trimera*			
672.	7866	*Blumea tenella*			
673.	2769	*Boerhavia burbidgeana*			
674.	2770	*Boerhavia coccinea (Tar Vine, Wituka)*			
675.	2772	*Boerhavia gardneri*			
676.	2773	*Boerhavia paludosa*			
677.	2774	*Boerhavia repleta*			
678.	2775	*Boerhavia schomburgkiana*			
679.		*Boerhavia sp.*			
680.	11167	*Bonamia erecta*			
681.	6606	*Bonamia media*			
682.	6608	*Bonamia pannosa*			
683.	44782	*Bonamia pilbarensis*			
684.	26509	*Bornetella oligospora*			
685.	26510	*Bornetella sphaerica*			
686.	12716	*Brachychiton acuminatus*			
687.	4603	*Bridelia tomentosa*			
688.	5291	*Bruguiera exaristata (Ribbed Mangrove)*			
689.	750	*Bulbostylis barbata*			
690.	752	*Bulbostylis turbinata*			
691.	11055	*Cajanus cinereus*			
692.	10972	*Cajanus marmoratus*			
693.	11150	*Cajanus pubescens*			
694.	2864	*Calandrinia ptychosperma*			
695.	2866	*Calandrinia quadrivalvis*			
696.	2872	*Calandrinia tepperiana*			
697.	7905	*Calotis multicaulis (Many-stemmed Burr-daisy)*			
698.	7906	*Calotis plumulifera*			
699.	3749	*Canavalia rosea (Wild Jack Bean)*			
700.	2981	*Capparis spinosa*			
701.	48291	*Capparis spinosa subsp. nummularia*			
702.	6567	*Carissa lanceolata (Conkerberry, Marnuwiji)*			
703.	2949	*Cassytha capillaris*			
704.	2950	*Cassytha filiformis (Love Vine, Jirawan)*			
705.	42620	*Caulerpa chemnitzia*			
706.	44539	*Caulerpa cylindracea*			
707.	44547	*Caulerpa lamourouxii*			
708.	26568	*Caulerpa lentillifera*			
709.	26573	*Caulerpa racemosa*			
710.	35122	*Caulerpa racemosa var. racemosa*			
711.	26576	*Caulerpa serrulata*			
712.	26577	*Caulerpa sertularioides*			
713.	26582	*Caulerpa verticillata*			
714.	258	*Cenchrus ciliaris (Buffel Grass)*	Y		
715.	259	*Cenchrus echinatus (Burrgrass)*	Y		
716.	29721	*Cenchrus setiger (Birdwood Grass)*	Y		
717.	7919	*Centipeda minima (Spreading Sneezewood, Kanjirralaa, Inteng-inteng, Karengkal, Kata-palkalpa, Munyu-parnti-parnti)*			
718.	19762	*Centipeda minima subsp. macrocephala*			
719.	39680	*Ceriops australis*			
720.	33	*Cheilanthes contigua*			
721.	12818	*Cheilanthes sieberi subsp. sieberi*			
722.	266	*Chloris barbata (Purpletop Chloris)*	Y		
723.	269	*Chloris pectinata (Comb Chloris)*			
724.	270	*Chloris pumilio*			
725.	33516	*Chrysocephalum gilesii*			
726.	273	*Chrysopogon fallax (Golden Beard Grass)*			
727.	2985	*Cleome oxalidea*			
728.	2988	*Cleome viscosa (Tickweed, Tjinduwadhu)*			
729.	6729	*Clerodendrum floribundum (Lollybush)*			
730.	6732	*Clerodendrum tomentosum*			
731.	13689	*Clerodendrum tomentosum var. lanceolatum*			
732.		*Codium platyclados*			Y
733.	2778	*Codonocarpus cotinifolius (Native Poplar, Kundurangu)*			
734.	1165	*Commelina ensifolia (Wandering Jew, Buargu)*			
735.	2776	*Commicarpus australis (Perennial Tar Vine)*			
736.	17339	*Corchorus incanus*			
737.	25847	*Corchorus incanus subsp. incanus*			

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738.	13659	*Corchorus laniflorus*			
739.	4862	*Corchorus parviflorus*			
740.	17661	*Corchorus tectus*			
741.	4865	*Corchorus tridens*			
742.	13467	*Corchorus trilocularis*			
743.	4867	*Corchorus walcottii (Woolly Corchorus)*			
744.	17093	*Corymbia hamersleyana*			
745.	17092	*Corymbia opaca*			
746.	19565	*Cressa australis*			
747.	19378	*Crotalaria dissitiflora subsp. benthamiana*			
748.	20179	*Crotalaria medicaginea var. neglecta*			
749.	11231	*Crotalaria novae-hollandiae subsp. novae-hollandiae*			
750.	41720	*Cucumis argenteus*			
751.	7371	*Cucumis melo (Ulcardo Melon)*			
752.	41721	*Cucumis variabilis*			
753.	17117	*Cullen cinereum*			
754.	17436	*Cullen graveolens*			
755.	17118	*Cullen leucanthum*			
756.	17120	*Cullen pogonocarpum*			
757.	13733	*Cuscuta victoriana*			
758.	279	*Cymbopogon ambiguus (Scentgrass)*			
759.	280	*Cymbopogon bombycinus (Silky Oilgrass)*			
760.	281	*Cymbopogon obtectus (Silkyheads)*			
761.	6584	*Cynanchum floribundum (Dumara Bush, Tjipa)*			
762.	48280	*Cynanchum viminale subsp. australe*			
763.	46555	*Cynodon prostratus*			
764.	774	*Cyperus bifax (Downs Nutgrass)*			
765.	12801	*Cyperus blakeanus*			
766.	777	*Cyperus bulbosus (Bush Onion, Tjanmata)*			
767.	789	*Cyperus difformis (Rice Sedge)*			
768.	798	*Cyperus iria*			
769.	807	*Cyperus pulchellus*			
770.	814	*Cyperus squarrosus*			
771.	818	*Cyperus vaginatus (Stiffleaf Sedge)*			
772.	290	*Dactyloctenium radulans (Button Grass)*			
773.	26740	*Dasya frutescens*			
774.	6962	*Datura leichhardtii (Native Thornapple)*	Y		
775.	6963	*Datura metel (Downy Thornapple)*	Y		
776.	7317	*Dentella asperata*			
777.	7318	*Dentella minutissima*			
778.	3852	*Desmodium campylocaulon*			
779.	3853	*Desmodium filiforme*			
780.	3856	*Desmodium muelleri*			
781.	303	*Dichanthium fecundum (Curly Bluegrass)*			
782.	13741	*Dichanthium sericeum subsp. humilius*			
783.	3612	*Dichrostachys spicata (Pied Piper Bush)*			
784.	7166	*Dicliptera armata*			
785.	26769	*Dictyosphaeria cavernosa*			
786.	26782	*Digenea simplex*			
787.	313	*Digitaria ctenantha (Comb Finger Grass)*			
788.	4745	*Diplopeltis eriocarpa (Hairy Pepperflower)*			
789.	48738	*Distimake dissectus var. dissectus*	Y		
790.	4759	*Dodonaea coriacea*			
791.	33479	*Dysphania melanocarpa (Black Crumbweed)*			
792.	2504	*Dysphania plantaginella*			
793.	2506	*Dysphania rhadinostachya*			
794.	11653	*Dysphania rhadinostachya subsp. inflata*			
795.	11890	*Dysphania rhadinostachya subsp. rhadinostachya*			
796.	32348	*Eccremidium arcuatum*			
797.	6682	*Ehretia saligna (False Cedar)*			
798.	14301	*Ehretia saligna var. saligna*			
799.	827	*Eleocharis geniculata*			
800.	2511	*Enchylaena tomentosa (Barrier Saltbush)*			
801.	12064	*Enchylaena tomentosa var. tomentosa (Barrier Saltbush)*			
802.	357	*Enneapogon caerulescens (Limestone Grass)*			
803.	368	*Enteropogon ramosus (Windmill Grass, Curly Windmill Grass)*			
804.	375	*Eragrostis cumingii (Cuming's Love Grass)*			
805.	378	*Eragrostis dielsii (Mallee Lovegrass)*			
806.	380	*Eragrostis eriopoda (Woollybutt Grass, Wangurnu)*			
807.	16731	*Eragrostis exigua*			

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808.	381	*Eragrostis falcata (Sickle Lovegrass)*			
809.	388	*Eragrostis leptocarpa (Drooping Lovegrass)*			
810.	398	*Eragrostis tenellula (Delicate Lovegrass)*			
811.	399	*Eragrostis xerophila (Knotty-butt Neverfail)*			
812.	7234	*Eremophila longifolia (Berrigan, Tulypurpa)*			
813.	16363	*Eremophila maculata subsp. brevifolia (Native Fuchsia)*			
814.	400	*Eriachne aristidea*			
815.	403	*Eriachne benthamii (Swamp Wanderrie)*			
816.	413	*Eriachne mucronata (Mountain Wanderrie Grass)*			
817.	414	*Eriachne obtusa (Northern Wandarrie Grass)*			
818.	417	*Eriachne pulchella (Pretty Wanderrie)*			
819.	16485	*Eriachne pulchella subsp. dominii*			
820.	16486	*Eriachne pulchella subsp. pulchella*			
821.	4335	*Erodium cygnorum (Blue Heronsbill)*			
822.	3871	*Erythrina vespertilio (Yulbah)*			
823.	5580	*Eucalyptus camaldulensis (River Gum, Yabalinyba)*			
824.	35345	*Eucalyptus camaldulensis subsp. obtusa (Blunt-budded River Red Gum)*			
825.	35343	*Eucalyptus camaldulensis subsp. refulgens*			
826.	5752	*Eucalyptus prominens*			
827.	14548	*Eucalyptus victrix*			
828.	4617	*Euphorbia australis (Namana)*			
829.	35307	*Euphorbia australis var. australis*			
830.	42843	*Euphorbia australis var. glabra*		P2	
831.	4619	*Euphorbia biconvexa*			
832.	4620	*Euphorbia boophthona (Gascoyne Spurge)*			
833.	9048	*Euphorbia careyi*			
834.	4623	*Euphorbia coghlanii (Namana)*			
835.	4626	*Euphorbia drummondii (Caustic Weed, Piwi)*			
836.	4635	*Euphorbia myrtoides*			
837.	4642	*Euphorbia schultzii*			
838.	4644	*Euphorbia sharkoensis*			
839.	12097	*Euphorbia tannensis subsp. eremophila (Desert Spurge)*			
840.	42879	*Euphorbia trigonosperma*			
841.	42876	*Euphorbia vaccaria var. vaccaria*			
842.	6617	*Evolvulus alsinoides (Tropical Speedwell)*			
843.	11200	*Evolvulus alsinoides var. villosicalyx*			
844.	25811	*Ficus aculeata*			
845.	19648	*Ficus brachypoda*			
846.	1753	*Ficus platypoda (Native Fig, Makartu)*			
847.	1759	*Ficus virens (Albayi)*			
848.	12096	*Ficus virens var. virens*			
849.	851	*Fimbristylis dichotoma (Eight Day Grass)*			
850.	855	*Fimbristylis ferruginea*			
851.	859	*Fimbristylis littoralis*			
852.	862	*Fimbristylis microcarya*			
853.	878	*Fimbristylis rara*			
854.	35558	*Flaveria trinervia (Speedy Weed)*	Y		
855.	4654	*Flueggea virosa*			
856.	5188	*Frankenia ambita*			
857.	5209	*Frankenia pauciflora (Seaheath)*			
858.	26835	*Galaxaura rugosa*			
859.	2836	*Glinus oppositifolius*			
860.	3938	*Glycine canescens (Silky Glycine)*			
861.	2674	*Gomphrena affinis*			
862.	18361	*Gomphrena affinis subsp. pilbarensis*			
863.	2676	*Gomphrena canescens (Batchelors Buttons)*			
864.	18360	*Gomphrena cucullata*		P3	
865.	2680	*Gomphrena cunninghamii*			
866.	2682	*Gomphrena flaccida (Gomphrena Weed)*			
867.	18367	*Gomphrena kanisii*			
868.	2683	*Gomphrena leptoclada*			
869.	18257	*Gomphrena leptoclada subsp. leptoclada*			
870.	17894	*Gomphrena leptophylla*		P3	
871.	11131	*Gomphrena sordida*			
872.	31074	*Gomphrena sp. Martins Well (K.F. Kenneally 6116)*			Y
873.	6151	*Gonocarpus ephemerus*			
874.	7509	*Goodenia forrestii*			
875.	7521	*Goodenia lamprosperma*			
876.	7526	*Goodenia microptera*			
877.	12552	*Goodenia muelleriana*			

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878.	12570	*Goodenia pallida*		P1	
879.	10982	*Goodenia stobbsiana*			
880.	7556	*Goodenia tenuiloba*			
881.	4910	*Gossypium australe (Native Cotton)*			
882.	4913	*Gossypium hirsutum (Upland Cotton)*	Y		
883.	2079	*Grevillea pyramidalis (Caustic Bush, Tjungu)*			
884.	19570	*Grevillea pyramidalis subsp. leucadendron*			
885.	13440	*Grevillea wickhamii subsp. aprica*			
886.	12832	*Gymnanthera cunninghamii*		P3	
887.	2177	*Hakea lorea (Witinti)*			
888.	19137	*Hakea lorea subsp. lorea*			
889.	26892	*Halimeda discoidea*			
890.	26894	*Halimeda macroloba*			
891.	47213	*Halimeda versatilis*			
892.	131	*Halodule uninervis*			
893.	163	*Halophila minor*			
894.	164	*Halophila ovalis (Sea Wrack)*			
895.	165	*Halophila spinulosa*			
896.	37642	*Halymenia durvillei*			
897.	6704	*Heliotropium conocarpum*			
898.	6705	*Heliotropium crispatum*			
899.	6706	*Heliotropium cunninghamii*			
900.	6707	*Heliotropium curassavicum (Smooth Heliotrope)*			
901.	6712	*Heliotropium heteranthum*			
902.	17307	*Heliotropium inexplicitum*			
903.	17315	*Heliotropium tanythrix*			
904.	6718	*Heliotropium tenuifolium (Mamukata)*			
905.	26930	*Heterosiphonia crassipes*			
906.	29316	*Hibiscus austrinus*			
907.	29317	*Hibiscus austrinus var. austrinus*			
908.	4923	*Hibiscus brachysiphonius*			
909.	4925	*Hibiscus coatesii*			
910.	4933	*Hibiscus leptocladus*			
911.	4942	*Hibiscus sturtii (Sturt's Hibiscus)*			
912.	5215	*Hybanthus aurantiacus*			
913.	48203	*Hypertelis cerviana*			
914.	14587	*Indigastrum parviflorum*			
915.	3973	*Indigofera colutea (Sticky Indigo)*			
916.	3980	*Indigofera linifolia*			
917.	3981	*Indigofera linnaei (Birdsville Indigo)*			
918.	3982	*Indigofera monophylla*			
919.	3987	*Indigofera trita*			
920.	31035	*Indigofera trita subsp. trita*			
921.	6623	*Ipomoea coptica*			
922.	6624	*Ipomoea costata (Rock Morning Glory, Kanti)*			
923.	6631	*Ipomoea lonchophylla (Cowvine)*			
924.	6633	*Ipomoea muelleri (Poison Morning Glory, Yumbu)*			
925.	6635	*Ipomoea pes-caprae*			
926.	11312	*Ipomoea pes-caprae subsp. brasiliensis*			
927.	6636	*Ipomoea plebeia (Bellvine)*			
928.	6637	*Ipomoea polymorpha*			
929.		*Ipomoea sp.*			
930.	458	*Iseilema dolichotrichum*			
931.	459	*Iseilema eremaeum*			
932.	465	*Iseilema vaginiflorum (Red Flinders Grass)*			
933.	3989	*Isotropis atropurpurea (Poison Sage)*			
934.	8088	*Ixiochlamys cuneifolia*			
935.	12059	*Jasminum didymum subsp. lineare (Desert Jasmine)*			
936.	8095	*Lactuca saligna (Wild Lettuce, Willow-leaf Lettuce)*	Y		
937.		*Launaea sarmenstosa*			
938.	8098	*Launaea sarmentosa*			
939.	4960	*Lawrencia viridigrisea*			
940.	3035	*Lepidium pedicellosum*			
941.	3038	*Lepidium pholidogynum*			
942.	37480	*Lobelia arnhemiaca*			
943.	4060	*Lotus australis (Austral Trefoil)*			
944.	4061	*Lotus cruentus (Redflower Lotus)*			
945.	2544	*Maireana georgei (Satiny Bluebush)*			
946.	2556	*Maireana planifolia (Low Bluebush)*			
947.	11662	*Maireana tomentosa subsp. tomentosa*			

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948.	4962	*Malvastrum americanum (Spiked Malvastrum)*	Y		
949.	75	*Marsilea exarata*			
950.	5875	*Melaleuca argentea (Silver Cadjeput, Bandaran)*			
951.	5933	*Melaleuca linophylla*			
952.	5051	*Melhania oblongifolia*			
953.	7082	*Mimulus gracilis*			
954.	8109	*Minuria integerrima (Smooth Minuria)*			
955.	8110	*Minuria leptophylla (Minnie Daisy)*			
956.	6490	*Muellerolimon salicorniaceum*			
957.	17158	*Myoporum montanum (Native Myrtle)*			
958.	2573	*Neobassia astrocarpa*			
959.	44548	*Neomeris bilimbata*			
960.	3614	*Neptunia dimorphantha (Sensitive Plant)*			
961.	3617	*Neptunia monosperma*			
962.	6971	*Nicotiana benthamiana (Tjuntiwari)*			
963.	6976	*Nicotiana occidentalis (Native Tobacco)*			
964.	11331	*Nicotiana occidentalis subsp. obliqua*			
965.	11856	*Nicotiana occidentalis subsp. occidentalis*			
966.	38421	*Notoleptopus decaisnei*			
967.	38422	*Notoleptopus decaisnei var. decaisnei*			
968.	7338	*Oldenlandia crouchiana*			
969.	19640	*Oldenlandia sp. Hamersley Station (A.A. Mitchell PRP 1479)*		P3	
970.	6651	*Operculina aequisepala*			
971.	5227	*Opuntia stricta (Common Prickly Pear)*	Y		
972.	36400	*Palisada perforata*			
973.	503	*Panicum decompositum (Native Millet, Kaltu-kaltu)*			
974.	504	*Panicum effusum (Hairy Panic Grass)*			
975.	505	*Panicum laevinode*			
976.	515	*Paraneurachne muelleri (Northern Mulga Grass)*			
977.	10975	*Paspalidium basicladum*			
978.	518	*Paspalidium clementii (Clements Paspalidium)*			
979.	523	*Paspalidium rarum (Rare Paspalidium)*			
980.	525	*Paspalidium tabulatum*			
981.	5226	*Passiflora foetida (Stinking Passion Flower)*	Y		
982.	27121	*Penicillus nodulosus*			
983.	13494	*Pentalepis trichodesmoides*			
984.	7092	*Peplidium muelleri*			
985.	18462	*Peplidium sp. E Evol. Fl. Fauna Arid Aust. (A.S. Weston 12768)*			
986.	3675	*Petalostylis labicheoides (Slender Petalostylis)*			
987.	9056	*Phyllanthus baccatus*			
988.	17626	*Phyllanthus erwinii*			
989.	4680	*Phyllanthus maderaspatensis*			
990.	17794	*Phyllanthus tenellus*	Y		
991.	5230	*Pimelea ammocharis*			
992.	8167	*Pluchea dentex*			
993.	17816	*Pluchea ferdinandi-muelleri*			
994.	43944	*Pluchea longiseta*			
995.	8168	*Pluchea rubelliflora*			
996.	8170	*Pluchea tetranthera*			
997.	2901	*Polycarpaea holtzei*			
998.	2903	*Polycarpaea longiflora*			
999.	41365	*Polygala glaucifolia*			
1000.	4572	*Polygala isingii*			
1001.	6653	*Polymeria ambigua (Morning Glory)*			
1002.	6655	*Polymeria calycina*			
1003.	17513	*Polymeria lanata*			
1004.		*Polymeria sp.*			
1005.	2878	*Portulaca conspicua*			
1006.	2879	*Portulaca cyclophylla*			
1007.	43981	*Portulaca decipiens*			
1008.	2884	*Portulaca oleracea (Purslane, Wakati)*			
1009.	8189	*Pseudognaphalium luteoalbum (Jersey Cudweed)*			
1010.	8192	*Pterocaulon sphacelatum (Apple Bush, Fruit Salad Plant)*			
1011.	8193	*Pterocaulon sphaeranthoides*			
1012.	2690	*Ptilotus aervoides*			
1013.	2696	*Ptilotus astrolasius*			
1014.	2698	*Ptilotus auriculifolius*			
1015.	2699	*Ptilotus axillaris (Mat Mulla Mulla)*			
1016.	2704	*Ptilotus calostachyus (Weeping Mulla Mulla)*			
1017.	2706	*Ptilotus carinatus*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
1018.	2711	*Ptilotus clementii (Tassel Top)*			
1019.	2717	*Ptilotus divaricatus (Climbing Mulla Mulla)*			
1020.	2721	*Ptilotus exaltatus (Tall Mulla Mulla)*			
1021.	2725	*Ptilotus fusiformis*			
1022.	2728	*Ptilotus gomphrenoides*			
1023.	2729	*Ptilotus grandiflorus*			
1024.	2731	*Ptilotus helipteroides (Hairy Mulla Mulla)*			
1025.	2741	*Ptilotus macrocephalus (Featherheads)*			
1026.	2745	*Ptilotus murrayi*			
1027.	2746	*Ptilotus nobilis (Tall Mulla Mulla)*			
1028.	2747	*Ptilotus obovatus (Cotton Bush)*			
1029.	2751	*Ptilotus polystachyus (Prince of Wales Feather)*			
1030.	2766	*Ptilotus villosiflorus*			
1031.	2582	*Rhagodia eremaea (Thorny Saltbush)*			
1032.	2584	*Rhagodia preissii*			
1033.	5295	*Rhizophora stylosa (Spotted-leaved Red Mangrove)*			
1034.	13301	*Rhodanthe floribunda*			
1035.	13246	*Rhodanthe humboldtiana*			
1036.	13310	*Rhodanthe margarethae*			
1037.	4190	*Rhynchosia australis (Rhynchosia)*			
1038.	20862	*Rhynchosia bungarensis*		P4	
1039.	4191	*Rhynchosia minima (Rhynchosia)*			
1040.	48900	*Roepera retivalvis*			
1041.	2443	*Rumex vesicarius (Ruby Dock)*	Y		
1042.	30434	*Salsola australis*			
1043.	2357	*Santalum lanceolatum (Northern Sandalwood, Yarnguli)*			
1044.	12578	*Scaevola acacioides*			
1045.	7608	*Scaevola cunninghamii*			
1046.	7644	*Scaevola spinescens (Currant Bush, Maroon)*			
1047.	41660	*Schenkia australis*			
1048.	41646	*Schenkia clementii*			
1049.	2597	*Sclerolaena bicornis (Goathead Burr)*			
1050.	11650	*Sclerolaena bicornis var. bicornis (Goathead Burr)*			
1051.	2604	*Sclerolaena costata*			
1052.	2607	*Sclerolaena densiflora*			
1053.	8877	*Sclerolaena gardneri*			
1054.	2633	*Sclerolaena uniflora (Two-spined Saltbush)*			
1055.	12279	*Senna artemisioides subsp. helmsii*			
1056.	12280	*Senna artemisioides subsp. oligophylla*			
1057.	12303	*Senna costata*			
1058.	18443	*Senna ferraria*			
1059.	18346	*Senna glutinosa*			
1060.	12305	*Senna glutinosa subsp. chatelainiana*			
1061.	12307	*Senna glutinosa subsp. glutinosa*			
1062.	12309	*Senna glutinosa subsp. pruinosa*			
1063.	12308	*Senna glutinosa subsp. x luerssenii*			
1064.	18451	*Senna hamersleyensis*			
1065.	12312	*Senna notabilis*			
1066.	18450	*Senna symonii*			
1067.	12319	*Senna venusta*			
1068.	4196	*Sesbania cannabina (Sesbania Pea)*			
1069.	4198	*Sesbania formosa (White Dragon Tree)*			
1070.	2818	*Sesuvium portulacastrum*			
1071.	606	*Setaria dielsii (Diels' Pigeon Grass)*			
1072.	608	*Setaria italica (Italian Millet)*	Y		
1073.	613	*Setaria verticillata (Whorled Pigeon Grass)*	Y		
1074.	31758	*Sida arsiniata*			
1075.	4971	*Sida cardiophylla*			
1076.	4976	*Sida echinocarpa*			
1077.	4977	*Sida fibulifera (Silver Sida)*			
1078.	4988	*Sida rohlenae*			
1079.	33698	*Sida sp. Pilbara (A.A. Mitchell PRP 1543)*			
1080.	16617	*Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)*			
1081.	4989	*Sida spinosa (Spiny Sida)*			
1082.	6998	*Solanum cleistogamum*			
1083.	7002	*Solanum diversiflorum*			
1084.	7007	*Solanum esuriale (Quena)*			
1085.	7009	*Solanum gabrielae*			
1086.	7014	*Solanum horridum*			
1087.	7018	*Solanum lasiophyllum (Flannel Bush, Mindjulu)*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
1088.	7029	*Solanum phlomoides*			
1089.	12919	*Sorghum plumosum var. plumosum*			
1090.	622	*Sorghum timorense*			
1091.	625	*Spinifex longifolius (Beach Spinifex)*			
1092.	44523	*Spongophloea tissotii*			
1093.	629	*Sporobolus australasicus (Fairy Grass)*			
1094.	635	*Sporobolus virginicus (Marine Couch)*			
1095.	27310	*Spyridia filamentosa*			
1096.	4729	*Stackhousia clementii*		P3	
1097.	4731	*Stackhousia intermedia*			
1098.	19555	*Stackhousia muricata subsp. annual (W.R. Barker 2172)*			
1099.	7098	*Stemodia grossa (Marsh Stemodia, Mindjaara)*			
1100.	7099	*Stemodia kingii*			
1101.	8234	*Streptoglossa adscendens*			
1102.	8235	*Streptoglossa bubakii*			
1103.	8236	*Streptoglossa cylindriceps*			
1104.	8237	*Streptoglossa decurrens*			
1105.	8238	*Streptoglossa liatroides*			
1106.	8240	*Streptoglossa odora*			
1107.	8241	*Streptoglossa tenuiflora*			
1108.	3182	*Stylobasium spathulatum (Pebble Bush)*			
1109.	2638	*Suaeda arbusculoides*			
1110.	43203	*Surreya diandra*			
1111.	12356	*Swainsona formosa*			
1112.	4231	*Swainsona kingii*			
1113.	4233	*Swainsona leeana*			
1114.	4234	*Swainsona maccullochiana (Ashburton Pea)*			
1115.	4242	*Swainsona pterostylis*			
1116.	7363	*Synaptantha tillaeacea*			
1117.	13339	*Synaptantha tillaeacea var. tillaeacea*			
1118.	31616	*Tecticornia auriculata*			
1119.	33236	*Tecticornia halocnemoides (Shrubby Samphire)*			
1120.	33240	*Tecticornia halocnemoides subsp. longispicata*			
1121.	33238	*Tecticornia halocnemoides subsp. tenuis*			
1122.	33317	*Tecticornia indica*			
1123.	33319	*Tecticornia indica subsp. bidens*			
1124.	33356	*Tecticornia indica subsp. indica*			
1125.	33357	*Tecticornia indica subsp. julacea*			
1126.	33318	*Tecticornia indica subsp. leiostachya (Samphire)*			
1127.	33299	*Tecticornia pergranulata subsp. elongata*			
1128.	31618	*Tecticornia pruinosa*			
1129.	33220	*Tecticornia pterygosperma subsp. denticulata*			
1130.		*Tephrosia Fortescue (A.A. Mitchell 606)*			
1131.	4263	*Tephrosia clementii*			
1132.	49016	*Tephrosia densa*			
1133.	4272	*Tephrosia leptoclada*			
1134.	19531	*Tephrosia rosea var. clementii*			
1135.	19529	*Tephrosia rosea var. rosea*			
1136.	15947	*Tephrosia sp. B Kimberley Flora (C.A. Gardner 7300)*			
1137.	17768	*Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)*			
1138.	15949	*Tephrosia sp. D Kimberley Flora (R.D. Royce 1848)*			
1139.	42442	*Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)*			
1140.	40060	*Tephrosia sp. clay soils (S. van Leeuwen et al. PBS 0273)*			
1141.	4285	*Tephrosia supina*			
1142.	5300	*Terminalia canescens (Joolal)*			
1143.	45698	*Terminalia circumalata*			
1144.	5310	*Terminalia platyphylla (Wild Plum, Durin)*			
1145.	5313	*Terminalia supranitifolia*		P3	
1146.	169	*Thalassia hemprichii*			
1147.	17820	*Themeda sp. Hamersley Station (M.E. Trudgen 11431)*		P3	
1148.	17819	*Themeda sp. Mt Barricade (M.E. Trudgen 2471)*			
1149.	673	*Themeda triandra*			
1150.	2644	*Threlkeldia diffusa (Coast Bonefruit)*			
1151.	2942	*Tinospora smilacina (Snakevine, Oondala)*			
1152.	6278	*Trachymene oleracea*			
1153.	19043	*Trachymene oleracea subsp. oleracea*			
1154.	678	*Tragus australianus (Small Burrgrass)*			
1155.	44305	*Trianthema pilosum*			
1156.	44362	*Trianthema triquetrum*			
1157.	44360	*Trianthema turgidifolium*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
1158.	4375	*Tribulus cistoides*			
1159.	4377	*Tribulus hirsutus*			
1160.	4379	*Tribulus macrocarpus*			
1161.	4380	*Tribulus occidentalis (Perennial Caltrop)*			
1162.	4381	*Tribulus platypterus (Cork Hopbush)*			
1163.	4383	*Tribulus terrestris (Caltrop)*	Y		
1164.	6727	*Trichodesma zeylanicum (Camel Bush, Kumbalin)*			
1165.	11750	*Trichodesma zeylanicum var. zeylanicum*			
1166.	7381	*Trichosanthes cucumerina*			
1167.	12032	*Trichosanthes cucumerina var. cucumerina*			
1168.	48201	*Trigastrotheca molluginea*			
1169.	679	*Triodia angusta*			
1170.	13131	*Triodia epactia*			
1171.	696	*Triodia pungens (Soft Spinifex)*			
1172.	704	*Triodia wiseana (Limestone Spinifex)*			
1173.	706	*Triraphis mollis (Needle Grass)*			
1174.	4873	*Triumfetta appendiculata*			
1175.	14694	*Triumfetta clementii*			
1176.	14942	*Triumfetta maconochieana*			
1177.	27348	*Udotea argentea*			
1178.	27349	*Udotea flabellum*			
1179.	35302	*Udotea glaucescens*			
1180.	7660	*Velleia glabrata (Pee the Bed)*			
1181.	4323	*Vigna lanceolata (Maloga Vigna, Wega)*			
1182.	31391	*Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)*			
1183.	46577	*Vigna triodiophila*		P3	
1184.	7393	*Wahlenbergia tumidifructa*			
1185.	5106	*Waltheria indica*			
1186.	17910	*Washingtonia filifera*	Y		
1187.	728	*Whiteochloa cymbiformis*			
1188.	6578	*Wrightia saligna*			
1189.	729	*Xerochloa barbata (Rice Grass)*			
1190.	731	*Xerochloa laniflora (Rice Grass)*			
1191.	732	*Yakirra australiensis*			
1192.	29095	*Zaleya galericulata subsp. galericulata*			
1193.	4326	*Zornia albiflora*			
1194.	12679	*Zornia muelleriana subsp. congesta*			

Conservation Codes
T - Rare or likely to become extinct
X - Presumed extinct
IA - Protected under international agreement
S - Other specially protected fauna
1 - Priority 1
2 - Priority 2
3 - Priority 3
4 - Priority 4
5 - Priority 5

[1] For NatureMap's purposes, species flagged as endemic are those whose records are wholely contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

NatureMap Species Report

Created By Guest user on 05/03/2019

Transmission Corridor

Current Names Only	Yes
Core Datasets Only	Yes
Method	'By Line'
Vertices	20° 43' 22" S,116° 45' 12" E 20° 44' 49" S,116° 44' 25" E 20° 45' 45" S,116° 43' 31" E 20° 46' 23" S,116° 42' 11" E 20° 47' 14" S,116° 40' 56" E 20° 47' 51" S,116° 40' 10" E
Group By	Kingdom

Kingdom	Species	Records
Animalia	781	9309
Chromista	20	39
Fungi	8	9
Plantae	693	3266
TOTAL	**1502**	**12623**

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
Animalia					
1.		*? ?*			
2.		*Abudefduf bengalensis*			
3.		*Acanthophis wellsei*			
4.	25332	*Acanthophis wellsi (Pilbara Death Adder)*			
5.		*Acariformes sp.*			
6.	25535	*Accipiter cirrocephalus (Collared Sparrowhawk)*			
7.	25536	*Accipiter fasciatus (Brown Goshawk)*			
8.		*Acentrogobius sp.*			
9.		*Achnanthidium minutissima (Kütz.) Czarnecki*			
10.	25755	*Acrocephalus australis (Australian Reed Warbler)*			
11.		*Actacarus pacificus*			
12.	41323	*Actitis hypoleucos (Common Sandpiper)*		IA	
13.	25544	*Aegotheles cristatus (Australian Owlet-nightjar)*			
14.		*Aeshnidae sp.*			
15.		*Agauopsis arborea*			Y
16.		*Agauopsis dasyderma*			Y
17.		*Agauopsis moorea*			Y
18.		*Agauopsis obtusa*			Y
19.		*Agraptocorixa parvipunctata*			
20.		*Alepes apercna*			
21.		*Alepes mate*			Y
22.		*Allodessus bistrigatus*			
23.		*Alluaudomyia sp.*			
24.		*Alona anodonta*			
25.		*Alona cf. verrucosa*			
26.		*Alona rigidicaudis*			
27.		*Ambassis vachellii*			
28.		*Amblyeleotris gymnocephala*			
29.		*Amblygobius bynoensis*			
30.		*Amblyomma triguttatum*			
31.		*Amniataba caudavittata*			
32.		*Amniataba percoides*			
33.	30831	*Amphibolurus gilberti (Ta-ta, Gilbert's Dragon)*			
34.	30833	*Amphibolurus longirostris (Long-nosed Dragon)*			
35.		*Aname mainae*			
36.		*Aname mellosa*			
37.	24312	*Anas gracilis (Grey Teal)*			
38.	24316	*Anas superciliosa (Pacific Black Duck)*			
39.		*Anax papuensis*			
40.	47414	*Anhinga novaehollandiae (Australasian Darter)*			
41.		*Anisops canaliculatus*			
42.		*Anisops hackeri*			
43.		*Anisops nasutus*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
44.		*Anisops sp.*			
45.		*Anomalohalacarus dampierensis*			Y
46.		*Anopheles annulipes s.l.*			
47.	24505	*Anous stolidus subsp. pileatus (Common Noddy)*		IA	
48.	25317	*Antaresia childreni (Children's Python)*			
49.	25318	*Antaresia perthensis (Pygmy Python)*			
50.	25448	*Antaresia stimsoni (Stimson's Python)*			
51.	25241	*Antaresia stimsoni subsp. stimsoni (Stimson's Python)*			
52.	25670	*Anthus australis (Australian Pipit)*			
53.		*Anuraeopsis navicula*			
54.		*Apogon cavitiensis*			
55.	25554	*Apus pacificus (Fork-tailed Swift, Pacific Swift)*		IA	
56.	24285	*Aquila audax (Wedge-tailed Eagle)*			
57.		*Arcella sp.*			
58.	25559	*Ardea intermedia (Intermediate Egret)*			
59.	41324	*Ardea modesta (great egret, white egret)*			
60.	24341	*Ardea pacifica (White-necked Heron)*			
61.	24610	*Ardeotis australis (Australian Bustard)*			
62.	25736	*Arenaria interpres (Ruddy Turnstone)*		IA	
63.		*Arius leptaspis*			Y
64.	25566	*Artamus cinereus (Black-faced Woodswallow)*			
65.	25567	*Artamus leucorynchus (White-breasted Woodswallow)*			
66.	24354	*Artamus leucorynchus subsp. leucopygialis (White-breasted Woodswallow)*			
67.	24355	*Artamus minor (Little Woodswallow)*			
68.	24356	*Artamus personatus (Masked Woodswallow)*			
69.	24357	*Artamus superciliosus (White-browed Woodswallow)*			
70.		*Arthrorhabdus paucispinus*			
71.	25320	*Aspidites melanocephalus (Black-headed Python)*			
72.	25236	*Aspidites ramsayi (Woma)*			
73.		*Asterorhombus intermedius*			
74.		*Austrostrophus stictopygus*			
75.	24318	*Aythya australis (Hardhead)*			
76.		*Baetidae sp.*			
77.		*Barnardius zonarius*			
78.		*Bathygobius fuscus*			
79.		*Bathygobius laddi*			
80.		*Bdelloidea sp. 2:2*			
81.		*Bdelloidea sp. 3:3*			
82.		*Belostomatidae sp.*			
83.		*Bennelongia minimus*			
84.		*Berosus pulchellus*			
85.		*Boeckella triarticulata*			
86.		*Bolboleaus truncatus*			
87.		*Boreohesperus undulatus*			
88.		*Brachionus n sp P2 (PSW)*			
89.		*Brachionus quadridentatus*			
90.	25331	*Brachyurophis approximans (North-western Shovel-nosed Snake)*			
91.	24359	*Burhinus grallarius (Bush Stone-curlew)*			
92.	47897	*Butorides striata (Striated Heron, Mangrove Heron)*			
93.	25715	*Cacatua roseicapilla (Galah)*			
94.	25716	*Cacatua sanguinea (Little Corella)*			
95.	42307	*Cacomantis pallidus (Pallid Cuckoo)*			
96.		*Caenidae sp.*			
97.	24779	*Calidris acuminata (Sharp-tailed Sandpiper)*		IA	
98.	24780	*Calidris alba (Sanderling)*		IA	
99.	25738	*Calidris canutus (Red Knot, knot)*		IA	
100.	24784	*Calidris ferruginea (Curlew Sandpiper)*		T	
101.	24788	*Calidris ruficollis (Red-necked Stint)*		IA	
102.	24789	*Calidris subminuta (Long-toed Stint)*		IA	
103.	24790	*Calidris tenuirostris (Great Knot)*		T	
104.		*Callionymus japonicus*			Y
105.		*Callionymus sp.*			
106.		*Callogobius sp. 2*			Y
107.		*Caloneis silicula (Ehr.) Cl.*			
108.	48920	*Canis familiaris (Dog, Dingo)*	Y		
109.	24253	*Capra hircus (Goat)*	Y		
110.		*Carangoides sp.*			
111.		*Caranx bucculentus*			
112.		*Caranx sexfasciatus*			
113.		*Carcharhinus brachyurus*			

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114.		*Carenum pulchrum*			
115.		*Carenum subplanatum*			
116.		*Carenum venustum*			
117.	25015	*Carlia munda (Shaded-litter Rainbow Skink)*			
118.	25017	*Carlia triacantha (Desert Rainbow Skink)*			
119.		*Catadromus lacordairei*			
120.	25600	*Centropus phasianinus (Pheasant Coucal)*			
121.		*Cephalodella biungulata*			
122.		*Cephalodella cf forficula*			
123.		*Cephalodella gibba*			
124.		*Cephalopholis boenak*			
125.		*Ceratopogonidae sp.*			
126.		*Ceriodaphnia cornuta*			
127.		*Ceriodaphnia n. sp. a (Berner sp.#3) (SAP)*			
128.		*Ceriodaphnia n. sp. c (Berner sp.#1) (SAP)*			
129.	24181	*Chaerephon jobensis (Greater Northern Freetail-bat, Northern Mastiff Bat)*			
130.		*Chanos chanos*			
131.	25575	*Charadrius leschenaultii (Greater Sand Plover)*		T	
132.	25576	*Charadrius mongolus (Lesser Sand Plover)*		T	
133.	24377	*Charadrius ruficapillus (Red-capped Plover)*			
134.	24378	*Charadrius veredus (Oriental Plover)*		IA	
135.		*Chelmon marginalis*			
136.		*Chelmon muelleri*			
137.	25336	*Chelonia mydas (Green Turtle)*		T	
138.	24321	*Chenonetta jubata (Australian Wood Duck, Wood Duck)*			
139.		*Cheumatopsyche wellsae*			
140.		*Chirocentrus dorab*			
141.		*Chironominae sp.*			
142.		*Chironomus aff. alternans (V24) (CB)*			
143.		*Chlaenius australis*			
144.	41332	*Chlidonias leucopterus (White-winged Black Tern, white-winged tern)*		IA	
145.		*Choerodon vitta*			
146.		*Chroicocephalus novaehollandiae*			
147.	24431	*Chrysococcyx basalis (Horsfield's Bronze Cuckoo)*			
148.	24288	*Circus approximans (Swamp Harrier)*			
149.	24289	*Circus assimilis (Spotted Harrier)*			
150.	24774	*Cladorhynchus leucocephalus (Banded Stilt)*			
151.		*Cloeon sp.*			
152.		*Coenagrionidae sp.*			
153.	24399	*Columba livia (Domestic Pigeon)*	Y		
154.		*Congrogadus spinifer*			
155.		*Copidognathus lutarius*			Y
156.		*Copidognathus meridianus*			
157.		*Copidognathus piger*			Y
158.	25568	*Coracina novaehollandiae (Black-faced Cuckoo-shrike)*			
159.		*Coris sp.*			
160.		*Corixidae sp.*			
161.	24416	*Corvus bennetti (Little Crow)*			
162.	25593	*Corvus orru (Torresian Crow)*			
163.	24419	*Corvus splendens (House Crow)*			
164.	25701	*Coturnix ypsilophora (Brown Quail)*			
165.	24673	*Coturnix ypsilophora subsp. australis (Brown Quail)*			
166.	24672	*Coturnix ypsilophora subsp. cervina (Brown Quail)*			
167.	24420	*Cracticus nigrogularis (Pied Butcherbird)*			
168.	25595	*Cracticus tibicen (Australian Magpie)*			
169.	25596	*Cracticus torquatus (Grey Butcherbird)*			
170.	24919	*Crenadactylus ocellatus subsp. horni (Clawless Gecko)*			
171.	30893	*Cryptoblepharus buchananii*			
172.	25020	*Cryptoblepharus plagiocephalus*			
173.	30892	*Cryptoblepharus ustulatus*			
174.		*Cryptochironomus griseidorsum*			
175.		*Cryptoerithus halli*			
176.		*Cryptoerithus occultus*			
177.	25458	*Ctenophorus caudicinctus (Ring-tailed Dragon)*			
178.	24865	*Ctenophorus caudicinctus subsp. caudicinctus (Ring-tailed Dragon)*			
179.	25459	*Ctenophorus isolepis (Crested Dragon, Military Dragon)*			
180.	24876	*Ctenophorus isolepis subsp. isolepis (Crested Dragon, Military Dragon)*			
181.	24882	*Ctenophorus nuchalis (Central Netted Dragon)*			
182.	24886	*Ctenophorus reticulatus (Western Netted Dragon)*			
183.		*Ctenotrypauchen microcephalus*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
184.	25024	*Ctenotus angusticeps (Airlie Island Ctenotus, Northwestern coastal Ctenotus)*		P3	
185.	25027	*Ctenotus australis*			
186.	25036	*Ctenotus duricola*			
187.	25462	*Ctenotus grandis*			
188.	25043	*Ctenotus grandis subsp. titan*			
189.	25045	*Ctenotus helenae*			
190.	25052	*Ctenotus leonhardii*			
191.	25463	*Ctenotus pantherinus (Leopard Ctenotus)*			
192.	25060	*Ctenotus pantherinus subsp. acripes (Leopard Ctenotus)*			
193.	25064	*Ctenotus pantherinus subsp. ocellifer (Leopard Ctenotus)*			
194.	25070	*Ctenotus robustus*			
195.	25072	*Ctenotus rubicundus*			
196.	25073	*Ctenotus saxatilis (Rock Ctenotus)*			
197.	25074	*Ctenotus schomburgkii*			
198.	25077	*Ctenotus serventyi*			
199.	25465	*Ctenotus uber (Spotted Ctenotus)*			
200.		*Culex (Culex) annulirostris*			
201.		*Culex crinicauda*			
202.		*Culex nr. crinicauda (PSW)*			
203.		*Culex palpalis*			
204.		*Culicidae sp.*			
205.		*Cybister tripunctatus*			
206.	25466	*Cyclodomorphus melanops (Slender Blue-tongue)*			
207.	25090	*Cyclodomorphus melanops subsp. melanops (Slender Blue-tongue)*			
208.	25371	*Cyclorana australis (Giant Frog)*			
209.	25375	*Cyclorana maini (Sheep Frog)*			
210.	24322	*Cygnus atratus (Black Swan)*			
211.		*Cymbella delicatula Kütz.*			
212.		*Cynoglossus maculipinnis*			
213.		*Cynoglossus sp.*			
214.		*Cypretta ?lutea*			
215.		*Cypretta seurati*			
216.		*Cypretta sp PSW074*			
217.		*Cypricercus salinus*			
218.		*Cypricercus sp. 422 (CB)*			
219.	25547	*Dacelo leachii (Blue-winged Kookaburra)*			
220.		*Dasyheleinae sp. P2 (PSW)*			
221.	24091	*Dasykaluta rosamondae (Little Red Kaluta)*			
222.	24093	*Dasyurus hallucatus (Northern Quoll)*		T	
223.	25001	*Delma nasuta*			
224.	25002	*Delma pax*			
225.	25004	*Delma tincta*			
226.	25468	*Demansia psammophis (Yellow-faced Whipsnake)*			
227.	25295	*Demansia psammophis subsp. cupreiceps (Yellow-faced Whipsnake)*			
228.	25297	*Demansia rufescens (Rufous Whipsnake)*			
229.	24324	*Dendrocygna arcuata (Wandering Whistling Duck, Chestnut Whistling Duck)*			
230.	24325	*Dendrocygna eytoni (Plumed Whistling Duck)*			
231.		*Dexillus muelleri*			
232.		*Diaphanosoma excisum*			
233.	25607	*Dicaeum hirundinaceum (Mistletoebird)*			
234.		*Dicrotendipes P5 (=balciunasi?) (PSW)*			
235.		*Difflugia sp. P1*			
236.		*Dineutus australis*			
237.		*Diplacodes bipunctata*			
238.		*Diplacodes haematodes*			
239.	24926	*Diplodactylus conspicillatus (Fat-tailed Gecko)*			
240.	41404	*Diplodactylus galaxias (Northern Pilbara Beak-faced Gecko)*			
241.	24937	*Diplodactylus mitchelli*			
242.	24944	*Diplodactylus savagei (Southern Pilbara Beak-faced Gecko)*			
243.	24470	*Dromaius novaehollandiae (Emu)*			
244.		*Drombus sp.*			
245.	24084	*Dugong dugon (Dugong)*		S	
246.		*Dytiscidae sp.*			
247.		*Ecnomidae sp.*			
248.		*Ecnomus pilbarensis*			
249.	41406	*Egernia cygnitos (Western Pilbara Spiny-tailed Skink)*			
250.	25092	*Egernia depressa (Southern Pygmy Spiny-tailed Skink)*			
251.	25101	*Egernia pilbarensis (Pilbara Skink)*			
252.		*Egretta garzetta*			
253.		*Egretta novaehollandiae*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
254.		*Elanus axillaris*			
255.	24290	*Elanus caeruleus subsp. axillaris (Australian Black-shouldered Kite)*			
256.		*Eleutheronema tetradactylum*			
257.		*Elops hawaiensis*			
258.	47937	*Elseyornis melanops (Black-fronted Dotterel)*			
259.	24631	*Emblema pictum (Painted Finch)*			
260.		*Encentridophorus sarasini*			
261.		*Enchytraeidae sp.*			
262.		*Enneapterygius gracilis*			
263.		*Enneapterygius philippinus*			
264.		*Enneapterygius sp.*			
265.		*Enochrus deserticola*			
266.		*Enochrus sp.*			
267.		*Eolophus roseicapillus*			
268.	24653	*Eopsaltria pulverulenta (Mangrove Robin)*			
269.	25362	*Ephalophis greyae*			
270.		*Ephemeroporus barroisi s.l.*			
271.	25578	*Ephippiorhynchus asiaticus (Black-necked Stork)*			
272.		*Ephydridae sp.*			
273.		*Ephydridae sp. 12 (PSW)*			
274.		*Epinephelus coioides*			
275.		*Epinephelus malabaricus*			
276.		*Epinephelus sexfasciatus*			
277.		*Epistylis sp*			
278.	24568	*Epthianura aurifrons (Orange Chat)*			
279.	24570	*Epthianura tricolor (Crimson Chat)*			
280.	42404	*Eremiascincus isolepis*			
281.	41409	*Eremiascincus musivus (Mosaic Desert Skink)*			
282.	24837	*Eremiornis carteri (Spinifex-bird)*			
283.		*Eretes australis*			
284.	25342	*Eretmochelys imbricata subsp. bissa (Hawksbill Turtle)*		T	
285.	24379	*Erythrogonys cinctus (Red-kneed Dotterel)*			
286.	47938	*Esacus magnirostris (Beach Stone-curlew, Beach Thick-knee)*			
287.		*Ethmostigmus curtipes*			
288.		*Euchlanis dilatata*			
289.		*Euchlanis lyra*			
290.		*Euglypha sp.*			
291.		*Eulimnadia dahli*			Y
292.		*Eulimnadia sp. P1 (PSW)*			Y
293.	24368	*Eurostopodus argus (Spotted Nightjar)*			
294.		*Eviota queenslandica*			
295.	25621	*Falco berigora (Brown Falcon)*			
296.	24471	*Falco berigora subsp. berigora (Brown Falcon)*			
297.	25622	*Falco cenchroides (Australian Kestrel, Nankeen Kestrel)*			
298.	25623	*Falco longipennis (Australian Hobby)*			
299.	25624	*Falco peregrinus (Peregrine Falcon)*		S	
300.	24475	*Falco peregrinus subsp. macropus (Australian Peregrine Falcon)*		S	
301.	24476	*Falco subniger (Black Falcon)*			
302.		*Favonigobius melanobranchus*			
303.	24041	*Felis catus (Cat)*	Y		
304.	25327	*Fordonia leucobalia (White-bellied Mangrove Snake)*			
305.	25727	*Fulica atra (Eurasian Coot)*			
306.	25301	*Furina ornata (Moon Snake)*			
307.	24793	*Gallinago stenura (Pin-tailed Snipe)*		IA	
308.	25730	*Gallirallus philippensis (Buff-banded Rail)*			
309.	24765	*Gallirallus philippensis subsp. mellori (Buff-banded Rail)*			
310.	42314	*Gavicalis virescens (Singing Honeyeater)*			
311.	24956	*Gehyra pilbara*			
312.	24958	*Gehyra punctata*			
313.	24959	*Gehyra variegata*			
314.	47954	*Gelochelidon nilotica (Gull-billed Tern)*		IA	
315.	24401	*Geopelia cuneata (Diamond Dove)*			
316.	24402	*Geopelia humeralis (Bar-shouldered Dove)*			
317.	25585	*Geopelia striata (Zebra Dove)*			
318.	24403	*Geopelia striata subsp. placida (Peaceful Dove)*			
319.	24404	*Geophaps plumifera (Spinifex Pigeon)*			
320.		*Geoscaptus laevissimus*			
321.		*Gerres filamentosus*			
322.		*Gerres subfasciatus*			
323.	25530	*Gerygone fusca (Western Gerygone)*			

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324.	24276	*Gerygone tenebrosa (Dusky Gerygone)*			
325.	24481	*Glareola maldivarum (Oriental Pratincole)*		IA	
326.		*Glossogobius giuris*			
327.		*Glossogobius sp.*			
328.		*Glyptophysa sp*			
329.		*Gnatholepis argus*			
330.		*Gobiodon rivulatus*			
331.		*Gomphidae sp.*			
332.	24443	*Grallina cyanoleuca (Magpie-lark)*			
333.		*Grayenulla waldockae*			
334.	24484	*Grus rubicunda (Brolga)*			
335.		*Gymnothorax thrysoideus*			
336.		*Gymnothorax undulatus*			
337.	25627	*Haematopus fuliginosus (Sooty Oystercatcher)*			
338.	24487	*Haematopus longirostris (Pied Oystercatcher)*			
339.		*Haematopus ostralegus*			Y
340.		*Halacaridae sp.*			
341.	24293	*Haliaeetus leucogaster (White-bellied Sea-Eagle)*			
342.	25541	*Haliastur indus (Brahminy Kite)*			
343.	24294	*Haliastur indus subsp. girrenera (Brahminy Kite)*			
344.	24295	*Haliastur sphenurus (Whistling Kite)*			
345.		*Halichoeres nigrescens*			
346.		*Halichoeres sp.*			
347.		*Halieutaea brevicaudata?*			
348.		*Halophryne diemensis*			
349.	24297	*Hamirostra melanosternon (Black-breasted Buzzard)*			
350.		*Hantzschia amphioxys (Ehr.) Grun.*			
351.		*Hebridae sp.*			
352.		*Hellyethira sp.*			
353.		*Hemicordulia sp.*			
354.		*Hemicypris megalops*			
355.	25232	*Hemidactylus frenatus (Asian House Gecko)*	Y		
356.		*Hemiramphus sp.*			
357.		*Heterocypris sp.*			
358.		*Heterocypris tatei*			
359.	24633	*Heteromunia pectoralis (Pictorella Mannikin)*			
360.	24961	*Heteronotia binoei (Bynoe's Gecko)*			
361.		*Heteronyx mimus*			
362.		*Heteronyx tepperi*			
363.		*Hexarthra cf brandorffi (PSW)*			
364.		*Hexarthra sp P3 5-2/5-2 (PSW)*			Y
365.	47965	*Hieraaetus morphnoides (Little Eagle)*			
366.	25734	*Himantopus himantopus (Black-winged Stilt)*			
367.	24491	*Hirundo neoxena (Welcome Swallow)*			
368.	25630	*Hirundo rustica (Barn Swallow)*		IA	
369.		*Hogna crispipes*			
370.		*Hydrachna sp. 4/5 (PSW)*			
371.		*Hydraena sp.*			
372.		*Hydraenidae sp.*			
373.	25363	*Hydrelaps darwiniensis*			
374.		*Hydrobiidae sp P1 (not assimineid) (PSW)*			
375.		*Hydrochus obscuroaeneus*			
376.		*Hydroglyphus grammopterus (=trilineatus)*			
377.		*Hydroglyphus leai*			
378.		*Hydroglyphus orthogrammus*			
379.		*Hydrometridae sp.*			
380.	24215	*Hydromys chrysogaster (Water-rat, Rakali)*		P4	
381.		*Hydrophilidae sp.*			
382.	48587	*Hydroprogne caspia (Caspian Tern)*		IA	
383.		*Hydroptilidae sp.*			
384.		*Hyphydrus elegans*			
385.		*Hyphydrus lyratus*			
386.		*Hyphydrus sp.*			
387.		*Ilyocypris australiensis*			
388.		*Ilyodromus sp BOS25*			
389.		*Ilyodromus sp. PB*			
390.		*Indolpium sp.*			
391.		*Inegocia japonica*			
392.		*Ischnura aurora aurora*			
393.		*Isidorella egraria*			

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394.		*Isobactrus australiensis*			Y
395.		*Isobactrus obesus*			Y
396.		*Isocypris williamsi (ex Ilyodromus sp. 413)*			
397.		*Isopedella gibsandi*			
398.		*Isopedella tindalei*			
399.		*Istiblennius meleagris*			
400.		*Istigobius ornatus*			
401.	25562	*Ixobrychus flavicollis (Black Bittern)*			
402.		*Keratella procurva*			
403.		*Knoelle clara*			
404.		*Laccophilus sharpi*			
405.		*Lacinularia flosculosa*			
406.	24057	*Lagenodelphis hosei (Fraser's Dolphin)*			
407.	24367	*Lalage tricolor (White-winged Triller)*			
408.		*Lampona ampeinna*			
409.		*Lampona cylindrata*			
410.		*Lamponina scutata*			
411.		*Larsia albiceps*			
412.	25637	*Larus novaehollandiae (Silver Gull)*			
413.	25638	*Larus pacificus (Pacific Gull)*			
414.		*Latonopsis australis*			
415.		*Latrodectus geometricus*			
416.		*Leberis cf. diaphanus*			
417.		*Lecane bifastigata*			Y
418.		*Lecane bulla*			
419.		*Lecane cf. ludwigii (PSW)*			
420.		*Lecane cf. rhenana (SAP)*			
421.		*Lecane luna*			
422.		*Lecane papuana*			
423.		*Lecane punctata*			
424.		*Lecane thalera*			
425.		*Lecane ungulata*			
426.	24217	*Leggadina lakedownensis (Northern Short-tailed Mouse, Lakeland Downs Mouse, Kerakenga)*		P4	
427.		*Leiognathus sp.*			
428.		*Leiopotherapon unicolor*			
429.		*Lepadella patella*			
430.		*Lepidotrigla sp.*			
431.		*Leptoceridae sp.*			
432.	25125	*Lerista bipes*			
433.	30928	*Lerista clara*			
434.	30929	*Lerista jacksoni*			
435.	25155	*Lerista muelleri*			
436.	30925	*Lerista verhmens*			
437.	25005	*Lialis burtonis*			
438.	25238	*Liasis olivaceus subsp. barroni (Pilbara Olive Python)*		T	
439.	25239	*Liasis olivaceus subsp. olivaceus (Olive Python)*			
440.		*Libellulidae sp.*			
441.	25661	*Lichmera indistincta (Brown Honeyeater)*			
442.		*Limbodessus compactus*			
443.	25739	*Limicola falcinellus (Broad-billed Sandpiper)*		IA	
444.		*Limnadopsis "pilbarensis" (ex P2)(PSW)*			Y
445.		*Limnadopsis birchii*			
446.		*Limnocythere dorsosicula*			
447.	30932	*Limosa lapponica (Bar-tailed Godwit)*		IA	
448.	25741	*Limosa limosa (Black-tailed Godwit)*		IA	
449.		*Liocranium praepositum*			
450.	41417	*Liopholis striata (Night Skink)*			
451.		*Litarachna bartschae*			Y
452.	25392	*Litoria rubella (Little Red Tree Frog)*			
453.		*Liza subviridis*			
454.		*Liza vaigiensis*			
455.		*Lophiocharon hutchinsi*			
456.		*Lophiocharon trisignatus*			
457.		*Loxandrus micantior*			
458.	30933	*Lucasium stenodactylum*			
459.		*Luticola mutica (Kütz.) Mann*			
460.		*Lutjanus argentimaculatus*			
461.		*Lutjanus malabaricus*			
462.		*Lutjanus russellii*			

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463.		*Lychas sp. 2*			
464.		*Lymnaeidae sp.*			
465.		*Macrochaetus sp.*			
466.	24180	*Macroderma gigas (Ghost Bat)*		T	
467.	25489	*Macropus robustus (Euro, Biggada)*			
468.	24135	*Macropus robustus subsp. erubescens (Euro, Biggada)*			
469.	24136	*Macropus rufus (Red Kangaroo, Marlu)*			
470.		*Macrothrix sp.*			
471.	24326	*Malacorhynchus membranaceus (Pink-eared Duck)*			
472.	25651	*Malurus lamberti (Variegated Fairy-wren)*			
473.	25652	*Malurus leucopterus (White-winged Fairy-wren)*			
474.	24583	*Manorina flavigula (Yellow-throated Miner)*			
475.		*Meedo houstoni*			
476.		*Megacephala greyana*			
477.	24051	*Megaptera novaeangliae (Humpback Whale)*		S	
478.		*Melanotaenia australis*			
479.	24589	*Melithreptus gularis subsp. laetior (Black-chinned Honeyeater)*			
480.	24736	*Melopsittacus undulatus (Budgerigar)*			
481.	25184	*Menetia greyii*			
482.	25187	*Menetia surda subsp. surda*			
483.	24598	*Merops ornatus (Rainbow Bee-eater)*			
484.		*Mesocyclops brooksi*			
485.		*Mesovelia hungerfordi*			
486.		*Mesoveliidae sp.*			
487.		*Metacyclops sp. P2 (PSW)*			
488.		*Metavelifer multiradiatus*			
489.		*Microcarbo melanoleucos*			
490.		*Microcyclops varicans*			
491.		*Micrognathus micronotopterus*			
492.		*Micronecta gracilis*			
493.		*Micronecta n. sp. P3 (PSW)*			
494.		*Micronecta sp.*			
495.		*Microvelia (Austromicrovelia) peramoena*			
496.	25542	*Milvus migrans (Black Kite)*			
497.		*Minasteron minusculum*			
498.	25545	*Mirafra javanica (Horsfield's Bushlark, Singing Bushlark)*			
499.	24302	*Mirafra javanica subsp. horsfieldii (Horsfield's Bushlark, Singing Bushlark)*			
500.		*Moina micrura s.l.*			
501.		*Monacanthus chinensis*			
502.		*Monodactylus argenteus*			
503.		*Monommata sp.*			
504.	25495	*Morethia ruficauda*			
505.	25193	*Morethia ruficauda subsp. exquisita*			
506.		*Mormopterus (Ozimops) cobourgianus*			
507.	24183	*Mormopterus loriae (Little Northern Freetail-bat)*			
508.		*Mugil cephalus*			
509.	24223	*Mus musculus (House Mouse)*	Y		
510.		*Muscidae sp. P1*			
511.		*Naididae (ex Tubificidae)*			
512.	25344	*Natator depressus (Flatback Turtle)*		T	
513.		*Nebrius ferrugineus*			Y
514.		*Nematalosa erebi*			
515.		*Nematoda sp. P2/P4 (PSW)*			
516.		*Nemipterus celebicus*			
517.	25422	*Neobatrachus aquilonius (Northern Burrowing Frog)*			
518.	25685	*Neochmia ruficauda (Star Finch)*			
519.		*Neopsephotus bourkii*			
520.		*Neosilurus hyrtlii*			
521.		*Nephila edulis*			
522.	24969	*Nephrurus levis subsp. pilbarensis*			
523.		*Nepidae sp.*			
524.	24327	*Nettapus pulchellus (Green Pygmy-goose)*			
525.		*Netuma bilineata*			
526.		*Netuma proxima*			
527.	24095	*Ningaui timealeyi (Pilbara Ningaui)*			
528.	25747	*Ninox connivens (Barking Owl)*			
529.		*Nitzschia microcephala Grun.*			
530.		*Nitzschia perminuta (Grun.) M. Peragallo*			
531.		*Nitzschia sigma (Kütz.) W. Sm.*			
532.	25430	*Notaden nichollsi (Desert Spadefoot)*			

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533.	24224	*Notomys alexis (Spinifex Hopping-mouse)*			
534.		*Notonectidae sp.*			
535.	25196	*Notoscincus butleri (lined soil-crevice skink (Dampier))*		P4	
536.	25197	*Notoscincus ornatus subsp. ornatus*			
537.	24798	*Numenius madagascariensis (Eastern Curlew)*		T	
538.	24799	*Numenius minutus (Little Curlew, Little Whimbrel)*		IA	
539.	25742	*Numenius phaeopus (Whimbrel)*		IA	
540.	25564	*Nycticorax caledonicus (Rufous Night Heron)*			
541.	24192	*Nyctophilus arnhemensis (Arnhem Land Long-eared Bat)*			
542.	42365	*Nyctophilus daedalus (Northwestern Long-eared Bat, Pallid Long-eared Bat)*			
543.	24194	*Nyctophilus geoffroyi (Lesser Long-eared Bat)*			
544.		*Nyctophilus geoffroyi subsp. pallescens*			
545.	24742	*Nymphicus hollandicus (Cockatiel)*			
546.	24497	*Oceanites oceanicus (Wilson's Storm-petrel)*		IA	
547.	24407	*Ocyphaps lophotes (Crested Pigeon)*			
548.	24976	*Oedura marmorata (Marbled Velvet Gecko)*			
549.		*Oligochaeta sp.*			
550.		*Omobranchus punctatus*			
551.		*Omobranchus rotundiceps*			
552.		*Omoedus orbiculatus*			
553.	41347	*Onychoprion anaethetus (Bridled Tern)*		IA	
554.		*Opisthopora sp.*			
555.		*Opistognathus darwiniensis*			
556.		*Orthetrum caledonicum*			
557.		*Orthocladiinae sp.*			
558.		*Orthomorpha coarctata*			
559.	24085	*Oryctolagus cuniculus (Rabbit)*	Y		
560.	48034	*Osphranter robustus (Euro, Biggada)*			
561.		*Ostracoda (unident.)*			
562.		*Ovatalona cf. cambouei*			
563.	34016	*Ovis aries (Sheep)*			
564.		*Oxyopes variabilis*			
565.		*Ozestheria packardi*			
566.	24620	*Pachycephala lanioides (White-breasted Whistler)*			
567.	25678	*Pachycephala melanura (Mangrove Golden Whistler)*			
568.	24621	*Pachycephala melanura subsp. melanura (Mangrove Golden Whistler)*			
569.	25680	*Pachycephala rufiventris (Rufous Whistler)*			
570.	48591	*Pandion cristatus (Osprey, Eastern Osprey)*		IA	
571.		*Pantala flavescens*			
572.		*Paracymus pygmaeus*			
573.		*Paracymus spenceri*			
574.		*Paramonacanthus choirocephalus*			
575.		*Paratanytarsus sp. P2 (PSW)*			
576.	24627	*Pardalotus rubricatus (Red-browed Pardalote)*			
577.	48053	*Pardalotus rubricatus subsp. rubricatus (Red-browed Pardalote)*			Y
578.	25682	*Pardalotus striatus (Striated Pardalote)*			
579.	25687	*Passer domesticus (House Sparrow)*	Y		
580.	24642	*Passer montanus (Eurasian Tree Sparrow)*	Y		
581.		*Pediana horni*			
582.		*Pediana tenuis*			
583.	24648	*Pelecanus conspicillatus (Australian Pelican)*			
584.		*Peneoenanthe pulverulenta*			
585.		*Pentapodus porosus*			
586.		*Pentapodus sp.*			
587.	48060	*Petrochelidon ariel (Fairy Martin)*			
588.	48061	*Petrochelidon nigricans (Tree Martin)*			
589.	24144	*Petrogale rothschildi (Rothschild's Rock-wallaby)*			
590.	25697	*Phalacrocorax carbo (Great Cormorant)*			
591.	24667	*Phalacrocorax sulcirostris (Little Black Cormorant)*			
592.	25699	*Phalacrocorax varius (Pied Cormorant)*			
593.	24409	*Phaps chalcoptera (Common Bronzewing)*			
594.	24411	*Phaps histrionica (Flock Bronzewing, Flock Pigeon)*			
595.		*Pheropsophus verticalis*			
596.		*Phreodrilid with dissimilar ventral chaetae*			
597.		*Phreodrilid with similar ventral chaetae*			
598.		*Pilbarascutigera incola*			
599.		*Pilbarophreatoicus platyarthricus*			
600.		*Pinnularia divergens W. Sm.*			
601.		*Pinnularia subrostrata (A. Cl.) Cl.-Euler*			
602.	24677	*Pitta moluccensis (Blue-winged Pitta)*			

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603.		*Planigale sp. nov.*			
604.		*Planorbidae sp.*			
605.	24842	*Platalea regia (Royal Spoonbill)*			
606.		*Platycephalus sp.*			
607.	25721	*Platycercus zonarius (Australian Ringneck, Ring-necked Parrot)*			
608.	24843	*Plegadis falcinellus (Glossy Ibis)*		IA	
609.		*Pleidae sp.*			
610.		*Pleurosicya sp.*			
611.	24382	*Pluvialis fulva (Pacific Golden Plover)*		IA	
612.	24383	*Pluvialis squatarola (Grey Plover)*		IA	
613.	25703	*Podargus strigoides (Tawny Frogmouth)*			
614.	24679	*Podargus strigoides subsp. brachypterus (Tawny Frogmouth)*			
615.	25510	*Pogona minor (Dwarf Bearded Dragon)*			
616.	24907	*Pogona minor subsp. minor (Dwarf Bearded Dragon)*			
617.	24681	*Poliocephalus poliocephalus (Hoary-headed Grebe)*			
618.		*Polyarthra dolichoptera*			
619.		*Polydactylus multiradiatus*			
620.		*Polypedilum nubifer*			
621.		*Pomadasys maculatus*			
622.	25706	*Pomatostomus temporalis (Grey-crowned Babbler)*			
623.	24684	*Pomatostomus temporalis subsp. rubeculus (Grey-crowned Babbler)*			
624.		*Pontarachne australis*			Y
625.	25731	*Porphyrio porphyrio (Purple Swamphen)*			
626.	25732	*Porzana pusilla (Baillon's Crake)*			
627.	24771	*Porzana tabuensis (Spotless Crake)*			
628.		*Priacanthus hamrur*			
629.		*Priolepis nuchifasciata*			
630.		*Pristina longiseta*			
631.		*Procladius paludicola*			
632.		*Prodidomus woodleigh*			
633.		*Protonibea diacanthus*			
634.	24105	*Pseudantechinus roryi (Rory's Pseudantechinus)*			
635.	24106	*Pseudantechinus woolleyae (Woolley's Pseudantechinus)*			
636.	25261	*Pseudechis australis (Mulga Snake)*			
637.	24233	*Pseudomys chapmani (Western Pebble-mound Mouse, Ngadji)*		P4	
638.	24234	*Pseudomys delicatulus (Delicate Mouse)*			
639.	24237	*Pseudomys hermannsburgensis (Sandy Inland Mouse)*			
640.	42416	*Pseudonaja mengdeni (Western Brown Snake)*			
641.	25263	*Pseudonaja modesta (Ringed Brown Snake)*			
642.	25264	*Pseudonaja nuchalis (Gwardar, Northern Brown Snake)*			
643.	24172	*Pteropus alecto (Black Flying-fox)*			
644.	24173	*Pteropus scapulatus (Little Red Flying-fox)*			
645.		*Ptilonorhynchus guttatus*			
646.	42344	*Purnella albifrons (White-fronted Honeyeater)*			
647.		*Pyralidae sp.*			
648.		*Quistrachia legendrei*			
649.		*Rastrelliger kanagurta*			
650.	24245	*Rattus rattus (Black Rat)*	Y		
651.	24246	*Rattus tunneyi (Pale Field-rat)*			
652.	24776	*Recurvirostra novaehollandiae (Red-necked Avocet)*			
653.		*Regimbartia attenuata*			
654.		*Repomucenus calcaratus*			
655.		*Rhagada angulata*			
656.		*Rhagada convicta*			
657.		*Rhagada dampierana*			
658.		*Rhagada perprima*			
659.		*Rheotanytarsus trivittatus*			
660.	43368	*Rhinonicteris aurantia (Orange Leaf-nosed bat)*		P4	
661.	48096	*Rhipidura albiscapa (Grey Fantail)*			
662.	25614	*Rhipidura leucophrys (Willie Wagtail)*			
663.	24457	*Rhipidura phasiana (Mangrove Grey Fantail)*			
664.		*Rhombognathus dispar*			Y
665.		*Rhombognathus ocularis*			Y
666.		*Rhombognathus scutulatus*			
667.	24982	*Rhynchoedura ornata (Western Beaked Gecko)*			
668.		*Scaptognathides hawaiiensis*			Y
669.		*Scaptognathides ornatus*			Y
670.		*Scatophagus argus*			
671.		*Scirtidae sp.*			
672.		*Scolecenchelys macroptera*			

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673.		*Scolopendra laeta*			
674.		*Scolopendra morsitans*			
675.		*Scolopsis taenioptera*			
676.		*Secutor insidiator*			
677.		*Selenotoca multifasciata*			
678.		*Selenotoca sp.*			Y
679.		*Sillago burrus*			
680.		*Sillago lutea*			
681.		*Simaetha tenuior*			
682.		*Simognathus platyaspis*			Y
683.		*Simognathus salebrosus*			Y
684.		*Simognathus tener*			Y
685.		*Simulium ornatipes*			
686.	30948	*Smicrornis brevirostris (Weebill)*			
687.	24116	*Sminthopsis macroura (Stripe-faced Dunnart)*			
688.		*Sorsogona tuberculata*			
689.		*Sphyraena barracuda*			
690.		*Stauroneis anceps Ehr.*			
691.		*Stauroneis phoenicenteron (Nitz.) Ehr.*			
692.	24521	*Sterna bengalensis (Lesser Crested Tern)*			
693.	25640	*Sterna dougallii (Roseate Tern)*		IA	
694.	25642	*Sterna hirundo (Common Tern)*		IA	
695.		*Sternolophus australis*			
696.	48593	*Sternula albifrons (Little Tern)*		IA	
697.	48594	*Sternula nereis (Fairy Tern)*			
698.	24329	*Stictonetta naevosa (Freckled Duck)*			
699.	24482	*Stiltia isabella (Australian Pratincole)*			
700.		*Stratiomyidae sp.*			
701.	25589	*Streptopelia chinensis (Spotted Turtle-Dove)*	Y		
702.	24924	*Strophurus ciliaris subsp. aberrans*			
703.	24927	*Strophurus elderi*			
704.	24932	*Strophurus jeanae*			
705.	24949	*Strophurus wellingtonae*			
706.		*Suggrundus macracanthus*			
707.	25754	*Sula leucogaster (Brown Booby)*		IA	
708.		*Supunna picta*			
709.	25269	*Suta fasciata (Rosen's Snake)*			
710.	25307	*Suta punctata (Spotted Snake)*			
711.		*Synanceia horrida*			
712.		*Tabanidae sp.*			
713.	25705	*Tachybaptus novaehollandiae (Australasian Grebe, Black-throated Grebe)*			
714.	24207	*Tachyglossus aculeatus (Short-beaked Echidna)*			
715.	30870	*Taeniopygia guttata (Zebra Finch)*			
716.		*Tanypodinae sp.*			
717.		*Tanytarsus fuscithorax/semibarbitarsus*			
718.		*Tanytarsus sp. D (SAP)*			
719.		*Tanytarsus sp. P8 (PSW)*			
720.	24175	*Taphozous georgianus (Common Sheath-tailed Bat)*			
721.		*Tasmanocoenis arcuata*			
722.		*Terapon jarbua*			
723.		*Testudinella patina*			
724.		*Thalasseus bengalensis*			
725.	48597	*Thalasseus bergii (Crested Tern)*		IA	
726.		*Thermocyclops decipiens*			
727.		*Thiaridae sp.*			
728.	24845	*Threskiornis spinicollis (Straw-necked Ibis)*			
729.	25202	*Tiliqua multifasciata (Central Blue-tongue)*			
730.	25548	*Todiramphus chloris (Collared Kingfisher)*			
731.	24306	*Todiramphus chloris subsp. pilbara (Pilbara Collared Kingfisher)*			
732.	42351	*Todiramphus pyrrhopygius (Red-backed Kingfisher)*			
733.	25549	*Todiramphus sanctus (Sacred Kingfisher)*			
734.	24309	*Todiramphus sanctus subsp. sanctus (Sacred Kingfisher)*			
735.		*Tramea stenoloba*			
736.		*Triacanthus sp.*			
737.	48141	*Tribonyx ventralis (Black-tailed Native-hen)*			
738.		*Trichocerca similis*			
739.		*Trichocyclus nigropunctatus*			
740.	24803	*Tringa brevipes (Grey-tailed Tattler)*		P4	
741.	24806	*Tringa glareola (Wood Sandpiper)*		IA	
742.	24808	*Tringa nebularia (Common Greenshank, greenshank)*		IA	

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743.	24809	*Tringa stagnatilis (Marsh Sandpiper, little greenshank)*		IA	
744.		*Triops australiensis australiensis*			
745.		*Triops nr australiensis (PSW) (?nsp BVT)*			Y
746.		*Turbellaria sp.*			
747.	24851	*Turnix velox (Little Button-quail)*			
748.	30954	*Tursiops aduncus (Indo-Pacific Bottlenose Dolphin)*			
749.		*Tylosurus crocodilus*			
750.	30814	*Tympanocryptis cephalus (Pebble Dragon)*			
751.		*Tyto delicatula*			
752.	25445	*Uperoleia russelli (Northwest Toadlet)*			
753.	41428	*Uperoleia saxatilis (Pilbara Toadlet)*			
754.		*Urodacus armatus*			
755.		*Valamugil seheli*			
756.		*Valenciennea muralis*			
757.	25577	*Vanellus miles (Masked Lapwing)*			
758.	24386	*Vanellus tricolor (Banded Lapwing)*			
759.	25209	*Varanus acanthurus (Spiny-tailed Monitor)*			
760.	25210	*Varanus brevicauda (Short-tailed Pygmy Monitor)*			
761.	25212	*Varanus eremius (Pygmy Desert Monitor)*			
762.	25216	*Varanus giganteus (Perentie)*			
763.	25218	*Varanus gouldii (Bungarra or Sand Monitor)*			
764.	25223	*Varanus panoptes subsp. rubidus*			
765.	25224	*Varanus pilbarensis (Pilbara Rock Monitor, Northern Pilbara Rock Goanna)*			
766.	25227	*Varanus tristis subsp. tristis (Racehorse Monitor)*			
767.		*Veliidae sp.*			
768.		*Venatrix arenaris*			
769.	24205	*Vespadelus finlaysoni (Finlayson's Cave Bat)*			
770.	24040	*Vulpes vulpes (Red Fox)*	Y		
771.		*Wesmaldra nixaut*			
772.		*Wydundra kennedy*			
773.		*Wydundra nixaut*			Y
774.	41351	*Xenus cinereus (Terek Sandpiper)*		IA	
775.		*Yirrkala sp.*			
776.		*Yongeichthys nebulosus*			
777.		*Zebrias quagga*			
778.		*Zenodorus orbiculatus*			
779.		*Zonocypretta kalimna*			
780.	24857	*Zosterops luteus (Yellow White-eye)*			
781.	24248	*Zyzomys argurus (Common Rock-rat)*			
Chromista					
782.	35220	*Canistrocarpus cervicornis*			
783.	35910	*Canistrocarpus crispatus*			
784.	26694	*Colpomenia sinuosa*			
785.	26764	*Dictyopteris australis*			
786.	29954	*Dictyopteris woodwardia*			
787.	26775	*Dictyota ciliolata*			
788.	26946	*Hormophysa cuneiformis*			
789.	26949	*Hydroclathrus clathratus*			
790.	27043	*Lobophora variegata*			
791.	27113	*Padina australis*			
792.	48304	*Padina tetrastromatica*			Y
793.	27248	*Sargassum ligulatum*			
794.	27253	*Sargassum peronii*			
795.	42785	*Sirophysalis trinodis*			
796.	27282	*Spatoglossum macrodontum*			
797.	27293	*Sphacelaria rigidula*			
798.	27345	*Turbinaria gracilis*			
799.		*Turbinaria mesenterina*			
800.	27346	*Turbinaria ornata*			
801.		*Turbinaria reniformis*			
Fungi					
802.	27576	*Acarospora nodulosa*			
803.	44918	*Caloplaca michelagoensis*			
804.		*Caloplaca sp.*			
805.	27715	*Diploschistes actinostomus*			
806.	27932	*Peltula bolanderi*			
807.		*Phellinus rimosus*			
808.	46616	*Triodiomyces altilis*			
809.	28194	*Xanthoria parietina*			

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Plantae					
810.	4886	*Abutilon amplum*			
811.	9080	*Abutilon cunninghamii*			
812.	4891	*Abutilon fraseri (Lantern Bush)*			
813.	18120	*Abutilon fraseri subsp. fraseri*			
814.	4895	*Abutilon lepidum*			
815.	4899	*Abutilon malvifolium (Bastard Marshmallow)*			
816.	4901	*Abutilon otocarpum (Desert Chinese Lantern)*			
817.	4902	*Abutilon oxycarpum (Flannel Weed)*			
818.	43020	*Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)*			
819.	3209	*Acacia ampliceps*			
820.	44580	*Acacia ampliceps x bivenosa*			
821.	44586	*Acacia ampliceps x sclerosperma subsp. sclerosperma*			
822.	3214	*Acacia ancistrocarpa (Fitzroy Wattle)*			
823.	3223	*Acacia arida*			
824.	3241	*Acacia bivenosa*			
825.	44588	*Acacia bivenosa x sclerosperma subsp. sclerosperma*			
826.	13403	*Acacia colei*			
827.	17013	*Acacia colei var. colei*			
828.	3270	*Acacia coriacea (Wirewood)*			
829.	13500	*Acacia coriacea subsp. coriacea*			
830.	13502	*Acacia coriacea subsp. pendens*			
831.	16174	*Acacia elachantha*			
832.	12673	*Acacia glaucocaesia*			
833.	3356	*Acacia gregorii (Gregory's Wattle)*			
834.	3372	*Acacia holosericea (Candelbra Wattle, Liringgin)*			
835.	3377	*Acacia inaequilatera (Baderi)*			
836.	3434	*Acacia maitlandii (Maitland's Wattle)*			
837.	3471	*Acacia orthocarpa (Needleleaf Wattle)*			
838.	3506	*Acacia pyrifolia (Ranji Bush, Kandji)*			
839.	29016	*Acacia pyrifolia var. morrisonii*			
840.	29015	*Acacia pyrifolia var. pyrifolia*			
841.	13078	*Acacia sclerosperma subsp. sclerosperma*			
842.	29135	*Acacia sericophylla*			
843.	3551	*Acacia sphaerostachya*			
844.	19456	*Acacia stellaticeps*			
845.	13070	*Acacia synchronicia*			
846.	3573	*Acacia tenuissima*			
847.	3579	*Acacia trachycarpa (Minni Ritchi, Balgali)*			
848.	20319	*Acacia tumida var. pilbarensis*			
849.	3606	*Acacia xiphophylla*			
850.	26441	*Acanthophora spicifera*			
851.	48409	*Acetabularia caliculus*			
852.	2645	*Achyranthes aspera (Chaff Flower)*			
853.	4583	*Adriana tomentosa*			
854.	17422	*Adriana tomentosa var. tomentosa*			
855.	6486	*Aegialitis annulata (Club Mangrove)*			
856.	6478	*Aegiceras corniculatum (River Mangrove)*			
857.	2646	*Aerva javanica (Kapok Bush)*	Y		
858.	3680	*Aeschynomene indica (Budda Pea)*			
859.	3609	*Albizia lebbeck*			
860.	4739	*Alectryon oleifolius*			
861.	11487	*Alectryon oleifolius subsp. oleifolius*			
862.	2647	*Alternanthera angustifolia*			
863.	2651	*Alternanthera nana (Hairy Joyweed)*			
864.	2652	*Alternanthera nodiflora (Common Joyweed)*			
865.	17147	*Alysicarpus muelleri*			
866.	2660	*Amaranthus cuspidifolius*			
867.	20018	*Amaranthus undulatus*			
868.	5277	*Ammannia baccifera*			
869.	5278	*Ammannia multiflora*			
870.	26461	*Amphiroa foliacea*			
871.	26462	*Amphiroa fragilissima*			
872.	2383	*Amyema preissii (Wireleaf Mistletoe)*			
873.	11874	*Amyema sanguinea var. sanguinea*			
874.	35872	*Anadyomene plicata*			
875.	7832	*Angianthus milnei (Cone-spike Angianthus)*			
876.	204	*Aristida burbidgeae*			
877.	207	*Aristida contorta (Bunched Kerosene Grass)*			
878.	215	*Aristida latifolia (Feathertop Wiregrass)*			

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879.	217	*Aristida nitidula (Flat-awned Threeawn)*			
880.	226	*Arundo donax (Giant Reed)*	Y		
881.	6580	*Asclepias curassavica (Redhead Cottonbush)*	Y		
882.	26486	*Asparagopsis taxiformis*			
883.	229	*Astrebla pectinata (Barley Mitchell Grass)*			
884.	4740	*Atalaya hemiglauca (Whitewood)*			
885.	2450	*Atriplex amnicola (Swamp Saltbush)*			
886.	2451	*Atriplex bunburyana (Silver Saltbush)*			
887.	2453	*Atriplex codonocarpa (Flat-topped Saltbush)*			
888.	2463	*Atriplex isatidea (Coast Saltbush)*			
889.	2466	*Atriplex lindleyi*			
890.	17520	*Atriplex lindleyi subsp. conduplicata*		P3	
891.	2476	*Atriplex semilunaris (Annual Saltbush)*			
892.	6828	*Avicennia marina (White Mangrove)*			
893.	14555	*Avicennia marina subsp. marina*			
894.	5183	*Bergia ammannioides*			
895.	5186	*Bergia trimera*			
896.	7854	*Bidens bipinnata (Bipinnate Beggartick)*	Y		
897.	7866	*Blumea tenella*			
898.	2769	*Boerhavia burbidgeana*			
899.	2770	*Boerhavia coccinea (Tar Vine, Wituka)*			
900.	2772	*Boerhavia gardneri*			
901.	2773	*Boerhavia paludosa*			
902.	2774	*Boerhavia repleta*			
903.	2775	*Boerhavia schomburgkiana*			
904.		*Boerhavia sp.*			
905.	11167	*Bonamia erecta*			
906.	6606	*Bonamia media*			
907.	6608	*Bonamia pannosa*			
908.	44782	*Bonamia pilbarensis*			
909.	6609	*Bonamia rosea (Felty Bellflower)*			
910.	26508	*Boodlea composita*			
911.	26509	*Bornetella oligospora*			
912.	26510	*Bornetella sphaerica*			
913.	12716	*Brachychiton acuminatus*			
914.	2995	*Brassica x napus*	Y		
915.	4603	*Bridelia tomentosa*			
916.	5291	*Bruguiera exaristata (Ribbed Mangrove)*			
917.	750	*Bulbostylis barbata*			
918.	752	*Bulbostylis turbinata*			
919.	11055	*Cajanus cinereus*			
920.	10972	*Cajanus marmoratus*			
921.	11150	*Cajanus pubescens*			
922.	2864	*Calandrinia ptychosperma*			
923.	2866	*Calandrinia quadrivalvis*			
924.	2872	*Calandrinia tepperiana*			
925.	7905	*Calotis multicaulis (Many-stemmed Burr-daisy)*			
926.	7906	*Calotis plumulifera*			
927.	3749	*Canavalia rosea (Wild Jack Bean)*			
928.	2981	*Capparis spinosa*			
929.	48291	*Capparis spinosa subsp. nummularia*			
930.	6567	*Carissa lanceolata (Conkerberry, Marnuwiji)*			
931.	2949	*Cassytha capillaris*			
932.	2950	*Cassytha filiformis (Love Vine, Jirawan)*			
933.	42620	*Caulerpa chemnitzia*			
934.	35158	*Caulerpa corynephora*			
935.	47053	*Caulerpa cupressoides var. cupressoides*			
936.	47054	*Caulerpa cupressoides var. elegans*			
937.	27378	*Caulerpa cupressoides var. lycopodium*			
938.	36368	*Caulerpa cupressoides var. mamillosa*			
939.	44539	*Caulerpa cylindracea*			
940.	44547	*Caulerpa lamourouxii*			
941.	26568	*Caulerpa lentillifera*			
942.	26573	*Caulerpa racemosa*			
943.	35122	*Caulerpa racemosa var. racemosa*			
944.	26576	*Caulerpa serrulata*			
945.	26577	*Caulerpa sertularioides*			
946.	26579	*Caulerpa taxifolia*			
947.	26582	*Caulerpa verticillata*			
948.	258	*Cenchrus ciliaris (Buffel Grass)*	Y		

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
949.	259	*Cenchrus echinatus (Burrgrass)*	Y		
950.	41568	*Cenchrus setaceus (Fountain Grass)*	Y		
951.	29721	*Cenchrus setiger (Birdwood Grass)*	Y		
952.	6539	*Centaurium erythraea (Common Centaury)*	Y		
953.	7919	*Centipeda minima (Spreading Sneezewood, Kanjirralaa, Inteng-inteng, Karengkal, Kata-palkalpa, Munyu-parnti-parnti)*			
954.	19762	*Centipeda minima subsp. macrocephala*			
955.	39680	*Ceriops australis*			
956.	33	*Cheilanthes contigua*			
957.	12818	*Cheilanthes sieberi subsp. sieberi*			
958.	266	*Chloris barbata (Purpletop Chloris)*	Y		
959.	269	*Chloris pectinata (Comb Chloris)*			
960.	270	*Chloris pumilio*			
961.	33516	*Chrysocephalum gilesii*			
962.	273	*Chrysopogon fallax (Golden Beard Grass)*			
963.	2985	*Cleome oxalidea*			
964.	2988	*Cleome viscosa (Tickweed, Tjinduwadhu)*			
965.	6729	*Clerodendrum floribundum (Lollybush)*			
966.	6732	*Clerodendrum tomentosum*			
967.	13689	*Clerodendrum tomentosum var. lanceolatum*			
968.	3769	*Clitoria ternatea*	Y		
969.		*Codium platyclados*			Y
970.	2778	*Codonocarpus cotinifolius (Native Poplar, Kundurangu)*			
971.	1165	*Commelina ensifolia (Wandering Jew, Buargu)*			
972.	2776	*Commicarpus australis (Perennial Tar Vine)*			
973.	19880	*Convolvulus angustissimus*			
974.	6612	*Convolvulus clementii*			
975.	7939	*Conyza bonariensis (Flaxleaf Fleabane)*	Y		
976.	4857	*Corchorus elachocarpus*			
977.	17339	*Corchorus incanus*			
978.	25847	*Corchorus incanus subsp. incanus*			
979.	13659	*Corchorus laniflorus*			
980.	4862	*Corchorus parviflorus*			
981.	17661	*Corchorus tectus*			
982.	4865	*Corchorus tridens*			
983.	13467	*Corchorus trilocularis*			
984.	4867	*Corchorus walcottii (Woolly Corchorus)*			
985.	17093	*Corymbia hamersleyana*			
986.	17092	*Corymbia opaca*			
987.	19565	*Cressa australis*			
988.	3774	*Crotalaria cunninghamii (Green Birdflower, Bilbun)*			
989.	19378	*Crotalaria dissitiflora subsp. benthamiana*			
990.	20179	*Crotalaria medicaginea var. neglecta*			
991.	3785	*Crotalaria novae-hollandiae (New Holland Rattlepod)*			
992.	11231	*Crotalaria novae-hollandiae subsp. novae-hollandiae*			
993.	41720	*Cucumis argenteus*			
994.	7371	*Cucumis melo (Ulcardo Melon)*			
995.	41721	*Cucumis variabilis*			
996.	17117	*Cullen cinereum*			
997.	17436	*Cullen graveolens*			
998.	17439	*Cullen lachnostachys*			
999.	17118	*Cullen leucanthum*			
1000.	17119	*Cullen leucochaites*			
1001.	17120	*Cullen pogonocarpum*			
1002.	13733	*Cuscuta victoriana*			
1003.	279	*Cymbopogon ambiguus (Scentgrass)*			
1004.	280	*Cymbopogon bombycinus (Silky Oilgrass)*			
1005.	281	*Cymbopogon obtectus (Silkyheads)*			
1006.	6584	*Cynanchum floribundum (Dumara Bush, Tjipa)*			
1007.	48280	*Cynanchum viminale subsp. australe*			
1008.	46558	*Cynodon convergens*			
1009.	46555	*Cynodon prostratus*			
1010.	774	*Cyperus bifax (Downs Nutgrass)*			
1011.	12801	*Cyperus blakeanus*			
1012.	777	*Cyperus bulbosus (Bush Onion, Tjanmata)*			
1013.	786	*Cyperus cunninghamii*			
1014.	789	*Cyperus difformis (Rice Sedge)*			
1015.	798	*Cyperus iria*			
1016.	804	*Cyperus nervulosus*			
1017.	807	*Cyperus pulchellus*			

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1018.	814	*Cyperus squarrosus*			
1019.	818	*Cyperus vaginatus (Stiffleaf Sedge)*			
1020.	290	*Dactyloctenium radulans (Button Grass)*			
1021.	26740	*Dasya frutescens*			
1022.	6962	*Datura leichhardtii (Native Thornapple)*	Y		
1023.	6963	*Datura metel (Downy Thornapple)*	Y		
1024.	7317	*Dentella asperata*			
1025.	7318	*Dentella minutissima*			
1026.	3852	*Desmodium campylocaulon*			
1027.	3853	*Desmodium filiforme*			
1028.	3856	*Desmodium muelleri*			
1029.	303	*Dichanthium fecundum (Curly Bluegrass)*			
1030.	13741	*Dichanthium sericeum subsp. humilius*			
1031.	3612	*Dichrostachys spicata (Pied Piper Bush)*			
1032.	7166	*Dicliptera armata*			
1033.	26769	*Dictyosphaeria cavernosa*			
1034.	26782	*Digenea simplex*			
1035.	310	*Digitaria brownii (Cotton Panic Grass)*			
1036.	313	*Digitaria ctenantha (Comb Finger Grass)*			
1037.	4745	*Diplopeltis eriocarpa (Hairy Pepperflower)*			
1038.	48738	*Distimake dissectus var. dissectus*	Y		
1039.	4759	*Dodonaea coriacea*			
1040.	48390	*Dolichandrone occidentalis*			
1041.	33479	*Dysphania melanocarpa (Black Crumbweed)*			
1042.	2504	*Dysphania plantaginella*			
1043.	2506	*Dysphania rhadinostachya*			
1044.	11653	*Dysphania rhadinostachya subsp. inflata*			
1045.	11890	*Dysphania rhadinostachya subsp. rhadinostachya*			
1046.	32348	*Eccremidium arcuatum*			
1047.	328	*Echinochloa colona (Awnless Barnyard Grass)*	Y		
1048.	343	*Ectrosia leporina (Hare's-foot Grass)*			
1049.	6682	*Ehretia saligna (False Cedar)*			
1050.	14301	*Ehretia saligna var. saligna*			
1051.	827	*Eleocharis geniculata*			
1052.	2511	*Enchylaena tomentosa (Barrier Saltbush)*			
1053.	12064	*Enchylaena tomentosa var. tomentosa (Barrier Saltbush)*			
1054.	357	*Enneapogon caerulescens (Limestone Grass)*			
1055.	360	*Enneapogon lindleyanus (Wiry Nineawn, Purple-head Nineawn)*			
1056.	363	*Enneapogon pallidus (Conetop Nineawn)*			
1057.	365	*Enneapogon polyphyllus (Leafy Nineawn)*			
1058.	368	*Enteropogon ramosus (Windmill Grass, Curly Windmill Grass)*			
1059.	375	*Eragrostis cumingii (Cuming's Love Grass)*			
1060.	378	*Eragrostis dielsii (Mallee Lovegrass)*			
1061.	380	*Eragrostis eriopoda (Woollybutt Grass, Wangurnu)*			
1062.	16731	*Eragrostis exigua*			
1063.	381	*Eragrostis falcata (Sickle Lovegrass)*			
1064.	388	*Eragrostis leptocarpa (Drooping Lovegrass)*			
1065.	38505	*Eragrostis surreyana*		P3	
1066.	398	*Eragrostis tenellula (Delicate Lovegrass)*			
1067.	399	*Eragrostis xerophila (Knotty-butt Neverfail)*			
1068.	7234	*Eremophila longifolia (Berrigan, Tulypurpa)*			
1069.	16363	*Eremophila maculata subsp. brevifolia (Native Fuchsia)*			
1070.	400	*Eriachne aristidea*			
1071.	403	*Eriachne benthamii (Swamp Wanderrie)*			
1072.	413	*Eriachne mucronata (Mountain Wanderrie Grass)*			
1073.	414	*Eriachne obtusa (Northern Wandarrie Grass)*			
1074.	417	*Eriachne pulchella (Pretty Wanderrie)*			
1075.	16485	*Eriachne pulchella subsp. dominii*			
1076.	16486	*Eriachne pulchella subsp. pulchella*			
1077.	421	*Eriachne tenuiculmis*			
1078.	4335	*Erodium cygnorum (Blue Heronsbill)*			
1079.	3871	*Erythrina vespertilio (Yulbah)*			
1080.	5580	*Eucalyptus camaldulensis (River Gum, Yabalinyba)*			
1081.	35345	*Eucalyptus camaldulensis subsp. obtusa (Blunt-budded River Red Gum)*			
1082.	35343	*Eucalyptus camaldulensis subsp. refulgens*			
1083.	5714	*Eucalyptus microtheca (Coolibah)*			
1084.	5752	*Eucalyptus prominens*			
1085.	14548	*Eucalyptus victrix*			
1086.	11011	*Eulalia aurea*			
1087.	4617	*Euphorbia australis (Namana)*			

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1088.	35307	*Euphorbia australis var. australis*			
1089.	42843	*Euphorbia australis var. glabra*		P2	
1090.	35303	*Euphorbia australis var. subtomentosa*			
1091.	4619	*Euphorbia biconvexa*			
1092.	4620	*Euphorbia boophthona (Gascoyne Spurge)*			
1093.	9048	*Euphorbia careyi*			
1094.	4623	*Euphorbia coghlanii (Namana)*			
1095.	4626	*Euphorbia drummondii (Caustic Weed, Piwi)*			
1096.	4629	*Euphorbia hirta (Asthma Plant)*	Y		
1097.	4635	*Euphorbia myrtoides*			
1098.	4642	*Euphorbia schultzii*			
1099.	4644	*Euphorbia sharkoensis*			
1100.	4647	*Euphorbia tannensis*			
1101.	12097	*Euphorbia tannensis subsp. eremophila (Desert Spurge)*			
1102.	42879	*Euphorbia trigonosperma*			
1103.	13281	*Euphorbia vaccaria*			
1104.	42876	*Euphorbia vaccaria var. vaccaria*			
1105.	6617	*Evolvulus alsinoides (Tropical Speedwell)*			
1106.	11200	*Evolvulus alsinoides var. villosicalyx*			
1107.	25811	*Ficus aculeata*			
1108.	31578	*Ficus aculeata var. indecora (Ranji)*			
1109.	19648	*Ficus brachypoda*			
1110.	1753	*Ficus platypoda (Native Fig, Makartu)*			
1111.	1759	*Ficus virens (Albayi)*			
1112.	12096	*Ficus virens var. virens*			
1113.	851	*Fimbristylis dichotoma (Eight Day Grass)*			
1114.	855	*Fimbristylis ferruginea*			
1115.	859	*Fimbristylis littoralis*			
1116.	862	*Fimbristylis microcarya*			
1117.	878	*Fimbristylis rara*			
1118.	35558	*Flaveria trinervia (Speedy Weed)*	Y		
1119.	4654	*Flueggea virosa*			
1120.	12013	*Flueggea virosa subsp. melanthesoides (Dogwood, Guwal)*			
1121.	5188	*Frankenia ambita*			
1122.	5209	*Frankenia pauciflora (Seaheath)*			
1123.	26835	*Galaxaura rugosa*			
1124.	2836	*Glinus oppositifolius*			
1125.	3938	*Glycine canescens (Silky Glycine)*			
1126.	2674	*Gomphrena affinis*			
1127.	18361	*Gomphrena affinis subsp. pilbarensis*			
1128.	2676	*Gomphrena canescens (Batchelors Buttons)*			
1129.	18360	*Gomphrena cucullata*		P3	
1130.	2680	*Gomphrena cunninghamii*			
1131.	2682	*Gomphrena flaccida (Gomphrena Weed)*			
1132.	18367	*Gomphrena kanisii*			
1133.	2683	*Gomphrena leptoclada*			
1134.	18257	*Gomphrena leptoclada subsp. leptoclada*			
1135.	17894	*Gomphrena leptophylla*		P3	
1136.	11131	*Gomphrena sordida*			
1137.	31074	*Gomphrena sp. Martins Well (K.F. Kenneally 6116)*			Y
1138.	6151	*Gonocarpus ephemerus*			
1139.	7509	*Goodenia forrestii*			
1140.	7515	*Goodenia heterochila*			
1141.	7521	*Goodenia lamprosperma*			
1142.	7526	*Goodenia microptera*			
1143.	12552	*Goodenia muelleriana*			
1144.	12570	*Goodenia pallida*		P1	
1145.	10982	*Goodenia stobbsiana*			
1146.	7556	*Goodenia tenuiloba*			
1147.	4910	*Gossypium australe (Native Cotton)*			
1148.	4913	*Gossypium hirsutum (Upland Cotton)*	Y		
1149.	2079	*Grevillea pyramidalis (Caustic Bush, Tjungu)*			
1150.	19570	*Grevillea pyramidalis subsp. leucadendron*			
1151.	15975	*Grevillea pyramidalis subsp. pyramidalis*			
1152.	13440	*Grevillea wickhamii subsp. aprica*			
1153.	12832	*Gymnanthera cunninghamii*		P3	
1154.	2177	*Hakea lorea (Witinti)*			
1155.	19137	*Hakea lorea subsp. lorea*			
1156.	26891	*Halimeda cylindracea*			
1157.	26892	*Halimeda discoidea*			

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1158.	26894	*Halimeda macroloba*			
1159.	47213	*Halimeda versatilis*			
1160.	131	*Halodule uninervis*			
1161.	162	*Halophila decipiens*			
1162.	163	*Halophila minor*			
1163.	164	*Halophila ovalis (Sea Wrack)*			
1164.	165	*Halophila spinulosa*			
1165.	37642	*Halymenia durvillei*			
1166.	17301	*Heliotropium chrysocarpum*			
1167.	6704	*Heliotropium conocarpum*			
1168.	6705	*Heliotropium crispatum*			
1169.	6706	*Heliotropium cunninghamii*			
1170.	6707	*Heliotropium curassavicum (Smooth Heliotrope)*			
1171.	6712	*Heliotropium heteranthum*			
1172.	17307	*Heliotropium inexplicitum*			
1173.	17315	*Heliotropium tanythrix*			
1174.	6718	*Heliotropium tenuifolium (Mamukata)*			
1175.	26930	*Heterosiphonia crassipes*			
1176.	29316	*Hibiscus austrinus*			
1177.	29317	*Hibiscus austrinus var. austrinus*			
1178.	4923	*Hibiscus brachysiphonius*			
1179.	4925	*Hibiscus coatesii*			
1180.	4933	*Hibiscus leptocladus*			
1181.	4942	*Hibiscus sturtii (Sturt's Hibiscus)*			
1182.	5215	*Hybanthus aurantiacus*			
1183.	5219	*Hybanthus enneaspermus*			
1184.	48203	*Hypertelis cerviana*			
1185.	14587	*Indigastrum parviflorum*			
1186.	3973	*Indigofera colutea (Sticky Indigo)*			
1187.	3980	*Indigofera linifolia*			
1188.	3981	*Indigofera linnaei (Birdsville Indigo)*			
1189.	3982	*Indigofera monophylla*			
1190.	3987	*Indigofera trita*			
1191.	31035	*Indigofera trita subsp. trita*			
1192.	6623	*Ipomoea coptica*			
1193.	6624	*Ipomoea costata (Rock Morning Glory, Kanti)*			
1194.	6631	*Ipomoea lonchophylla (Cowvine)*			
1195.	6633	*Ipomoea muelleri (Poison Morning Glory, Yumbu)*			
1196.	6635	*Ipomoea pes-caprae*			
1197.	11312	*Ipomoea pes-caprae subsp. brasiliensis*			
1198.	6636	*Ipomoea plebeia (Bellvine)*			
1199.	6637	*Ipomoea polymorpha*			
1200.		*Ipomoea sp.*			
1201.	458	*Iseilema dolichotrichum*			
1202.	459	*Iseilema eremaeum*			
1203.	465	*Iseilema vaginiflorum (Red Flinders Grass)*			
1204.	3989	*Isotropis atropurpurea (Poison Sage)*			
1205.	8088	*Ixiochlamys cuneifolia*			
1206.	12059	*Jasminum didymum subsp. lineare (Desert Jasmine)*			
1207.	8095	*Lactuca saligna (Wild Lettuce, Willow-leaf Lettuce)*	Y		
1208.		*Launaea sarmenstosa*			
1209.	8098	*Launaea sarmentosa*			
1210.	4960	*Lawrencia viridigrisea*			
1211.		*Lawsonia inermis*			
1212.	3035	*Lepidium pedicellosum*			
1213.	3038	*Lepidium pholidogynum*			
1214.	3613	*Leucaena leucocephala (Leucaena)*	Y		
1215.	37480	*Lobelia arnhemiaca*			
1216.	4060	*Lotus australis (Austral Trefoil)*			
1217.	4061	*Lotus cruentus (Redflower Lotus)*			
1218.	2544	*Maireana georgei (Satiny Bluebush)*			
1219.	2556	*Maireana planifolia (Low Bluebush)*			
1220.	2564	*Maireana stipitata*			
1221.	11662	*Maireana tomentosa subsp. tomentosa*			
1222.	4962	*Malvastrum americanum (Spiked Malvastrum)*	Y		
1223.	75	*Marsilea exarata*			
1224.	76	*Marsilea hirsuta (Nardoo)*			
1225.	5875	*Melaleuca argentea (Silver Cadjeput, Bandaran)*			
1226.	5933	*Melaleuca linophylla*			
1227.	5051	*Melhania oblongifolia*			

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1228.	7082	*Mimulus gracilis*			
1229.	8109	*Minuria integerrima (Smooth Minuria)*			
1230.	8110	*Minuria leptophylla (Minnie Daisy)*			
1231.	6490	*Muellerolimon salicorniaceum*			
1232.	27079	*Mychodea carnosa*			
1233.	17158	*Myoporum montanum (Native Myrtle)*			
1234.	139	*Najas tenuifolia (Water Nymph)*			
1235.	2573	*Neobassia astrocarpa*			
1236.	44548	*Neomeris bilimbata*			
1237.	3614	*Neptunia dimorphantha (Sensitive Plant)*			
1238.	3617	*Neptunia monosperma*			
1239.	6971	*Nicotiana benthamiana (Tjuntiwari)*			
1240.	6976	*Nicotiana occidentalis (Native Tobacco)*			
1241.	11331	*Nicotiana occidentalis subsp. obliqua*			
1242.	11856	*Nicotiana occidentalis subsp. occidentalis*			
1243.	11734	*Nicotiana rosulata subsp. rosulata*			
1244.	38421	*Notoleptopus decaisnei*			
1245.	38422	*Notoleptopus decaisnei var. decaisnei*			
1246.	7338	*Oldenlandia crouchiana*			
1247.	19640	*Oldenlandia sp. Hamersley Station (A.A. Mitchell PRP 1479)*		P3	
1248.	6651	*Operculina aequisepala*			
1249.	6652	*Operculina brownii (Potato Vine, Bara)*			
1250.	5227	*Opuntia stricta (Common Prickly Pear)*	Y		
1251.	36400	*Palisada perforata*			
1252.	503	*Panicum decompositum (Native Millet, Kaltu-kaltu)*			
1253.	504	*Panicum effusum (Hairy Panic Grass)*			
1254.	505	*Panicum laevinode*			
1255.	515	*Paraneurachne muelleri (Northern Mulga Grass)*			
1256.	10975	*Paspalidium basicladum*			
1257.	518	*Paspalidium clementii (Clements Paspalidium)*			
1258.	523	*Paspalidium rarum (Rare Paspalidium)*			
1259.	525	*Paspalidium tabulatum*			
1260.	5226	*Passiflora foetida (Stinking Passion Flower)*	Y		
1261.	27121	*Penicillus nodulosus*			
1262.	13494	*Pentalepis trichodesmoides*			
1263.	7092	*Peplidium muelleri*			
1264.	18462	*Peplidium sp. E Evol. Fl. Fauna Arid Aust. (A.S. Weston 12768)*			
1265.	3675	*Petalostylis labicheoides (Slender Petalostylis)*			
1266.	9056	*Phyllanthus baccatus*			
1267.	17626	*Phyllanthus erwinii*			
1268.	4680	*Phyllanthus maderaspatensis*			
1269.	17794	*Phyllanthus tenellus*	Y		
1270.	20652	*Physalis angulata*	Y		
1271.	5230	*Pimelea ammocharis*			
1272.	41300	*Pittosporum phillyreoides (Weeping Pittosporum, Yaliti)*			
1273.	8167	*Pluchea dentex*			
1274.	17816	*Pluchea ferdinandi-muelleri*			
1275.	43944	*Pluchea longiseta*			
1276.	8168	*Pluchea rubelliflora*			
1277.	8170	*Pluchea tetranthera*			
1278.	2901	*Polycarpaea holtzei*			
1279.	2903	*Polycarpaea longiflora*			
1280.	41365	*Polygala glaucifolia*			
1281.	4572	*Polygala isingii*			
1282.	6653	*Polymeria ambigua (Morning Glory)*			
1283.	6655	*Polymeria calycina*			
1284.	17513	*Polymeria lanata*			
1285.		*Polymeria sp.*			
1286.		*Pomax Desert (A.S. George 11968)*			Y
1287.	2878	*Portulaca conspicua*			
1288.	2879	*Portulaca cyclophylla*			
1289.	43981	*Portulaca decipiens*			
1290.	2884	*Portulaca oleracea (Purslane, Wakati)*			
1291.	8189	*Pseudognaphalium luteoalbum (Jersey Cudweed)*			
1292.	8192	*Pterocaulon sphacelatum (Apple Bush, Fruit Salad Plant)*			
1293.	8193	*Pterocaulon sphaeranthoides*			
1294.	2690	*Ptilotus aervoides*			
1295.	2696	*Ptilotus astrolasius*			
1296.	2698	*Ptilotus auriculifolius*			
1297.	2699	*Ptilotus axillaris (Mat Mulla Mulla)*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
1298.	2704	*Ptilotus calostachyus (Weeping Mulla Mulla)*			
1299.	2706	*Ptilotus carinatus*			
1300.	2711	*Ptilotus clementii (Tassel Top)*			
1301.	2717	*Ptilotus divaricatus (Climbing Mulla Mulla)*			
1302.	2721	*Ptilotus exaltatus (Tall Mulla Mulla)*			
1303.	2725	*Ptilotus fusiformis*			
1304.	2728	*Ptilotus gomphrenoides*			
1305.	2729	*Ptilotus grandiflorus*			
1306.	2731	*Ptilotus helipteroides (Hairy Mulla Mulla)*			
1307.	2741	*Ptilotus macrocephalus (Featherheads)*			
1308.	2745	*Ptilotus murrayi*			
1309.	2746	*Ptilotus nobilis (Tall Mulla Mulla)*			
1310.	2747	*Ptilotus obovatus (Cotton Bush)*			
1311.	2751	*Ptilotus polystachyus (Prince of Wales Feather)*			
1312.	2766	*Ptilotus villosiflorus*			
1313.	2582	*Rhagodia eremaea (Thorny Saltbush)*			
1314.	2584	*Rhagodia preissii*			
1315.	11240	*Rhagodia preissii subsp. obovata*			
1316.	5295	*Rhizophora stylosa (Spotted-leaved Red Mangrove)*			
1317.	13301	*Rhodanthe floribunda*			
1318.	13246	*Rhodanthe humboldtiana*			
1319.	13310	*Rhodanthe margarethae*			
1320.	4190	*Rhynchosia australis (Rhynchosia)*			
1321.	20862	*Rhynchosia bungarensis*		P4	
1322.	4191	*Rhynchosia minima (Rhynchosia)*			
1323.		*Riccia albida*			
1324.	48900	*Roepera retivalvis*			
1325.	2443	*Rumex vesicarius (Ruby Dock)*	Y		
1326.	30434	*Salsola australis*			
1327.	2357	*Santalum lanceolatum (Northern Sandalwood, Yarnguli)*			
1328.	12578	*Scaevola acacioides*			
1329.	7606	*Scaevola crassifolia (Thick-leaved Fan-flower)*			
1330.	7608	*Scaevola cunninghamii*			
1331.	7614	*Scaevola globulifera*			
1332.	7644	*Scaevola spinescens (Currant Bush, Maroon)*			
1333.	41660	*Schenkia australis*			
1334.	41646	*Schenkia clementii*			
1335.	16257	*Schoenoplectus subulatus*			
1336.	1010	*Schoenus punctatus*		P3	
1337.	2597	*Sclerolaena bicornis (Goathead Burr)*			
1338.	11650	*Sclerolaena bicornis var. bicornis (Goathead Burr)*			
1339.	2604	*Sclerolaena costata*			
1340.	2607	*Sclerolaena densiflora*			
1341.	2609	*Sclerolaena diacantha (Grey Copperburr)*			
1342.	8877	*Sclerolaena gardneri*			
1343.	2633	*Sclerolaena uniflora (Two-spined Saltbush)*			
1344.	12279	*Senna artemisioides subsp. helmsii*			
1345.	12280	*Senna artemisioides subsp. oligophylla*			
1346.	18444	*Senna charlesiana*			
1347.	12303	*Senna costata*			
1348.	18443	*Senna ferraria*			
1349.	18346	*Senna glutinosa*			
1350.	12305	*Senna glutinosa subsp. chatelainiana*			
1351.	12307	*Senna glutinosa subsp. glutinosa*			
1352.	12309	*Senna glutinosa subsp. pruinosa*			
1353.	12308	*Senna glutinosa subsp. x luerssenii*			
1354.	18451	*Senna hamersleyensis*			
1355.	12312	*Senna notabilis*			
1356.	18450	*Senna symonii*			
1357.	12319	*Senna venusta*			
1358.	4196	*Sesbania cannabina (Sesbania Pea)*			
1359.	4198	*Sesbania formosa (White Dragon Tree)*			
1360.	2818	*Sesuvium portulacastrum*			
1361.	606	*Setaria dielsii (Diels' Pigeon Grass)*			
1362.	608	*Setaria italica (Italian Millet)*	Y		
1363.	613	*Setaria verticillata (Whorled Pigeon Grass)*	Y		
1364.		*Sida Excedentifolia (J.L. Egan 1925)*			
1365.	31758	*Sida arsiniata*			
1366.	4971	*Sida cardiophylla*			
1367.	4976	*Sida echinocarpa*			

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1368.	4977	*Sida fibulifera (Silver Sida)*			
1369.	4988	*Sida rohlenae*			
1370.	33698	*Sida sp. Pilbara (A.A. Mitchell PRP 1543)*			
1371.	16617	*Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)*			
1372.	4989	*Sida spinosa (Spiny Sida)*			
1373.	6998	*Solanum cleistogamum*			
1374.	7002	*Solanum diversiflorum*			
1375.	7007	*Solanum esuriale (Quena)*			
1376.	7009	*Solanum gabrielae*			
1377.	7014	*Solanum horridum*			
1378.	7018	*Solanum lasiophyllum (Flannel Bush, Mindjulu)*			
1379.	7022	*Solanum nigrum (Black Berry Nightshade)*	Y		
1380.	7029	*Solanum phlomoides*			
1381.	7036	*Solanum sturtianum (Thargomindah Nightshade)*			
1382.	8231	*Sonchus oleraceus (Common Sowthistle)*	Y		
1383.	619	*Sorghum plumosum (Plume Canegrass)*			
1384.	12919	*Sorghum plumosum var. plumosum*			
1385.	622	*Sorghum timorense*			
1386.	625	*Spinifex longifolius (Beach Spinifex)*			
1387.	44523	*Spongophloea tissotii*			
1388.	629	*Sporobolus australasicus (Fairy Grass)*			
1389.	635	*Sporobolus virginicus (Marine Couch)*			
1390.	27310	*Spyridia filamentosa*			
1391.	4729	*Stackhousia clementii*		P3	
1392.	4731	*Stackhousia intermedia*			
1393.	19555	*Stackhousia muricata subsp. annual (W.R. Barker 2172)*			
1394.	7098	*Stemodia grossa (Marsh Stemodia, Mindjaara)*			
1395.	7099	*Stemodia kingii*			
1396.	8234	*Streptoglossa adscendens*			
1397.	8235	*Streptoglossa bubakii*			
1398.	8236	*Streptoglossa cylindriceps*			
1399.	8237	*Streptoglossa decurrens*			
1400.	8238	*Streptoglossa liatroides*			
1401.	8240	*Streptoglossa odora*			
1402.	8241	*Streptoglossa tenuiflora*			
1403.	7729	*Stylidium fluminense*			
1404.	3182	*Stylobasium spathulatum (Pebble Bush)*			
1405.	12353	*Stylosanthes hamata (Verano Stylo)*	Y		
1406.	2638	*Suaeda arbusculoides*			
1407.	43203	*Surreya diandra*			
1408.	12356	*Swainsona formosa*			
1409.	4231	*Swainsona kingii*			
1410.	4233	*Swainsona leeana*			
1411.	4234	*Swainsona maccullochiana (Ashburton Pea)*			
1412.	4242	*Swainsona pterostylis*			
1413.	7363	*Synaptantha tillaeacea*			
1414.	13339	*Synaptantha tillaeacea var. tillaeacea*			
1415.	132	*Syringodium isoetifolium*			
1416.	31616	*Tecticornia auriculata*			
1417.	33236	*Tecticornia halocnemoides (Shrubby Samphire)*			
1418.	33240	*Tecticornia halocnemoides subsp. longispicata*			
1419.	33238	*Tecticornia halocnemoides subsp. tenuis*			
1420.	33317	*Tecticornia indica*			
1421.	33319	*Tecticornia indica subsp. bidens*			
1422.	33356	*Tecticornia indica subsp. indica*			
1423.	33357	*Tecticornia indica subsp. julacea*			
1424.	33318	*Tecticornia indica subsp. leiostachya (Samphire)*			
1425.	33299	*Tecticornia pergranulata subsp. elongata*			
1426.	31618	*Tecticornia pruinosa*			
1427.	33220	*Tecticornia pterygosperma subsp. denticulata*			
1428.		*Tephrosia Fortescue (A.A. Mitchell 606)*			
1429.	4263	*Tephrosia clementii*			
1430.	49016	*Tephrosia densa*			
1431.	4272	*Tephrosia leptoclada*			
1432.	4280	*Tephrosia rosea (Flinders River Poison, Bungoo'dah)*			
1433.	19531	*Tephrosia rosea var. clementii*			
1434.	19529	*Tephrosia rosea var. rosea*			
1435.	15947	*Tephrosia sp. B Kimberley Flora (C.A. Gardner 7300)*			
1436.	17768	*Tephrosia sp. Bungaroo Creek (M.E. Trudgen 11601)*			
1437.	15949	*Tephrosia sp. D Kimberley Flora (R.D. Royce 1848)*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
1438.	42442	*Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)*			
1439.	40060	*Tephrosia sp. clay soils (S. van Leeuwen et al. PBS 0273)*			
1440.	4285	*Tephrosia supina*			
1441.	5300	*Terminalia canescens (Joolal)*			
1442.	45698	*Terminalia circumalata*			
1443.	5310	*Terminalia platyphylla (Wild Plum, Durin)*			
1444.	5313	*Terminalia supranitifolia*		P3	
1445.	169	*Thalassia hemprichii*			
1446.	17820	*Themeda sp. Hamersley Station (M.E. Trudgen 11431)*		P3	
1447.	17819	*Themeda sp. Mt Barricade (M.E. Trudgen 2471)*			
1448.	673	*Themeda triandra*			
1449.	2644	*Threlkeldia diffusa (Coast Bonefruit)*			
1450.	2942	*Tinospora smilacina (Snakevine, Oondala)*			
1451.	27336	*Tolypiocladia glomerulata*			
1452.	6270	*Trachymene didiscoides*			
1453.	6273	*Trachymene glaucifolia (Wild Carrot)*			
1454.	6278	*Trachymene oleracea*			
1455.	19043	*Trachymene oleracea subsp. oleracea*			
1456.	678	*Tragus australianus (Small Burrgrass)*			
1457.	44305	*Trianthema pilosum*			
1458.	2830	*Trianthema portulacastrum (Giant Pigweed)*	Y		
1459.	44362	*Trianthema triquetrum*			
1460.	44360	*Trianthema turgidifolium*			
1461.	4375	*Tribulus cistoides*			
1462.	4377	*Tribulus hirsutus*			
1463.	4379	*Tribulus macrocarpus*			
1464.	4380	*Tribulus occidentalis (Perennial Caltrop)*			
1465.	4381	*Tribulus platypterus (Cork Hopbush)*			
1466.	4383	*Tribulus terrestris (Caltrop)*	Y		
1467.	6727	*Trichodesma zeylanicum (Camel Bush, Kumbalin)*			
1468.	11750	*Trichodesma zeylanicum var. zeylanicum*			
1469.	7381	*Trichosanthes cucumerina*			
1470.	12032	*Trichosanthes cucumerina var. cucumerina*			
1471.	8252	*Tridax procumbens (Tridax, Tridax Daisy)*	Y		
1472.	48201	*Trigastrotheca molluginea*			
1473.	679	*Triodia angusta*			
1474.	13131	*Triodia epactia*			
1475.	696	*Triodia pungens (Soft Spinifex)*			
1476.	704	*Triodia wiseana (Limestone Spinifex)*			
1477.	706	*Triraphis mollis (Needle Grass)*			
1478.	4873	*Triumfetta appendiculata*			
1479.	14694	*Triumfetta clementii*			
1480.	14942	*Triumfetta maconochieana*			
1481.	27348	*Udotea argentea*			
1482.	27349	*Udotea flabellum*			
1483.	35302	*Udotea glaucescens*			
1484.	30716	*Vachellia farnesiana (Mimosa Bush)*	Y		
1485.	27357	*Valoniopsis pachynema*			
1486.	7660	*Velleia glabrata (Pee the Bed)*			
1487.	4323	*Vigna lanceolata (Maloga Vigna, Wega)*			
1488.	31391	*Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)*			
1489.	46577	*Vigna triodiophila*		P3	
1490.	7393	*Wahlenbergia tumidifructa*			
1491.	5106	*Waltheria indica*			
1492.	17910	*Washingtonia filifera*	Y		
1493.	725	*Whiteochloa airoides*			
1494.	728	*Whiteochloa cymbiformis*			
1495.	6578	*Wrightia saligna*			
1496.	729	*Xerochloa barbata (Rice Grass)*			
1497.	731	*Xerochloa laniflora (Rice Grass)*			
1498.	732	*Yakirra australiensis*			
1499.	2834	*Zaleya galericulata (Hogweed)*			
1500.	29095	*Zaleya galericulata subsp. galericulata*			
1501.	4326	*Zornia albiflora*			
1502.	12679	*Zornia muelleriana subsp. congesta*			

Conservation Codes
T - Rare or likely to become extinct
X - Presumed extinct
IA - Protected under international agreement
S - Other specially protected fauna
1 - Priority 1

NatureMap
Mapping Western Australia's biodiversity

NatureMap Species Report

Created By Guest user on 05/03/2019

Burrup Peninsula

Current Names Only Yes
Core Datasets Only Yes
Method 'By Line'
Vertices 20° 42' 50" S,116° 45' 30" E 20° 41' 00" S,116° 43' 48" E 20° 40' 47" S,116° 42' 33" E 20° 36' 36" S,116° 46' 50" E
Group By Kingdom

Kingdom	Species	Records
Animalia	323	1701
Chromista	11	16
Fungi	7	8
Plantae	301	788
TOTAL	**642**	**2513**

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
Animalia					
1.		*? ?*			
2.	25332	*Acanthophis wellsi (Pilbara Death Adder)*			
3.		*Acentrogobius sp.*			
4.		*Actacarus pacificus*			
5.	41323	*Actitis hypoleucos (Common Sandpiper)*		IA	
6.	25544	*Aegotheles cristatus (Australian Owlet-nightjar)*			
7.		*Agauopsis arborea*			Y
8.		*Agauopsis dasyderma*			Y
9.		*Agauopsis moorea*			Y
10.		*Agauopsis obtusa*			Y
11.		*Alepes apercna*			
12.		*Alepes mate*			Y
13.		*Amblyeleotris gymnocephala*			
14.		*Amblyomma triguttatum*			
15.		*Amniataba caudavittata*			
16.		*Aname mainae*			
17.	24312	*Anas gracilis (Grey Teal)*			
18.	24316	*Anas superciliosa (Pacific Black Duck)*			
19.	47414	*Anhinga novaehollandiae (Australasian Darter)*			
20.		*Anomalohalacarus dampierensis*			Y
21.	24505	*Anous stolidus subsp. pileatus (Common Noddy)*		IA	
22.	25318	*Antaresia perthensis (Pygmy Python)*			
23.	25241	*Antaresia stimsoni subsp. stimsoni (Stimson's Python)*			
24.	25670	*Anthus australis (Australian Pipit)*			
25.	24285	*Aquila audax (Wedge-tailed Eagle)*			
26.	41324	*Ardea modesta (great egret, white egret)*			
27.	24341	*Ardea pacifica (White-necked Heron)*			
28.	25736	*Arenaria interpres (Ruddy Turnstone)*		IA	
29.		*Arius leptaspis*			Y
30.	25566	*Artamus cinereus (Black-faced Woodswallow)*			
31.	25567	*Artamus leucorynchus (White-breasted Woodswallow)*			
32.	24354	*Artamus leucorynchus subsp. leucopygialis (White-breasted Woodswallow)*			
33.	24355	*Artamus minor (Little Woodswallow)*			
34.	25320	*Aspidites melanocephalus (Black-headed Python)*			
35.		*Austrostrophus stictopygus*			
36.	24318	*Aythya australis (Hardhead)*			
37.	24359	*Burhinus grallarius (Bush Stone-curlew)*			
38.	47897	*Butorides striata (Striated Heron, Mangrove Heron)*			
39.	25716	*Cacatua sanguinea (Little Corella)*			
40.	42307	*Cacomantis pallidus (Pallid Cuckoo)*			
41.	24779	*Calidris acuminata (Sharp-tailed Sandpiper)*		IA	
42.	24780	*Calidris alba (Sanderling)*		IA	
43.	25738	*Calidris canutus (Red Knot, knot)*		IA	

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
44.	24784	*Calidris ferruginea (Curlew Sandpiper)*		T	
45.	24788	*Calidris ruficollis (Red-necked Stint)*		IA	
46.	24789	*Calidris subminuta (Long-toed Stint)*		IA	
47.	24790	*Calidris tenuirostris (Great Knot)*		T	
48.		*Callionymus japonicus*			Y
49.		*Carangoides sp.*			
50.		*Caranx bucculentus*			
51.		*Carcharhinus brachyurus*			
52.	25017	*Carlia triacantha (Desert Rainbow Skink)*			
53.	25600	*Centropus phasianinus (Pheasant Coucal)*			
54.		*Cephalopholis boenak*			
55.	24181	*Chaerephon jobensis (Greater Northern Freetail-bat, Northern Mastiff Bat)*			
56.	25575	*Charadrius leschenaultii (Greater Sand Plover)*		T	
57.	25576	*Charadrius mongolus (Lesser Sand Plover)*		T	
58.	24377	*Charadrius ruficapillus (Red-capped Plover)*			
59.	24378	*Charadrius veredus (Oriental Plover)*		IA	
60.		*Chelmon marginalis*			
61.		*Chelmon muelleri*			
62.	25336	*Chelonia mydas (Green Turtle)*		T	
63.	41332	*Chlidonias leucopterus (White-winged Black Tern, white-winged tern)*		IA	
64.		*Chroicocephalus novaehollandiae*			
65.	24289	*Circus assimilis (Spotted Harrier)*			
66.	24774	*Cladorhynchus leucocephalus (Banded Stilt)*			
67.	24399	*Columba livia (Domestic Pigeon)*	Y		
68.		*Copidognathus lutarius*			Y
69.		*Copidognathus meridianus*			
70.		*Copidognathus piger*			Y
71.	25568	*Coracina novaehollandiae (Black-faced Cuckoo-shrike)*			
72.	25593	*Corvus orru (Torresian Crow)*			
73.	25701	*Coturnix ypsilophora (Brown Quail)*			
74.	24420	*Cracticus nigrogularis (Pied Butcherbird)*			
75.	25595	*Cracticus tibicen (Australian Magpie)*			
76.	24919	*Crenadactylus ocellatus subsp. horni (Clawless Gecko)*			
77.	30893	*Cryptoblepharus buchananii*			
78.	25020	*Cryptoblepharus plagiocephalus*			
79.	30892	*Cryptoblepharus ustulatus*			
80.	24865	*Ctenophorus caudicinctus subsp. caudicinctus (Ring-tailed Dragon)*			
81.	24876	*Ctenophorus isolepis subsp. isolepis (Crested Dragon, Military Dragon)*			
82.	25043	*Ctenotus grandis subsp. titan*			
83.	25052	*Ctenotus leonhardii*			
84.	25064	*Ctenotus pantherinus subsp. ocellifer (Leopard Ctenotus)*			
85.	25072	*Ctenotus rubicundus*			
86.	25073	*Ctenotus saxatilis (Rock Ctenotus)*			
87.	25077	*Ctenotus serventyi*			
88.	25466	*Cyclodomorphus melanops (Slender Blue-tongue)*			
89.	25090	*Cyclodomorphus melanops subsp. melanops (Slender Blue-tongue)*			
90.	25375	*Cyclorana maini (Sheep Frog)*			
91.	24322	*Cygnus atratus (Black Swan)*			
92.	24091	*Dasykaluta rosamondae (Little Red Kaluta)*			
93.	24093	*Dasyurus hallucatus (Northern Quoll)*		T	
94.	25002	*Delma pax*			
95.	25004	*Delma tincta*			
96.	25295	*Demansia psammophis subsp. cupreiceps (Yellow-faced Whipsnake)*			
97.	25297	*Demansia rufescens (Rufous Whipsnake)*			
98.	24926	*Diplodactylus conspicillatus (Fat-tailed Gecko)*			
99.	41404	*Diplodactylus galaxias (Northern Pilbara Beak-faced Gecko)*			
100.	24944	*Diplodactylus savagei (Southern Pilbara Beak-faced Gecko)*			
101.		*Drombus sp.*			
102.	24084	*Dugong dugon (Dugong)*		S	
103.	25092	*Egernia depressa (Southern Pygmy Spiny-tailed Skink)*			
104.	25101	*Egernia pilbarensis (Pilbara Skink)*			
105.		*Egretta novaehollandiae*			
106.		*Elanus axillaris*			
107.		*Elops hawaiensis*			
108.	47937	*Elseyornis melanops (Black-fronted Dotterel)*			
109.	24631	*Emblema pictum (Painted Finch)*			
110.		*Enneapterygius sp.*			
111.		*Eolophus roseicapillus*			
112.	24653	*Eopsaltria pulverulenta (Mangrove Robin)*			
113.	25362	*Ephalophis greyae*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
114.	25578	*Ephippiorhynchus asiaticus (Black-necked Stork)*			
115.		*Epinephelus coioides*			
116.		*Epinephelus malabaricus*			
117.	24568	*Epthianura aurifrons (Orange Chat)*			
118.	24570	*Epthianura tricolor (Crimson Chat)*			
119.	42404	*Eremiascincus isolepis*			
120.	25342	*Eretmochelys imbricata subsp. bissa (Hawksbill Turtle)*		T	
121.	24379	*Erythrogonys cinctus (Red-kneed Dotterel)*			
122.	47938	*Esacus magnirostris (Beach Stone-curlew, Beach Thick-knee)*			
123.	25621	*Falco berigora (Brown Falcon)*			
124.	25622	*Falco cenchroides (Australian Kestrel, Nankeen Kestrel)*			
125.	25623	*Falco longipennis (Australian Hobby)*			
126.	25624	*Falco peregrinus (Peregrine Falcon)*		S	
127.	24476	*Falco subniger (Black Falcon)*			
128.	24041	*Felis catus (Cat)*	Y		
129.	25727	*Fulica atra (Eurasian Coot)*			
130.	25301	*Furina ornata (Moon Snake)*			
131.	24765	*Gallirallus philippensis subsp. mellori (Buff-banded Rail)*			
132.	24956	*Gehyra pilbara*			
133.	24958	*Gehyra punctata*			
134.	24959	*Gehyra variegata*			
135.	47954	*Gelochelidon nilotica (Gull-billed Tern)*		IA	
136.	24401	*Geopelia cuneata (Diamond Dove)*			
137.	24402	*Geopelia humeralis (Bar-shouldered Dove)*			
138.	25585	*Geopelia striata (Zebra Dove)*			
139.	24404	*Geophaps plumifera (Spinifex Pigeon)*			
140.		*Gerres subfasciatus*			
141.	24276	*Gerygone tenebrosa (Dusky Gerygone)*			
142.	24481	*Glareola maldivarum (Oriental Pratincole)*		IA	
143.		*Gobiodon rivulatus*			
144.	24443	*Grallina cyanoleuca (Magpie-lark)*			
145.	25627	*Haematopus fuliginosus (Sooty Oystercatcher)*			
146.	24487	*Haematopus longirostris (Pied Oystercatcher)*			
147.	24293	*Haliaeetus leucogaster (White-bellied Sea-Eagle)*			
148.	25541	*Haliastur indus (Brahminy Kite)*			
149.	24295	*Haliastur sphenurus (Whistling Kite)*			
150.		*Halieutaea brevicaudata?*			
151.	25232	*Hemidactylus frenatus (Asian House Gecko)*	Y		
152.	24961	*Heteronotia binoei (Bynoe's Gecko)*			
153.	47965	*Hieraaetus morphnoides (Little Eagle)*			
154.	25734	*Himantopus himantopus (Black-winged Stilt)*			
155.	24491	*Hirundo neoxena (Welcome Swallow)*			
156.	24215	*Hydromys chrysogaster (Water-rat, Rakali)*		P4	
157.	48587	*Hydroprogne caspia (Caspian Tern)*		IA	
158.		*Indolpium sp.*			
159.		*Isobactrus australiensis*			Y
160.		*Isobactrus obesus*			Y
161.	25637	*Larus novaehollandiae (Silver Gull)*			
162.		*Latrodectus geometricus*			
163.		*Leiognathus sp.*			
164.		*Lepidotrigla sp.*			
165.	25125	*Lerista bipes*			
166.	30928	*Lerista clara*			
167.	30929	*Lerista jacksoni*			
168.	25155	*Lerista muelleri*			
169.	25005	*Lialis burtonis*			
170.	25238	*Liasis olivaceus subsp. barroni (Pilbara Olive Python)*		T	
171.	25239	*Liasis olivaceus subsp. olivaceus (Olive Python)*			
172.	25661	*Lichmera indistincta (Brown Honeyeater)*			
173.	25739	*Limicola falcinellus (Broad-billed Sandpiper)*		IA	
174.	30932	*Limosa lapponica (Bar-tailed Godwit)*		IA	
175.		*Litarachna bartschae*			Y
176.	25392	*Litoria rubella (Little Red Tree Frog)*			
177.		*Liza subviridis*			
178.		*Lophiocharon trisignatus*			
179.	30933	*Lucasium stenodactylum*			
180.		*Lutjanus argentimaculatus*			
181.		*Lutjanus malabaricus*			
182.		*Lutjanus russellii*			
183.	24180	*Macroderma gigas (Ghost Bat)*		T	

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
184.	25489	*Macropus robustus (Euro, Biggada)*			
185.	24135	*Macropus robustus subsp. erubescens (Euro, Biggada)*			
186.	24136	*Macropus rufus (Red Kangaroo, Marlu)*			
187.	24326	*Malacorhynchus membranaceus (Pink-eared Duck)*			
188.	25652	*Malurus leucopterus (White-winged Fairy-wren)*			
189.	24583	*Manorina flavigula (Yellow-throated Miner)*			
190.	24736	*Melopsittacus undulatus (Budgerigar)*			
191.	25184	*Menetia greyii*			
192.	25187	*Menetia surda subsp. surda*			
193.	24598	*Merops ornatus (Rainbow Bee-eater)*			
194.		*Metavelifer multiradiatus*			
195.	25542	*Milvus migrans (Black Kite)*			
196.	25545	*Mirafra javanica (Horsfield's Bushlark, Singing Bushlark)*			
197.		*Monacanthus chinensis*			
198.		*Monodactylus argenteus*			
199.	25193	*Morethia ruficauda subsp. exquisita*			
200.		*Mormopterus (Ozimops) cobourgianus*			
201.		*Mugil cephalus*			
202.	24223	*Mus musculus (House Mouse)*	Y		
203.	25344	*Natator depressus (Flatback Turtle)*		T	
204.		*Nemipterus celebicus*			
205.	25685	*Neochmia ruficauda (Star Finch)*			
206.		*Neopsephotus bourkii*			
207.		*Nephila edulis*			
208.		*Netuma proxima*			
209.	24095	*Ningaui timealeyi (Pilbara Ningaui)*			
210.	25430	*Notaden nichollsi (Desert Spadefoot)*			
211.	25197	*Notoscincus ornatus subsp. ornatus*			
212.	24798	*Numenius madagascariensis (Eastern Curlew)*		T	
213.	24799	*Numenius minutus (Little Curlew, Little Whimbrel)*		IA	
214.	25742	*Numenius phaeopus (Whimbrel)*		IA	
215.	25564	*Nycticorax caledonicus (Rufous Night Heron)*			
216.		*Nyctophilus geoffroyi subsp. pallescens*			
217.	24742	*Nymphicus hollandicus (Cockatiel)*			
218.	24497	*Oceanites oceanicus (Wilson's Storm-petrel)*		IA	
219.	24407	*Ocyphaps lophotes (Crested Pigeon)*			
220.	24976	*Oedura marmorata (Marbled Velvet Gecko)*			
221.		*Omobranchus punctatus*			
222.	48034	*Osphranter robustus (Euro, Biggada)*			
223.	24620	*Pachycephala lanioides (White-breasted Whistler)*			
224.	24621	*Pachycephala melanura subsp. melanura (Mangrove Golden Whistler)*			
225.	25680	*Pachycephala rufiventris (Rufous Whistler)*			
226.	48591	*Pandion cristatus (Osprey, Eastern Osprey)*		IA	
227.		*Paramonacanthus choirocephalus*			
228.	25682	*Pardalotus striatus (Striated Pardalote)*			
229.	25687	*Passer domesticus (House Sparrow)*	Y		
230.	24642	*Passer montanus (Eurasian Tree Sparrow)*	Y		
231.	24648	*Pelecanus conspicillatus (Australian Pelican)*			
232.		*Peneoenanthe pulverulenta*			
233.		*Pentapodus sp.*			
234.	48060	*Petrochelidon ariel (Fairy Martin)*			
235.	48061	*Petrochelidon nigricans (Tree Martin)*			
236.	24144	*Petrogale rothschildi (Rothschild's Rock-wallaby)*			
237.	24667	*Phalacrocorax sulcirostris (Little Black Cormorant)*			
238.	25699	*Phalacrocorax varius (Pied Cormorant)*			
239.		*Planigale sp. nov.*			
240.		*Platycephalus sp.*			
241.	24843	*Plegadis falcinellus (Glossy Ibis)*		IA	
242.		*Pleurosicya sp.*			
243.	24382	*Pluvialis fulva (Pacific Golden Plover)*		IA	
244.	24383	*Pluvialis squatarola (Grey Plover)*		IA	
245.	25703	*Podargus strigoides (Tawny Frogmouth)*			
246.	24907	*Pogona minor subsp. minor (Dwarf Bearded Dragon)*			
247.		*Pomadasys maculatus*			
248.		*Pontarachne australis*			Y
249.		*Priacanthus hamrur*			
250.	24105	*Pseudantechinus roryi (Rory's Pseudantechinus)*			
251.	24106	*Pseudantechinus woolleyae (Woolley's Pseudantechinus)*			
252.	25261	*Pseudechis australis (Mulga Snake)*			
253.	24233	*Pseudomys chapmani (Western Pebble-mound Mouse, Ngadji)*		P4	

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254.	24234	*Pseudomys delicatulus (Delicate Mouse)*			
255.	24237	*Pseudomys hermannsburgensis (Sandy Inland Mouse)*			
256.	42416	*Pseudonaja mengdeni (Western Brown Snake)*			
257.	25264	*Pseudonaja nuchalis (Gwardar, Northern Brown Snake)*			
258.	24173	*Pteropus scapulatus (Little Red Flying-fox)*			
259.		*Ptilonorhynchus guttatus*			
260.		*Quistrachia legendrei*			
261.		*Rastrelliger kanagurta*			
262.	24245	*Rattus rattus (Black Rat)*	Y		
263.	24776	*Recurvirostra novaehollandiae (Red-necked Avocet)*			
264.		*Rhagada angulata*			
265.	25614	*Rhipidura leucophrys (Willie Wagtail)*			
266.	24457	*Rhipidura phasiana (Mangrove Grey Fantail)*			
267.		*Rhombognathus dispar*			Y
268.		*Rhombognathus ocularis*			Y
269.		*Rhombognathus scutulatus*			
270.		*Scaptognathides hawaiiensis*			Y
271.		*Scaptognathides ornatus*			Y
272.		*Scatophagus argus*			
273.		*Scolopendra morsitans*			
274.		*Scolopsis taenioptera*			
275.		*Secutor insidiator*			
276.		*Sillago burrus*			
277.		*Sillago lutea*			
278.		*Simaetha tenuior*			
279.		*Simognathus platyaspis*			Y
280.		*Simognathus salebrosus*			Y
281.		*Simognathus tener*			Y
282.	30948	*Smicrornis brevirostris (Weebill)*			
283.		*Sorsogona tuberculata*			
284.		*Sphyraena barracuda*			
285.	24521	*Sterna bengalensis (Lesser Crested Tern)*			
286.	48593	*Sternula albifrons (Little Tern)*		IA	
287.	48594	*Sternula nereis (Fairy Tern)*			
288.	24482	*Stiltia isabella (Australian Pratincole)*			
289.	24924	*Strophurus ciliaris subsp. aberrans*			
290.	24927	*Strophurus elderi*			
291.	24949	*Strophurus wellingtonae*			
292.	24207	*Tachyglossus aculeatus (Short-beaked Echidna)*			
293.	30870	*Taeniopygia guttata (Zebra Finch)*			
294.	24175	*Taphozous georgianus (Common Sheath-tailed Bat)*			
295.		*Terapon jarbua*			
296.		*Thalasseus bengalensis*			
297.	48597	*Thalasseus bergii (Crested Tern)*		IA	
298.	24845	*Threskiornis spinicollis (Straw-necked Ibis)*			
299.	25202	*Tiliqua multifasciata (Central Blue-tongue)*			
300.	25548	*Todiramphus chloris (Collared Kingfisher)*			
301.	24306	*Todiramphus chloris subsp. pilbara (Pilbara Collared Kingfisher)*			
302.	42351	*Todiramphus pyrrhopygius (Red-backed Kingfisher)*			
303.	25549	*Todiramphus sanctus (Sacred Kingfisher)*			
304.		*Triacanthus sp.*			
305.	24803	*Tringa brevipes (Grey-tailed Tattler)*		P4	
306.	24806	*Tringa glareola (Wood Sandpiper)*		IA	
307.	24808	*Tringa nebularia (Common Greenshank, greenshank)*		IA	
308.	24809	*Tringa stagnatilis (Marsh Sandpiper, little greenshank)*		IA	
309.	24851	*Turnix velox (Little Button-quail)*			
310.		*Tylosurus crocodilus*			
311.		*Urodacus armatus*			
312.		*Valamugil seheli*			
313.	24386	*Vanellus tricolor (Banded Lapwing)*			
314.	25209	*Varanus acanthurus (Spiny-tailed Monitor)*			
315.	25223	*Varanus panoptes subsp. rubidus*			
316.	25224	*Varanus pilbarensis (Pilbara Rock Monitor, Northern Pilbara Rock Goanna)*			
317.	25227	*Varanus tristis subsp. tristis (Racehorse Monitor)*			
318.		*Venatrix arenaris*			
319.	24205	*Vespadelus finlaysoni (Finlayson's Cave Bat)*			
320.	24040	*Vulpes vulpes (Red Fox)*	Y		
321.	41351	*Xenus cinereus (Terek Sandpiper)*		IA	
322.	24857	*Zosterops luteus (Yellow White-eye)*			
323.	24248	*Zyzomys argurus (Common Rock-rat)*			

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Chromista					
324.	35220	*Canistrocarpus cervicornis*			
325.	35910	*Canistrocarpus crispatus*			
326.	26764	*Dictyopteris australis*			
327.	29954	*Dictyopteris woodwardia*			
328.	26949	*Hydroclathrus clathratus*			
329.	27113	*Padina australis*			
330.	48304	*Padina tetrastromatica*			Y
331.	27248	*Sargassum ligulatum*			
332.	27253	*Sargassum peronii*			
333.	42785	*Sirophysalis trinodis*			
334.	27282	*Spatoglossum macrodontum*			
Fungi					
335.	27576	*Acarospora nodulosa*			
336.	44918	*Caloplaca michelagoensis*			
337.		*Caloplaca sp.*			
338.	27715	*Diploschistes actinostomus*			
339.	27932	*Peltula bolanderi*			
340.		*Phellinus rimosus*			
341.	28194	*Xanthoria parietina*			
Plantae					
342.	4891	*Abutilon fraseri (Lantern Bush)*			
343.	4895	*Abutilon lepidum*			
344.	4899	*Abutilon malvifolium (Bastard Marshmallow)*			
345.	44580	*Acacia ampliceps x bivenosa*			
346.	3214	*Acacia ancistrocarpa (Fitzroy Wattle)*			
347.	3223	*Acacia arida*			
348.	3241	*Acacia bivenosa*			
349.	44588	*Acacia bivenosa x sclerosperma subsp. sclerosperma*			
350.	17013	*Acacia colei var. colei*			
351.	3270	*Acacia coriacea (Wirewood)*			
352.	13500	*Acacia coriacea subsp. coriacea*			
353.	13502	*Acacia coriacea subsp. pendens*			
354.	12673	*Acacia glaucocaesia*			
355.	3356	*Acacia gregorii (Gregory's Wattle)*			
356.	3377	*Acacia inaequilatera (Baderi)*			
357.	3471	*Acacia orthocarpa (Needleleaf Wattle)*			
358.	29016	*Acacia pyrifolia var. morrisonii*			
359.	29015	*Acacia pyrifolia var. pyrifolia*			
360.	13078	*Acacia sclerosperma subsp. sclerosperma*			
361.	3551	*Acacia sphaerostachya*			
362.	3579	*Acacia trachycarpa (Minni Ritchi, Balgali)*			
363.	3606	*Acacia xiphophylla*			
364.	26441	*Acanthophora spicifera*			
365.	48409	*Acetabularia caliculus*			
366.	4583	*Adriana tomentosa*			
367.	17422	*Adriana tomentosa var. tomentosa*			
368.	6486	*Aegialitis annulata (Club Mangrove)*			
369.	6478	*Aegiceras corniculatum (River Mangrove)*			
370.	2646	*Aerva javanica (Kapok Bush)*	Y		
371.	3609	*Albizia lebbeck*			
372.	11487	*Alectryon oleifolius subsp. oleifolius*			
373.	2651	*Alternanthera nana (Hairy Joyweed)*			
374.	20018	*Amaranthus undulatus*			
375.	5277	*Ammannia baccifera*			
376.	26462	*Amphiroa fragilissima*			
377.	7832	*Angianthus milnei (Cone-spike Angianthus)*			
378.	207	*Aristida contorta (Bunched Kerosene Grass)*			
379.	215	*Aristida latifolia (Feathertop Wiregrass)*			
380.	226	*Arundo donax (Giant Reed)*	Y		
381.	6828	*Avicennia marina (White Mangrove)*			
382.	14555	*Avicennia marina subsp. marina*			
383.	7854	*Bidens bipinnata (Bipinnate Beggartick)*	Y		
384.	2770	*Boerhavia coccinea (Tar Vine, Wituka)*			
385.	2772	*Boerhavia gardneri*			
386.	2773	*Boerhavia paludosa*			
387.	44782	*Bonamia pilbarensis*			
388.	26508	*Boodlea composita*			
389.	26510	*Bornetella sphaerica*			

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390.	12716	*Brachychiton acuminatus*			
391.	4603	*Bridelia tomentosa*			
392.	5291	*Bruguiera exaristata (Ribbed Mangrove)*			
393.	11055	*Cajanus cinereus*			
394.	11150	*Cajanus pubescens*			
395.	48291	*Capparis spinosa subsp. nummularia*			
396.	2949	*Cassytha capillaris*			
397.	42620	*Caulerpa chemnitzia*			
398.	44539	*Caulerpa cylindracea*			
399.	44547	*Caulerpa lamourouxii*			
400.	26568	*Caulerpa lentillifera*			
401.	26573	*Caulerpa racemosa*			
402.	26576	*Caulerpa serrulata*			
403.	26577	*Caulerpa sertularioides*			
404.	26582	*Caulerpa verticillata*			
405.	258	*Cenchrus ciliaris (Buffel Grass)*	Y		
406.	41568	*Cenchrus setaceus (Fountain Grass)*	Y		
407.	29721	*Cenchrus setiger (Birdwood Grass)*	Y		
408.	6539	*Centaurium erythraea (Common Centaury)*	Y		
409.	39680	*Ceriops australis*			
410.	33	*Cheilanthes contigua*			
411.	269	*Chloris pectinata (Comb Chloris)*			
412.	273	*Chrysopogon fallax (Golden Beard Grass)*			
413.	2988	*Cleome viscosa (Tickweed, Tjinduwadhu)*			
414.	6732	*Clerodendrum tomentosum*			
415.	13689	*Clerodendrum tomentosum var. lanceolatum*			
416.	3769	*Clitoria ternatea*	Y		
417.		*Codium platyclados*			Y
418.	2778	*Codonocarpus cotinifolius (Native Poplar, Kundurangu)*			
419.	1165	*Commelina ensifolia (Wandering Jew, Buargu)*			
420.	2776	*Commicarpus australis (Perennial Tar Vine)*			
421.	7939	*Conyza bonariensis (Flaxleaf Fleabane)*	Y		
422.	4857	*Corchorus elachocarpus*			
423.	25847	*Corchorus incanus subsp. incanus*			
424.	13659	*Corchorus laniflorus*			
425.	4865	*Corchorus tridens*			
426.	13467	*Corchorus trilocularis*			
427.	4867	*Corchorus walcottii (Woolly Corchorus)*			
428.	17093	*Corymbia hamersleyana*			
429.	17092	*Corymbia opaca*			
430.	3774	*Crotalaria cunninghamii (Green Birdflower, Bilbun)*			
431.	11231	*Crotalaria novae-hollandiae subsp. novae-hollandiae*			
432.	41720	*Cucumis argenteus*			
433.	41721	*Cucumis variabilis*			
434.	279	*Cymbopogon ambiguus (Scentgrass)*			
435.	6584	*Cynanchum floribundum (Dumara Bush, Tjipa)*			
436.	774	*Cyperus bifax (Downs Nutgrass)*			
437.	12801	*Cyperus blakeanus*			
438.	777	*Cyperus bulbosus (Bush Onion, Tjanmata)*			
439.	814	*Cyperus squarrosus*			
440.	818	*Cyperus vaginatus (Stiffleaf Sedge)*			
441.	290	*Dactyloctenium radulans (Button Grass)*			
442.	7318	*Dentella minutissima*			
443.	3856	*Desmodium muelleri*			
444.	13741	*Dichanthium sericeum subsp. humilius*			
445.	3612	*Dichrostachys spicata (Pied Piper Bush)*			
446.	7166	*Dicliptera armata*			
447.	26769	*Dictyosphaeria cavernosa*			
448.	26782	*Digenea simplex*			
449.	313	*Digitaria ctenantha (Comb Finger Grass)*			
450.	48738	*Distimake dissectus var. dissectus*	Y		
451.	2504	*Dysphania plantaginella*			
452.	11653	*Dysphania rhadinostachya subsp. inflata*			
453.	11890	*Dysphania rhadinostachya subsp. rhadinostachya*			
454.	14301	*Ehretia saligna var. saligna*			
455.	827	*Eleocharis geniculata*			
456.	2511	*Enchylaena tomentosa (Barrier Saltbush)*			
457.	357	*Enneapogon caerulescens (Limestone Grass)*			
458.	360	*Enneapogon lindleyanus (Wiry Nineawn, Purple-head Nineawn)*			
459.	399	*Eragrostis xerophila (Knotty-butt Neverfail)*			

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460.	7234	*Eremophila longifolia (Berrigan, Tulypurpa)*			
461.	414	*Eriachne obtusa (Northern Wandarrie Grass)*			
462.	417	*Eriachne pulchella (Pretty Wanderrie)*			
463.	421	*Eriachne tenuiculmis*			
464.	5752	*Eucalyptus prominens*			
465.	14548	*Eucalyptus victrix*			
466.	4617	*Euphorbia australis (Namana)*			
467.	35307	*Euphorbia australis var. australis*			
468.	35303	*Euphorbia australis var. subtomentosa*			
469.	4619	*Euphorbia biconvexa*			
470.	9048	*Euphorbia careyi*			
471.	4623	*Euphorbia coghlanii (Namana)*			
472.	4626	*Euphorbia drummondii (Caustic Weed, Piwi)*			
473.	12097	*Euphorbia tannensis subsp. eremophila (Desert Spurge)*			
474.	42879	*Euphorbia trigonosperma*			
475.	13281	*Euphorbia vaccaria*			
476.	11200	*Evolvulus alsinoides var. villosicalyx*			
477.	31578	*Ficus aculeata var. indecora (Ranji)*			
478.	19648	*Ficus brachypoda*			
479.	1759	*Ficus virens (Albayi)*			
480.	851	*Fimbristylis dichotoma (Eight Day Grass)*			
481.	35558	*Flaveria trinervia (Speedy Weed)*	Y		
482.	12013	*Flueggea virosa subsp. melanthesoides (Dogwood, Guwal)*			
483.	5188	*Frankenia ambita*			
484.	2680	*Gomphrena cunninghamii*			
485.	18367	*Gomphrena kanisii*			
486.	7521	*Goodenia lamprosperma*			
487.	7556	*Goodenia tenuiloba*			
488.	4910	*Gossypium australe (Native Cotton)*			
489.	4913	*Gossypium hirsutum (Upland Cotton)*	Y		
490.	19570	*Grevillea pyramidalis subsp. leucadendron*			
491.	15975	*Grevillea pyramidalis subsp. pyramidalis*			
492.	19137	*Hakea lorea subsp. lorea*			
493.	26892	*Halimeda discoidea*			
494.	26894	*Halimeda macroloba*			
495.	131	*Halodule uninervis*			
496.	162	*Halophila decipiens*			
497.	163	*Halophila minor*			
498.	164	*Halophila ovalis (Sea Wrack)*			
499.	165	*Halophila spinulosa*			
500.	37642	*Halymenia durvillei*			
501.	6704	*Heliotropium conocarpum*			
502.	6707	*Heliotropium curassavicum (Smooth Heliotrope)*			
503.	6718	*Heliotropium tenuifolium (Mamukata)*			
504.	29316	*Hibiscus austrinus*			
505.	4923	*Hibiscus brachysiphonius*			
506.	4933	*Hibiscus leptocladus*			
507.	4942	*Hibiscus sturtii (Sturt's Hibiscus)*			
508.	5215	*Hybanthus aurantiacus*			
509.	3973	*Indigofera colutea (Sticky Indigo)*			
510.	3980	*Indigofera linifolia*			
511.	3982	*Indigofera monophylla*			
512.	3987	*Indigofera trita*			
513.	6624	*Ipomoea costata (Rock Morning Glory, Kanti)*			
514.	6633	*Ipomoea muelleri (Poison Morning Glory, Yumbu)*			
515.	6635	*Ipomoea pes-caprae*			
516.	11312	*Ipomoea pes-caprae subsp. brasiliensis*			
517.	465	*Iseilema vaginiflorum (Red Flinders Grass)*			
518.	12059	*Jasminum didymum subsp. lineare (Desert Jasmine)*			
519.	4960	*Lawrencia viridigrisea*			
520.		*Lawsonia inermis*			
521.	3035	*Lepidium pedicellosum*			
522.	3038	*Lepidium pholidogynum*			
523.	3613	*Leucaena leucocephala (Leucaena)*	Y		
524.	4060	*Lotus australis (Austral Trefoil)*			
525.	4962	*Malvastrum americanum (Spiked Malvastrum)*	Y		
526.	5051	*Melhania oblongifolia*			
527.	6490	*Muellerolimon salicorniaceum*			
528.	17158	*Myoporum montanum (Native Myrtle)*			
529.	2573	*Neobassia astrocarpa*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
530.	44548	*Neomeris bilimbata*			
531.	3614	*Neptunia dimorphantha (Sensitive Plant)*			
532.	19640	*Oldenlandia sp. Hamersley Station (A.A. Mitchell PRP 1479)*		P3	
533.	6651	*Operculina aequisepala*			
534.	503	*Panicum decompositum (Native Millet, Kaltu-kaltu)*			
535.	518	*Paspalidium clementii (Clements Paspalidium)*			
536.	525	*Paspalidium tabulatum*			
537.	5226	*Passiflora foetida (Stinking Passion Flower)*	Y		
538.	4680	*Phyllanthus maderaspatensis*			
539.	17794	*Phyllanthus tenellus*	Y		
540.	20652	*Physalis angulata*	Y		
541.	41300	*Pittosporum phillyreoides (Weeping Pittosporum, Yaliti)*			
542.	43944	*Pluchea longiseta*			
543.	8168	*Pluchea rubelliflora*			
544.	2903	*Polycarpaea longiflora*			
545.	17513	*Polymeria lanata*			
546.	2878	*Portulaca conspicua*			
547.	2884	*Portulaca oleracea (Purslane, Wakati)*			
548.	8189	*Pseudognaphalium luteoalbum (Jersey Cudweed)*			
549.	8192	*Pterocaulon sphacelatum (Apple Bush, Fruit Salad Plant)*			
550.	8193	*Pterocaulon sphaeranthoides*			
551.	2690	*Ptilotus aervoides*			
552.	2696	*Ptilotus astrolasius*			
553.	2698	*Ptilotus auriculifolius*			
554.	2706	*Ptilotus carinatus*			
555.	2721	*Ptilotus exaltatus (Tall Mulla Mulla)*			
556.	2728	*Ptilotus gomphrenoides*			
557.	2746	*Ptilotus nobilis (Tall Mulla Mulla)*			
558.	2747	*Ptilotus obovatus (Cotton Bush)*			
559.	2751	*Ptilotus polystachyus (Prince of Wales Feather)*			
560.	2766	*Ptilotus villosiflorus*			
561.	2582	*Rhagodia eremaea (Thorny Saltbush)*			
562.	11240	*Rhagodia preissii subsp. obovata*			
563.	5295	*Rhizophora stylosa (Spotted-leaved Red Mangrove)*			
564.	13310	*Rhodanthe margarethae*			
565.	4190	*Rhynchosia australis (Rhynchosia)*			
566.	20862	*Rhynchosia bungarensis*		P4	
567.	4191	*Rhynchosia minima (Rhynchosia)*			
568.	2443	*Rumex vesicarius (Ruby Dock)*	Y		
569.	30434	*Salsola australis*			
570.	12578	*Scaevola acacioides*			
571.	7608	*Scaevola cunninghamii*			
572.	7644	*Scaevola spinescens (Currant Bush, Maroon)*			
573.	16257	*Schoenoplectus subulatus*			
574.	2633	*Sclerolaena uniflora (Two-spined Saltbush)*			
575.	12280	*Senna artemisioides subsp. oligophylla*			
576.	12303	*Senna costata*			
577.	12308	*Senna glutinosa subsp. x luerssenii*			
578.	12312	*Senna notabilis*			
579.	4196	*Sesbania cannabina (Sesbania Pea)*			
580.	4977	*Sida fibulifera (Silver Sida)*			
581.	4989	*Sida spinosa (Spiny Sida)*			
582.	7014	*Solanum horridum*			
583.	7018	*Solanum lasiophyllum (Flannel Bush, Mindjulu)*			
584.	7022	*Solanum nigrum (Black Berry Nightshade)*	Y		
585.	7029	*Solanum phlomoides*			
586.	8231	*Sonchus oleraceus (Common Sowthistle)*	Y		
587.	622	*Sorghum timorense*			
588.	625	*Spinifex longifolius (Beach Spinifex)*			
589.	44523	*Spongophloea tissotii*			
590.	629	*Sporobolus australasicus (Fairy Grass)*			
591.	27310	*Spyridia filamentosa*			
592.	4729	*Stackhousia clementii*		P3	
593.	7098	*Stemodia grossa (Marsh Stemodia, Mindjaara)*			
594.	7099	*Stemodia kingii*			
595.	8237	*Streptoglossa decurrens*			
596.	8238	*Streptoglossa liatroides*			
597.	12353	*Stylosanthes hamata (Verano Stylo)*	Y		
598.	12356	*Swainsona formosa*			
599.	4231	*Swainsona kingii*			

	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
600.	4242	*Swainsona pterostylis*			
601.	33236	*Tecticornia halocnemoides (Shrubby Samphire)*			
602.	33240	*Tecticornia halocnemoides subsp. longispicata*			
603.	33356	*Tecticornia indica subsp. indica*			
604.	33318	*Tecticornia indica subsp. leiostachya (Samphire)*			
605.	33220	*Tecticornia pterygosperma subsp. denticulata*			
606.		*Tephrosia Fortescue (A.A. Mitchell 606)*			
607.	4263	*Tephrosia clementii*			
608.	49016	*Tephrosia densa*			
609.	4272	*Tephrosia leptoclada*			
610.	4280	*Tephrosia rosea (Flinders River Poison, Bungoo'dah)*			
611.	19531	*Tephrosia rosea var. clementii*			
612.	15947	*Tephrosia sp. B Kimberley Flora (C.A. Gardner 7300)*			
613.	4285	*Tephrosia supina*			
614.	45698	*Terminalia circumalata*			
615.	5313	*Terminalia supranitifolia*		P3	
616.	17820	*Themeda sp. Hamersley Station (M.E. Trudgen 11431)*		P3	
617.	17819	*Themeda sp. Mt Barricade (M.E. Trudgen 2471)*			
618.	673	*Themeda triandra*			
619.	2942	*Tinospora smilacina (Snakevine, Oondala)*			
620.	6278	*Trachymene oleracea*			
621.	19043	*Trachymene oleracea subsp. oleracea*			
622.	2830	*Trianthema portulacastrum (Giant Pigweed)*	Y		
623.	44362	*Trianthema triquetrum*			
624.	44360	*Trianthema turgidifolium*			
625.	4380	*Tribulus occidentalis (Perennial Caltrop)*			
626.	4383	*Tribulus terrestris (Caltrop)*	Y		
627.	6727	*Trichodesma zeylanicum (Camel Bush, Kumbalin)*			
628.	8252	*Tridax procumbens (Tridax, Tridax Daisy)*	Y		
629.	48201	*Trigastrotheca molluginea*			
630.	679	*Triodia angusta*			
631.	13131	*Triodia epactia*			
632.	704	*Triodia wiseana (Limestone Spinifex)*			
633.	4873	*Triumfetta appendiculata*			
634.	14694	*Triumfetta clementii*			
635.	27348	*Udotea argentea*			
636.	35302	*Udotea glaucescens*			
637.	7660	*Velleia glabrata (Pee the Bed)*			
638.	31391	*Vigna sp. Hamersley Clay (A.A. Mitchell PRP 113)*			
639.	46577	*Vigna triodiophila*		P3	
640.	17910	*Washingtonia filifera*	Y		
641.	725	*Whiteochloa airoides*			
642.	29095	*Zaleya galericulata subsp. galericulata*			

Conservation Codes
T - Rare or likely to become extinct
X - Presumed extinct
IA - Protected under international agreement
S - Other specially protected fauna
1 - Priority 1
2 - Priority 2
3 - Priority 3
4 - Priority 4
5 - Priority 5

[1] For NatureMap's purposes, species flagged as endemic are those whose records are wholely contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

Australian Government
Department of the Environment and Energy

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about Environment Assessments and the EPBC Act including significance guidelines, forms and application process details.

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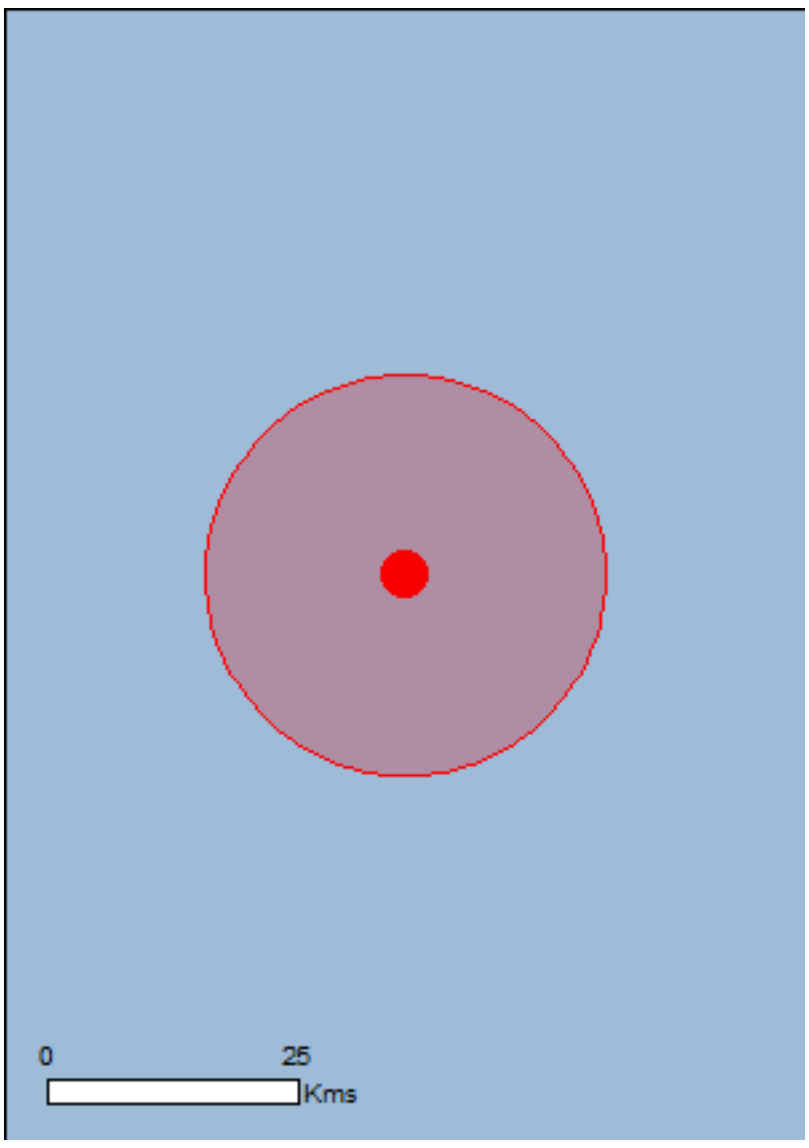

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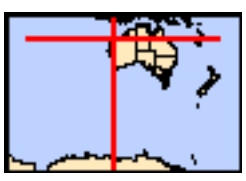

Summary

Matters of National Environmental Significance

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

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	31
Listed Migratory Species:	57

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	97
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	1
Regional Forest Agreements:	None
Invasive Species:	16
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

National Heritage Properties		[Resource Information]
Name	State	Status
Indigenous		
Dampier Archipelago (including Burrup Peninsula)	WA	Listed place

Listed Threatened Species		[Resource Information]
Name	Status	Type of Presence
Birds		
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted-snipe, Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Breeding known to occur within area

Name	Status	Type of Presence
Mammals		
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Dasyurus hallucatus Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat known to occur within area
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat likely to occur within area
Macrotis lagotis Greater Bilby [282]	Vulnerable	Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat known to occur within area
Rhinonicteris aurantia (Pilbara form) Pilbara Leaf-nosed Bat [82790]	Vulnerable	Species or species habitat may occur within area
Reptiles		
Aipysurus apraefrontalis Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Ctenotus angusticeps Northwestern Coastal Ctenotus, Airlie Island Ctenotus [25937]	Vulnerable	Species or species habitat likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
Liasis olivaceus barroni Olive Python (Pilbara subspecies) [66699]	Vulnerable	Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
Sharks		
Carcharias taurus (west coast population) Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area

Name	Status	Type of Presence
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Migratory Marine Birds		
Anous stolidus		
Common Noddy [825]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Calonectris leucomelas		
Streaked Shearwater [1077]		Species or species habitat may occur within area
Fregata ariel		
Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Macronectes giganteus		
Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Onychoprion anaethetus		
Bridled Tern [82845]		Breeding known to occur within area
Sterna dougallii		
Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area
Migratory Marine Species		
Anoxypristis cuspidata		
Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area
Balaenoptera edeni		
Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus		
Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas		
Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Dermochelys coriacea		
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Dugong dugon		
Dugong [28]		Species or species habitat known to occur within area
Eretmochelys imbricata		
Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
Manta alfredi		
Reef Manta Ray, Coastal Manta Ray, Inshore		Species or species

Name	Threatened	Type of Presence
Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994] Manta birostris		habitat known to occur within area
Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Sousa chinensis Indo-Pacific Humpback Dolphin [50]		Species or species habitat known to occur within area
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area
Migratory Terrestrial Species		
Hirundo rustica Barn Swallow [662]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Arenaria interpres Ruddy Turnstone [872]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species

Name	Threatened	Type of Presence
		habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris subminuta Long-toed Stint [861]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat known to occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Species or species habitat known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area
Pluvialis squatarola Grey Plover [865]		Species or species habitat known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur

Name	Threatened	Type of Presence
		within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area
Tringa totanus Common Redshank, Redshank [835]		Species or species habitat known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Species or species habitat known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land [Resource Information]

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

Name
Commonwealth Land -

Listed Marine Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat known to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Arenaria interpres Ruddy Turnstone [872]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris alba Sanderling [875]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur

Name	Threatened	Type of Presence within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area
Calidris subminuta Long-toed Stint [861]		Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat may occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
Chrysococcyx osculans Black-eared Cuckoo [705]		Species or species habitat known to occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat known to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Breeding known to occur within area
Heteroscelus brevipes Grey-tailed Tattler [59311]		Species or species habitat known to occur within area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Species or species habitat known to occur within area
Hirundo rustica Barn Swallow [662]		Species or species habitat may occur within area
Limicola falcinellus Broad-billed Sandpiper [842]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa Black-tailed Godwit [845]		Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Species or species habitat known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area
Pluvialis squatarola Grey Plover [865]		Species or species habitat known to occur within area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat may occur within area
Sterna anaethetus Bridled Tern [814]		Breeding known to occur within area
Sterna dougallii Roseate Tern [817]		Foraging, feeding or related behaviour likely to occur within area
Stiltia isabella Australian Pratincole [818]		Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Species or species

Name	Threatened	Type of Presence
		habitat known to occur within area
Tringa totanus Common Redshank, Redshank [835]		Species or species habitat known to occur within area
Xenus cinereus Terek Sandpiper [59300]		Species or species habitat known to occur within area
Fish		
Bulbonaricus brauni Braun's Pughead Pipefish, Pug-headed Pipefish [66189]		Species or species habitat may occur within area
Campichthys tricarinatus Three-keel Pipefish [66192]		Species or species habitat may occur within area
Choeroichthys brachysoma Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area
Choeroichthys suillus Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
Doryrhamphus janssi Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
Doryrhamphus negrosensis Flagtail Pipefish, Masthead Island Pipefish [66213]		Species or species habitat may occur within area
Festucalex scalaris Ladder Pipefish [66216]		Species or species habitat may occur within area
Filicampus tigris Tiger Pipefish [66217]		Species or species habitat may occur within area
Halicampus brocki Brock's Pipefish [66219]		Species or species habitat may occur within area
Halicampus grayi Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
Halicampus nitidus Glittering Pipefish [66224]		Species or species habitat may occur within area
Halicampus spinirostris Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
Haliichthys taeniophorus Ribboned Pipehorse, Ribboned Seadragon [66226]		Species or species habitat may occur within area
Hippichthys penicillus Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
Hippocampus angustus Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
Hippocampus histrix Spiny Seahorse, Thorny Seahorse [66236]		Species or species

Name	Threatened	Type of Presence
		habitat may occur within area
Hippocampus kuda Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area
Hippocampus planifrons Flat-face Seahorse [66238]		Species or species habitat may occur within area
Hippocampus trimaculatus Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area
Micrognathus micronotopterus Tidepool Pipefish [66255]		Species or species habitat may occur within area
Solegnathus hardwickii Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
Trachyrhamphus longirostris Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
Mammals		
Dugong dugon Dugong [28]		Species or species habitat known to occur within area
Reptiles		
Acalyptophis peronii Horned Seasnake [1114]		Species or species habitat may occur within area
Aipysurus apraefrontalis Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area
Aipysurus duboisii Dubois' Seasnake [1116]		Species or species habitat may occur within area
Aipysurus eydouxii Spine-tailed Seasnake [1117]		Species or species habitat may occur within area
Aipysurus laevis Olive Seasnake [1120]		Species or species habitat may occur within area
Aipysurus tenuis Brown-lined Seasnake [1121]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Astrotia stokesii Stokes' Seasnake [1122]		Species or species habitat may occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Disteira kingii Spectacled Seasnake [1123]		Species or species habitat may occur within area
Disteira major Olive-headed Seasnake [1124]		Species or species habitat may occur within area
Emydocephalus annulatus Turtle-headed Seasnake [1125]		Species or species habitat may occur within area
Ephalophis greyi North-western Mangrove Seasnake [1127]		Species or species habitat may occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
Hydrelaps darwiniensis Black-ringed Seasnake [1100]		Species or species habitat may occur within area
Hydrophis czeblukovi Fine-spined Seasnake [59233]		Species or species habitat may occur within area
Hydrophis elegans Elegant Seasnake [1104]		Species or species habitat may occur within area
Hydrophis mcdowelli null [25926]		Species or species habitat may occur within area
Hydrophis ornatus Spotted Seasnake, Ornate Reef Seasnake [1111]		Species or species habitat may occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
Pelamis platurus Yellow-bellied Seasnake [1091]		Species or species habitat may occur within area

Whales and other Cetaceans		[Resource Information]
Name	Status	Type of Presence
Mammals		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area

Name	Status	Type of Presence
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Delphinus delphis Common Dophin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Sousa chinensis Indo-Pacific Humpback Dolphin [50]		Species or species habitat known to occur within area
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Murujuga	WA

Invasive Species	[Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Passer montanus Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Mammals		
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Equus caballus Horse [5]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat likely to occur within area
Jatropha gossypifolia Cotton-leaved Physic-Nut, Bellyache Bush, Cotton-leaf Physic Nut, Cotton-leaf Jatropha, Black Physic Nut [7507]		Species or species habitat likely to occur within area
Parkinsonia aculeata Parkinsonia, Jerusalem Thorn, Jelly Bean Tree, Horse Bean [12301]		Species or species habitat likely to occur within area
Prosopis spp. Mesquite, Algaroba [68407]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area
Ramphotyphlops braminus Flowerpot Blind Snake, Brahminy Blind Snake, Cacing Besi [1258]		Species or species habitat known to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

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

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

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

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

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

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

Coordinates

-20.81552 116.67903

Acknowledgements

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

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

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

Please feel free to provide feedback via the Contact Us page.

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Appendix C: Condition Scale and Vegetation Classification System

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Table C.1: Vegetation condition scale as adapted from Trudgen (1988) (Environmental Protection Authority 2016a).

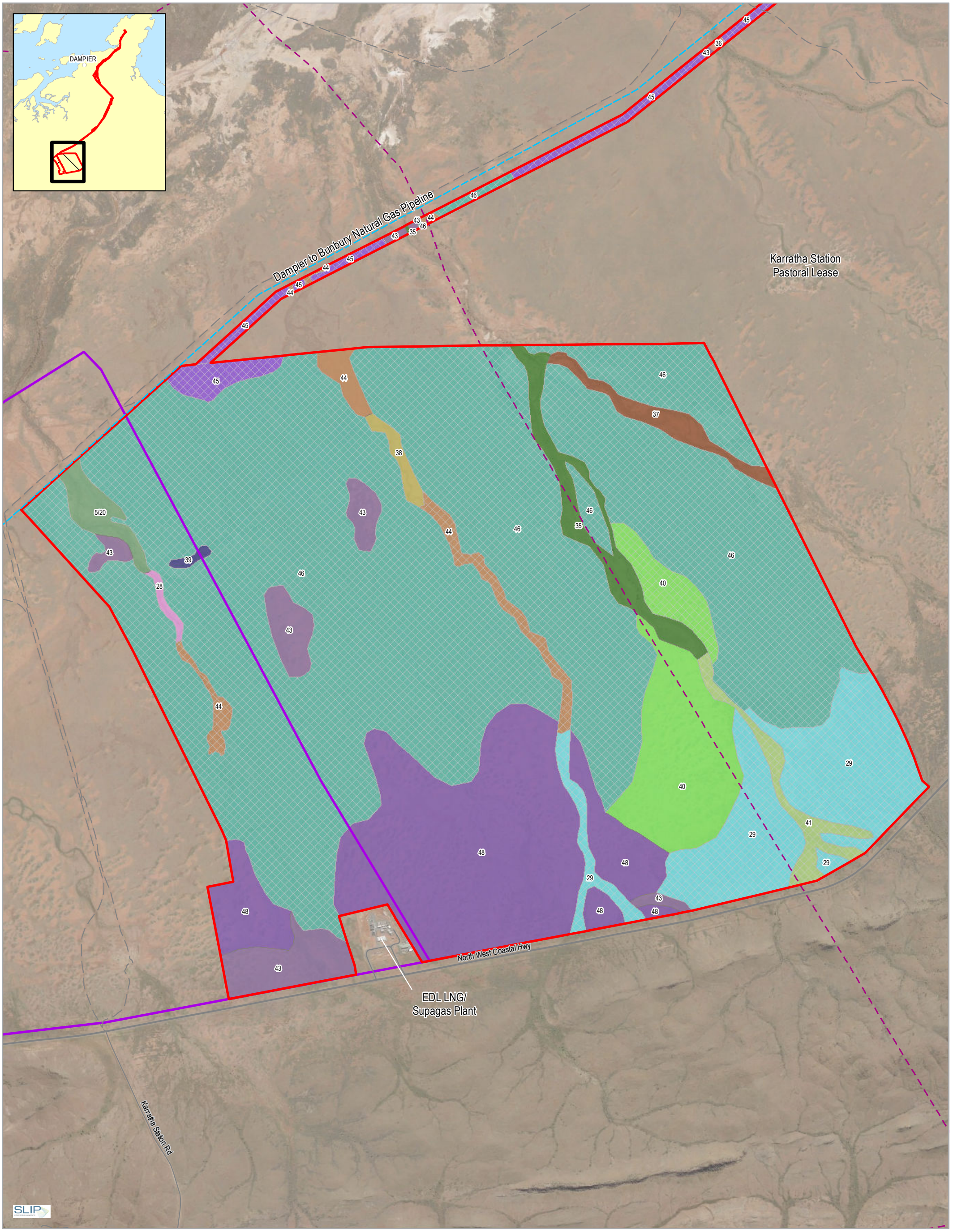
Condition	Description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very Good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
Degraded	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely Degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Table C.2: Vegetation Classification System Specht (1970) as modified by Aplin (1979).

Stratum	70-100% cover	30-70% cover	10-30% cover	2-10% cover	<2% cover
Trees > 30 m	Tall closed forest	Tall open Forest	Tall woodland	Tall open woodland	Scattered tall trees
Trees 10-30 m	Closed forest	Open forest	Woodland	Open woodland	Scattered trees
Trees < 10 m	Low closed forest	Low open forest	Low woodland	Low open woodland	Scattered low trees
Shrubs > 2 m	Tall closed scrub	Tall open scrub	Tall shrubland	Tall open shrubland	Scattered tall shrubs
Shrubs 1-2 m	Closed heath	Open heath	Shrubland	Open shrubland	Scattered shrubs
Shrubs < 1 m	Low closed heath	Low open heath	Low shrubland	Low open shrubland	Scattered low shrubs
Hummock grasses	Closed hummock grassland	Hummock grassland	Open hummock grassland	Very open hummock grassland	Scattered hummock grasses

Stratum	70-100% cover	30-70% cover	10-30% cover	2-10% cover	<2% cover
Grasses, sedges, herbs	Closed tussock grassland/ sedgeland/ herbland	Tussock grassland/ sedgeland/ herbland	Open tussock grassland/ sedgeland/ herbland	Very open tussock grassland/ sedgeland/ herbland	Scattered tussock grasses /sedges/herbs

Appendix D: Vegetation Type Mapping



LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- MSIA Buffer
- Maitland Strategic Industrial Area
- Survey Area
- Priority 1 PEC Burrup Peninsula rock pile communities

Vegetation Type

- VT05/20
- VT28 - AiAc?Eb
- VT29 - AiTw
- VT35 - AcAi
- VT36 - Ac?Tt
- VT37 - AcAx?Tt
- VT38 - VfCc
- VT39 - ShEx
- VT40 - AxEx
- VT41 - ChAcTa
- VT43 - Tw
- VT44 - Eb?Cf
- VT45 - Ex spp
- VT46 - Ex
- VT48 - AbTw

Paper Size ISO A3

0 100 200 300 400 500

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Vegetation Types

Project No. **61-3780805**
Revision No. **0**
Date **27 Nov 2019**

Appendix D

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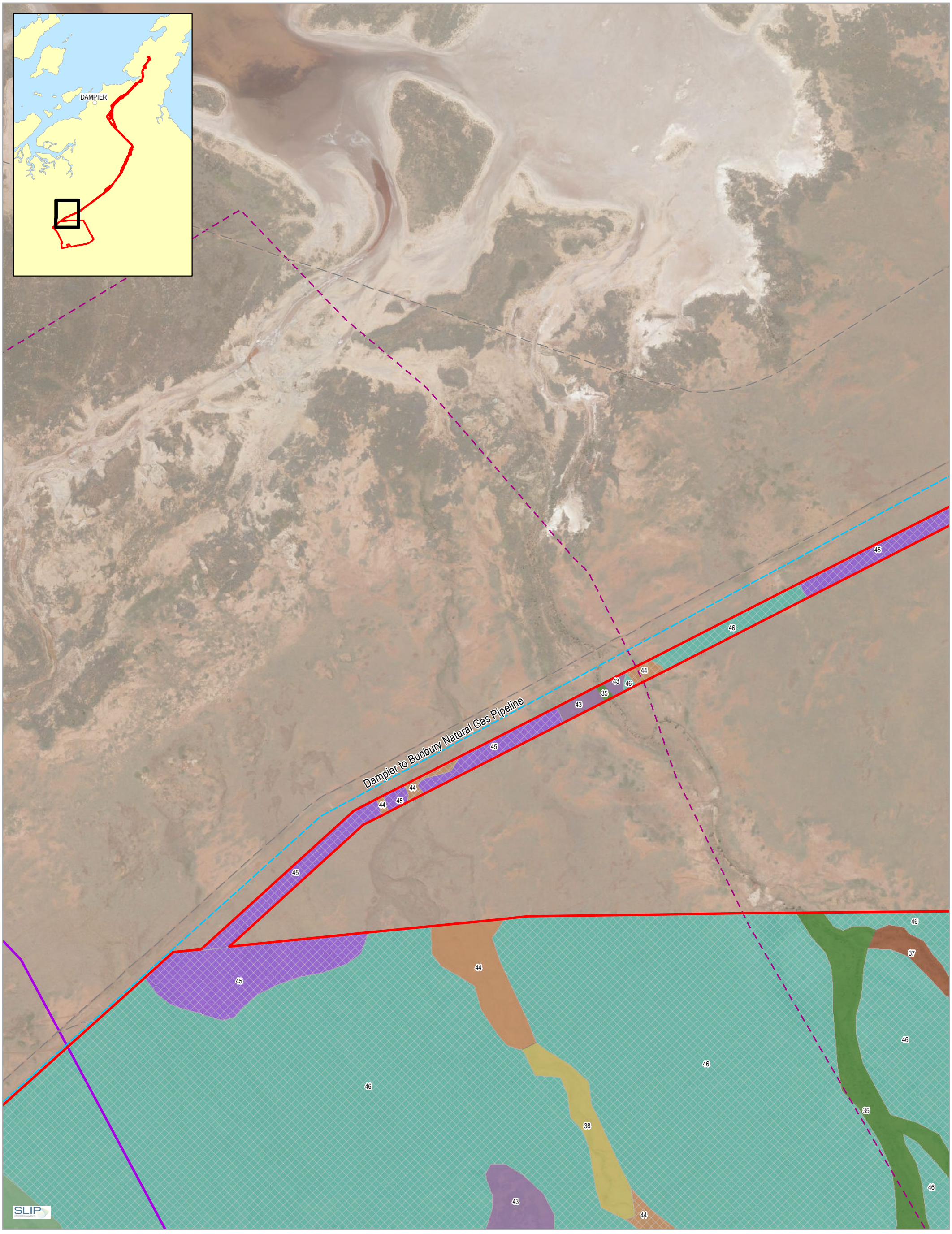
Data source: GHD: Development envelopes - 20181218, Vegetation Condition - 20190917; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703).
Created by: afeeney



LEGEND

- Track
- Dampier to Bunbury Natural Gas Pipeline
- MSIA Buffer
- Maitland Strategic Industrial
- Survey Area
- Priority 1 PEC Burrup Peninsula rock pile communities

Vegetation Type

- VT05/20
- VT35 - AcAi
- VT37 - AcAx?Tt
- VT38 - VfCc
- VT43 - Tw
- VT44 - Eb?Cf
- VT45 - Ex spp
- VT46 - Ex

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

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Vegetation Types

Project No. **61-37808**
Revision No. **0**
Date **27 Nov 2019**

Appendix D1

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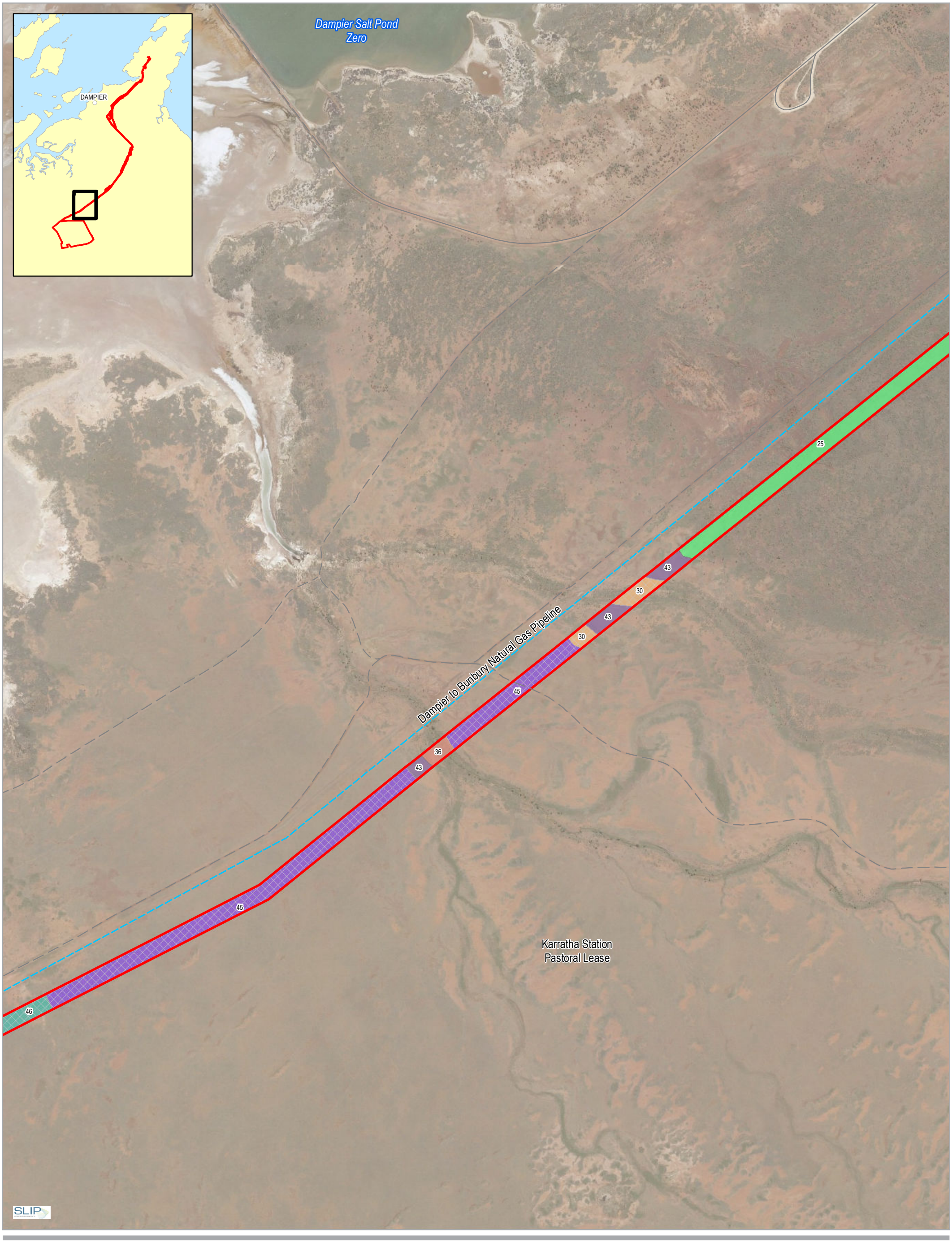
Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney



LEGEND

- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Survey Area
- Priority 1 PEC Burrup Peninsula rock pile communities

Vegetation Type

- VT25 - AbTw
- VT30 - AiAcTw
- VT36 - Ac?Tt
- VT43 - Tw
- VT45 - Ex spp
- VT46 - Ex

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

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Flora and Vegetation Surveys

Vegetation Types

Project No. **61-37808**
Revision No. **0**
Date **27 Nov 2019**

Appendix D1

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Print date: 27 Nov 2019 - 12:31

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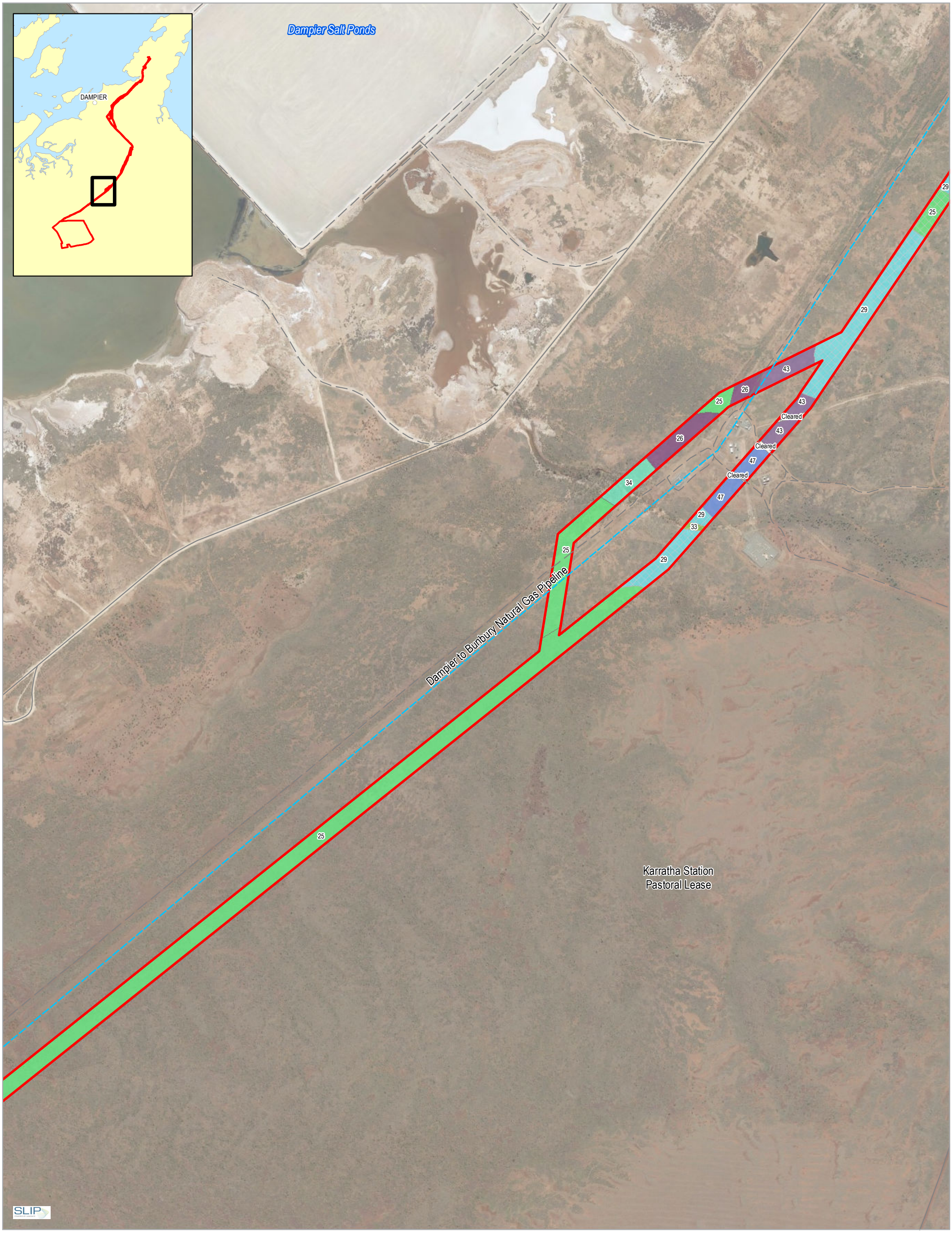

LEGEND

- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Survey Area
- Priority 1 PEC Burrup Peninsula rock pile communities

Vegetation Type

- VT25 - AbTw
- VT26 - AbCc
- VT29 - AiTw
- VT33 - AcCc
- VT34 - AaAcC?v
- VT43 - Tw
- VT47 - Cc
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

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Vegetation Types

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Date **27 Nov 2019**

Appendix D1

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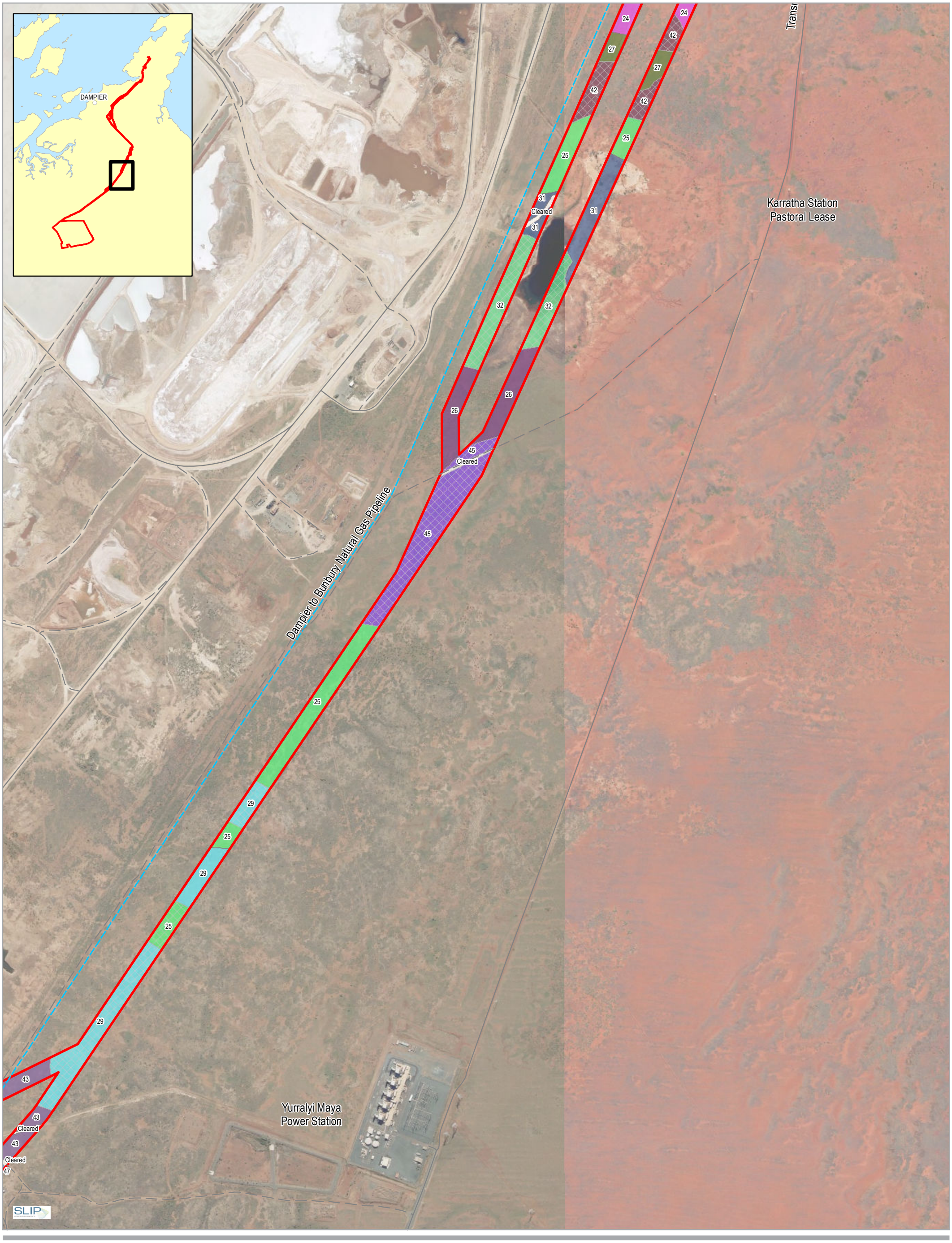

LEGEND

- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Survey Area
- Priority 1 PEC Burrup Peninsula rock pile communities

Vegetation Type

- VT24 - AbTeEx
- VT25 - AbTw
- VT26 - AbCc
- VT27 - AiTe
- VT29 - AiTw
- VT31 - TaTCc
- VT32 - T supp
- VT42 - Te
- VT43 - Tw
- VT45 - Ex spp
- VT47 - Cc
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

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Flora and Vegetation Surveys

Vegetation Types

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Appendix D1

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Print date: 27 Nov 2019 - 12:31

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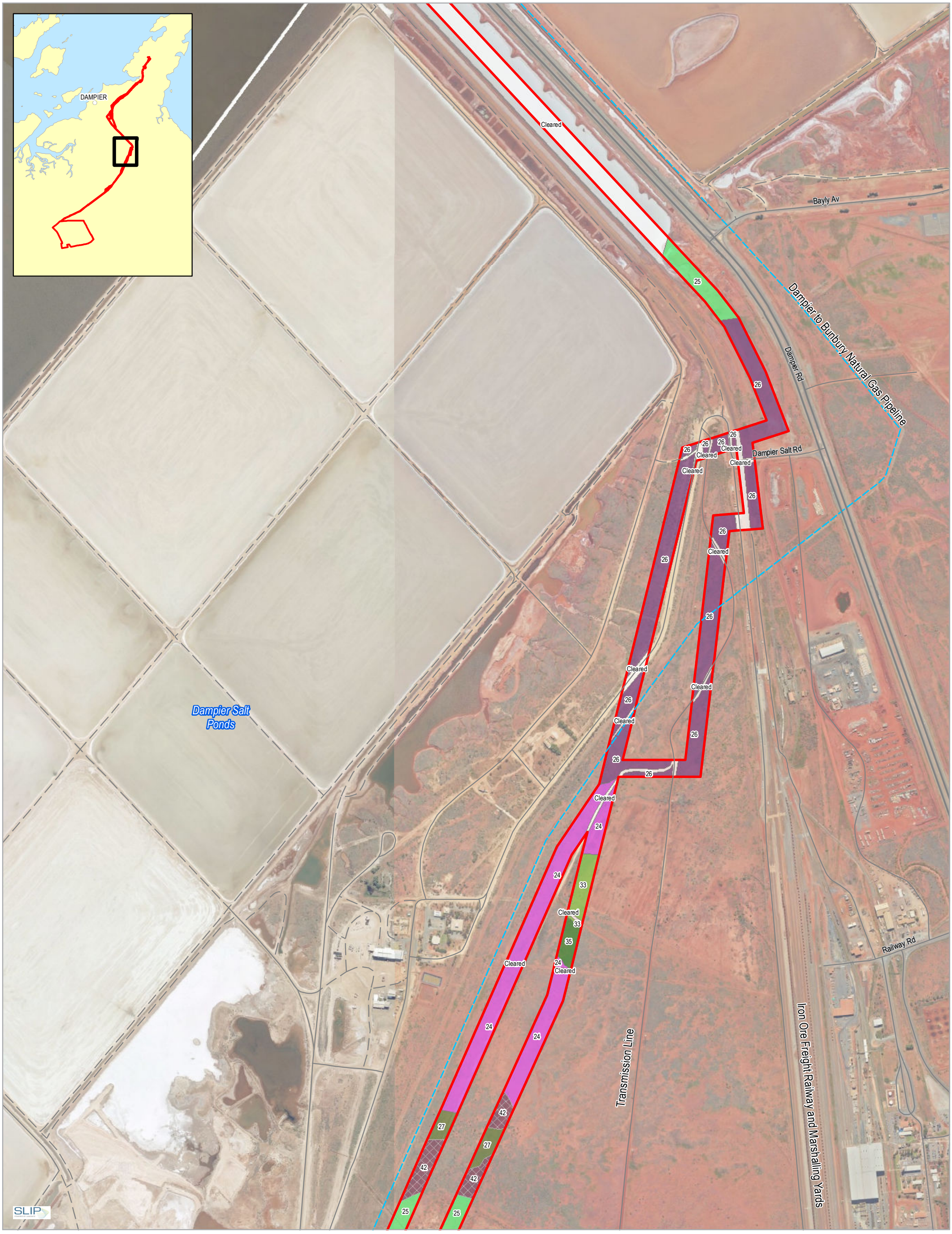


LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Survey Area
- Priority 1 PEC Burrup Peninsula rock pile communities

Vegetation Type

- VT24 - AbTeEx
- VT25 - AbTw
- VT26 - AbCc
- VT27 - AiTe
- VT33 - AcCc
- VT35 - AcAi
- VT42 - Te
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

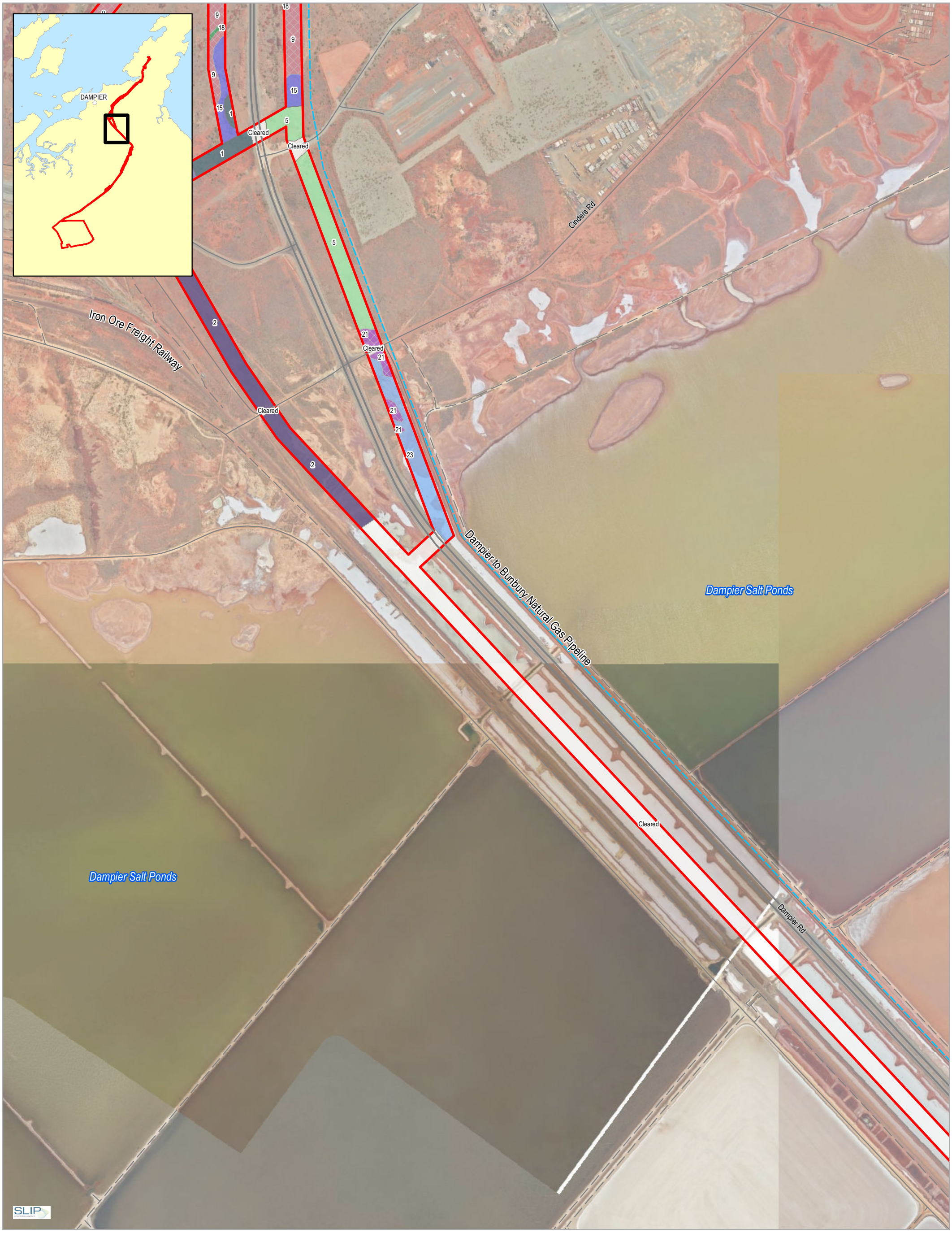
Vegetation Types

Project No. **61-37808**
Revision No. **0**
Date **27 Nov 2019**

Appendix D1

G:\61\37808\GIS\Maps\Working\Report Figures\613780805_AppD_VegetationTypes_Rev0.mxd
Print date: 27 Nov 2019 - 12:31

Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney



LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Survey Area
- Priority 1 PEC Burrup Peninsula rock pile communities

Vegetation Type

- VT01 - AbCc
- VT02 - AbTe
- VT05 - AbAsTe
- VT09 - GpIcTe
- VT10 - GpAiTe
- VT12 - TcDsTe/Ta
- VT15 - ChAbTe
- VT18 - BaEsErv
- VT21 - Ta
- VT23 - Tspp
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Vegetation Types

Project No. **61-37808**
Revision No. **0**
Date **27 Nov 2019**

Appendix D1

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppD_VegetationTypes_Rev0.mxd
Print date: 27 Nov 2019 - 12:31

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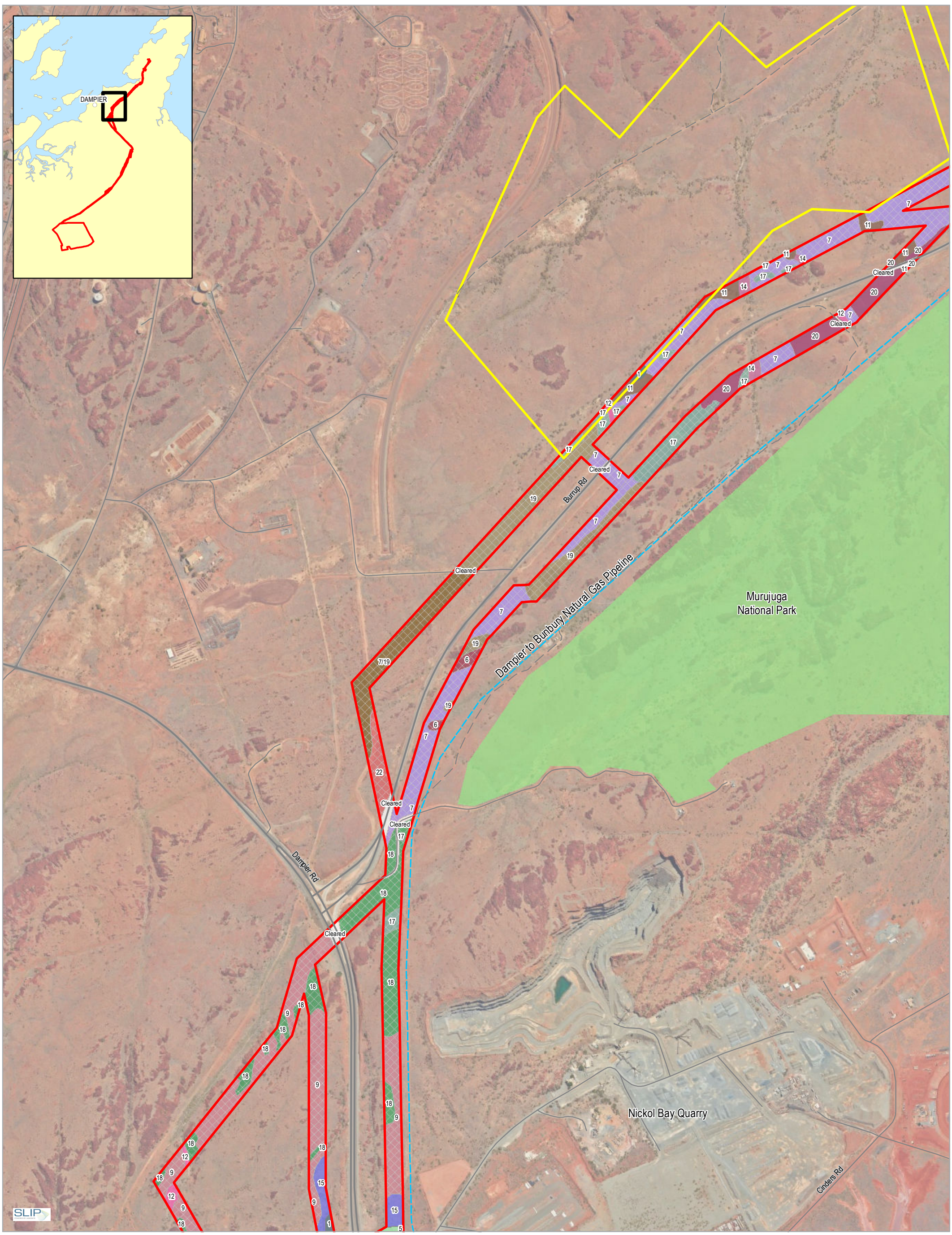


LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Burrup Strategic Industrial
- Murujuga National Park
- Survey Area
- Priority 1 PEC Burrup Peninsula rock pile communities

Vegetation Type

- VT01 - AbCc
- VT05 - AbAsTe
- VT06 - AiTe (BaTs)
- VT07 - GpTeBaTs
- VT07/19
- VT09 - GpIcTe
- VT11 - DsAiTe
- VT12 - TcDsTe/Ta
- VT14 - EvAbTa
- VT15 - ChAbTe
- VT17 - BaDs
- VT18 - BaEsErv
- VT19 - TsIcTe
- VT20 - Te
- VT22 - IcHlTe
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

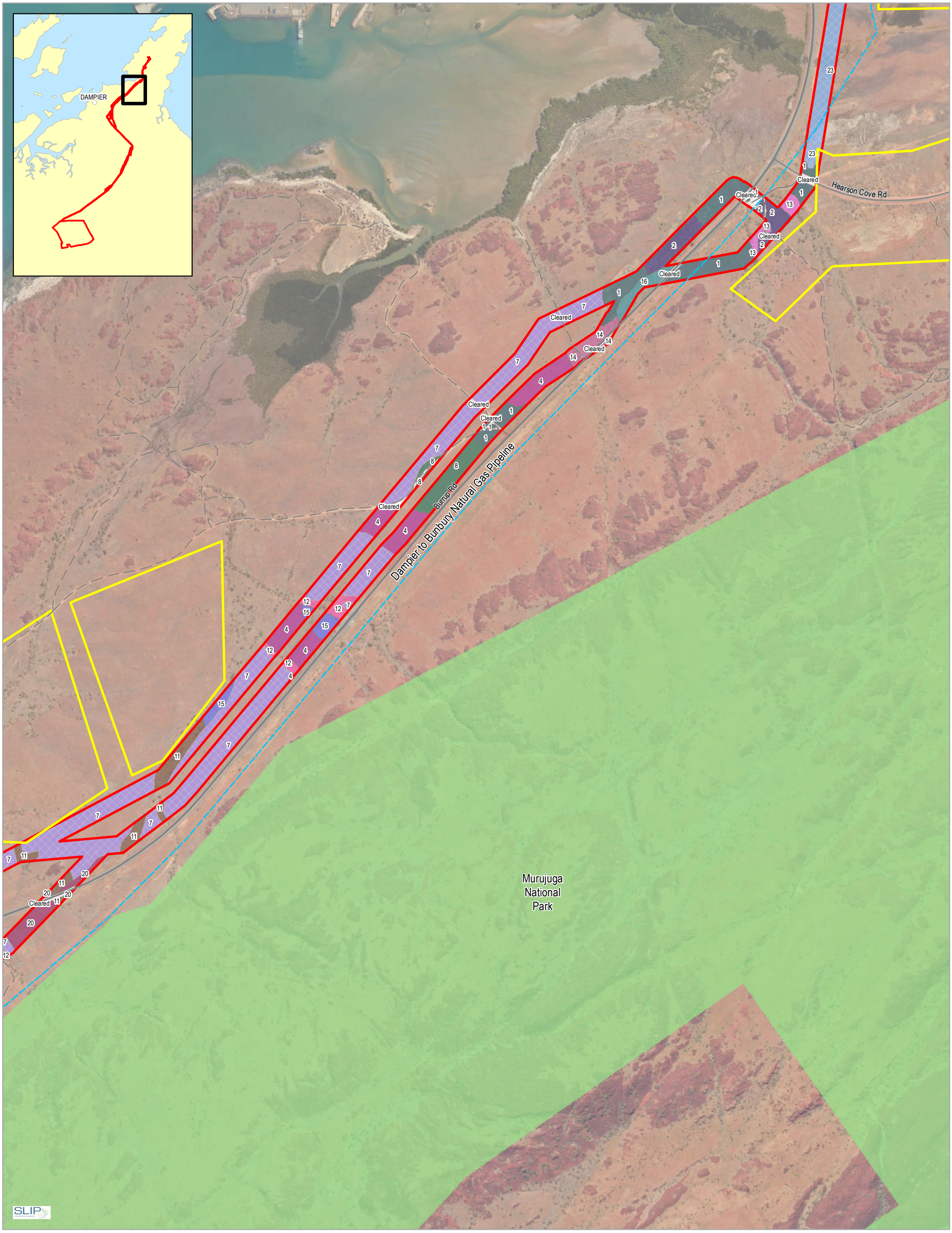
Vegetation Types

Project No. **61-37808**
Revision No. **0**
Date **27 Nov 2019**

Appendix D1

G:\61\37808\05\GIS\Maps\Working\Report Figures\613780805_AppD_VegetationTypes_Rev0.mxd
Print date: 27 Nov 2019 - 12:31

Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney



LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Burrup Strategic Industrial
- Murujuga National Park
- Survey Area
- Priority 1 PEC Burrup Peninsula rock pile communities

Vegetation Type

- VT01 - AbCc
- VT02 - AbTe
- VT04 - AbImTe
- VT07 - GpTeBaTs
- VT08 - GpCc
- VT11 - DsAiTe
- VT12 - TcDsTe/Ta
- VT13 - EvAcTa
- VT14 - EvAbTa
- VT15 - ChAbTe
- VT16 - ChImTe
- VT20 - Te
- VT23 - Tspp
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Vegetation Types

Project No. **61-37808**
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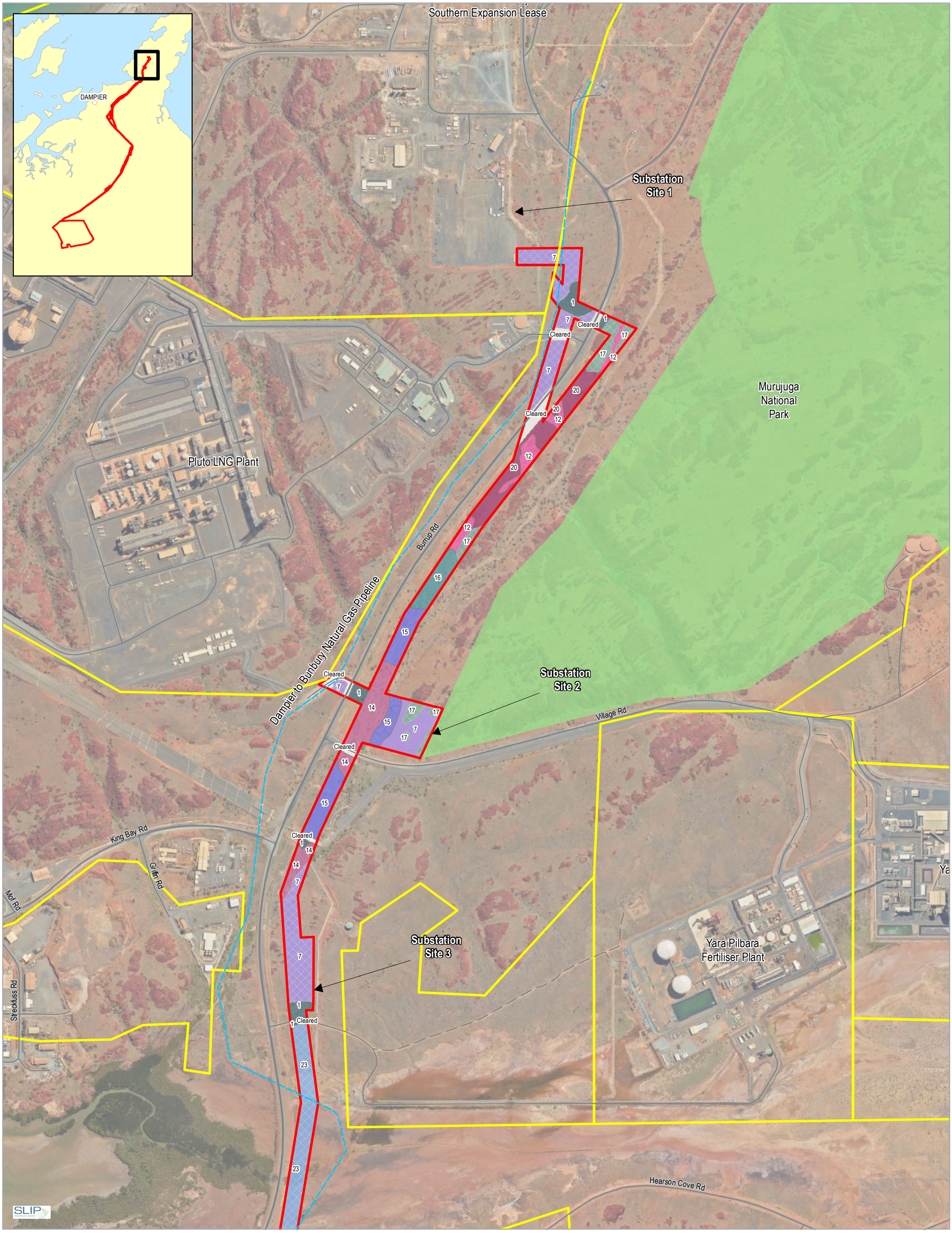
Date **27 Nov 2019**

Appendix D1

G:\61\37808\05\GIS\Maps\Working\Report Figures\613780805_AppD_VegetationTypes_Rev0.mxd
Print date: 27 Nov 2019 - 12:31

Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney



LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Burrup Strategic Industrial
- Murujuga National Park
- Survey Area
- Priority 1 PEC Burrup Peninsula rock pile communities

Vegetation Type

- VT01 - AbCc
- VT07 - GpTeBaTs
- VT12 - TcDsTe/Ta
- VT14 - EvAbTa
- VT15 - ChAbTe
- VT16 - ChlmTe
- VT17 - BaDs
- VT20 - Te
- VT23 - Tspp
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Vegetation Types

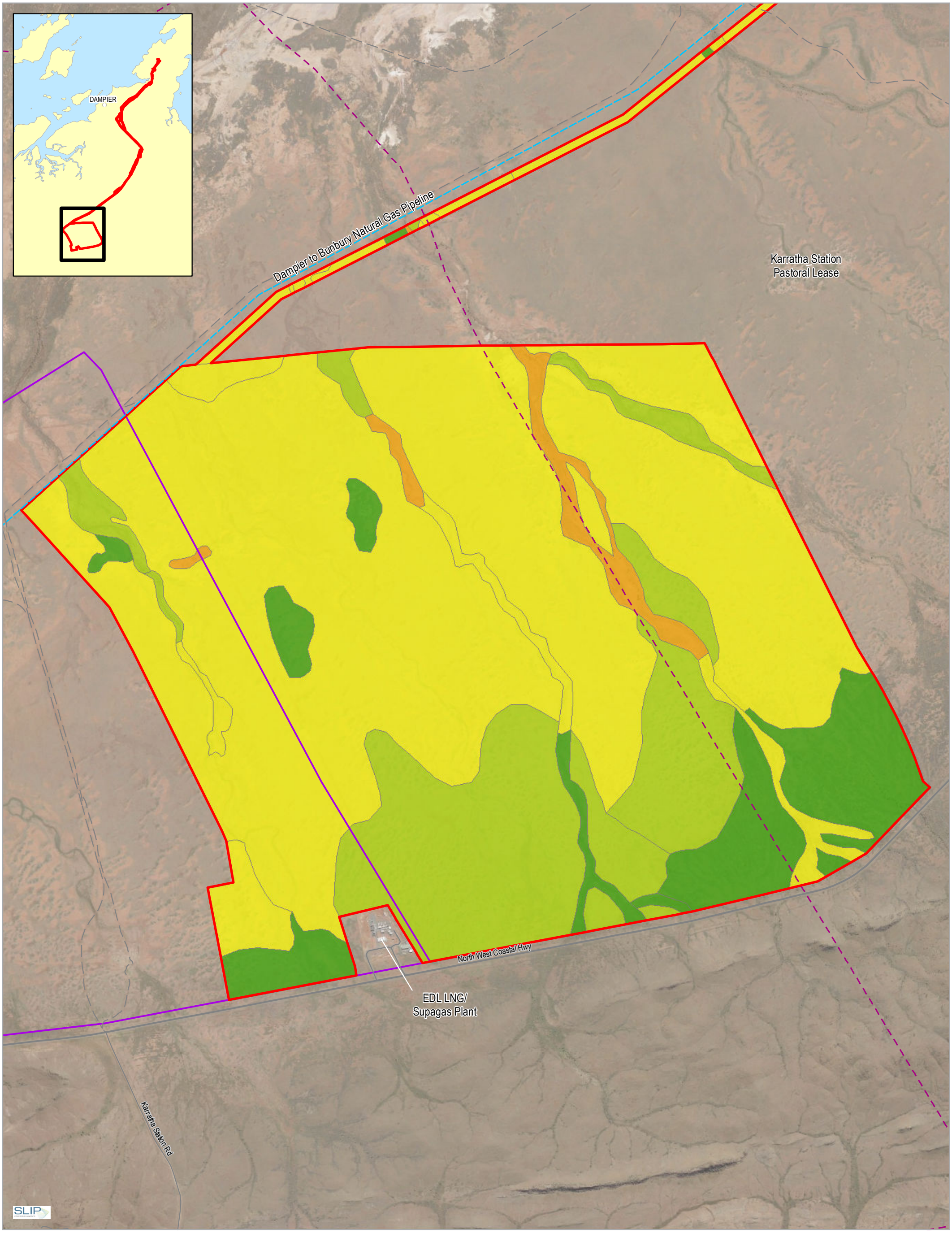
Project No. **61-37808**
Revision No. **0**
Date **27 Nov 2019**

Appendix D1

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppD_VegetationTypes_Rev0.mxd
Print date: 27 Nov 2019 - 12:31

Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney

Appendix E: Vegetation Condition Mapping



LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Maitland Strategic Industrial Area
- MSIA Buffer
- Survey Area

Vegetation Condition

- Excellent
- Excellent to very good
- Very good
- Good
- Poor
- Degraded
- Cleared

Paper Size ISO A3

0 100 200 300 400 500

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

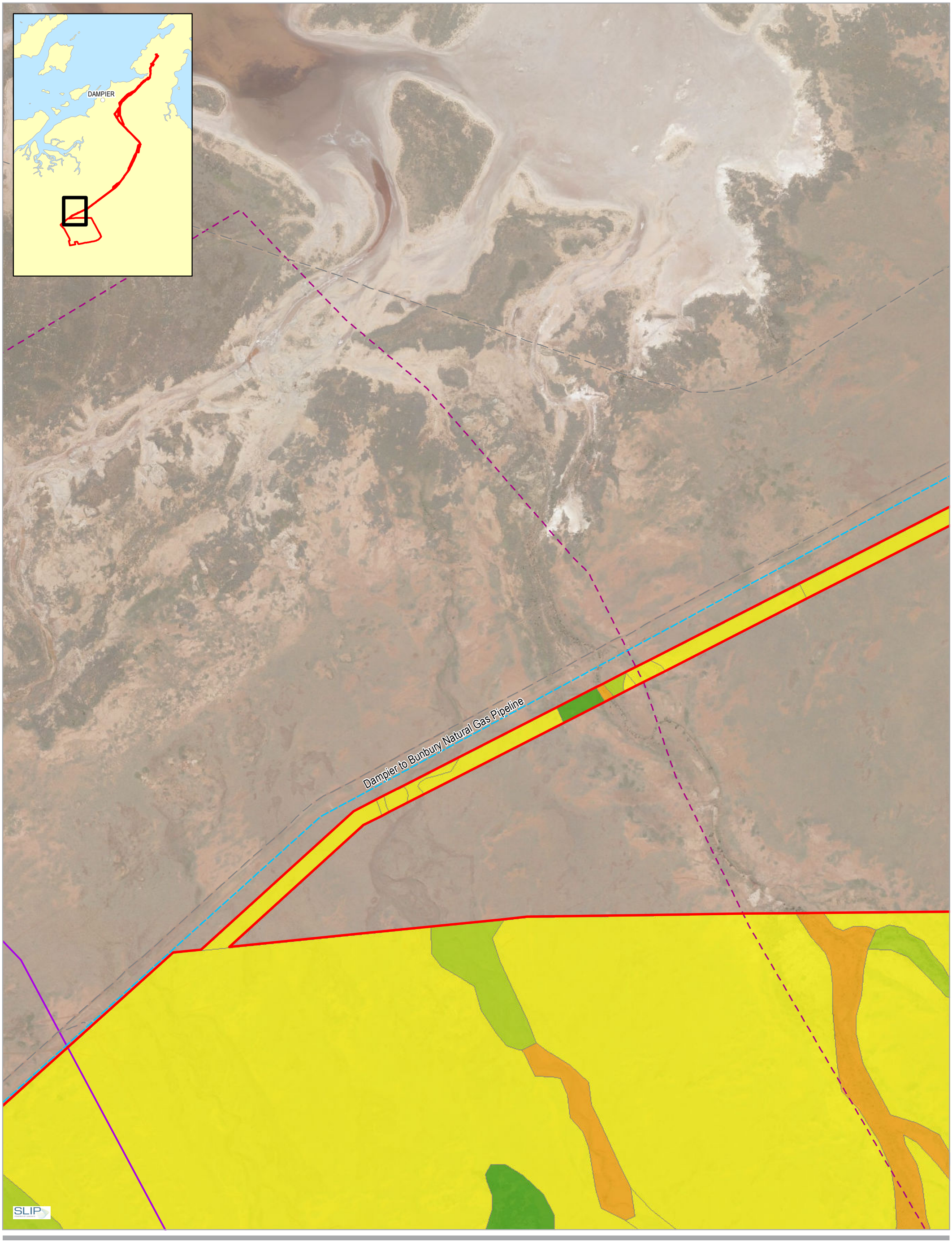
Vegetation Condition

Project No. **61-3780805**
Revision No. **0**
Date **27 Nov 2019**

Appendix E

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppE_VegetationCondition_Page1_Rev0.mxd
Print date: 27 Nov 2019 - 12:04

Data source: GHD: Development envelopes - 20181218, Veg Mapping - 20190917; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney



LEGEND

- Track
- Dampier to Bunbury Natural Gas Pipeline
- MSIA Buffer Area
- Maitland Strategic Industrial Area
- Survey Area

Vegetation Condition

- Excellent
- Excellent to very good
- Very good
- Good
- Poor
- Degraded
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

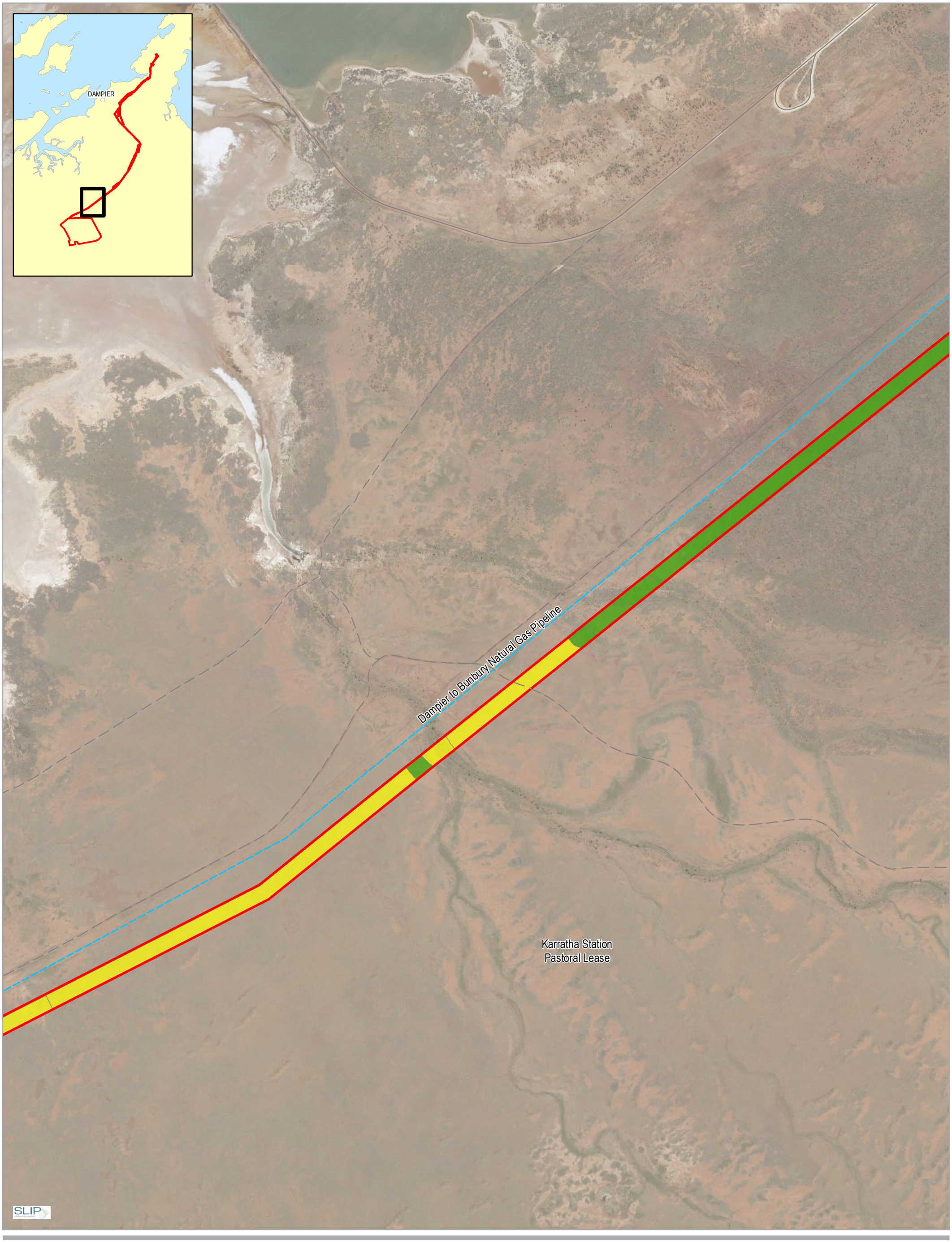
Vegetation Condition

Project No. **61-3780805**
Revision No. **0**
Date **27 Nov 2019**

APPENDIX E

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppE_VegetationCondition_Rev0.mxd
Print date: 27 Nov 2019 - 12:09

Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney



LEGEND

- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Survey Area

Vegetation Condition

- Excellent
- Excellent to very good
- Very good
- Good
- Poor
- Degraded
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

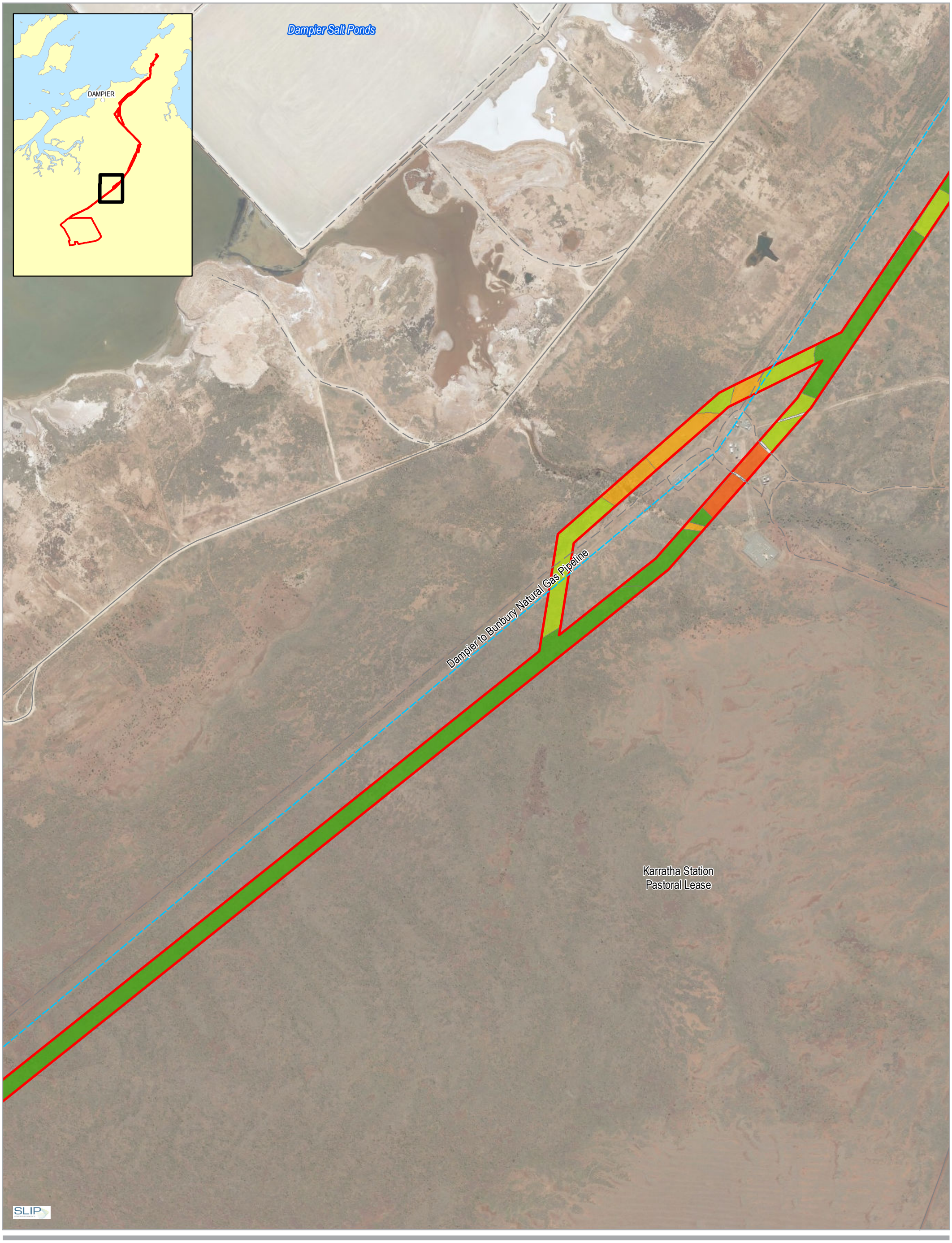
Vegetation Condition

Project No. **61-3780805**
Revision No. **0**
Date **27 Nov 2019**

APPENDIX E

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppE_VegetationCondition_Rev0.mxd
Print date: 27 Nov 2019 - 12:09

Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney



LEGEND

- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Survey Area

Vegetation Condition

- Excellent
- Excellent to very good
- Very good
- Good
- Poor
- Degraded
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Vegetation Condition

Project No. **61-3780805**
Revision No. **0**
Date **27 Nov 2019**

APPENDIX E

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppE_VegetationCondition_Rev0.mxd
Print date: 27 Nov 2019 - 12:10

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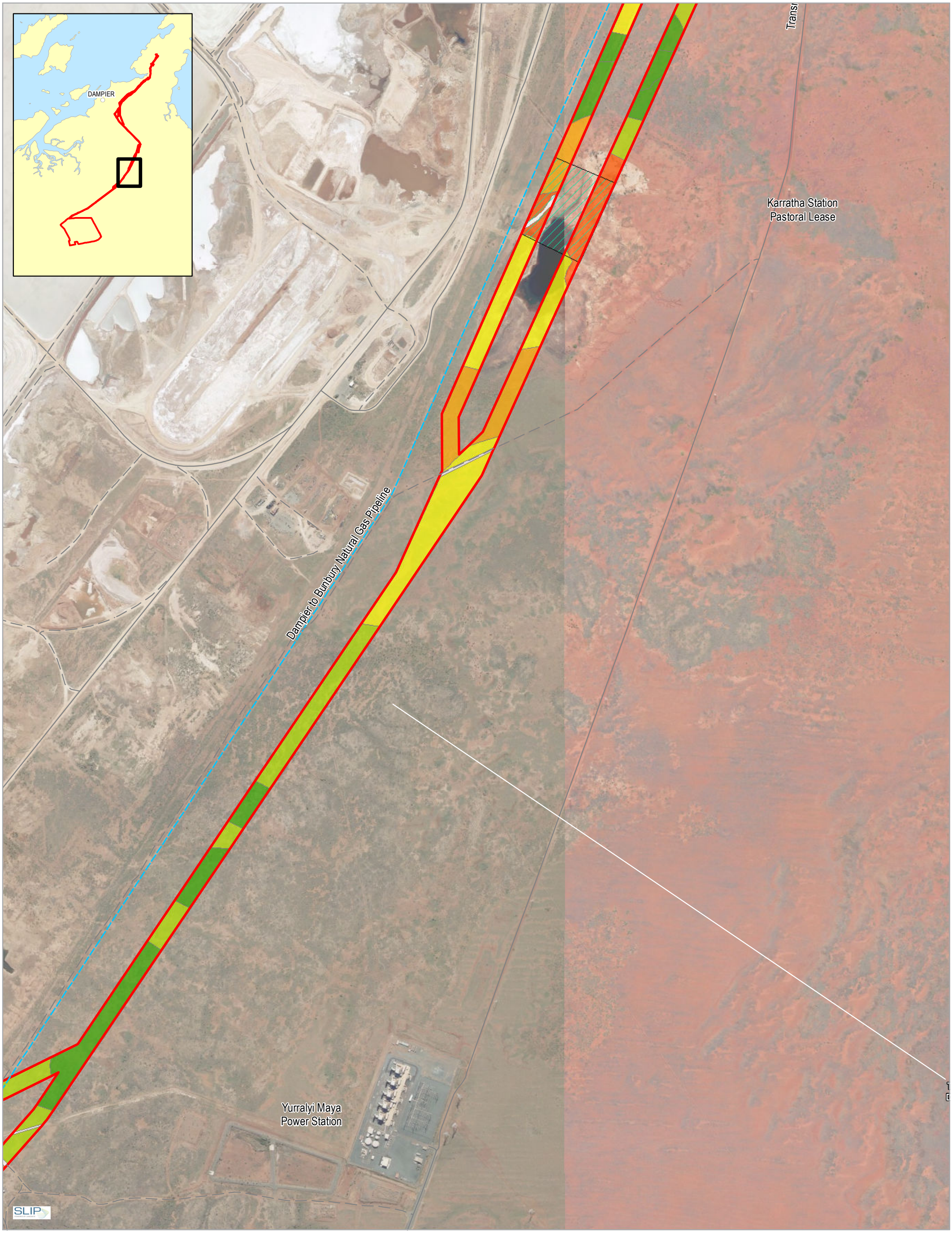


LEGEND

- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Survey Area
- *Tamarix aphylla* location

Vegetation Condition

- Excellent
- Excellent to very good
- Very good
- Good
- Poor
- Degraded
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Vegetation Condition

Project No. **61-3780805**
Revision No. **0**
Date **27 Nov 2019**

APPENDIX E

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppE_VegetationCondition_Rev0.mxd
Print date: 27 Nov 2019 - 12:10

Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney

LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Survey Area

Vegetation Condition

- Excellent
- Excellent to very good
- Very good
- Good
- Poor
- Degraded
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

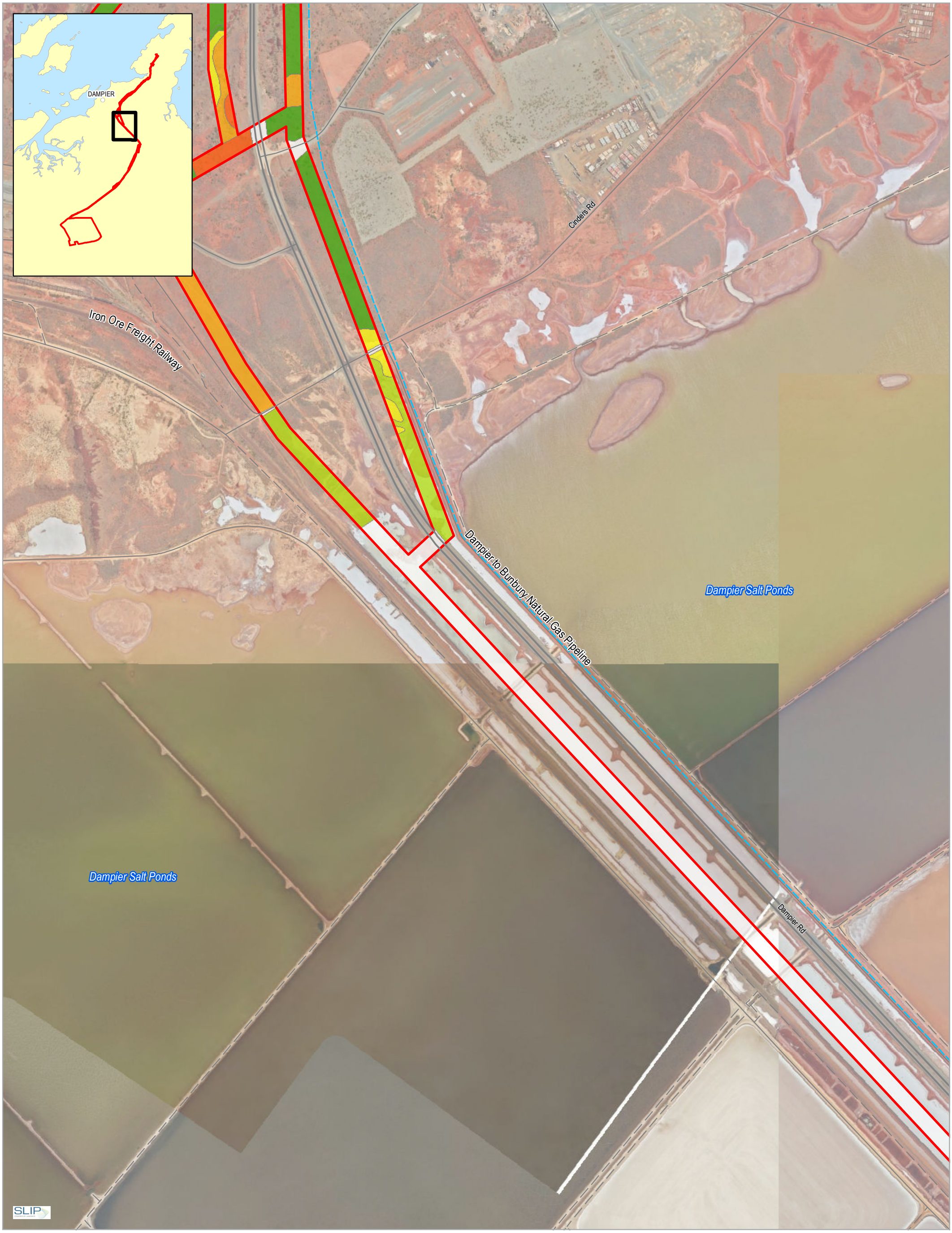
Vegetation Condition

Project No. **61-3780805**
Revision No. **0**
Date **27 Nov 2019**

APPENDIX E

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppE_VegetationCondition_Rev0.mxd
Print date: 27 Nov 2019 - 12:10

Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney



LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Survey Area

Vegetation Condition

- Excellent
- Excellent to very good
- Very good
- Good
- Poor
- Degraded
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
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Vegetation Condition

Project No. **61-3780805**
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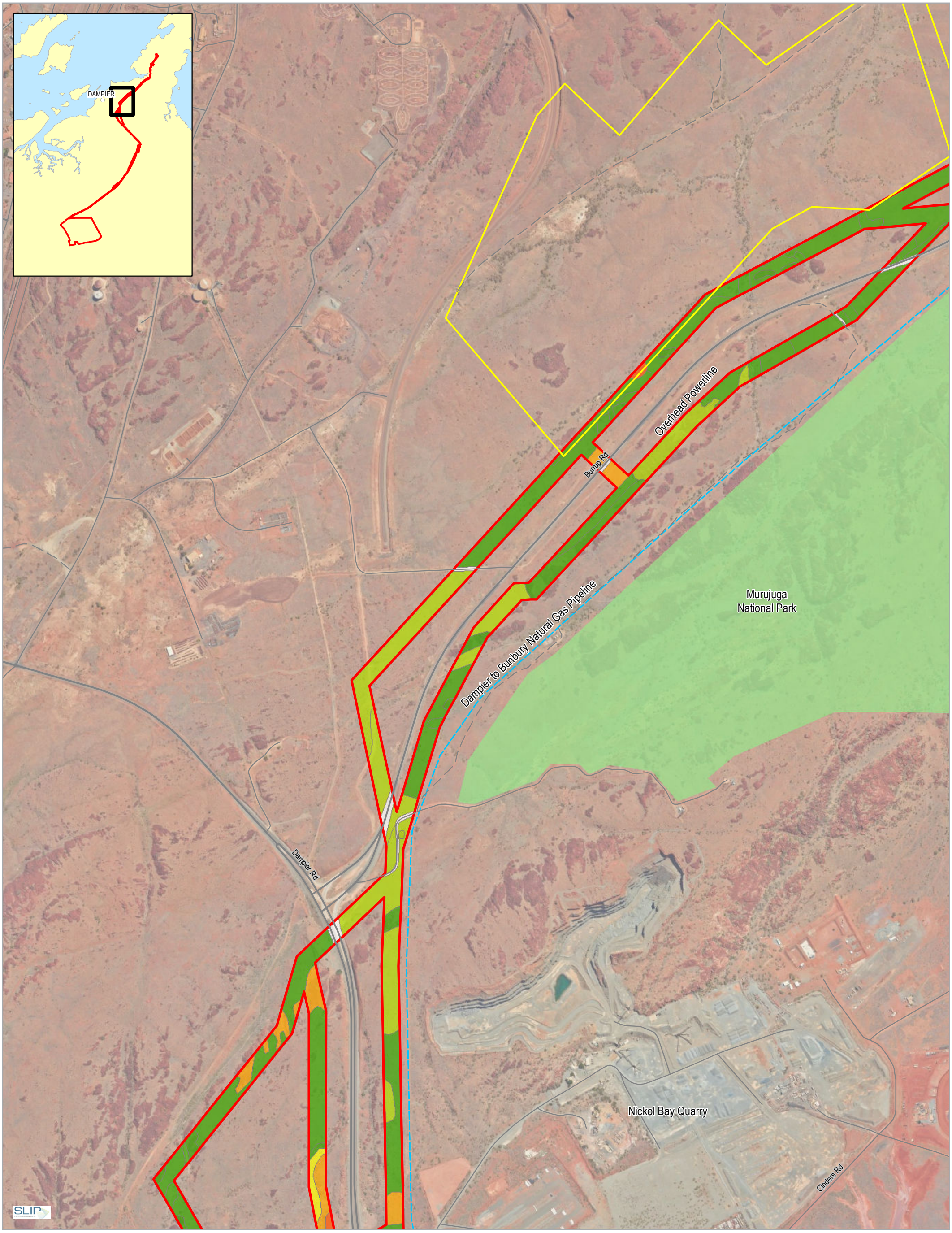
APPENDIX E

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppE_VegetationCondition_Rev0.mxd
Print date: 27 Nov 2019 - 12:10

Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney



LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Burrup Strategic Industrial Area
- Survey Area
- Murujuga National Park

Vegetation Condition

- Excellent
- Excellent to very good
- Very good
- Good
- Poor
- Degraded
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

GHD

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Vegetation Condition

Project No. **61-3780805**
Revision No. **0**
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APPENDIX E

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppE_VegetationCondition_Rev0.mxd
Print date: 27 Nov 2019 - 12:11

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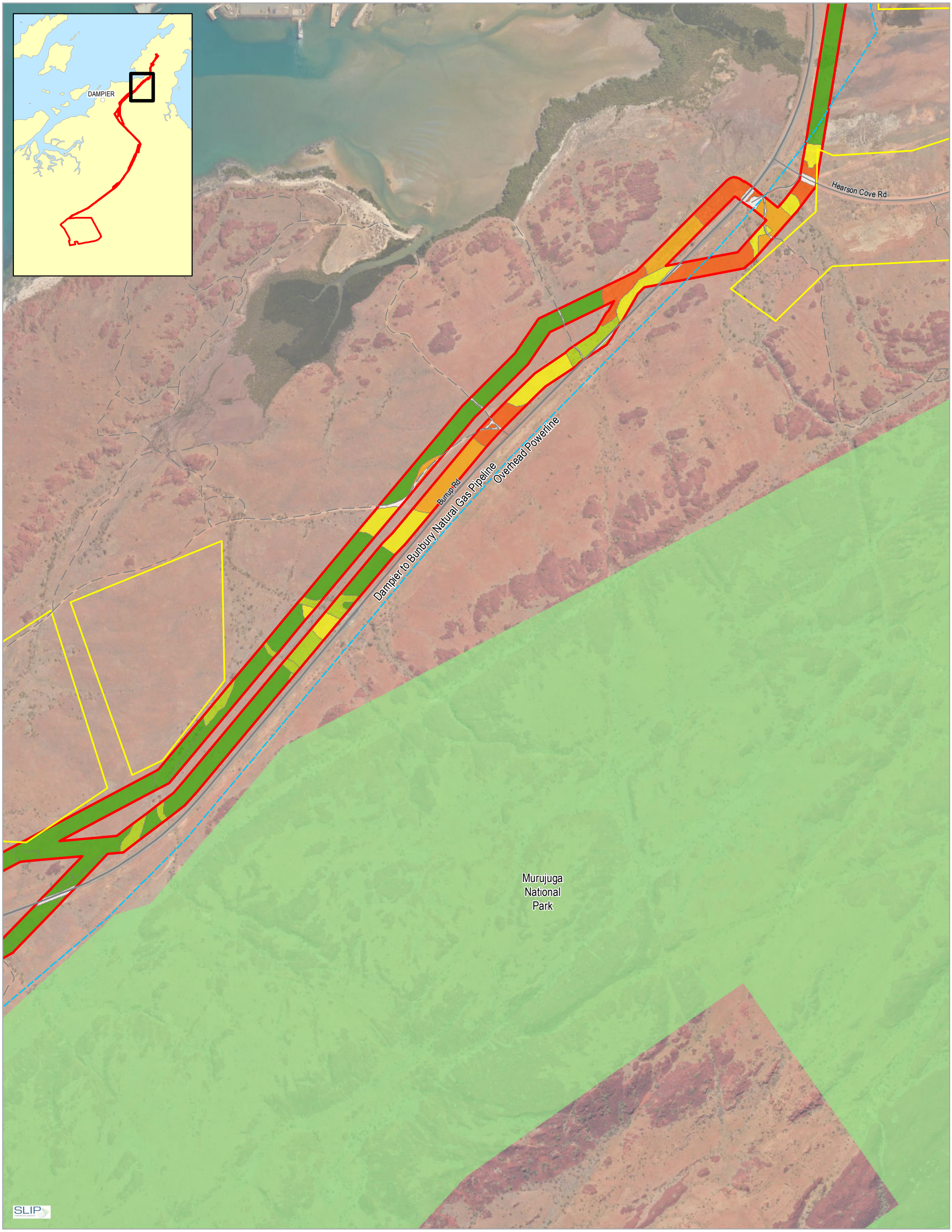

LEGEND

- Major Road
- Minor Road
- Track
- Dampier to Bunbury Natural Gas Pipeline
- Burrup Strategic Industrial Area
- Survey Area
- Murujuga National Park

Vegetation Condition

- Excellent
- Excellent to very good
- Very good
- Good
- Poor
- Degraded
- Cleared

Paper Size ISO A3

0 100 200 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
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Vegetation Condition

Project No. **61-3780805**
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Date **27 Nov 2019**

APPENDIX E

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppE_VegetationCondition_Rev0.mxd
Print date: 27 Nov 2019 - 12:11

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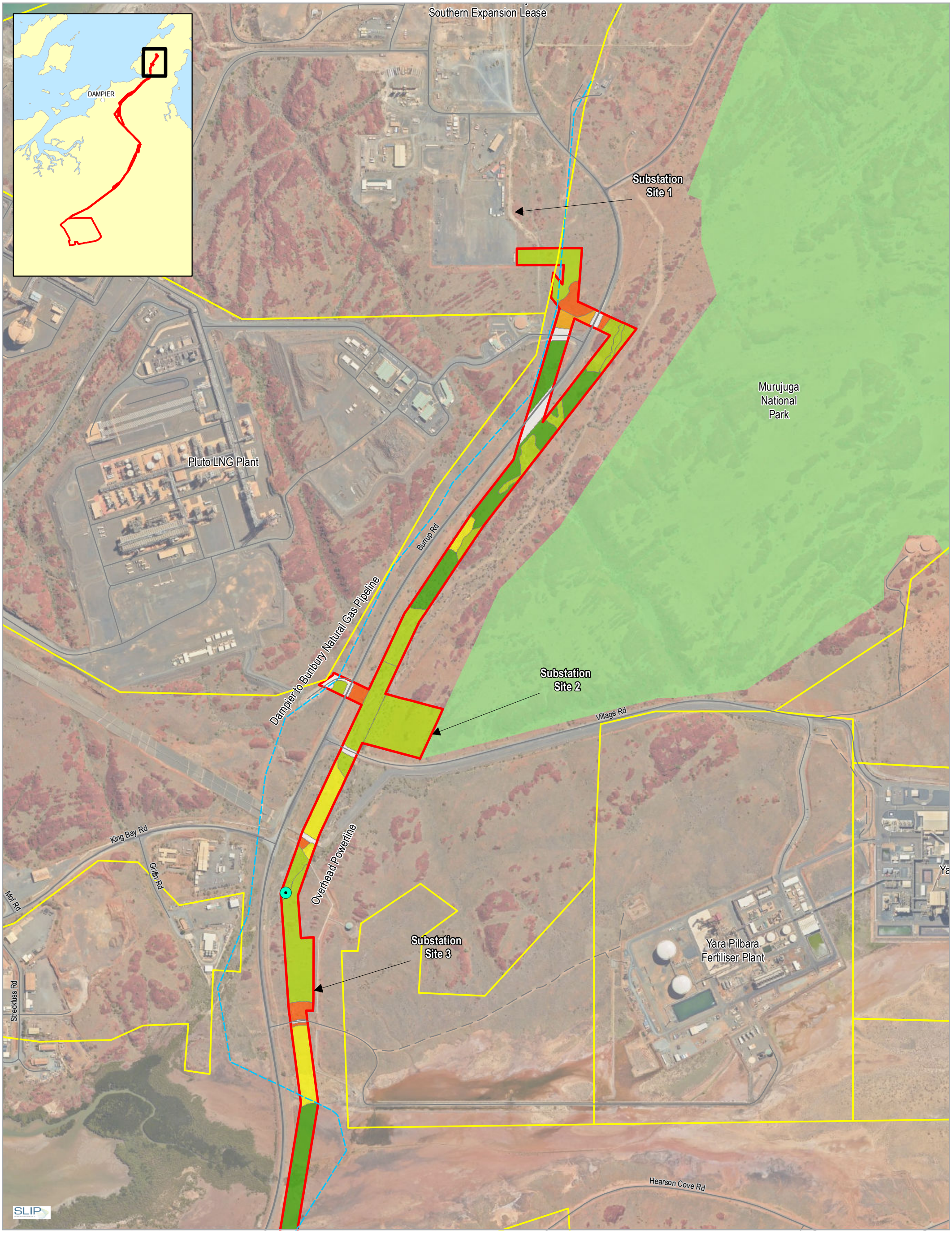

LEGEND

Passiflora foetida (stinking passionflow...
Major Road
Minor Road
Track
Dampier to Bunbury Natural Gas Pipeline
Burrup Strategic Industrial Area
Survey Area
Murujuga National Park

Vegetation Condition
Excellent
Excellent to very good
Very good
Good
Poor
Degraded
Cleared

Paper Size ISO A3
0 100 200 300
Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

N

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Vegetation Condition

Project No. **61-3780805**
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G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppE_VegetationCondition_Rev0.mxd
Print date: 27 Nov 2019 - 12:11

Data source: GHD: Development envelopes - 20181218; Woodside: Substation Sites - 20190909; Landgate: Roads - 20190128, Imagery - 20180408 (accessed: 20190703). Created by: afeeney

Appendix F: Likelihood of Occurrence Table for Conservation Significant Flora Species

Table F.1: Likelihood of occurrence of Threatened and Priority flora recorded within 20 km of the survey area (Department of Biodiversity, Conservation, and Attractions 2019b). The Threatened and Priority Flora List database is searched using place names and as a result some of the records obtained from this database may occur beyond 20 km of the survey area.

Species	Habit and flowering information	Life form	Habitat	Likelihood of occurrence	
				Pre-survey	Post survey
Priority 1					
Goodenia pallida	Erect herb to 50 cm. Corolla pale purple (very little information available)	Annual	Red soils	Unlikely	Unlikely
Priority 2					
Euphorbia australis var. glabra	Herb	Annual	Creek banks. Red brown loam, some pebbles.	Unlikely	Unlikely
Trianthema sp. Python Pool (G.R. Guerin & M.E. Trudgen GG 1023)	Prostrate and open herb: 0.02 m high and 0.20 m wide. Pink flower.	Annual	Flood plain. Rangeland. Brown dry rocky soil.	Potential	Potential subject to further survey
Priority 3					
Acacia glaucocaesia	Glabrous pale grey-green shrub or tree 1.5-3 m, globular yellow flowers July to Sept.	Perennial	Floodplains, red, sandy loams.	Unlikely	Unlikely

Species	Habit and flowering information	Life form	Habitat	Likelihood of occurrence	
				Pre-survey	Post survey
Atriplex lindleyi subsp. conduplicata	Open straggly rotund shrub, growing up to 0.2 m tall.	Biennial	Sparse tussock grassland of *Eragrostis xerophila*.	Potential	Potential subject to further survey
Eragrostis surreyana	Grass 1-2 cm high.	Annual	Wetland, waterhole	Unlikely	Unlikely
Gomphrena cucullata	Herb, compact 5-10 cm x 5-10 c m, wiry red stems slightly hairy. Revolute linear leaves, acute 10-47 mm long x 1mm wide. Flowers white- pink. Flower head cylindrical 20 mm x 7 mm, axillary bracts in-curved almost uncinated slightly woolly. Flower June/July after summer rains	Annual.	Various: Red sands with quartz rock; flood plain with red-brown loam; flats with light clay and chenopods.	Potential	Potential subject to further survey

Species	Habit and flowering information	Life form	Habitat	Likelihood of occurrence	
				Pre-survey	Post survey
Gomphrena leptophylla	Prostrate, compact herb 20 cm high x 60 cm wide. Stem leaves acute, mucronate, rebolute linear leaves 10-30 mm long x 1-2 mm wide. Flowers green, yellow stamens. Axillary corolla 5 mm long. Cylindrical flower head 20 mm long x 7 mm wide. Bracts incurved	Annual	Various: sand, sandy to clay-loam, granite, quartzite, open flats, sandy creek beds edges of salt pans, stony hill slopes.	Likely	Potential subject to further survey
Gymnanthera cunninghamii	Slender erect shrub 1-2 m high. Stems bronze. Leaves glabrous, glossy, bright green above, dull beneath, opposite and pendulous on petioles 2-2.5cm. Milky sap. Small white cream-yellow-green flowers.	Perennial	Various: Creek line with red sands, ironstone scree slope, rockpiles, base of rockpiles; sand plain; saline bulldust with algal crust over calcrete; limestone with solution pockets	Likely	Potential subject to further survey
Oldenlandia sp. Hamersley Station (A.A. Mitchell PRP 1479)	Spreading annual, herb, 0.05-0.1 m high. Fl. blue, Mar.	Annual	Cracking clay, basalt. Gently undulating plain with large surface rocks, flat crabholed plain.	Likely	Likely

Species	Habit and flowering information	Life form	Habitat	Likelihood of occurrence	
				Pre-survey	Post survey
Stackhousia clementii	Dense broom-like perennial, herb, to 0.45 m high. Fl. green/yellow/brown.	Perennial	Skeletal soils. Sandstone hills.	Potential	Potential subject to further survey
Terminalia supranitifolia	Spreading, tangled shrub or tree, 1.5-3 m high. Fl. green-yellow, May or Jul or Dec.	Perennial	Sand. Among basalt rocks.	Likely	Recorded
Themeda sp. Hamersley Station (M.E. Trudgen 11431)	Tussocky perennial, grass-like or herb, 0.9-1.8 m high. Fl. Aug.	Perennial	Red clay. Clay pan, grass plain.	Unlikely	Unlikely
Vigna triodiophila	Herb. Slender vine with thickened root. Flowers yellow.	Probably perennial but dying back to rootstock in dry.	Rockpile, rocky hillslopes.	Likely	Recorded

Species	Habit and flowering information	Life form	Habitat	Likelihood of occurrence	
				Pre-survey	Post survey
Priority 4					
Rhynchosia bungarensis	Compact, prostrate shrub, to 0.5 m high. Fl. yellow.	Perennial	Pebbly, shingly coarse sand amongst boulders. Banks of flow line in the mouth of a gully in a valley wall.	Likely	Recorded

Appendix G: Comparison of VLA Vegetation Types with Trudgen Vegetation Associations

Table G.1: Comparison of Trudgen Vegetation Descriptions (2002) with VLA Vegetation Descriptions of Vegetation Communities within the Woodside Project Area.

VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
Acacia bivenosa tall shrubland over tussock and/or hummock grassland.				
AbCc	*Acacia bivenosa* tall open to shrubland over **Cenchrus ciliaris* tussock grassland, sometimes closed tussock grassland, with patchy *Triodia angusta*	AbCc	*Acacia bivenosa* high open shrubland to high shrubland over **Cenchrus ciliaris* grassland. Associated species include *Triodia epactia* (Burrup form), *Tephrosia aff. supina* (MET 12,357) and occasional *Acacia stellaticeps*.	*Tephrosia supina* was present but due to the dry conditions certainly not a key component of the vegetation. (<2%)
AbTe	*Acacia bivenosa* with occasional *Dichrostachys spicata, Acacia ancistrocarpa* open tall shrubland over mixed *Triodia epactia/T. angusta* hummock and **Cenchrus ciliaris* tussock grassland	AbTe	*Acacia bivenosa* scattered tall shrubs to high shrubland over *Triodia epactia* (Burrup form) hummock grassland. Associated species included *Grevillea pyramidalis* subsp. *pyramidalis* at one site and *Pterocaulon sphacelatum*, *Adriana tomentosa* at another site.	
AbTa	*Acacia bivenosa, Grevillea pyramidalis, Hakea lorea* subsp *lorea* tall shrubland over closed *Triodia angusta* hummock grassland	AbTa	*Acacia bivenosa* high open shrubs over *Triodia angusta* (Burrup form) hummock grassland. Associated species includes *Trianthema turgidifolia*. *Indigofera monophylla* (Burrup form) or *Trichodesma zeylanicum* var. *zeylanicum* may also be present.	
AbImTe	*Acacia bivenosa, Acacia pyrifolia* subsp *morrisonii* , *Grevillea pyramidalis* open shrubland over *Indigofera monophyla, Corchorus walcottii* open low shrubland over *Triodia epactia* hummock grassland with patchy **Cenchrus ciliaris* tussock grassland.	AbImTe	*Acacia bivenosa* tall open shrubs to high shrubland over *Indigofera monophyla* (Burrup form) scattered low shrubs to low open shrubland over *Triodia epactia* (Burrup form) hummock grassland to closed hummock grassland	
		AbCgTe	*Acacia bivenosa, Cassia glutinosa* open shrubland to shrubland over *Triodia epactia* (Burrup form) hummock grassland (can be some **Cenchrus ciliaris*).	

VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
		AbImTe/TeRm	*Acacia bivenosa* high open shrubland to high shrubland over *Indigofera monophyla* (Burrup form) scattered low shrubs to low open shrubland over *Triodia epactia* (Burrup form) hummock grassland to closed hummock grassland with *Rhynchosia* cf. *minima* lianes.	= AbImTe as above – the *Rynchosia minima* was not abundant due to dry conditions and not a key component of the vegetation
Acacia bivenosa tall shrubland over *Acacia stellaticeps* shrubland over *Diplopeltis eriocarpa* low shrubland over *Triodia angusta, T. epactia* hummock grassland.				
AbAsTe	*Acacia bivenosa* with *Dolichandrone heterophylla* tall shrubland over *Acacia stellaticeps* open to shrubland over *Diplopeltis eriocarpa* low shrubland over *Triodia angusta* or *T. epactia* hummock grassland to closed hummock grassland with patchy *Eriachne obtusa*			This area (north of Causeway) was not surveyed by Trudgen
Acacia inaequilatera (with various other species scattered shrubs to high shrublands				
		AiImTw	*Acacia inaequilatera (Acacia colei)* scattered tall srhubs to tall open shrubland over *Indigofera monophyla* (Burrup form) low open shrubland to low shrubland over *Triodia wiseana* (Burrup form), *Triodia epactia* (Burrup form) hummock grassland.	
		AiImTe	*Acacia inaequilatera, Acacia bivenosa, Grevillea pyramidalis* subsp *pyramidalis* scattered tall shrubs to high open shrubland over *Indigofera monophyla* (Burrup form), scattered low shrubs to low shrubland over *Triodia epactia* (Burrup form) hummock grassland.	

VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
AiTe(BaTs)	*Acacia inaequilatera* tall shrubland with *Grevillea pyramidalis, Ipomea costata, Acacia orthocarpa* over *Triodia epactia* hummock grassland with patchy *Themeda triandra* and with low trees of *Brachychiton acuminatus, Terminalia supranitifolia* on small outcropping rocks.	AiFdTe	*Acacia inaequilatera, Hakea chordophylla, Grevillea pyramidalis* subsp *pyramidalis* scattered shrubs to open shrubland over *Corchorus walcottii* scattered low shrubs over *Triodia epactia* (Burrup form) dense hummock grassland over *Fimristylis* aff *dichotoma* (M75-4) low open sedgeland	*Fimbristylis dichotoma* is a very short lived annual and not an abundant component of this vegetation in 2019
Grevillea pyramidalis tall shrubland over *Triodia epactia / T. angusta* hummock grassland.				
GpTeBa	*Grevilla pryamidalis* scattered to open tall shrubland, sometimes with scattered *Hakea lorea* subsp *lorea, Ipomoea costata, Acacia inaequilatera* over *Triodia epactia* hummock grassland, sometimes patchy *T. angusta.* There can be open low *Indigofera monophyla* shrubland. On numerous small rockpiles within this vegetation are scattered *Brachychiton acuminatus, Terminalia supranitifolia, Dichrostachys spicata* on small rock outcrops.			This was the most commonly occurring vegetation type along the Burrup corridor.
GpCc	*Grevilla pryamidalis* scattered to open tall shrubland over **Cenchrus ciliaris* tussock with *Triodia epactia* hummock grassland	GpTe	*Grevillea pyramidalis* subsp. *pyramidalis* scattered shrubs over *Triodia epactia* (Burrup form) hummock grassland to closed hummock grassland. Associated species includes **Cenchrus ciliaris*, *Evolvulus alsinoides* var. *villosicalyx*, *Triumfetta appendiculata* (Burrup form) and *Triumfetta clementii*.	Associated with infrastructure – illustrates increase in buffel grass to dominant component in the vegetation.

VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
GpIcTe	*Grevillea pyramidalis, Ipomoea costata* tall open shrubland over *Triodia epactia* hummock grassland. On numerous small rockpiles within this vegetation are scattered *Terminalia circumalata, Brachychiton acuminatus, Erythrina vespertilio.*			
		GpRmTsTe	*Grevillea pyramidalis* subsp *pyramidalis* scattered shrubs over *Triumfetta appendiculata* (Burrup form) low open shrubland over *Triodia epactia* (Burrup form) hummock grassland with *Rhynchosia* cf *minima* lianes with *Tephrosia* af *supina* (MET12, 357) herbland.	*Rhynchosia minima* and *Tephrosia supina* were not key components of the vegetation.
Grevillea pyramidalis, Acacia inaequilatera tall shrubland over mixed low shrubland over *Triodia epactia* hummock grassland with patchy **Cenchrus ciliaris* sometimes *Themeda triandra.*				
GpAiTe	*Grevillea pyramidalis, Acacia inaequilatera* tall shrubland sometimes with *Ehretia saligna, Acacia orthocarpa* over open mixed low shrubland, *Scaevola spinescens, Solanum phlomoides, Indigofera monophyla* over *Triodia epactia* hummock grassland with patchy **Cenchrus ciliaris*			RioTinto lease – not surveyed by Trudgen

VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
Dichrostachys spicata, Acacia inaequilatera, tall shrubland over open low mixed shrubland over *Triodia epactia / T. angusta* hummock grassland.				
DsAiTe	*Dichrostachys spicata, Acacia inaequilatera, Acacia coriacea* tall shrubland over *Scaevola spinescens, Alectryon oleifolius* open low mixed shrubland over *Triodia epactia / T. angusta* hummock grassland. There can be scattered *Eucalyptus victrix* and *Terminalia circumalata.*	AiDs	*Acacia inaequilatera*, *Dichrostachys spicata* open heath to high shrubland over *Triodia epactia* (Burrup from) hummock grassland and *Tephrosia* aff. *supina* (MET 12,357) scattered herbs to herbland. The unit varies to include *Ipomoea costata* in the shrubland layer or **Cenchrus ciliaris* grassland. Associated species included *Acacia coriacea* subsp. *coriacea*, *Scaevola spinescens* (narrow form) and *Tephrosia* aff. *supina* (MET 12,357).	Similar.
Ipomoea costata scattered shrubs to shrublands.				
IcHlTe	*Ipomoea costata* open shrubland with *Hakea lorea* subsp *lorea* over *Triodia epactia* hummock grassland. Patchy **Cenchrus ciliaris* along tracks. Scattered *Brachychiton acuminatus, Terminalia supranitifolia.*	IcTsTh	*Ipomoea costata* scattered shrubs to open shrubland over *Triumfetta clementii* scattered shrubs to low open shrubland over *Themeda sp* Burrup (B84), *Triodia epactia* (Burrup form) tussock / hummock grassland with *Tephrosia* aff *supina* (MET12,357) very open annual herbland.	*Tephrosia supina* and *Triumfetta appendiculata* were dominant components of the vegetation, probably due to dry conditions. Similarly with the grass *Themeda triandra.* Trudgen mapped this vegetation type along much of the alignment which VLA mapped as GpTeBa where the grevillea was dominant. Much of the alignment has previously been burnt (5-10 yrs) and *Ipomoea costata* responds well to fire whereas *Grevillea pyramidalis* does not.

VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
Terminalia circumalata low open woodland over *Dichrostachys spicata* open shrubland over *Triodia epactia / T. angusta* open hummock grassland				
TcDsTe/ Ta	*Terminalia circumalata* low woodland with occasional *Eucalyptus victrix, Brachychiton acuminatus,* over *Dichrostachys spicata, Acacia coriacea, Ipomoea costata, Flueggea virosa* mixed open shrubland over *Triodia epactia / T. angusta* open hummock grassland and *Cyperus vaginatus* open sedgeland.	TcDsTa	*Terminalia canescens* low open woodland to low closed forest over (*Dichrostachys spicata*, *Flueggea virosa* subsp. *melanthesoides*) high open shrubland to shrubland over *Dicliptera armata* annual herbland Associated species recorded included *Triodia angusta* (Burrup form), *Cyperus bifax*, *Cyperus vaginatus*, *Triodia epactia* (Burrup form), *Acacia colei* and *Stemodia grossa*.	*Terminalia canescens* (recorded by Trudgen) is now *Terminalia circumalata.*
Eucalyptus victrix low woodland over mixed shrubland over *Triodia angusta / T. epactia* hummock grassland.				
EvAcTa	*Eucalyptus victrix* open low woodland over *Acacia coriacea, Dichrostachys spicata* open shrubland over *Triodia angusta* hummock and **Cenchrus ciliaris* tussock grassland sometimes patchy.	EvAcTa	*Eucalyptus victrix* low open forest over *Acacia coriacea* subsp. *coriacea* high open shrubland over *Dichrostachys spicata* open shrubland over *Indigofera monophylla* (Burrup form) low open shrubland over *Triodia angusta* (Burrup form), *Cyperus vaginatus* closed hummock grassland/very open sedgeland with *Rhynchosia* cf. *minima*, *Commelina ensifolia* herbland	*Rhynchosia minima* and *Commelina ensifolia* are annual herbs and not likely to be present in abundance in the dry. The latter species is rarely present. The low shrub *Indigofera monophylla* was in abundance in the 2000 Trudgen survey because of several years of good rainfall prior to survey – not a major component of the vegetation in 2019l
		EvTaCv (map) = ?EvTaCa	*Eucalyptus victrix* scattered low trees over scattered shrubs of *Acacia colei, Acacia bivenosa, Acacia coriacea* subsp *coriacea* over *Triodia angusta* (Burrup form) *Cymbopogon ambiguous* hummock/tussock grassland and *Rhynchosia* sp Burrup (82-1C) herbland.	

VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
EvAbTa	*Eucalyptus victrix* open to scattered low woodland with scattered *Corymbia hamersleyana* over *Acacia bivenosa* tall open shrubland over *Adriana tomentosa / Indigofera monophyla* open low shrubland over *Triodia angusta / T. epactia* open to hummock grassland.	EvAbTa	*Eucalyptus victrix* scattered low trees to low open woodland over *Acacia bivenosa* scattered tall shrubs to high open shrubland over *Triodia angusta* (Burrup form) hummock grassland. Associated species included *Corymbia hamersleyana*, *Acacia coriacea* subsp. *coriacea*, *Corchorus walcottii* and *Triodia epactia* (Burrup form).	
		EvDsTa (map) = ?EvDsTe	*Eucalyptus victrix* low open woodland to scattered low trees over *Dichrostachys spicata* high open shrubland over *Triodia epactia* (Burrup form) hummock grassland.	Trudgen mapping (EvDsTa) is not listed in the map legend – potentially EvDsTe?
		EvAa	*Eucalyptus victrix* low woodland over *Acacia ampliceps* open heath over *Cyperus vaginatus, Eriachne tenuiculmis, Triodia angusta* (Burrup form) sedgeland and tussock/hummock grassland.	
		EvTaTh	*Eucalyptus victrix* low woodland to low open forest over *Acacia coriacea* subsp *coriacea* scattered shrubs over *Dichrostachys spicata, Stylobasium spathulatum* scattered shrubs to open heath over *Triodia angusta* (Burrup form), *Themeda* sp Burrup (B84) hummock tussock grassland with *Dicliptera armata* open herbland.	Similar to EvAcTe – the *Themeda triandra* grassland was not dominant in 2019 in this or other areas.

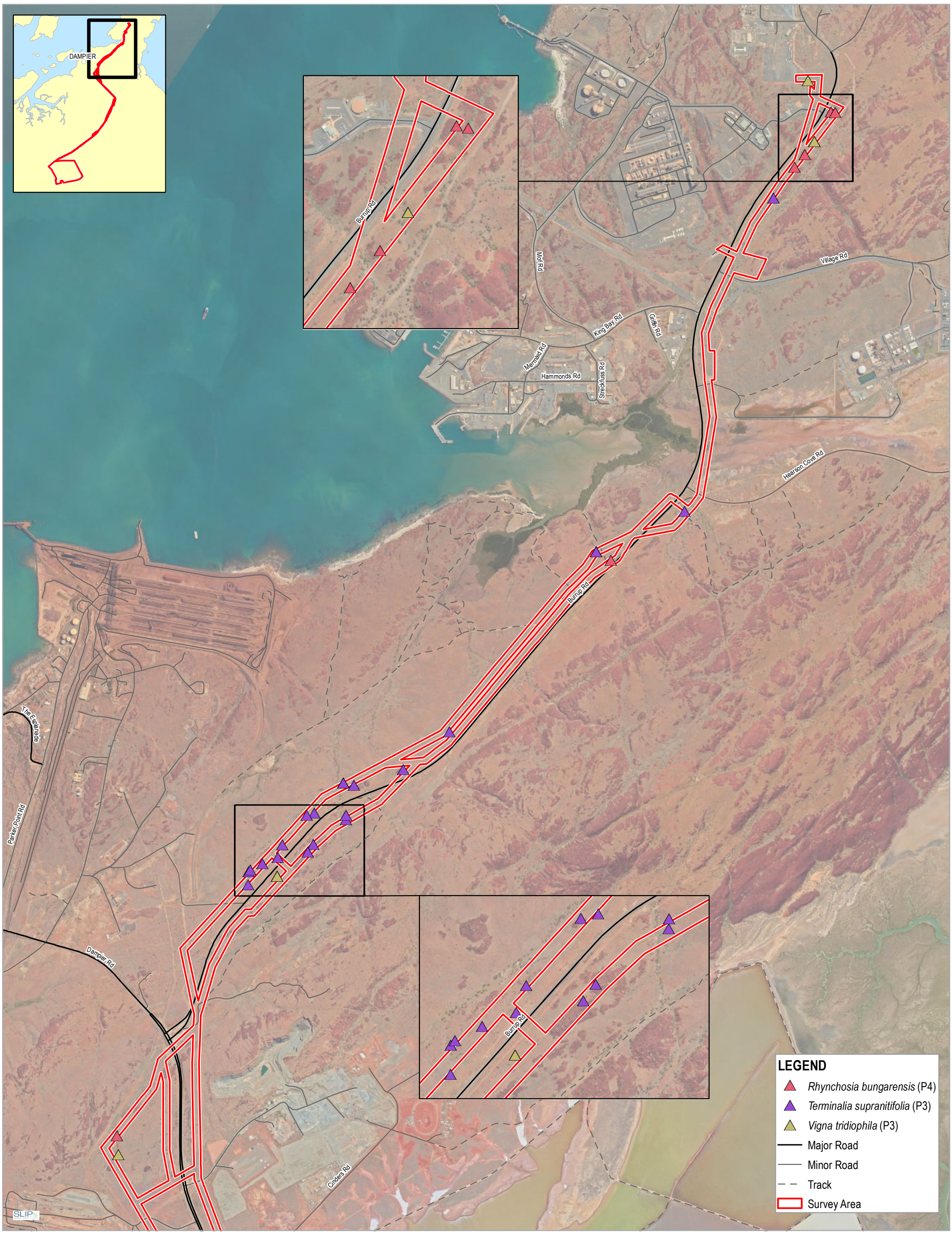
VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
Corymbia hamersleyana open to low woodland over mixed shrubland over *Triodia epactia / T. angusta* hummock grassland				
ChAbTe	*Corymbia hamersleyana* open to low woodland over *Acacia bivenosa / Acacia coriacea/ DIchrostachys spicata* tall shrubland, sometimes *Adriana tomentosa/ Stemodia grossa* low shrubland over open *Triodia epactia / T. angusta* hummock and sometimes **Cenchrus ciliaris* tussock grassland.	ChAbSg	*Corymbia hamersleyana* low open woodland over *Acacia bivenosa* high open shrubland over *Dichrostachys spicata* scattered shrubs over *Stemodia grossa* low shrubland to low open heath over *Triodia epactia* (Burrup form) hummock grassland. Associated species included *Triodia angusta* (Burrup form), *Alectryon oleifolius* and *Cymbopogon ambiguus*.	Due to the dry, *Stemodia grossa* shrubland was variable in its occurrence and not as abundant as in the 2000 Trudgen survey.
ChImTe	*Corymbia hamersleyana* open to low woodland over *Indigofera monophylla* open low shrubland over *Triodia epactia* hummock grassland.	ChImTe	*Corymbia hamersleyana* scattered low trees to low open woodland over (*Acacia bivenosa*, *Acacia coriacea* subsp. *coriacea*) scattered tall shrubs over (*Dichrostachys spicata*) M.E. Trudgen and Associates 103 scattered shrubs over *Indigofera monophylla* (Burrup form) low open shrubs to low shrubland over *Triodia epactia* (Burrup form) hummock grassland. Associated species included *Acacia bivenosa*, *Acacia coriacea* subsp. *coriacea*, *Terminalia supranitifolia* and *Rhagodia eremaea* and *Triodia angusta* (Burrup form).	
		ChDs	*Corymbia hamersleyana* scattered low trees to low woodland over *Dichrostachys spicata* open shrubland to open heath over *Triodia epactia* (Burrup form), *Triodia wiseana* (Burrup form), *Triodia angusta* (Burrup form) hummock grassland.	Combined with ChAbTe above

VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
		ChThSg	*Corymbia hamersleyana* low open woodland to scattered low trees over *Themeda sp* Burrup (B84), *Triodia epactia* (Burrup form) tussock hummock grassland with *Stemodia grossa* lowe very open herbland.	*Themeda triandra* was not a dominant component of the vegetation in the 2019 dry survey.
Brachychiton acuminatus mixed low woodland over scattered *Triodia epactia* hummock and *Cymbopogon ambiguous/ *Cenchrus ciliaris* tussock grasses.				
BaDs	*Brachychiton acuminatus* mixed low woodland with *Dichrostachys spicata* over *Ipomoea costata, Acacia coriacea,* open shrubland over scattered *Triodia eapctia / Cymbopogon ambiguous/ *Cenchrus ciliaris* grasses. Occasional *Ficus brachypoda* trees.	BaTeDa	*Brachychiton acuminatus*, *Terminalia supranitifolia* scattered low trees over *Dichrostachys spicata*, *Flueggea virosa* subsp. *melanthesoides* subsp. *melanthesoides* high shrubland over *Triodia epactia* (Burrup form) hummock grassland with *Dicliptera armata* open herbland. Associated species included *Acacia coriacea* subsp. *coriacea*, *Abutilon fraseri*, *Triumfetta appendiculata* (Burrup form), *Scaevola spinescens* (narrow form) and *Cymbopogon ambiguus*.	
BaEsErv	*Brachychiton acuminatus* mixed low woodland with *Ehretia saligna, Erythrina vespertilio, Terminalia circumalata* over *Ipomoea costata, Acacia coriacea* open shrubland over *Triodia epactia* hummock grassland. Scattered **Cenchrus ciliaris.*			Beyond Trudgen mapping limit.

VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
		BaTsTh	*Brachychiton acuminatus, Terminalia supranitifolia* low open woodland over *Ipomoea costata, Dichrostachys spicata* shrubland over *Themeda* sp Burrup (B84), *Triodia epactia* (Burrup form) tussock/hummock grassland.	
Terminalia supranitifolia low open woodland over *Ipomoea costata, Acacia coriacea* shrubland over scattered to open *Triodia epactia* hummock grass.				
TsIcTe	*Terminalia supranitifolia* low open woodland over *Ipomoea costata, Acacia coriacea, Dichrostachys spicata, Grevillea pyramidalis* mixed shrubland over scattered to open *Triodia epactia* hummock grass sometimes *Themeda triandra.*			
Indigofera monophylla (Burrup form) scattered low open shrubs to shrubland.				
		ImTeAc	*Indigofera monophyla* (Burrup form) scattered shrubs to low open heath over *Triodia epactia* (Burrup form) hummock grassland to closed hummock grassland.	*Indigofera monophylla* was not abundant during the 2019 survey (it was during the 2000 survey) therefore this Trudgen vegetation would be described as Te this survey.
Triodia epactia humoock grassland				
Te	*Triodia epactia* hummock grassland. Scattered *Grevillea pyramidalis, Hakea lorea* subsp *lorea, Acacia inaequilatera.*	Te	*Triodia epactia* (Burrup form) hummock grassland. Associated species included *Grevillea pyramidalis* subsp. *pyramidalis*, *Acacia elacantha*, *Acacia colei* and *Indigofera monophylla* (Burrup form).	
		TeTh	*Triodia epactia* (Burrup form) *Themeda sp* Burrup (B84) hummock / tussock grassland.	*Themeda triandra* was not abundant during the 2019 survey – this vegetation would be described as Te in 2019
		TeRm	*Triodia epactia* (Burrup form) hummock grassland with *Rhynchosia* cf *minima* lianes.	*Rhynchosia minima* was present but not a major component of the vegetation in 2019 due to the dry.

VLA Code	VLA 2019 Vegetation Description	Trudgen Code	Trudgen 2002 Vegetation Description	Comment
Triodia angusta hummock grassland				
Ta	*Triodia angusta* hummock grassland. Scattered *Terminalia circumalata, Corymbia hamersleyana* trees and *Acacia orthocarpa* shrubs	Ta	*Triodia angusta* (Burrup form) hummock grassland	
Herblands				
		SgTeTa	*Stemodia grossa* low open shrubland to open scrub over *Triodia epactia* (Burrup form) *Triodia angusta* (Burrup form) hummock grassland to closed hummock grassland.	
Tecticornia ssp low open shrubland				
Tspp	**Tssp.** *Tecticornia halocnemoides* subsp *tenuis, T. pruinosa, T. indica* subsp *leiostachya,* with *Muellerolimon salicorniaceum* open low shrubland with patchy *Avicennia marina* trees.	Sm	*Halosarcia* spp scattered low shrubs to low open heath.	*Halosarcia* have not been re-named *Tecticornia*

Appendix H: Vegetation Recorded, Condition and Likelihood of PECs and Priority Species from the Reconnaissance Survey



Paper Size ISO A3

0 250 500 750 1,000

Metres

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Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 50

Woodside Power Pty Ltd
Hybrid Renewable Power Project
Flora and Vegetation Surveys

Indicative locations of conservation significant flora species within the survey area

Project No. **61-3780805**
Revision No. **0**
Date **26 Nov 2019**

Appendix H

G:\61\3780805\GIS\Maps\Working\Report Figures\613780805_AppH_ConSigFlora_Rev0.mxd
Print date: 26 Nov 2019 - 16:16

Data source: GHD: Survey area - 20190719, Conservation significant flora observations; Landgate: Roads - 20190128, Imagery: 20180408 (accessed: 20190730). Created by: afeeney

Table H.1. Vegetation Recorded, Condition and Likelihood of PECs and Priority Species in the Northern Survey Area (All PECs found in the northern survey area are the Burrup Rockpile PEC (P1)).

Vegetation Mapping No.	Vegetation Type code and Description	Sites	Vegetation Condition	PEC	Priority*
	Acacia bivenosa tall shrubland over tussock and/or hummock grassland.				
1	**AbCc** *Acacia bivenosa* tall open to shrubland over **Cenchrus ciliaris* tussock grassland, sometimes closed tussock grassland, with patchy *Triodia angusta*.	11 16b 15	Degraded	Not present	Unlikely
2	**AbTe** *Acacia bivenosa* with occasional *Dichrostachys spicata, Acacia ancistrocarpa* open tall shrubland over mixed *Triodia epactia/T. angusta* hummock and **Cenchrus ciliaris* tussock grassland.	13 36	Poor - Good	Not present	Present (*Terminalia supranitifolia)*
3	**AbTa** *Acacia bivenosa, Grevillea pyramidalis, Hakea lorea* subsp *lorea* tall shrubland over closed *Triodia angusta* hummock grassland.	16a	Good	Not present	Unlikely
4	**AbImTe** *Acacia bivenosa, Acacia pyrifolia* subsp *morrisonii , Grevillea pyramidalis* open shrubland over *Indigofera monophylla, Corchorus walcottii* open low shrubland over *Triodia epactia* hummock grassland with patchy **Cenchrus ciliaris* tussock grassland.	20a 20b	Good	Not present	
	Acacia bivenosa tall shrubland over *Acacia stellaticeps* shrubland over *Diplopeltis eriocarpa* low shrubland over *Triodia angusta, T. epactia* hummock grassland.				
5	**AbAsTe** *Acacia bivenosa* with *Dolichandrone heterophylla* tall shrubland over *Acacia stellaticeps* open to shrubland over *Diplopeltis eriocarpa* low shrubland over *Triodia angusta* or *T. epactia* hummock grassland to closed hummock grassland with patchy *Eriachne obtusa*	38 39	Excellent	Not present	Unlikely
	Acacia inaequilatera tall shrubland over *Triodia epactia* hummock grassland with low trees on rockpiles				
6	**AiTe (BaTs)** *Acacia inaequilatera* tall shrubland with *Grevillea pyramidalis, Ipomoea costata, Acacia orthocarpa* over *Triodia epactia* hummock grassland with patchy *Themeda triandra* and with low trees of *Brachychiton acuminatus, Terminalia supranitifolia* on small outcropping rocks.	26	Excellent	Present on some smaller individual rockpiles	Present (*Terminalia supranitifolia* – moderate occurrence on small outcrops)
	Grevillea pyramidalis tall shrubland over *Triodia epactia / T. angusta* hummock grassland.				
7	**GpTeBaTs** *Grevillea pryamidalis* scattered to open tall shrubland, sometimes with scattered *Hakea lorea* subsp *lorea, Ipomoea costata, Acacia inaequilatera* over	1, 3	Excellent	Present on some	Present (*Terminalia*

Vegetation Mapping No.	Vegetation Type code and Description	Sites	Vegetation Condition	PEC	Priority*
	Triodia epactia hummock grassland, sometimes patchy *T. angusta.* There can be open low *Indigofera monophylla* shrubland. There are scattered *Brachychiton acuminatus, Terminalia supranitifolia, Dichrostachys spicata* on small rock outcrops.	18a(i) 18a (ii) 29 32		smaller individual rockpiles and outcrops	*supranitifolia* – moderate occurrence on small outcrops*)*
8	**GpCc** *Grevillea pryamidalis* scattered to open tall shrubland over **Cenchrus ciliaris* tussock with *Triodia epactia* hummock grassland	18b	Poor	No present	Unlikely
9	**GpIcTe** *Grevillea pyramidalis, Ipomoea costata* tall open shrubland over *Triodia epactia* hummock grassland with scattered *Terminalia circumalata, Brachychiton acuminatus, Erythrina vespertilio* on frequent rockpiles and outcrops.	34a 34b	Excellent	Present on some smaller individual rockpiles and outcrops	Present (*Vigna triodiophila*)
	Grevillea pyramidalis, Acacia inaequilatera tall shrubland over *Triodia epactia* hummock grassland with patchy **Cenchrus ciliaris.*				
10	**GpAiTe** *Grevillea pyramidalis, Acacia inaequilatera, Ehretia saligna, Santalum lanceolatum* tall shrubland over open mixed low shrubland, *Scaevola spinescens, Acacia orthocarpa, Solanum phlomoides, Indigofera monophylla* over *Triodia epactia* hummock grassland with patchy **Cenchrus ciliaris*	33	Good	Not present But unusual remnant vegetation type	Unlikely
	Dichrostachys spicata, Acacia inaequilatera, tall shrubland over open low mixed shrubland over *Triodia epactia / T. angusta* hummock grassland.				
11	**DsAiTe** *Dichrostachys spicata, Acacia inaequilatera, Acacia coriacea* tall shrubland over *Scaevola spinescens, Alectryon oleifolius* open low mixed shrubland over *Triodia epactia / T. angusta* hummock grassland. There can be scattered *Eucalyptus victrix* and *Terminalia circumalata.*	23a 23b 25		Not present	Potential
	Terminalia circumalata low open woodland over mixed *Dichrostachys spicata* open shrubland over *Triodia epactia / T. angusta* open hummock grassland and *Cyperus vaginatus* open sedgeland.				
12	**TcDsTe/Ta** *Terminalia circumalata* low woodland with occasional *Eucalyptus victrix, Brachychiton acuminatus,* over *Dichrostachys spicata, Acacia coriacea, Ipomoea costata, Flueggea virosa* mixed open shrubland over *Triodia epactia / T. angusta* open hummock grassland and *Cyperus vaginatus* open sedgeland.	5a 5b 8 21b	Very Good	Not present	Present (*Rhynchosia bungarensis)*

Vegetation Mapping No.	Vegetation Type code and Description	Sites	Vegetation Condition	PEC	Priority*
	Eucalyptus victrix low woodland over mixed shrubland over *Triodia angusta / T. epactia* hummock grassland.				
13	**EvAcTa** *Eucalyptus victrix* open low woodland over *Acacia coriacea, Dichrostachys spicata* open shrubland over *Triodia angusta* hummock and **Cenchrus ciliaris* tussock grassland sometimes patchy.	12a 12b 21a	Good	Not present	Potential
14	**EvAbTa** *Eucalyptus victrix* open to scattered low woodland with scattered *Corymbia hamersleyana* over *Acacia bivenosa* tall open shrubland over *Adriana tomentosa / Indigofera monophylla* open low shrubland over *Triodia angusta / T. epactia* open to hummock grassland.	9a 9c 19	Very Good	Not present	Present (*Rhynchosia bungarensis)*
	Corymbia hamersleyana open to low woodland over mixed shrubland over *Triodia epactia / T. angusta* hummock grassland				
15	**ChAbTe** *Corymbia hamersleyana* open to low woodland over *Acacia bivenosa / Acacia coriacea/ DIchrostachys spicata* tall shrubland, sometimes *Adriana tomentosa/ Stemodia grossa* low shrubland over open *Triodia epactia / T. angusta* hummock and sometimes **Cenchrus ciliaris* tussock grassland.	9b 37 22	Poor to Very Good	Not present	Unlikely
16	**ChImTe** *Corymbia hamersleyana* open to low woodland over *Indigofera monophylla* open low shrubland over *Triodia epactia* hummock grassland.	10	Excellent	Not present	Unlikely
	Brachychiton acuminatus mixed low woodland over scattered *Triodia epactia* hummock and *Cymbopogon ambiguous/ *Cenchrus ciliaris* tussock grasses.				
17	**BaDsIc** *Brachychiton acuminatus* mixed low woodland with *Dichrostachys spicata* over *Ipomoea costata, Acacia coriacea,Terminalia supranitifolia* open shrubland over scattered *Triodia eapctia / Cymbopogon ambiguus/ *Cenchrus ciliaris* grasses. Occasional *Ficus brachypoda* trees.	2 4	Good to Very Good	Present	Present (*Vigna triodiophila Terminalia supranitifolia Rhynchosia bungarensis)*
18	**BaEsErv** *Brachychiton acuminatus* mixed low woodland with *Ehretia saligna, Erythrina vespertilio, Terminalia circumalata* over *Ipomoea costata, Acacia coriacea* open shrubland over *Triodia epactia* hummock grassland. Scattered **Cenchrus ciliaris.*	27b 35	Very Good	Present (abundant)	Present (*Rhynchosia bungarensis*) Potential (entire area not covered) (*Terminalia supranitifolia*)
	Terminalia supranitifolia low open woodland over *Ipomoea costata, Acacia coriacea* shrubland over scattered to open *Triodia epactia*				

Vegetation Mapping No.	Vegetation Type code and Description	Sites	Vegetation Condition	PEC	Priority*
	hummock grass.				
19	**TsIcTe** *Terminalia supranitifolia* low open woodland over *Ipomoea costata, Acacia coriacea, Dichrostachys spicata, Grevillea pyramidalis,* mixed shrubland over scattered to open *Triodia epactia* hummock grass sometimes *Themeda triandra.* Scattered *Brachychiton acuminatus.*	27a 28 30	Very Good to Excellent	Present (abundant)	Present (*Terminalia supranitifolia* - numerous *Rhynchosia bungarensis Vigno triodiophila*)
	Triodia epactia humoock grassland				
20	**Te** *Triodia epactia* hummock grassland. Scattered *Grevillea pyramidalis, Hakea lorea* subsp *lorea, Acacia inaequilatera.*	6 24	Excellent	Not present	Present (*Terminalia supranitifolia Vigna triodiophila)*
	Triodia angusta hummock grassland				
21	**Ta** *Triodia angusta* hummock grassland. Scattered *Terminalia circumalata, Corymbia hamersleyana* trees and *Acacia orthocarpa* shrubs.	40	Excellent	Not present	Unlikely
	Ipomoea costata shrubland over *Triodia epactia* hummock grassland.				
22	**IcHlTe** *Ipomoea costata* open shrubland with *Hakea lorea* subsp *lorea* over *Triodia epactia* hummock grassland. Patchy **Cenchrus ciliaris* along tracks. Scattered *Brachychiton acuminatus, Terminalia supranitifolia.*	17	Very Good	Present not abundant	Present *(Terminalia supranitifolia)*
	Tecticornia ssp low open shrubland				
23	**Tspp** *Tecticornia halocnemoides* subsp. *tenuis, T. pruinosa, T. indica* subsp. *leiostachya*, with *Muellerlion salicorniaceum* open low shrubland with patchy *Avicennia marina* trees.	14	Excellent	Not Present	Not present

Table H.2 Vegetation Recorded, Condition and Likelihood of PECs and Priority Species in the Southern Survey Area. Presence of PECs could not be validated on the Roebourne Plains grassland areas and Priority Species were absent due to dry conditions. Likelihood can only be made from the desktop study

Vegetation Mapping No.	Vegetation Type code and Description	Sites	Vegetation Condition	PEC	Priority*
	Acacia bivenosa mixed shrubland over mosaic *Triodia wiseana* hummock and *Eragrostis xerophila* tussock grassland.				
1	**AbTeEx** *Acacia bivenosa, A. coriacea, A. synchronicia* open or scattered shrubland over mosaic *Triodia epactia* hummock and *Eragrostis xerophila* tussock grassland.	1	Good	Not Present	Unlikely
	Acacia bivenosa mixed shrubland over mixed *Triodia* grassland				
2	**AbTw** *Acacia bivenosa* shrubland to open shrubland with scattered *A. inaequilatera, A coriacea, A. ancistrocarpa, Eremophila longifolia,* over *Triodia wiseana* hummock grassland. There can be patchy *T. epactia a*nd patches of **Cenchrus ciliiaris* on some scald areas.	5, 10a and 10b	Very Good to Excellent	Not Present	Potential
	Acacia bivenosa shrubland over **Cenchrus ciliaris* tussock grassland.				
3	**AbCc** *Acacia bivenosa* closed to shrubland over **Cenchrus ciliaris, *Cenchrus setiger* tussock grassland. There can be patchy *Eragrostis xerophila, Triodia wiseana, T. epactia.*	8	Poor	Not Present	Unlikely
	Acacia inaequilatera tall open shrubland over *Triodia epactia* hummock grassland				
4	**AiTe** *Acacia inaequilatera* tall open shrubland with some *Ehretia saligna, Acacia bivenosa* over *Triodia epactia* hummock grassland, patchy *Eragrostis xerophila.*	4	Very Good	Not Present	Potential
	Acacia inaequilatera A. coriacea tall shrubland over mixed tussock grassland				
5	**AiAc?Eb** *Acacia inaequilatera, A. coriacea* tall shrubland, sometimes open shrubland over *?Eriachne benthamii, Chrysopogon fallax* patchy **Cenchrus ciliaris* tussock grassland.	30	Very Good	Not Present	Potential
	Acacia inaequilatera tall open mixed shrubland over *Triodia wiseana* hummock grassland				
6	**AiTw** *Acacia inaequilatera* tall open shrubland, or scattered shrubs occasional *A. synchronicia, A. coriacea, Hakea lorea* sometimes over *Acacia bivenosa* open shrubs over *Triodia wiseana* hummock grassland.	11 & 12 28b	Very Good to Excellent	Not Present	Potential
7	**AiAcTw** *Acacia inaequilatera* open shrubland, occasional *A. coriacea* over *Triodia wiseana* closed hummock grassland.	16	Excellent	Not Present	Potential

Vegetation Mapping No.	Vegetation Type code and Description	Sites	Vegetation Condition	PEC	Priority*
	**Tamarix aphylla* low open woodland over *Tecticornia* ssp **Aerva javanica* low shrubland				
8	**TaTCc** **Tamarix aphylla* (WONS Species) low open woodland over *Tecticornia* species open low shrubland with **Aerva javanica* over open **Cenchrus ciliaris* tussock grassland.	6	Degraded	Not Present	Not Present
	Tecticornia spp closed low shrubland				
9	**T spp** *Tecticornia haloocnemoides* subsp *tenuis, Tecticornia* ? *indica* closed low shrubland. (Surrounded by Site 6 vegetation)	7	Good	Not Present	Not Present
	Acacia coriacea tall shrubland over *Acacia ampliceps* or **Vachellia farnesiana* shrubland over mixed tussock and hummock grasses				
10	**AcCc** *Acacia coriacea* tall shrubland to open tall shrubland over *Acacia ampliceps* or **Vachellia farnesiana* shrubland sometimes over *Stemodia grossa* closed low shrubland over mixed **Cenchrus ciliaris* tussock with *Triodia epactia* scattered grasses.	14a and site 2 (site 2 disturbed)	Poor to Good	Not Present	Unlikely
11	**AaAcC?v** *Acacia ampliceps* tall shrubland to closed shrubland with *Acacia coriacea* over *Myoporum montanum* shrubland with occasional *Stemodia grossa* over *Cyperus* sp and *Typha sp* (dead) sedgeland (manmade pond in drainage line)	14b	Poor	Not Present	Unlikely
	Acacia coriacea / A. inaequilatera tall shrubland over mixed scattered *Acacia* shrubs over mixed tussock grassland				
12	**AcAi** *Acacia coriacea / A.inaequilatera,* tall mixed shrubland over **Vachellia farnesiana* open shrubs over mixed open tussock grassland (too dead to id) and scattered *Triodia wisena* hummocks	20	Poor to good	Not Present	Unlikely
13	**Ac?Tt** *Acacia coriacea* with tall shrubland over scattered *Acacia inaequilatera, A. ancistrocarpa* shrubs over ? *Themeda triandra* (dead / dormant) ? with some **Cenchrus ciliaris* (dead)tussock grassland.	18	Good	Not Present	Unlikely
	Acacia coriacea, A. xiphophylla low woodland over mixed tussock grassland				
14	**AcAx?Tt** *Acacia coriacea* with *A. xiphophylla* low (old) woodland over scattered **Vachellia farnesiana* shrubs over *?Themeda triandra* and **Cenchrus ciliaris* tussock grassland.	19	Very Good	Not Present But rarely occurring old large	Potential

Vegetation Mapping No.	Vegetation Type code and Description	Sites	Vegetation Condition	PEC	Priority*
				trees.	
	**Vachellia farnesiana* shrubland over **Cenchrus ciliaris* tussock grassland				
15	**VfCc** **Vachellia farnesiana* shrubland to closed shrubland over **Cenchrus ciliaris* tussock grassland.	24	Poor	Not Present	Potential
	Senna hamersleyensis low shrubland over *Eragrostis xerophila* tussock grassland.				
16	**ShEx** *Senna hamersleyensis* low shrubland (senescing?) over scattered *Eragrostis xerophila* tussocks.	25	Poor	Not Present	Not likely
	Acacia xiphophylla open shrubland over *Eragrostis xerophila* tussock grassland				
17	**AxEx** *Acacia xiphophylla* scattered to open shrubland over *Eragrostis xerophila* open tussock grassland.	26	Good	Not Present	Potential
	Corymbia hamersleyana open low woodland over *Acacia coriacea/ *Vachellia farnesiana* open shrubland over mixed hummock and tussock grassland				
18	**ChAcTa** *Corymbia hamersleyana* scattered to open low woodland over *Acacia coriacea, *Vachellia farnesiana* open shrubland to shrubland over *Triodia angusta/T. epactia/*Cenchrus ciliaris* mixed grassland.	27	Poor to Very Good	Not Present	Unlikely
	Triodia epactia hummock grassland				
19	**Te** *Triodia epactia* hummock grassland. There can be very scattered *Acacia bivenosa, A. coriacea, A. xiphophylla, Ehretia saligna.*	3	Very Good	Not Present	Unlikely
	Triodia wiseana hummock grassland				
20	**Tw** *Triodia wiseana* hummock grassland. Sometimes scattered *Acacia inaequilatera, A. coriacea, A pyrifolia, A. bivenosa.*	22 28a	Excellent	Not Present	Unlikely
	Eriachne benthamii tussock grassland				
21	**Eb?Cf** *?Eriachne benthamii, ?Chrysopogon fallax* tussock grassland with other annual grass species (all too dead/dormant to identify).	29, 32, 33	Good	Potential [1]	Potential
	Eragrostis xerophila tussock grassland (with associated dry season remnant grasses)				
22	**Ex spp** *Eragrostis xerophila* tussock grassland. (has apparent *Sorghum plumosum, Panicum sp, Aristida sp* – determine following	9, 17, 31	Good to Very Good	Likely [1]	Potential

Vegetation Mapping No.	Vegetation Type code and Description	Sites	Vegetation Condition	PEC	Priority*
	wet season) with intrusions of ?*Eriachne benthamii* on low areas.				
	Eragrostis xerophila tussock grassland (associated species not evident this survey)				
23	**Ex** *Eragrostis xerophila* tussock grassland. Sometimes scattered **Vachellia farnesiana* shrubs.	21, 23	Good	Likely [2]	Potential
	**Cenchrus ciliaris* tussock grassland				
24	**Cc** **Cenchrus ciliaris* tussock grassland with scattered shrubs of *Acacia bivenosa, A. inaequilatera.*	13	Degraded	Not Present	Not Present
	Mosaic *Triodia wiseana* hummock *Eragrostis xerophila* tussock grassland				
25	*Triodia wiseana* hummock and *Eragrostis xerophila* tussock mosaiced grassland.	15	Very good	Not Present	Potential

[1] **Potentia**l Roebourne Plains coastal grassland with gilgai microrelief on deep cracking clays (P1)

[2] **Potential** Horseflat land system of the Roebourne Plains (P3)

Table H.3: Priority flora locations identified in the northern survey area during the Reconnaissance Survey.

Species	GPS Location (UTM / Lat Long)	Site No	No Plants
Terminalia supranitifolia (P3)	0474063E 7716413N S20° 39' 02.9" 116° 45" 03.7"	18a	1
	0473721E 7716133N S20° 39' 14.1" E116° 44' 51.8"	18a	2
	04751444E 7717741N S20° 38" 21.9" E116° 45' 41.0"	18a	1
	0472579E 7715282N S20° 39'41.7" E116° 44'12.3"	29	1*
	0476755E 7720770N S20°36' 43.4" E116 °46' 36.9"	6	2
	0473058E 7715580N 1S20° 39'32.1" E116° 44'28,8"	26	FINAL TBA*
	0472580E 7715378N S20° 39'38.6" E116°44'12.3"	28	7
	0472792E 7715346N S20° 39' 9.7" E116° 44' 19.7"	30	TBA*
	0472683E 7715440N S20° 39' 36.6" E116° 44'14.4"	27	1*
	0472594E 7715393N S20° 39' 38,1" E116° 44'12.9"	27	1
	0476452E 7720354N S20° 36' 56.9" E116° 46' 26.4"	10	1
	0472796E 7715485N S20° 39' 35.1" E116° 44' 19.8"	26	2
	0475798E 7718039N S20° 38'12.1" E116° 46' 03.7"	13	1
	0475144E 7717741N S20° 38'21.9" E116° 45' 41.0"	18a	TBA
	0473357E 7716017N S20° 39'17.9" E116° 44'39.2"	Opportunistic	1
	0473279E 7716033N S20° 39'17.3" E116° 44'36.5"	Opportunistic	2
	0473279E 7716033N S20° 39'17.3" E116° 44'36.5"	Opportunistic	2
	0473299E 7715763N S20° 39'26.1" E116° 44'37.3"	Opportunistic	2
	0473301E 7715796N S20° 39'25" E116° 44'37.3"	Opportunistic	1

Species	GPS Location (UTM / Lat Long)	Site No	No Plants
	0473067E 7715812N S20° 39'24.5" E116° 44'29.2"	Opportunistic	2
	0473010E 7715797N S20° 39'25" E116° 44'27.2"	Opportunistic	1
	0472829E 7715575N S20° 39'32.2" E116° 44'21"	Opportunistic	1
	0473021E 77165522N S20° 39'33.9" E116° 44'27.5"	Opportunistic	4
Vigna tridiophila (P3)	0471620E 7713292N S20° 40'46.4" E116° 43' 39.0"	34/18a	1
	0476755E 7720770N S20°36' 43.4" E116 °46' 36.9"	6	1
	0472792E 7715346N S20° 39' 9.7" E116° 44' 19.7"	30	2
	0476707E 7721219N 20° 36'28.8" E116° 46' 41.1"	2	1
Rhynchosia bungarensis (P4)	0471610E 7713428N S20° 40'42.0" E116° 43'38.7"	35	1
	0476878E 7720989N 20° 36' 36.3" E116° 46' 41.1"	4	1
	0475255E 7717677N S20° 38' 23.9" E116° 45' 44.9"	19	1
	0476908E 7720984N S20° 36' 36.4" E116° 46' 42.2"	5	1
	0476608E 7720579N S20° 36' 49.6" E116° 46' 31.8"	8	1
	0476684E 7720673N S20° 36' 46.6" E116° 46' 34.4"	7	1

* Final numbers to be confirmed following targeted survey

Appendix I: Flora Species List

Table I.1: Northern Survey Area Flora species list.

Family	Species	Conservation Code	Naturalised status
Acanthaceae	*Dicliptera armata*		
Aizoaceae	*Trianthema pilosa*		
	Trianthema turgidifolia		
Amaranthaceae	**Aerva javanica*		*
	Gomphrena cunninghamii		
	Ptilotus exaltatus		
	Ptilotus fusiformis		
	Ptilotus obovatus		
Apocynaceae	*Cynanchum floribundum*		
Araliaceae	*Trachymene oleracea*		
Asteraceae	*Peripleura virgata*		
	Pluchea ferdinandi-muelleri		
	Pterocaulon sphaeranthoides		
	Streptoglossa decurrens		
Bignoniaceae	*Dolichandrone heterophylla*		
	Dolichandrone occidentalis		
Boraginaceae	*Ehretia saligna*		
	Trichodesma zeylanicum		
Capparaceae	*Capparis spinosa*		
Caryophyllaceae	*Polycarpaea longiflora*		
Chenopodiaceae	*Enchylaena tomentosa*		
	Neobassia astrocarpa		
	Rhagodia eremaea		
	Salsola australis		
	Tecticornia halocnemoides subsp *tenuis*		
	Tecticornia indica subsp *leiostachya*		
	Tecticornia pruinosa		
	Threlkeldia diffusa		
Cleomaceae	*Cleome viscosa*		
Combretaceae	*Terminalia circumalata*		
	Terminalia supranitifolia	P3	
Commelinaceae	*Commelina ensifolia*		
Convolvulaceae	*Bonamia media*		
	Ipomoea costata		
	Ipomea mulleri		
Cucurbitaceae	*Cucumis variabilis*		
	Trichosanthes cucumerina		

Family	Species	Conservation Code	Naturalised status
Cyperaceae	*Bulbostylis barbata*		
	Cyperus vaginatus		
Elatinaceae	*Bergia perennis*		
Euphorbiaceae	*Adriana tomentosa*		
	Euphorbia coghlanii		
	Euphorbia tannensis		
Fabaceae	*Acacia ampliceps*		
	Acacia ancistrocarpa		
	Acacia bivenosa		
	Acacia colei		
	Acacia coriacea		
	Acacia inaequilatera		
	Acacia orthocarpa		
	Acacia pyrifolia		
	Acacia pyrifolia var. morrisonii		
	Acacia stellaticeps		
	Cajanus cinereus		
	Crotalaria medicaginea		
	Crotalaria novae-hollandiae		
	Cullen lachnostachys		
	Dichrostachys spicata		
	Erythrina vespertilio		
	Evolvulus alsinoides var. villosicalyx		
	Indigofera colutea		
	Indigofera linifolia		
	Indigofera monophylla		
	Indigofera trita		
	Neptunia dimorphantha		
	Rhynchosia bungarensis	P4	
	Rhynchosia minima		
	Senna glutinosa		
	Senna glutinosa subsp. pruinosa (F.Muell.) Randell		
	Senna hamersleyensis		
	Senna artemisioides subsp. oligophylla		
	Swainsona formosa		
	Tephrosia rosea var. *clementii*		
	Tephrosia sp Kimberley Flora (C.A.Gardner 7300)		

Family	Species	Conservation Code	Naturalised status
	Tephrosia supina		
	Vigna lanceolata		
	Vigna triodiophila	P3	
Goodeniaceae	*Goodenia microptera*		
	Goodenia lamprosperma		
	Scaevola spinescens		
Lamiaceae	*Clerodendrum tomentosum*		
Lauraceae	*Cassytha capillaris*		
Malvaceae	*Abutilon cunninghamii*		
	Abutilon fraseri		
	Abutilon lepidum		
	Brachychiton acuminatus		
	Corchorus walcottii		
	Gossypium australe		
	Hibiscus coatesii		
	Hibiscus sturtii var. campylochlamys		
	**Malvastrum americanum*		*
	Triumfetta appendiculata		
	Triumfetta clementii		
	Triumfetta maconochieana		
	Waltheria indica		
Menispermaceae	*Tinospora smilacina*		
Moraceae	*Ficus brachypoda*		
	Ficus aculeata var.indecora		
Myrtaceae	*Corymbia hamersleyana*		
	Eucalyptus xerothermica		
	Eucalyptus victrix		
Nyctaginaceae	*Boerhavia coccinea*		
	Boerhavia gardneri		
Oleaceae	*Jasminum didymum* subsp. *lineare*		
Phyllanthaceae	*Flueggea virosa subsp. melanthesoides*		
	Notoleptopus decaisnei		
	Phyllanthus maderaspatensis		
Pittosporaceae	*Pittosporum phillyreoides*		
Plantaginaceae	*Stemodia grossa*		
Plumbaginaceae	*Plumbago zeylanica*		
	Muellerolimon salicorniaceum		
Poaceae	**Cenchrus ciliaris*		*
	**Cenchrus setiger*		

Family	Species	Conservation Code	Naturalised status
	Chrysopogon fallax		
	Cymbopogon ambiguus		
	Eragrostis eriopoda		
	Eragrostis falcatta		
	Eriachne obtusa		
	Eriachne mucronata		
	Eriachne tenuiculmis		
	Paraneurachne muelleri		
	Paspalidium clementii		
	Paspalidium tabulatum		
	Themeda triandra		
	Triodia angusta		
	Triodia epactia		
Portulacaceae	*Portulaca pilosa*		
Proteaceae	*Grevillea pyramidalis*		
	Hakea lorea subsp. lorea		
Rubiaceae	*Oldenlandia crouchiana*		
	Synaptantha tillaeacea		
Sapindaceae	*Alectryon oleifolius subsp. oleifolius*		
	Diplopeltis eriocarpa		
Solanaceae	*Solanum cleistogamum*		
	Solanum horridum		
	Solanum diversiflorum		
	Solanum phloides		
Violaceae	*Hybanthus aurantiacus*		

Table I.2: Southern Survey Area Flora species list.

Family	Genus Species	Conservation Code	Naturalised Status
AIZOACEAE	*Trianthema turgidifolia*		
	Trianthema triquetra		
AMARANTHACEAE	**Aerva javanica*		*
	Ptilotus aervoides		
	Ptilotus exaltatus		
	Ptilotus gomphrenoides		
	Ptilotus helipteroides		
	Ptilotus macrocephala		
APOCYMACEAE	*Cynanchum viminale* subsp *australe*		
ASTERACEAE	*Centipeda minima*		
	Pluchea rubelliflora		
	Pterocaulon sphacelatum		
	Streptoglossa bubakii		
	Streptaglossa decurrens		
	Streptaglossa ? liatroides (Sterile)		
	Streptoglossa odora		
BORAGINACEAE	*Trichodesma zeylanicum*		
CAPPARACEAE	*Capparis spinosa* subsp *nummularia*		
	Cleome viscosa		
CHENOPODIACEAE	*Atriplex lindleyi* subsp *inflata (out of range – collect)* *Atriplex lindleyi* sterile – potentially subsp *conduplicata* (P3)		
	Atriplex semilunaris		
	Halosarcia ? pruinose		
	Halosarcia halocnemoides		
	Halosarcia sp (various)		
	Salsola tragus		
	Scleroleana bicornis		
	Scleroleana cuneata		
	Scleroleana hostilis		
	Scleroleana sp		
CONVOLVULACEAE	*Bonamia media*		
	Evolvulos alsinoides		
	Ipomaea muellerii		
	Polymeria ambigua		
EUPHORBIACEAE	*Adriana tomentosa*		
	Euphorbia coghlanii		
	Euphorbia tannensis		
	Phyllanthus maderaspatana		
FABACEAE	*Acacia ampliceps*		
	Acacia bivenosa		
	Acacia coriacea		
	Acacia inaequilatera		
	Acacia pyrifolia		

Family	Genus Species	Conservation Code	Naturalised Status
	Acacia sclerosperma		
	Acacia synchronisia		
	Acacia xerophylla		
	Alysicarpus muelleri		
	Indigofera linifolia		
	Indigofera linnaei		
	Indigofera ? trita (dead/dormant)		
	Neptunia dimorphantha.		
	Rhagodia eremaea		
	Rhychosia minima		
	Senna hamersleyensis		
	Senna notablis		
	Senna oligiophylla		
	Senna glutinosa subsp. pruinosa		
	Sesbania canabinna		
	Swainsonia formosa		
	**Vachellia farnesiana*		*
GOODENIACEAE	*Goodenia lamprosperma*		
	Goodenia micoptera		
	Scaevola spinescens		
LAURACEAE	*Cassytha* sp sterile		
MALVACEAE	*Gossypium australe*		
	Sida fibulifera		
	Sida sp.		
	Waltheria indica		
MYOPORACEAE	*Eremophila longifolia*		
	Myoporum montanum		
MYRTACEAE	*Corymbia hamersleyana*		
	Eucalyptus victrix		
PHYLLANTHACEAE	*Notoleptopus decaisnei*		
PLANTAGINACEAE	*Stemodia grossa*		
POACEAE	*Aristida* sp (dead/dormant)		
	Aristida contorta		
	Astrebla pectinata		
	**Cenchrus ciliaris*		*
	**Cenchrus setiger*		*
	*Chrysopogon fallax (*dead/ dormant)		
	Dactyloctenium radulans		
	Dicanthium sericeum subsp ? (dead/dormant)		
	Enneapogon caerulescens		
	Eragrostis eriopoda		
	Eragrostis falcatta		
	Eragrostis sp (dead/dormant)		
	Eragrostis xerophila		
	Eriachne benthamii		
	Eulalia aurea		

Family	Genus Species	Conservation Code	Naturalised Status
	Panicum decompositum		
	Sorghum plumosum (dead / dormant)		
	Triodia angusta		
	Triodia epactia		
	Triodia wiseana		
	Xerochlora sp (dead/dormant)		
PORTULACACEAE	*Portulaca conspicua*		
PROTEACEAE	*Hakea lorea* subsp *lorea*		
SAPINDACEAE	*Diplopeltis eriocarpa*		
SOLANACEAE	*Solanum diversiflorum*		
	Solanum lasiophyllum		
	Solanum phlomoides		
SURIANACEAE	*Stylobasium spathulatum*		
TAMARICACEAE	**Tamarix aphylla*		*
TILIACEAE	*Corchorus walcottii*		
	Triumfetta clementii		
ZYGOPHYLLACEAE	*Tribulus hirsutus*		
	Tribulus occidentalis		

Appendix J: Field Data Sheets

Northern Survey Area
Field Data Sheets

Site: 1
Type: 30 x 30 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476669 **Northing:** 7721235

Habitat/Landform: Rocky hillslope with dense rock and boulder mantle, with occasional small rockpiles
Soil: Dense stone and boulder mantle over skeletal red silts.
Rock type: Red brown rocks and boulders
Vegetation: *Grevillea pyramidalis* tall shrubland with *Acacia inaequilatera over Triodia epactia* hummock grassland
Veg Condition: Excellent
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Abutilon lepidum	<2
Acacia bivenosa	2
Acacia inaequilatera	2
Alectryon oleifolius subsp. oleifolius	<2
Bonamia media	<2
Brachychiton acuminatus	<2
Cleome viscosa	<2
Corchorus walcottii	<2
Crotalaria medicaginea	<2
Cullen lachnostachys	<2
Grevillea pyramidalis	5-10
Hakea lorea	<2
Indigofera colutea	<2
Indigofera monophylla	<2
Jasminum didymum subsp. *lineare*	<2
Senna glutinosa	<2
Solanum diversiflorum	<2
Swainsona formosa	<2
Tephrosia rosea var. *clementii*	<2
Trichodesma zeylanicum	<2
Triodia epactia	65
Triumfetta appendiculata	<2
Triumfetta clementii	<2

Site: 2
Type: Vegetation Pocket
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476707 **Northing:** 7721219

Habitat/Landform: Small rockpile with medium to large rocks
Soil: Medium to large block rocks with areas of scree
Rock type:
Vegetation: *Brachychiton acuminatus Ipomoea costata* low open woodland over *Dichrostachys spicata* over open low shrubland over *Cenchrus ciliaris* tussock grassland.
Veg Condition: Poor to Degraded
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Abutilon lepidum	<2
Acacia coriacea	2
Brachychiton acuminatus	5
Cleome viscosa	<2
Crotalaria medicaginea	<2
Cucumis variabilis	<2
Cymbopogon ambiguus	<2
Dichrostachys spicata	5
Gomphrena cunninghamii	<2
Grevillea pyramidalis	<2
Hybanthus aurantiacus	<2
Ipomoea costata	5
Trachymene oleracea	<2
Triodia epactia	10
Triumfetta clementii	<2
Vigna triodiophila	<2
**Cenchrus ciliaris*	15-20

* denotes weed species

Site: 3
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476754 **Northing:** 7721209

Habitat/Landform: Undulating gentle slope with larger boulders, small boulder and rock outcrops, with dense stone and rock mantle.
Soil:
Rock type:
Vegetation: *Grevillea pyramidalis* open tall shrubland over *Indigofera monophylla* open low shrubland over *Triodia epactia* hummock grassland with *Brachychiton acuminatus* trees (scattered) on the rockpiles.
Veg Condition: Excellent
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Abutilon lepidum	<2
Acacia colei	2
Cucumis variabilis	<2
Cullen lachnostachys	<2
Euphorbia coghlanii	<2
Grevillea pyramidalis	5
Indigofera monophylla	5
Indigofera linifolia	<2
Pterocaulon sphaeranthoides	<2
Tephrosia rosea var. *clementii*	<2
Trachymene oleraceae	<2
Trichodesma zeylanicum	*<2*
Triodia epactia	65-70
Triumfetta appendiculata	<2
Triumfetta clementii	<2
Rhynchosia minima	<2
Brachychiton acuminatus	<2

* denotes weed species

Site: 4
Type: Vegetation Patch
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476878 **Northing:** 7720989

Habitat/Landform: Large rockpile and rockpile ridge with medium to large rocks.
Soil: Skeletal red silts in rock pockets
Rock type: Medium to large red brown block rocks
Vegetation: *Brachychiton acuminatus, Ficus brachypoda* low open woodland over *Ipomoea costata* shrubland over scattered *Triodia epactia*.
Vegetation Condition: Poor - Degraded
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Abutilon lepidum	<2
Acacia coriaceae	2
Brachychiton acuminatus	5-10
Cucumis variabilis	<2
Cymbopogon ambiguus	<2
Eriachne obtusa	<2
Ficus aculeata	<2
Ficus brachypoda	10
Ipomoea costata	5
Jasminum didymium subsp. *lineare*	<2
Pterocaulon sphaeranthoides	<2
Themeda triandra	<2
Triodia epactia	65-70
Triumfetta appendiculata	<2
Rhynchosia bungarensis P4	<2
**Cenchrus ciliaris*	<2

* denotes weed species

Site: 5
Type: Vegetation Patch
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476909 **Northing:** 7720984

Habitat/Landform: Narrow rocky gully bordered by steep rockpiles and ridges
Soil: Grey brown alluvial silts between many rocks on gully floor
Rock type:
Vegetation: *Terminalia circumulata* and *Eucalyptus victrix* woodland with occasional *Brachychiton acuminatus, Flueggea virosa subsp. melanthesoides* over *Dichrostachys spicata* and *Acacia coriaceae* open shrubland over open Triodia epactia hummock grassland over open *Cyperus vaginatus* sedges and open mixed herbland.
Vegetation Condition: Excellent
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Abutilon lepidum	<2
Acacia coriaceae	<2-2
Brachychiton acuminatus	2
Cleome viscosa	2
Cymbopogon ambiguus	2
Cyperus vaginatus	2
Dichrostachys spicata	<2-2
Dicliptera armata	2
Eriachne tenuiculmis	<2
Eucalyptus victrix	5-10
Flueggea virosa subsp. melanthesoides	2
Phyllanthus maderaspatensis	2
Tephrosia sp Kimberley Flora (C.A.Gardner 7300)	<2
Terminalia circumalata	20
Tinospora smilacina	<2
Triodia epactia	10-20
Rhynchosia bungarensis P4	<2
Swainsona formosa	<2
Waltheria indica	<2
**Cenchrus ciliaris*	<2

* denotes weed species

Site: 6
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476814 **Northing:** 7720864

Habitat/Landform: Undulating slope with dense boulders with dense boulder and rocky mantle with occasional small outcropping rockpiles.
Soil: Red brown skeletal silts
Rock type:
Vegetation: *Triodia epactia* hummock grassland. Scattered *Grevillea pyramidalis, Hakea lorea* subsp *lorea, Acacia inaequilatera*.

Vegetation Condition: Very good

Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Acacia inaequilatera	<2
Boerhavia gardneri	<2
Cleome viscosa	<2
Crotalaria novae-hollandiae	<2
Cymbopogon ambiguus	<2
Euphorbia tannensis	<2
Gomphrena cunninghamii	<2
Grevillea pyramidalis	<2
Hakea lorea subsp. lorea	<2
Hibiscus sturtii var. campylochlamys	<2
Indigofera monophylla	<2
Trachymene oleracea	<2
Triodia epactia	60-70
Triumfetta appendiculata	<2
Vigna triodiophila (P3)	<2

* denotes weed species

Site: 8
Type: Vegetation Patch
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476608 **Northing:** 7720579

Habitat/Landform: Broad rocky gully between hillslopes
Soil: Grey brown alluvial silts
Rock type: red brown rock walls and block rock
Vegetation: *Terminalia circumulata, Brachychiton acuminatus* low woodland over open *Ipomoea costata, Rhagodia eremaea, Acacia coriaceae and Dichrostachys spicata* over open *Triodia epactia* hummock grassland.
Vegetation Condition: Excellent
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Abutilon lepidum	<2
Acacia coriaceae	<2-2
Brachychiton acuminatus	10
Cymbopogon ambiguus	<2
Dichrostachys spicata	<2
Enchylaena tomentosa	<2
Eucalyptus victrix	<2
Flueggea virosa subsp. melanthesoides	<2-2
Hakea lorea	<2-2
Ipomoea costata	5
Jasminum didymum subsp. *lineare*	<2
Pittosporum phillyreoides	2
Rhagodia eremaea	<2-2
Rhynchosia bungarensis P4	<2
Terminalia circumalata	20
Tinospora smilacina	<2-2
Triodia epactia	2-10
Triumfetta appendiculata	<2

* denotes weed species

Site: 9a
Type: 25 x 100 (Drainage line) Relevé
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476240 **Northing:** 7720028

Habitat/Landform: Broad shallow drainage line
Soil: Grey-brown alluvial silts, scattered stone
Rock type: Rock piles
Vegetation: *Eucalyptus victrix* open low woodland with occasional *Corymbia hamersleyana* over *Acacia bivenosa* tall open shrubland over *Adriana tomentosa* low shrubland over *Triodia angusta* open hummock grassland with open herbland of *Stemodia grossa.*
Veg Condition: Good
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Eucalyptus victrix	5-10
Corymbia hamersleyana	2
Adriana tomentosa	15
Triodia angusta	15-30
Tiodia epactia	5
Stemodia grossa	2
Cyperus vaginatus	5
Sida fibulifera	<2
Capparis spinosa	<2
Rhagodia eremea	<2
**Aerva javanica*	<2
Ptiolotus exaltatus	<2
Chrysopogon fallax	<2
Euphorbia tannensis	<2

* denotes weed species
? denotes unconfirmed ID

Site: 9b
Type: 25 x 100 (Drainage line) Relevé
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476299 **Northing:** 7720155

Habitat/Landform: Broad shallow drainage line
Soil: Grey-brown alluvial silts, scattered stone
Rock type:
Vegetation: *Corymbia hamersleyana* low woodland over *Acacia bivenosa* tall open shrubland over *Adriana tomentosa* low shrubland over open *Triodia angusta* hummock grassland with patchy *T. epactia*
Veg Condition: Very Good
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Corymbia hamersleyana	15
Adriana tomentosa	10
Acacia bivensosa	5
Triodia angusta	15-20
Tiodia epactia	5
Stemodia grossa	<2
Corchorus walcottii	<2
Triumfetta appendiculata	<2
Eucalyptus victrix	<2
Indigofera monophylla	<2
Enchyleana tomentosa	<2
Chrysopogon fallax	<2

* denotes weed species
? denotes unconfirmed ID

Site: 9c
Type: 25 x 100 (Drainage line) Relevé
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476187 **Northing:** 7719891

Habitat/Landform: Broad shallow drainage line
Soil: Grey-brown alluvial silts, scattered stone
Rock type:
Vegetation: *Eucalyptus victrix* scattered low trees with *Corymbia hamersleyana* over open low shrubland of *Indigofera monophyla* over mixed *Triodia angusta/T. epactia* open hummock grassland.
Veg Condition: Very Good
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Corymbia hamersleyana	<2
Eucalyptus victrix	<2
Acacia bivensosa	<2
Triodia angusta	20
Tiodia epactia	10
**Cenchrus ciliaris*	2
Adriana tomentose	5
Tephrosia rosea subsp clementii	<2

* denotes weed species
? denotes unconfirmed ID

Site: 10
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476814 **Northing:** 7720864

Habitat/Landform: Very gentle rocky and stony slope sloping down into broad drainage valley.
Soil: Red-brown silts.
Rock type: Dense stony mantle
Vegetation: *Corymbia hamersleyana* open to low woodland over *Indigofera monophylla* open low shrubland over *Triodia epactia* hummock grassland.

PEC above site 10 on rocks at 0476452E 7720354N

Vegetation Condition: Excellent

Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Abutilon lepidum -	<2
Acacia coriacea -	<2-2
Corchorus walcottii	2
Corymbia hamersleyana	5-15 (20)
Cucumis variabilis	<2
Dichrostachys spicata -	<2
Ehretia saligna -	<2
Enchylaena tomentosa	<2
Flueggea virosa subsp. melanthesoides -	<2
Grevillea pyramidalis	2
Hibiscus sturtii var. campylochlamys	<2
Indigofera monophylla	2
Paspalidium tabulatum	<2
Terminalia supranitifolia (P3)	<2
Triodia epactia	30-40
Triumfetta clementii	<2
Waltheria indica	<2
**Cenchrus ciliaris*	<2

* denotes weed species

Site: 11
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476814 **Northing:** 7720864

Habitat/Landform: Old borrow pit, flat are with disturbed soils and rubble
Soil: Red-brown silts.
Rock type: Dense stony mantle
Vegetation: *Acacia bivenosa* tall to open shrubland (80% senesced) over **Cenchrus ciliaris* tussock grassland, sometimes closed tussock grassland, with patchy *Triodia angusta.*

Vegetation Condition: Degraded

Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Acacia bivenosa	40
Corchorus walcottii	<2
Senna glutinosa	<2
Salsola australis	<2
Trianthema turgidifolia	<2
Triodia angusta	5
Triodia epactia	<2
**Cenchrus ciliaris*	50-60

* denotes weed species

Site: 12a
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 475855 **Northing:** 7718092

Habitat/Landform: Narrow, stony creekline with dense stony bed
Soil: Grey brown silty alluvium
Rock type: Dense stony mantle
Vegetation: *Eucalyptus victrix* open low woodland over *Acacia coriacea, Dichrostachys spicata* open shrubland over *Triodia angusta* hummock and **Cenchrus ciliaris* tussock grassland sometimes patchy, sometimes dominant.

Vegetation Condition: Good

Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Acacia coriaceae	2
Alectryon oleifolius subsp. oleifolius	<2-2
Corchorus walcottii	<2
Cymbopogon ambiguus	2
Dichrostachys spicata	<2-5
Eriachne obtusa	2
Eucalyptus victrix	5
Grevillea pyramidalis	<2
Solanum horridum	<2
Triodia angusta	15
**Cenchrus ciliaris*	5-10

* denotes weed species

Site: 12b
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 475738 **Northing:** 7718007

Habitat/Landform: Narrow, stony creekline with dense stony bed
Soil: Grey brown silty alluvium
Rock type: Dense stony mantle
Vegetation: *Eucalyptus victrix* open low woodland over *Acacia coriacea, Dichrostachys spicata* open tall shrubland over **Cenchrus ciliaris* tussock grassland sometimes patchy *Triodia angusta.*

Vegetation Condition: Good

Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Abutilon lepidum	<2
Acacia coriaceae	5
Acacia ampliceps	2
Adriana tomentosa	<2
Alectryon oleifolius subsp. oleifolius	<2
Corchorus walcottii	<2
Cucumis variabilis	<2
Cyperus vaginatus	<2
Dichrostachys spicata	2
Eucalyptus victrix	10
Pittosporum phillyreoides	<2
Tephrosia sp Kimberley Flora (C.A.Gardner 7300)	<2
Terminalia circumalata	<2
Triodia angusta	10-15
Triumfetta appendiculata	<2
**Cenchrus ciliaris*	20-25

* denotes weed species

Site: 13
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 475813 **Northing:** 7718060

Habitat/Landform: Low valley floor, only scattered stones
Soil: Grey brown silts
Rock type:
Vegetation: Mixed open tall shrubland of *Acacia bivenosa* (mostly dead) with occasional *Dichrostachys spicata, Acacia ancistrocarpa* over open low shrubland of *Corchorus walcottii* over mixed *Triodia epactia/T. angusta* hummock and **Cenchrus ciliaris* tussock grassland.

Vegetation Condition: Poor

Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Abutilon lepidum	<2
Acacia bivenosa	2
Acacia coriaceae	<2
Cassytha capillaris	<2
Chrysopogon fallax	2
Corchorus walcottii	5
Cucumis variabilis	1
Dichrostachys spicata	2
Eriachne mucronata	<2
Gossypium australe	<2
Grevillea pyramidalis	<2
Hakea lorea subsp. lorea	<2
Phyllanthus maderaspatensis	<2
Pterocaulon sphaeranthoides	<2
Senna glutinosa	<2
Solanum cleistogamum	<2
Solanum diversiflorum	<2
Tephrosia supina	<2
Terminalia supranitifolia (P3)	<2
Trichodesma zeylanicum	<2
Triodia angusta	2
Triodia epactia	<2
Triumfetta appendiculata	<2
Triumfetta clementii	<2
Waltheria indica	<2
**Aerva javanica*	<2
**Cenchrus ciliaris*	5-15

* denotes weed species

Site: 14
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 476026 **Northing:** 7718631

Habitat/Landform: Saline tidal inlet
Soil: Grey brown saline silty loams
Rock type:
Vegetation: *Tecticornia halocnemoides* subsp *tenuis, T. pruinose, T. indica* subsp *leiostachya,*with *Muellerolimon salicorniaceum* open low shrubland with patchy *Avicennia marina* trees.

Vegetation Condition: Excellent

Fire Age: 0 yrs

Species List

Name	Cover (%)
Avicennia marina	<2
Eragrostis falcatta	<2
Muellerolimon salicorniaceum	2
Neobassia astrocarpa	5
Tecticornia halocnemoides subsp *tenuis*	15
Tecticornia pruinosa	15
Tecticornia indica subsp *leiostachya*	2

* denotes weed species

Site: 15
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 475644 **Northing:** 7717965

Habitat/Landform: Stony plain disturbed previously for powerline, gas pipeline and road (possible old borrow pit).
Soil: Pinky brown fill and rubble.
Rock type: Stony mantle
Vegetation: Scattered to open mixed shrubland of *Acacia bivenosa (much senesced); Grevillea pyramidalis* over closed *Cenchrus ciliaris* tussock grassland. Scattered *Corymbia hamersleyana*

Vegetation Condition: Degraded

Fire Age: 0-5 yr

Species List

Name	Cover (%)
Acacia ampliceps	<2
Acacia bivenosa	2
Corchorus walcottii	<2
Corymbia hamersleyana	<2
Cucumis variabilis	<2
Grevillea pyramidalis	<2
Scaevola spinescens	<2
Salsola australis	<2
Trianthema turgidifolia	<2
**Cenchrus ciliaris*	75
**Cenchrus setiger*	2

* denotes weed species

Site: 16a
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 475644 **Northing:** 7717965

Habitat/Landform: Valley floor
Soil: Reddish brown alluvial soils
Rock type: Stony mantle
Vegetation: *Acacia bivenosa, Grevillea pyramidalis, Hakea lorea* subsp *lorea* tall shrubland over closed *Triodia angusta* hummock grassland.

Vegetation Condition: Good

Fire Age: 10 yr

Species List

Name	Cover (%)
Acacia bivenosa	5
Acacia coriaceae	2
Brachychiton acuminatus	<2
Chrysopogon fallax	<2
Corymbia hamersleyana	<2
Ehretia saligna	<2
Eucalyptus xerothermica	<2
Euphorbia tannensis	<2
Evolvulus alsinoides var. villosicalyx	<2
Goodenia microptera	<2
Grevillea pyramidalis	2
Hakea lorea subsp. lorea	<2
Indigofera monophylla	<2
Pluchea ferdinandi-muelleri	<2
Rhynchosia minima	<2
Scaevola spinescens	<2
Triodia angusta	70
Triodia epactia	10
**Cenchrus ciliaris*	2-15

* denotes weed species

Site: 16b
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 475516 **Northing:** 7717941

Habitat/Landform: Old borrow area
Soil: Mantle sands
Rock type:
Vegetation: *Acacia bivenosa* tall shrubland over **Cenchrus ciliaris* tussock grassland.
Vegetation Condition: Degraded

Fire Age: 10 yr

Species List

Name	Cover (%)
Acacia bivenosa	15-20
Triodia angusta	7<2
**Cenchrus ciliaris*	50

* denotes weed species

Site: 17
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472184 **Northing:** 7714685

Habitat/Landform: Undulating rocky slopes and rises with frequent rock outcrops
Soil:
Rock type:
Vegetation: *Ipomoea costata* open shrubland with *Hakea lorea* subsp *lorea* over *Triodia epactia* hummock grassland. Patchy **Cenchrus ciliaris* along tracks. Scattered *Brachychiton acuminatus, Terminalia supranitifolia.*

Vegetation Condition: Good

Fire Age: >10 yr

Species List

Name	Cover (%)
Bonamia media	<2
Brachychiton acuminatus	2
Crotalaria medicaginea	<2
Ehretia saligna	<2
Evolvulus alsinoides var. villosicalyx	<2
Grevillea pyramidalis	2
Hakea lorea subsp. lorea	2-5
Indigofera linifolia	<2
Indigofera monophylla	<2
Ipomoea costata	5-10
Solanum phlmoides	<2
Streptoglossa decurrens	<2
Swainsona formosa	<2
Terminalia supranitifolia (P3)	<2
Trichodesma zeylanicum	1
Triodia epactia	60
Triumfetta clementii	1
**Cenchrus ciliaris*	<2
**Aerva javanica*	<2

* denotes weed species

Site: 18a
Type: 50 x 50
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 474876 **Northing:** 7717410
Repeat at : Easting: 472978 Northing: 7715743
Easting: 475144 Northing 7717741

Habitat/Landform: Low gentle hill slopes with dense boulder and stony mantle and numerous small rockpiles
Soil: Skeletal red silts
Rock type: Boulders, dense stone mantle, outcrops
Vegetation: *Grevillea pyramidalis* scattered to open tall shrubland, scattered *Hakea lorea* subsp *lorea, Ipomoea costata, Acacia inaequilatera* over *Triodia epactia* hummock grassland with scattered *T. angusta* hummocks.
Scattered *Brachychiton acuminatus, Terminalia supranitifolia, Dichrostachys spicata* on small rockpiles.
Veg Condition: Very Good
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Triodia epactia	60
Grevillea pyramidalis	2-5
Trachymene oleraceae	<2
Rhynchosia minima	<2
**Cenchrus ciliaris*	10
Evolvulus alsinoides var *villosiflorus*	<2
Crotalaria novae-hollandiae	<2
Abutilon lepidum	<2
Trichodesma zeylanicum	<2
Indigofera linnaei	<2
Boerhavia coccinea	<2
Salsola australis	<2
Corchorus walcottii	<2
**Aerva javanica*	<2
Gomphrena cunninghamii	<2
Acacia pyrifolia var *morrisonii*	<2
Brachychiton acuminatus	<2
DIchrostachys spicata	<2

* denotes weed species

Site: 18b
Type: 50 x 50
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 473783 **Northing:** 7716163

Habitat/Landform: Disturbed area on low gentle hill slopes with stones and rubble over pinky silts and stones, numerous small rockpiles
Soil: Disturbed pinky silts with rubble – potentially imported
Rock type:
Vegetation: *Grevillea pyramidalis* scattered to open tall shrubland, over **Cenchrus ciliaris* tussock grassland with scattered *Triodia epactia.*
.
Veg Condition: Very Good
Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Triodia epactia	30
Grevillea pyramidalis	2
**Cenchrus ciliaris*	45
**Cenchrus setiger*	5
Rhynchosia minima	<2
Abutilon lepidum	<2
Trichodesma zeylanicum	<2
Indigofera linnaei	<2
Boerhavia coccinea	<2
Salsola australis	<2
Corchorus walcottii	<2
**Aerva javanica*	<2
Acacia pyrifolia var *morrisonii*	<2
DIchrostachys spicata	<2

* denotes weed species
? denotes unconfirmed ID

Site: 19
Type: 20 x 75 Relevé
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 475255 **Northing:** 7717677

Habitat/Landform: Broad shallow drainage line
Soil: Grey-brown alluvial silts, scattered stone
Rock type:
Vegetation: *Eucalyptus victrix* open low woodland with occasional *Corymbia hamersleyana* over *Triodia angusta* open hummock grassland with patchy invading **Cenchrus ciliaris* and *Triodia epactia*
Veg Condition: Very good
Fire Age: 5-10 yr

Species List

Name	Cover (%)
Acacia bivenosa	<2
Acacia colei	<2
Acacia pyrifolia var. morrisonii	<2
Corchorus walcottii	<2
Corymbia hamersleyana	2
Crotalaria medicaginea	<2
Cucumis variabilis	<2
Cyperus vaginatus	<2
Dichrostachys spicata	<2
Eucalyptus victrix	5
Goodenia lamprosperma	<2
Indigofera trita	<2
Neptunia dimorphantha	<2
Rhynchosia bungarensis (P4)	<2
Swainsona formosa	<2
Tephrosia supina	<2
Threlkeldia diffusa	<2
Triodia angusta	30
Triodia epactia	25
Triumfetta appendiculata	<2
**Cenchrus ciliaris*	15-30

* denotes weed species

Site: 20
Type: 50 x 50 Relevé
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 475155 **Northing:** 7717591

Habitat/Landform: Undulating low hill slopes
Soil: Red silts, stony mantle
Rock type:
Vegetation: *Acacia bivenosa, Acacia pyrifolia* subsp *morrisonii , Grevillea pyramidalis* open shrubland over *Indigofera monophylla, Corchorus walcottii* open low shrubland over *Triodia epactia* hummock grassland with patchy **Cenchrus ciliaris* tussock grassland.
Veg Condition: Good
Fire Age: 5-10 yr

Species List

Name	Cover (%)
Acacia bivenosa	2-5
Acacia pyrifolia var. morrisonii	<2
Corchorus walcottii	5
Cucumis variabilis	<2
Cynanchum floribundum	<2
Dichrostachys spicata	<2
Euphorbia tannensis	<2
Evolvulus alsinoides var. villosicalyx	<2
Goodenia microptera	<2
Grevillea pyramidalis	<2-2
Indigofera monophylla	5
Notoleptopus decaisnei	<2
Phyllanthus maderaspatensis	<2
Pterocaulon sphaeranthoides	<2
Streptoglossa decurrens	<2
Solanum cleistogamum	<2
Stemodia grossa	10
Swainsona formosa	<2
Tephrosia rosea var. *clementii*	<2
Tephrosia supina	<2
Triodia angusta	10
Triodia epactia	35-50
Triumfetta clementii	<2
**Cenchrus ciliaris*	2-30

* denotes weed species

Site: 21a
Type: 30 x 70 m (Drainage line) Relevé
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 474507 **Northing:** 7716923

Habitat/Landform: Broad shallow drainage line
Soil: Grey-brown alluvial silts, scattered stone
Rock type:
Vegetation: *Eucalyptus victrix, Terminalia circumalata* open low woodland to scattered low woodland over *Acacia coriacea* open shrubland over *Triodia angusta* open hummock grassland over *Cyperus vaginatus* open sedgeland.
Veg Condition: Excellent
Fire Age: 5-10 yr

Species List

Name	**Cover (%)**
Eucalyptus victrix	10-15
Terminalia circumalata	10-15
Acacia coriacea	2
Triodia angusta	50
Cyperus vaginatus	2
**Cenchrus ciliaris*	5
Rhynchosia minima	<2
Dicliptera armata	<2
Tinospora smilacina	<2
Flueggea virosa	<2
*Scaevola spinescens (*broad form)	<2
Acacia colei	<2
Chrysopogon fallax	<2
Threlkeldia diffusa	<2
Triumfetta appendiculata	<2
Dichrostahys spicata	<2

* denotes weed species
? denotes unconfirmed ID

Site: 22
Type: 30 x 50 Relevé
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 474456 **Northing:** 7716570

Habitat/Landform: Valley floor
Soil: Grey brown silts, moderate stony mantle
Rock type:
Vegetation: *Corymbia hamersleyana* open to low woodland over *Acacia coriacea/ DIchrostachys spicata tall* shrubland, over *T. angusta* hummock grassland and patchy **Cenchrus ciliaris* tussock grassland..
Veg Condition: Good
Fire Age: <10 yr

Species List

Name	Cover (%)
Acacia bivenosa	<2
Acacia coriacea	5
Corymbia hamersleyana	15
Corchorus walcottii	<2
Dichrostachys spicata	2
Grevillea pyramidalis	<2
Indigofera monophylla	<2
Scaevola spinescens	<2
Solanum cleistogamum	<2
Triodia angusta	60
Triodia epactia	10
**Cenchrus ciliaris*	5-10

* denotes weed species

Site: 23a
Type: 25 x 75 Relevé
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 474065 **Northing:** 7716467

Habitat/Landform: Valley floor
Soil: Grey brown silts, moderate stony mantle
Rock type:
Vegetation: *Eucalyptus victrix* open woodland over *Terminalia circumalata* over *Dichrostachys spicata, Acacia coriacea, Alectryon oleifolius* mixed shrubland over *Triodia epactia* hummock grassland with patchy *T. angusta.*
Veg Condition: Very good
Fire Age: 5-10 yr

Species List

Name	Cover (%)
Acacia coriacea	5
Cymbopogon ambiguus	<2
Dichrostachys spicata	5
Eriachne tenuiculmis	1
Eucalyptus victrix	2
Rhagodia eremaea	<2
Terminalia circumalata	<2
Triodia angusta	20
Triodia epactia	30
**Cenchrus ciliaris*	5-15

* denotes weed species

Site: 23b
Type: 50 x 20 Relevé
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472867 **Northing:** 7715663

Habitat/Landform: Very shallow drainage zone associated with larger drainage area.
Soil: Grey brown alluvial silts
Rock type:
Vegetation: *Dichrostachys spicata, Acacia inaequilatera,* tall shrubland over *Acacia coriacea* over *Scaevola spinescens* shrubland over *Triodia epactia* hummock grassland.

Veg Condition: Excellent
Fire Age: 5-10 yr

Species List

Name	Cover (%)
Acacia coriacea	10
Acacia inaequilatera	15
Alectryon oleifolius subsp. oleifolius	<2
Brachychiton acuminatus	<2
Clerodendrum tomentosum	<2
Dichrostachys spicata	10
Grevillea pyramidalis	<2
Scaevola spinescens	5
Solanum cleistogamum	<2
Triodia epactia	40
**Cenchrus ciliaris*	5

* denotes weed species

Site: 24
Type: 50 x 50 Releve
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 473658 **Northing:** 77715970

Habitat/Landform: Low hill slopes with stony, rocky mantle
Soil: Red brown silts
Rock type:
Vegetation: *Triodia epactia* hummock grassland

Vegetation Condition: Very good

Fire Age: 5 -10 yrs

Species List

Name	Cover (%)
Abutilon lepidum	<2
Boerhavia coccinea	<2
Corchorus walcottii	<2
Crotalaria novae-hollandiae	<2
Euphorbia australis	<2
Gomphrena cunninghamii	<2
Grevillea pyramidalis	<2
Hakea lorea subsp. lorea	<2
Indigofera linifolia	<2
Paspalidium clementii	<2
Rhynchosia minima	<2
Senna artemisioides subsp. oligophylla	<2
Trachymene oleracea	<2
Triodia epactia	50
Triumfetta appendiculata	<2
Triumfetta clementii	<2

* denotes weed species

Site: 26
Type: 40x 60 Releve
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472827 **Northing:** 7715528

Habitat/Landform: Low rocky hills and ridges with drainage areas between dense boulder and rocks and scattered stones.
Soil: Red brown silts with pied brown alluvium in drainage areas.
Rock type: Outcropping rockpiles
Vegetation: Mixed *Acacia inaequilatera* tall open shrubland with *Grevillea pyramidalis, Ipomea costata, Acacia orthocarpa* over *Triodia epactia* hummock grassland with patchy *Themeda triandra* and with low trees of *Brachychiton acuminatus, Terminalia supranitifolia* on small outcropping rocks.

Vegetation Condition: Excellent

Fire Age: <10 yr
Species List

Name	Cover (%)
Acacia inaequilatera	2
Acacia orthocarpa	2-5
Bergia perennis	<2
Brachychiton acuminatus	<2
Cajanus cinereus	2
Corchorus walcottii	<2
Crotalaria medicaginea	<2
Evolvulus alsinoides var. villosicalyx	<2
Gomphrena cunninghamii	<2
Grevillea pyramidalis	<2
Indigofera monophylla	<2
Ipomoea costata	2
Oldenlandia crouchiana	<2
Scaevola spinescens	<2
Senna glutinosa subsp. *pruinosa*	<2
Solanum diversiflorum	<2
Stemodia grossa	<2
Streptoglossa decurrens	<2
Tephrosia supina	<2
Terminalia supranitifolia (P3)	5
Themeda triandra	5-15
Tinospora smilacina	<2
Trachymene oleracea	<2
Trichodesma zeylanicum	<2
Triodia epactia	60
Triumfetta appendiculata	<2
Triumfetta clementii	<2
**Cenchrus ciliaris*	2-5

Site: 27a
Type: 50 x 50 Relevé
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 473042 **Northing:** 7715595

Habitat/Landform: High rockpile ridge
Soil: Very scarce skeletal red silts in packets
Rock type: large block red - brown
Vegetation: *Terminalia supranitifolia* low open woodland with *Ipomoea costata Acacia coriacea, Dichrostachys spicata, Grevillea pyramidalis, Flueggea virosa* open mixed shrubland over scattered *Triodia epactia* hummocks and *Cymobopogon ambiguous* tussocks and **Cenchrus ciliaris*.. Scattered *Brachychiton acuminatus* trees PEC.
Veg Condition: Excellent
Fire Age:>10 yrs

Species List

Name	Cover (%)
Terminalia supranitifolia	2-10
Brachychiton acuminatus	<2-2
Ipomoea costata	2
Dichrostachys spicata	2
Greillea pyramidalis	<2-2
**Cenchrus ciliaris*	2-5
Triodia epactia	2-5
Cymbopogon ambiguus	2
Jasminum didymium subsp *lineare*	<2
Ptilotus obovatus	<2
Cleome viscosa	<2
Ehretia saligna	<2
Clerodendrum tomentosa	<2
Acacia coriacea	<2
Enchychleana tomentose	<2
Scaevola spinescens	<2
Gomphrena cunninghamii	<2
Cynanchum viminale australe	<2
Pittosporum phillyreoides	<2
Alectryon oleifolius	<2
Paspalidium tabulatum	<2
Rhagodia eremea	<2
Senna oligophylla	<2
Polygala insingii	<2

* denotes weed species
? denotes unconfirmed ID

Site: 27b
Type: 50 x 50 Relevé
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 473042 **Northing:** 7715595

Habitat/Landform: Boulder strewn upper hill sloe and crest with numerous small rockpiles
Soil: Skeletal red-brown and pinky silts
Rock type: medium to large red-brown and grey boulders and small rockpiles
Vegetation : *Brachychiton acuminatua* open low woodland with *Erythrina vespertilio* over *Ipomoea costata* and *Acacia coriacea* open shrubland over *Triodia epactia* hummock grassland patchy *Themeda triandra,* and mixed herbland PEC.
Veg Condition: Excellent
Fire Age: >10 years

Species List

Name	Cover (%)
Brachychiton acuminatus	5-15
Erythrina vespertilio	2
Triodia epactia	50
Themeda triandra	5-10
Ehretia saligna	2
Ipomoea cosatat	2
Dichrostachys spicata	<2-2
Acacia coriacea	<2-2
Streptoglossa decurrens	<2
Trachymene oleraceae	<2
**Cenchrus ciliaris*	<2
Abutilon lepidum	<2
Ptilotus fusiformis	<2
Grevillea pyramidalis	<2
Acacia pyrifolia var morrisonii	<2
Triumfetta clementii	<2
Indigofera linnaei	<2
Bonamia media	<2
Vigna lanceolate	<2
Hybanthus aurantiacus	<2
Euphorbia coghlanii	<2
Bulbostylis barbata	<2
Gomphrena cunninghamii	<2
Commelina ensifolia	<2
Phyllanthus maderaspatensis	<2
Crotalaria medicagineae	<2
Cucumis variabilis	<2
Triumfetta appendiculata	<2
Vittadina	<2
Cleome viscosa	<2
Fluggea virosa	<2
Portulaca filiformis / pilosa	<2

Name	Cover (%)
Cymbopogon ambiguous	<2
Evolvulus alsinoides villosicalyx	<2
Tinospora smilacina	<2
Terminalia supranitifolia	<2
Solanum cleistogamum	<2

* denotes weed species

? denotes unconfirmed ID

Site: 28
Type: 50x 15 Releve
Date: 05/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472580 **Northing:** 7715378

Habitat/Landform: Shallow narrow drainage line between hillslopes with moderate boulders and stony mantle.
Soil: Brown silts
Rock type:
Vegetation: *Terminalia supranitifolia* low open woodland over *Ipomoea costata, Acacia coriacea, Dichrostachys spicata,* mixed shrubland over scattered to open *Triodia epactia* hummock grass. Scattered *Brachychiton acuminatus*

Vegetation Condition: Excellent

Fire Age: >10 yr
Species List

Name	Cover (%)
Abutilon cunninghamii	<2
Abutilon lepidum	<2
Acacia coriaceae	5
Acacia pyrifolia var. morrisonii	<2
Bonamia media	<2
Brachychiton acuminatus	2
Cucumis variabilis	<2
Cymbopogon ambiguus	<2
Dichrostachys spicata	<2
Eriachne obtusa	<2
Flueggea virosa subsp. melanthesoides	<2
Goodenia lamprosperma	<2
Grevillea pyramidalis	<2
Ipomoea costata	<2
Phyllanthus maderaspatensis	<2
Scaevola spinescens	<2
Terminalia supranitifolia (P3)	15
Tinospora smilacina	<2
Triodia epactia	40
Triumfetta appendiculata	<2
**Cenchrus ciliaris*	<2-5

* denotes weed species

Site: 29
Type: 50x 50 Releve
Date: 05/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472550 **Northing:** 7715308

Habitat/Landform: Gentle hill slope with boulders and rocks
Soil: Skeletal red brown silts
Rock type:
Vegetation: Mixed *Hakea lorea* subsp *lorea, Ipomoea costata, Grevilla pryamidalis* shrubland over *Triodia epactia* hummock grassland with scattered *Brachychiton acuminatus, Terminalia supranitifolia, Dichrostachys spicata* on small rock outcrops.

Vegetation Condition: Excellent

Fire Age: >10 yr
Species List

Name	Cover (%)
Acacia bivenosa	<2
Acacia inaequilater	<2
Acacia pyrifolia var. morrisonii	<2
Brachychiton acuminatus	<2
Corchorus walcottii	<2
Cucumis variabilis	<2
Dichrostachys spicata	<2
Euphorbia tannensis	<2
Goodenia lamprosperma	<2
Grevillea pyramidalis	2
Hakea lorea subsp. lorea	2-5
Hybanthus aurantiacus	<2
Indigofera monophylla	<2
Ipomoea costata	2
Scaevola spinescens	<2
Solanum cleistogamum	<2
Solanum diversiflorum	<2
Terminalia supranitifolia (P3)	??
Tinospora smilacina	<2
Trachymene oleracea	<2
Triodia epactia	50

* denotes weed species

Site: 30
Type: 50x 50 Releve
Date: 05/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472792 **Northing:** 7715346

Habitat/Landform: High slopes and crests, boulders strewn with numerous small rock outcrops
Soil: Skeletal red brown silts
Rock type:
Vegetation: *Terminalia supranitifolia* low open woodland over *Ipomoea costata, Acacia coriacea, Grevillea pyramidalis* tall shrubland over scattered to open *Triodia epactia* hummock grassland sometimes *Themeda triandra*

Vegetation Condition: Excellent

Fire Age: >10 yr
Species List

Name	Cover (%)
Abutilon cunninghamii	<2
Abutilon lepidum	<2
Acacia coriacea	<2
Brachychiton acuminatus	<2-2
Cajanus cinerea	<2
Dichrostachys spicata	<2
Euphorbia coghlanii	<2
Evolvulus alsinoides var. villosicalyx	<2
Gomphrena cunninghamii	<2
Grevillea pyramidalis	<2
Ipomoea costata	2-10
Paspalidium tabulatum	<2
Portulaca pilosa	<2
Ptilotus fusiformis	<2
Tephrosia supina	<2
Terminalia supranitifolia (P3)	2-5
Themeda triandra	5-10
Tinospora smilacina	<2
Trachymene oleracea	<2
Trichodesma zeylanicum	<2
Triumfetta appendiculata	<2
Triodia epactia	55-60
Vigna triodiophila (P3)	<2
**Cenchrus ciliaris*	<2

* denotes weed species

Site: 32
Type: 50 x 50
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472372 **Northing:** 7714714

Habitat/Landform: Narrow shallow valley between hillslopes with rock and stony mantle.
Soil: Red-brown silty loams with stony mantle.
Rock type: Red-brown medium to large scattered rocks.
Vegetation: *Grevillea pyramidalis* tall woodland over mixed *Triodia epactia* and *Triodia angusta* hummock grassland.
Veg Condition: Excellent
Fire Age: >10 yrs

Species List

Name	Cover (%)
Triodia epactia	50
Triodia angusta	20
Grevillea pyramidalis	15
Corymbia hamersleyana	<2
Acacia bivenosa	<2
Abutilon lepidum	<2
Corchorus walcottii	<2
Acacia inaequilatera	<2
Trichodesma zeylanicum	<2
Solanum phlomoides	<2
Triumfetta appendiculata	<2
Acacia orthocarpa	<2
Bonamia media	<2
Ipomoea costata	<2

* denotes weed species

Site: 33
Type: 50 x 50
Date: 05/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 471665 **Northing:** 7713038

Habitat/Landform: Broad flat plain with fine red pindan sand (unusual for this area)
Soil: Red-brown silty sands..
Rock type: N/A
Vegetation: *Grevillea pyramidalis, Acacia inaequilatera, Ehretia saligna* tall shrubland over *Scaevola spinescens, Solanum phlomoides, Indigofera monophylla* open low shrubland over *Triodia epactia* hummock grassland with patches of **Cenchrus ciliaris*
Veg Condition: Good
Fire Age: >10 yrs

Species List

Name	Cover (%)
Acacia inaequilatera	10-15
Grevillea pyramidalis	10-15
Ehretia saligna	10
Santalum lanceolatum	5-10
Triodia epactia	45
Solanum phlomoides	2
Indigofera monophylla	2
Scaevola spinescens	2
Ptilotus polystachys	2
Diplopeltis eriocarpa	<2
Trianthema pilosa	<2
Trigastrotheca molluginae	<2
Tinospora smilacina	<2
Solanum clementii	<2
Cucumis variabilis	<2
Euphorbia tannensis	<2
Trichodesma zeylanicum	<2
Sida fibulifera	<2
Eragrostis eriopoda	<2
Rhagodia eremaea	<2
Crotalaria cunninghamii	<2
Hibiscus coatesii	<2
Pterocaulon sphaeranthoides	<2
Swainsonia formosa	<2
Cynanchum floribundum	<2

* denotes weed species
? denotes unconfirmed ID

Site: 34a
Type: 50 x 50 Releve
Date: 05/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 471620 **Northing:** 7713292

Habitat/Landform: Hillslopes and upper slopes with dense rock and boulders.
Soil: Red/brown silts with frequent small to large rockpiles.
Rock type:
Vegetation: *Grevillea pyramidalis, Ipomoea costata* tall open shrubland over *Triodia epactia* hummock grassland with scattered *Terminalia circumalata, Brachychiton acuminatus, Erythrina vespertilio* on frequent rockpiles and outcrops
Vegetation Condition: Excellent

Fire Age: >15
Species List

Name	Cover (%)
Abutilon lepidum	<2
Acacia pyrifolia var. morrisonii	<2
Brachychiton acuminatus	2
Cleome viscosa	<2
Clerodendrum tomentosum	<2
Crotalaria medicaginea	10
Crotalaria novae-hollandiae	<2
Cucumis variabilis	<2
Cymbopogon ambiguus	<2
Grevillea pyramidalis	2
Hybanthus aurantiacus	<2
Ipomoea costata	2
Phyllanthus maderaspatensis	<2
Ptilotus fusiformis	<2
Scaevola spinescens	<2
Solanum cleistogamum	<2
Streptoglossa decurrens	<2
Terminalia circumalata	<2
Trachymene oleracea	<2
Triodia epactia	70
Triumfetta appendiculata	<2
Triumfetta clementii	<2
Trichodesma zeylanicum	<2
Vigna triodiophila (P4)	<2
**Cenchrus ciliaris*	5

Site: 34b
Type: 50 x 50 Releve
Date: 05/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 471994 **Northing:** 7713743

Habitat/Landform: Hillslopes and upper slopes with dense rock and boulders.
Soil: Red/brown silts with frequent small to large rockpiles.
Rock type:
Vegetation: *Grevillea pyramidalis, Ipomoea costata* tall open shrubland over *Triodia epactia* hummock grassland with scattered *Terminalia circumalata, Brachychiton acuminatus, Erythrina vespertilio* on frequent rockpiles and outcrops
Vegetation Condition: Excellent

Fire Age: >15
Species List

Name	Cover (%)
Acacia pyrifolia var. morrisonii	<2
Brachychiton acuminatus	2
Cucumis variabilis	<2
Erythrina vespertilio	2
Gomphrena cunninghamii	<2
Grevillea pyramidalis	2-5
Hakea lorea subsp. lorea	2
Hybanthus aurantiacus	<2
Ipomoea costata	2-5
Ptilotus fusiformis	<2
Trachymene oleracea	<2
Trichodesma zeylanicum	<2
Triodia epactia	65
Vigna lanceolata	<2
**Cenchrus ciliaris*	<2

Site: 35
Type: Vegetation Patch
Date: 04/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 471610 **Northing:** 7713428

Habitat/Landform: Rockpiles – small and larger ridges on upper slopes
Soil: Skeletal silts
Rock type: Outcropping rockpiles
Vegetation: *Brachychiton acuminatus* mixed low woodland with *Ehretia saligna, Erythrina vespertilio, Terminalia circumalata* over *Ipomoea costata, Clerodendrum tomentosum* open shrubland over *Triodia epactia* hummock grassland. Scattered **Cenchrus ciliaris and Cymbopogon ambiguus.*
Vegetation Condition: Very good -Excellent

Fire Age: >15
Species List

Name	Cover (%)
Acacia coriaceae	1
Brachychiton acuminatus	2-5
Clerodendrum tomentosum	<2
Cymbopogon ambiguus	<2
Ehretia saligna	2-5
Erythrina vespertilio	2
Flueggea virosa subsp. melanthesoides	2
Jasminum didymum subsp. *lineare*	<2
Ipomoea costata	<2
Plumbago zeylanica	<2
Rhynchosia bungarensis (P4)	<2
Terminalia circumalata	<2-5
Triodia epactia	<2
**Cenchrus ciliaris*	<2

* denotes weed species

Site: 36
Type: 50 x 50 Releve
Date: 03/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 475813 **Northing:** 7718060

Habitat/Landform: Disturbed plain with "borrow pit"
Soil: Pindan sand
Rock type:
Vegetation: *Acacia bivenosa* and *Acacia ancistrocarpa* open tall shrubland over *Acacia stellaticeps, Scaevola spinescens, Diplopeltis eriocarpa* over mixed *Triodia epactia* hummock grassland and **Cenchrus ciliaris* tussock grassland.
Vegetation Condition: Good

Fire Age: 0-5 yrs

Species List

Name	Cover (%)
Acacia ancistrocarpa	5
Acacia bivenosa	2-5
Acacia colei	<2
Acacia inaequilatera	<2
Acacia stellaticeps	<2
Corymbia hamersleyana	<2
Diplopeltis eriocarpa	<2
Grevillea pyramidalis	<2
Scaevola spinescens	<2
Senna oligoclada	<2
Trianthema pilosa	<2
Trigastrotheca molluginea	
Triodia epactia	30
**Cenchrus ciliaris*	20

* denotes weed species

Site: 37
Type: 50 x 50 Releve
Date: 05/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472212 **Northing:** 7713254

Habitat/Landform: Plain
Soil: Pink brown alluvial silts, very scattered stones
Rock type:
Vegetation: *Corymbia hamersleyana* open to low woodland over *Acacia coriacea* open shrubland, over mixed *Triodia epactia* hummock grassland and **Cenchrus ciliaris* tussock grassland. There is patchy low woodland of *Dolichandrone heterophylla.*
Vegetation Condition: Poor

Fire Age: >15
Species List

Name	Cover (%)
Acacia coriaceae	5
Acacia inaequilatera	<2
Acacia pyrifolia var. morrisonii	<2
Corymbia hamersleyana	30
Cucumis variabilis	<2
Dolichandrone heterophylla	<2-20
Ehretia saligna	<2
Erythrina vespertilio	<2
Evolvulus alsinoides var. villosicalyx	<2
Grevillea pyramidalis	<2
Hybanthus aurantiacus	<2
Scaevola spinescens	<2
Senna artemisioides subsp. oligophylla	<2
Tephrosia supina	<2
Triodia epactia	25
**Cenchrus ciliaris*	25

* denotes weed species

Site: 38
Type: 50 x 50 Releve
Date: 05/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472271 **Northing:** 7712979

Habitat/Landform: Flats between hillslopes and causeway.
Soil: Red pindan sand plain
Rock type:
Vegetation: *Acacia bivenosa* with *Dolichandrone heterophylla* tall shrubland over *Diplopeltis eriocarpa* open, low shrubland over *Triodia. epactia* hummock grassland

Vegetation Condition: Excellent

Fire Age: >15
Species List

Name	Cover (%)
Acacia bivenosa	15
Acacia coriaceae	<2
Acacia stellaticeps	<2
Diplopeltis eriocarpa	2-15
Dolichandrone heterophylla	<2-20
Eragrostis eriopoda	<2
Grevillea pyramidalis	<2
Hibiscus coatesii	<2
Indigofera monophylla	<2
Triodia angusta	10
Triodia epactia	40
**Cenchrus ciliaris*	<2

* denotes weed species

Site: 39
Type: 50 x 50 Releve
Date: 05/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472324 **Northing:** 7712818

Habitat/Landform: Silt plain.
Soil: Grey/brown Alluvial
Rock type:
Vegetation: *Acacia bivenosa* with *Dolichandrone heterophylla* tall shrubland over *Acacia stellaticeps* shrubland over *Diplopeltis eriocarpa* low shrubland over *Triodia angusta* or *T. epactia* hummock grassland to closed hummock grassland with patchy *Eriachne obtusa.*
Vegetation Condition: Excellent

Fire Age: >15 yrs
Species List

Name	Cover (%)
Acacia bivenosa	10
Acacia coriaceae	<2
Acacia stellaticeps	10-20
Chrysopogon fallax	2
Diplopeltis eriocarpa	10
Dolichandrone heterophylla	<2
Eriachne obtusa	<2-2
Hakea lorea subsp. lorea	<2
Paraneurachne muelleri	<2
Triodia angusta	60
Triodia epactia	15

Site: 40
Type: 30 x 30 Releve
Date: 05/06/2019 **Described by:** VL
MGA Zone: 50 **Easting:** 472429 **Northing:** 7712267

Habitat/Landform: Slightly raised sand chenier bordering saline tidal inlet
Soil: Greyish pink sands
Rock type:
Vegetation: *Triodia angusta* hummock grassland
Vegetation Condition: Excellent

Fire Age: >15 yrs
Species List

Name	Cover (%)
Triodia angusta	60
Trainthema turgidifolia	<2
Neobassia astrocarpa	<2
Indigofera ? trita	<2

Southern Survey Area
Field Data Sheets

Vegetation at inspection points – Southern Section

Site No	1
GPS Co-Ordinates (Easting Northing)	474247 77708172
Vegetation Description	*Acacia bivenosa, A. synchronicia, A. coriacea* open or scattered mixed shrubland over mosaic *Triodia epactia* hummock and *Eragrostis xerophila* tussock grassland.
Habitat and Soils	Flat plain with mosaiced red brown non cracking clays and red shallow loams with scattered pebble mantle.
Vegetation Condition	Very good
PEC Potential	Not present

Site No	2
GPS Co-Ordinates (Easting Northing)	474182 7707982
Vegetation Description	*Acacia coriacea* tall open shrubland or scattered shrubs with occasional **Vachellia farnesiana* over *Stemodia grossa* closed low shrubland over **Cenchrus ciliaris* open tussock grassland..
Habitat and Soils	Previously disturbed low area with red-brown silty loams and rubble.
Vegetation Condition	Poor
PEC Potential	Not present

Site No	3
GPS Co-Ordinates (Easting Northing)	473866 7707290
Vegetation Description	*Triodia epactia* hummock grassland. There can be scattered *Acacia bivenosa, A. coriacea, A. xiphophylla, Ehretia saligna.*
Habitat and Soils	Flat plain with red brown sand loams with scattered to moderate stones.
Vegetation Condition	Very good
PEC Potential	Not present

Site No	4
GPS Co-Ordinates (Easting Northing)	473829 7707249
Vegetation Description	*Acacia inaequilatera* tall shrubland with some *Ehretia saligna, Acacia bivenosa* over *Triodia epactia* hummock grassland, patchy *Eragrostis xerophila.*
Habitat and Soils	On flat or very gently sloping plains with calcareous red brown loams, scattered to moderate dark brown and quartz pebbles.
Vegetation Condition	Very good
PEC Potential	Not present

Site No	5
GPS Co-Ordinates (Easting Northing)	473733 7707076
Vegetation Description	*Acacia bivenosa* shrubland to open shrubland with scattered *A. inaequilatera, A coriacea, A. ancistrocarpa, Eremophila longifolia* over *Triodia wiseana* hummock grassland. There can be patchy *T. epactia a*nd patches of **Cenchrus ciliiaris* on track verges.
Habitat and Soils	On flat or very gently sloping plains with non-gilgaied red brown non cracking clays with scattered dark brown and quartz pebbles.
Vegetation Condition	Very good
PEC Potential	Not present

Site No	6
GPS Co-Ordinates (Easting Northing)	473702 7706857
Vegetation Description	*Tamarix aphylla* (WoNS Species) low open woodland over *Tecticornia* species open low shrubland with **Aerva javanica* over open **Cenchrus ciliaris* tussock grassland.
Habitat and Soils	Previously disturbed site which has been borrowed and now retains semi saline water – pinky brown disturbed soils and rubble
Vegetation Condition	Degraded
PEC Potential	Not present
NOTE	**MUST remove Tamarisk before any clearing.**

Site No	7
GPS Co-Ordinates (Easting Northing)	473583 7706475
Vegetation Description	*Tecticornia haloocnemoides* subsp *tenuis, Tecticornia* ? *indica* closed low shrubland. Samphire surrounded by vegetation site 6
Habitat and Soils	Potentially previously disturbed site now with brown semi saline clays
Vegetation Condition	Good
PEC Potential	Not present

Site No	8
GPS Co-Ordinates (Easting Northing)	473352 7706250
Vegetation Description	*Acacia bivenosa* closed to shrubland over **Cenchrus ciliaris, *Cenchrus setiger* tussock grassland. There can be patchy *Eragrostis xerophila, Triodia wiseana, T. epactia.*
Habitat and Soils	Occurs on disturbed or in close proximity to disturbed areas on silty loams with varying stones and pebbles.
Vegetation Condition	Poor
PEC Potential	Not present

Site No	9
GPS Co-Ordinates (Easting Northing)	473235 7705871
Vegetation Description	**Ex spp** *Eragrostis xerophila* tussock grassland with dormant ? *Sorghum plumosum, Panicum sp,* and intrusions of ?*Eriachne benthamii* on low areas.
Habitat and Soils	Occurs on flat plain with deep red brown weakly to moderate cracking clays
Vegetation Condition	Ver good
PEC Potential	Likely

Site No	10a
GPS Co-Ordinates (Easting Northing)	742792 7705126
Vegetation Description	*Acacia bivenosa* shrubland to open shrubland with scattered *A. inaequilatera, A coriacea, A. ancistrocarpa, Eremophila longifolia, Scaevola spinescens* (broad form) over *Triodia wiseana* hummock grassland. Occasional *T. epactia*
Habitat and Soils	On flat or very gently sloping plains with non-gilgaied red brown non cracking clays with scattered dark brown and quartz pebbles. Small scalds
Vegetation Condition	Excellent
PEC Potential	Unlkely

Site No	10b
GPS Co-Ordinates (Easting Northing)	471453 7703712
Vegetation Description	*Acacia bivenosa* shrubland to open shrubland with scattered *A. inaequilatera, A coriacea, A. ancistrocarpa, Eremophila longifolia,* over *Triodia wiseana* hummock grassland. Patches of **Cenchrus ciliiaris* around large scald areas.
Habitat and Soils	On flat or very gently sloping plains with non-gilgaied red brown non cracking clays with scattered dark brown and quartz pebbles. There are areas of scald.
Vegetation Condition	Very good
PEC Potential	Not present

Site No	11
GPS Co-Ordinates (Easting Northing)	472621 7704929
Vegetation Description	*Acacia inaequilatera* tall open shrubland, or scattered shrubs, with scattered *A. synchronicia, Hakea lorea* shrubs over *Triodia wiseana* hummock grassland.
Habitat and Soils	On flat plain with pinky brown calcareous shallow loams with moderate to abundant calcrete and quartz stone and pebbles
Vegetation Condition	Excellent
PEC Potential	Not present

Site No	12
GPS Co-Ordinates (Easting Northing)	472288 7704369
Vegetation Description	*Acacia inaequilatera* tall open shrubland, or scattered shrubs occasional *A. synchronicia, A. coriacea, Hakea lorea* sometimes over *Acacia bivenosa* open shrubs over *Triodia wiseana* hummock grassland.
Habitat and Soils	On flat plain with pinky brown calcareous shallow loams with moderate to abundant calcrete and quartz stone and pebbles.
Vegetation Condition	Excellent
PEC Potential	Not present

Site No	13
GPS Co-Ordinates (Easting Northing)	471962 7703948
Vegetation Description	**Cenchrus ciliaris* tussock grassland with scattered shrubs of *Acacia bivenosa, A. inaequilatera.*
Habitat and Soils	Occurs on a disturbed site which has been disturbed with tracks, potential laydown areas, has been compacted and had imported soils and gravels.
Vegetation Condition	Degraded
PEC Potential	Not present

Site No	14a
GPS Co-Ordinates (Easting Northing)	471727 7703738
Vegetation Description	*Acacia coriacea* tall shrubland to open tall shrubland over *Acacia ampliceps* or **Vachellia farnesiana* shrubland over mixed **Cenchrus ciliaris* tussock with *Triodia epactia* scattered grasses.
Habitat and Soils	Occurs on narrow drainage line with incised channel, red brown alluvial loams with scattered stones.
Vegetation Condition	Good
PEC Potential	Not present

Site No	14b
GPS Co-Ordinates (Easting Northing)	471575 7703837
Vegetation Description	**AaAcC?v** *Acacia ampliceps* tall shrubland to closed shrubland with *Acacia coriacea* over *Myoporum montanum* shrubland with occasional *Stemodia grossa* over *Cyperus* sp and *Typha sp* (dead) sedgeland
Habitat and Soils	Occurs around an artificially created pool in drainage line. Disturbed alluvial loam
Vegetation Condition	Poor
PEC Potential	Not present

Site No	15
GPS Co-Ordinates (Easting Northing)	469491 7701837
Vegetation Description	*Triodia wiseana* hummock and *Eragrostis xerophila* tussock mosaiced grassland
Habitat and Soils	Occurs on mosaic gilgai or non-gilgai red brown clays and stony silty loams.
Vegetation Condition	Very good
PEC Potential	Areas of gilgai may contain PEC

Site No	16
GPS Co-Ordinates (Easting Northing)	469234 7701715
Vegetation Description	*Acacia inaequilatera* open shrubland, occasional *A. coriacea* over *Triodia wiseana* closed hummock grassland.
Habitat and Soils	Occurs in shallow drainage area with red brown alluvial loam
Vegetation Condition	Excellent
PEC Potential	Not present

Site No	17
GPS Co-Ordinates (Easting Northing)	458990 7701507
Vegetation Description	*Eragrostis xerophila* tussock grassland with dormant/dead tussock grasses with intrusions of ?*Eriachne benthamii* on low areas.
Habitat and Soils	Occurs on flat plain with deep red brown weakly to moderate cracking clays.
Vegetation Condition	Very good
PEC Potential	Likely

Site No	18
GPS Co-Ordinates (Easting Northing)	468732 7701257
Vegetation Description	*Acacia coriacea* with tall shrubland over scattered *Acacia inaequilatera, A. ancistrocarpa* shrubs over ? *Themeda triandra* (dead / dormant) ? with some **Cenchrus ciliaris* (dead)tussock grassland.
Habitat and Soils	Occurs on minor shallow drainage line with red brown loams and calcrete fragments. Some erosion evident.
Vegetation Condition	Good
PEC Potential	Not present

Site No	19
GPS Co-Ordinates (Easting Northing)	467854 7699492
Vegetation Description	*Acacia coriacea* with *A. xiphophylla* low (old) woodland over scattered **Vachellia farnesiana* shrubs over *?Themeda triandra* and **Cenchrus ciliaris* tussock grassland.
Habitat and Soils	Occurs on broad major drainage channel shallowly incised in landscape with red brown clay loams, sometimes skeletal over granite
Vegetation Condition	Very good
PEC Potential	Not present but rarely occurring old large trees should be conserved.

Site No	20
GPS Co-Ordinates (Easting Northing)	467738 7699031
Vegetation Description	*Acacia coriacea / A.inaequilatera,* tall mixed shrubland over **Vachellia farnesiana* open shrubs over mixed open tussock grassland (too dead to id) and scattered *Triodia wisena* hummocks
Habitat and Soils	Occurs on broad drainage line, with incised channel, with red-brown loamy soils.
Vegetation Condition	Poor to Good
PEC Potential	Not present

Site No	21
GPS Co-Ordinates (Easting Northing)	467899 7698966
Vegetation Description	*Eragrostis xerophila* tussock grassland. There are scattered **Vachellia farnesiana* shrubs.
Habitat and Soils	Occurs on flat alluvial plain with deep red brown weakly cracking clays
Vegetation Condition	Good
PEC Potential	Potential

Site No	22
GPS Co-Ordinates (Easting Northing)	466718 7698637
Vegetation Description	*Triodia wiseana* hummock grassland.
Habitat and Soils	Occurs on flat plain with red brown sandy loams with scattered to moderate stones.
Vegetation Condition	Excellent
PEC Potential	Not present

Site No	23
GPS Co-Ordinates (Easting Northing)	466837 7698673
Vegetation Description	*Eragrostis xerophila* tussock grassland.
Habitat and Soils	Occurs on flat alluvial plain with deep red brown weakly cracking clays.
Vegetation Condition	Good
PEC Potential	Potential

Site No	24
GPS Co-Ordinates (Easting Northing)	466988 7698748
Vegetation Description	**Vachellia farnesiana* shrubland to closed shrubland over **Cenchrus ciliaris* tussock grassland
Habitat and Soils	Minor shallow drainage line on very gently inclined plain with weakly cracking red brown clay loam
Vegetation Condition	Poor
PEC Potential	Not present

Site No	25
GPS Co-Ordinates (Easting Northing)	465846 7698276
Vegetation Description	*Senna hamersleyensis* low shrubland (senescing?) over scattered *Eragrostis xerophila* tussocks
Habitat and Soils	Occurs on very gently inclined plain with soft spongy red brown clay loam.
Vegetation Condition	Poor
PEC Potential	Not present

Site No	26
GPS Co-Ordinates (Easting Northing)	467049 7696417
Vegetation Description	*Acacia xiphophylla* scattered to open shrubland over *Eragrostis xerophila* open tussock grassland.
Habitat and Soils	Occurs on gently inclined plain, mosaiced surfaces of weakly cracking and non-cracking clays, silty clay loams with areas of gibber on sandier surfaces
Vegetation Condition	Good
PEC Potential	Unlikely

Site No	27
GPS Co-Ordinates (Easting Northing)	469082 7696983
Vegetation Description	*Corymbia hamersleyana* scattered to open low woodland over *Acacia coriacea, *Vachellia farnesiana* open shrubland to shrubland over *Triodia angusta/T. epactia/*Cenchrus ciliaris* mixed grassland.
Habitat and Soils	Occurs on broad shallow drainage line with red brown silty loams, scattered to moderate stones.
Vegetation Condition	Good
PEC Potential	Not present

Site No	28a
GPS Co-Ordinates (Easting Northing)	469132 7696866
Vegetation Description	*Triodia wiseana* hummock grassland. Sometimes scattered *Acacia inaequilatera, A. coriacea, A pyrifolia, A. bivenosa.*
Habitat and Soils	Occurs on flat plain with red brown sandy loams with scattered to moderate stones.
Vegetation Condition	Excellent
PEC Potential	Not present

Site No	28b
GPS Co-Ordinates (Easting Northing)	469249 7696892
Vegetation Description	*Acacia inaequilatera* tall open shrubland, or scattered shrubs occasional *A. synchronicia, A. coriacea, Hakea lorea* sometimes over *Acacia bivenosa* open shrubs over *Triodia wiseana* hummock grassland.
Habitat and Soils	On flat plain with pinky brown calcareous shallow loams with moderate to abundant calcrete and quartz stone and pebbles
Vegetation Condition	Excellent
PEC Potential	Not present

Site No	29
GPS Co-Ordinates (Easting Northing)	465720 7697828
Vegetation Description	*Eriachne benthamii, ?Chrysopogon fallax* tussock grassland with other annual grass species (all too dead/dormant to identify). Scattered **Vachellia farnesiana*
Habitat and Soils	Very shallow drainage line with red brown soft weakly gilgai light clays
Vegetation Condition	Good
PEC Potential	May form part of PEC

Site No	30
GPS Co-Ordinates (Easting Northing)	4695592 7698101
Vegetation Description	*Acacia inaequilatera, A. coriacea* tall shrubland, sometimes open shrubland over *?Eriachne benthamii, Chrysopogon fallax* patchy **Cenchrus ciliaris* tussock grassland.
Habitat and Soils	On broad, shallow drainage line with shallow pinky brown loams and areas of exposed bedrock.
Vegetation Condition	Very good
PEC Potential	Not present

Site No	31
GPS Co-Ordinates (Easting Northing)	466124 7697765
Vegetation Description	*Eragrostis xerophila* tussock grassland. There are patchy intrusions of ?*Eriachne benthamii* on low areas.
Habitat and Soils	Occurs on flat plain with deep red brown weakly to moderate cracking clays – areas of scald.
Vegetation Condition	Good
PEC Potential	Potential

Site No	32
GPS Co-Ordinates (Easting Northing)	467076 7700252
Vegetation Description	*Eriachne benthamii, ?Chrysopogon fallax* tussock grassland with other annual grass species (all too dead/dormant to identify). Very scattered **Vachellia farnesiana, Acacia coriacea* shrubs
Habitat and Soils	Very shallow drainage line with red brown soft weakly gilgai light clays
Vegetation Condition	Very good
PEC Potential	May form part of PEC

Site No	33
GPS Co-Ordinates (Easting Northing)	466413 7699941
Vegetation Description	*Eriachne ? benthamii* mixed tussock grassland -all too dead/dormant to identify.
Habitat and Soils	Very shallow drainage line with red brown soft weakly gilgai light clays
Vegetation Condition	Good
PEC Potential	May form part of PEC