

WHIM CREEK COPPER-ZINC PROJECT

MINE EXPANSION MONS CUPRI

**DESKTOP REVIEW AND UPDATE OF VEGETATION AND FLORA
STUDIES**

June 2021

Prepared for Tetris Environmental

vicki long & associates

Living in the Pilbara

PO Box 713, Karratha WA 6714

0428 854 852

ABN: 96 009304 634

WHIM CREEK COPPER-ZINC PROJECT

MINE EXPANSION MONS CUPRI

DESKTOP REVIEW AND UPDATE OF VEGETATION AND FLORA STUDIES

Prepared for:

Tetris Environmental Pty Ltd

Job No: VLA-079

Reference No: vla79rv01_RevC_190221

Revision Status

Rev	Date	Description	Author(s)	Reviewer
A	12/02/2021	Draft Issued for Internal Review	V Long	P Aylmore
B	16/02/2021	Draft Issued for Client Review	V Long	J Hesford
C	19/02/2021	Draft incorporating Client Comments	V. Long	J. Hesford
0	16/06/2021	Final Issued to Client	V Long	J.Hesford

This document and information contained in it has been prepared by VLA under the terms and conditions of its contract with its client. This report is for the client's use only and may not be used, exploited, copied, duplicated or reproduced in any form or medium whatsoever without the prior written permission of VLA or its client.

Table of Contents

June 2021	1
Prepared for Tetris Environmental	1
Revision Status	1
List of Figures	2
List of Tables	2
List of Appendices	3
1. INTRODUCTION	2
1.2 Background	2
2. METHODOLOGY	3
2.1 Approach and Methodology adopted for this Desktop Review	3
3 RESULTS.....	4
3.1 General	4
3.2 New / Amended Acts / Lists	4
3.3 Conservation Significant Species	4
3.4 Other Flora.....	6
3.5 Vegetation	7
3.6 Vegetation of National, State and Local Significance.....	7
3.7 Vegetation Condition	9
3.8 Weeds.....	9
4. Conclusions	10
4.1 Conservation Significant Species	10
4.2 Other Flora.....	11
4.3 Vegetation	11
4.4 Weeds.....	11
5. REFERENCES	12

List of Figures

Figure 1. Mining Lease M47/238 incorporating the proposed and actual Mons Cupri Disturbance Areas.....	2
--	---

List of Tables

Table 1: Changes to Priority Flora as reported Astron 2006 and Onshore 2007 and Priority species identified from the 2021 database searches (DBCA 2021, Western Australian Herbarium 2021).....	5
Table 2: Criteria used to determine likelihood of occurrence of conservation significant flora	6
Table 3. Name changes of flora species from the collated list (Onshore 2007)	7

List of Appendices

Appendix 1: Database Search Results

Appendix 2: Categories for Threatened Flora Species and PECs under the EPBC Act

Appendix 3: Categories for Threatened and Priority Flora Species and PECs under the BC Act

Appendix 4: Likelihood of Occurrence of Priority Species within the Study Area

Appendix 5. Vegetation condition scale adapted from Keighery (1994) and Kaesehagen (1995) as used in the Astron (2006) report.

Appendix 6: Categories for Declared Pests under the Biosecurity And Agriculture Management Regulations 2013

1. INTRODUCTION

Anax Metals Ltd (Anax) has recently acquired the Whim Creek Project in the Pilbara region of Western Australia approximately 120 km southeast of Port Hedland. The Project is currently in Care and Maintenance and Anax proposes to recommence operations in 2022 at the Mons Cupri site located on M 47/238 through the development of an open pit expansion and associated waste rock landform/s adjacent to the pit. All existing infrastructure such as road network processing plant and administration buildings will be utilised.

Expansion of the Mons Cupri pit and the requirement for waste rock landform/s will require the clearing of remnant vegetation. Vicki Long, Principal Botanist of Vicki Long and Associates (VLA) was engaged by Tetris Environmental to conduct a flora and vegetation desktop review, the results of which are presented below. Vicki is an experienced botanist having lived and worked in the Pilbara for 36 years. She has conducted many of the vegetation and flora surveys and monitoring surveys associated with the Whim Creek copper operation (Astron Environmental 1999, Astron Environmental Services 2005, Astron Environmental Services 2006, Astron 2008) and is therefore qualified to undertake this desktop review.

1.2 Background

In 2006, Straits (Whim Creek) Pty Ltd (Straits) engaged Astron Environmental Services (Astron) to conduct a vegetation and flora survey within mining lease M47/238 covering a total area of 147 ha (known as the Study Area; Figure 1). This survey included the expansion area currently proposed by Anax however, new environmental research and regulations since 2006 require that the Astron report be reviewed to document any changes or new requirements that may be necessary. Other surveys, including a flora and vegetation survey for the Whim Creek Mine conducted by Onshore Environmental Consultants (2007) (Onshore) and more recently the Phoenix Environmental Sciences (Phoenix) (2020) report were also reviewed.

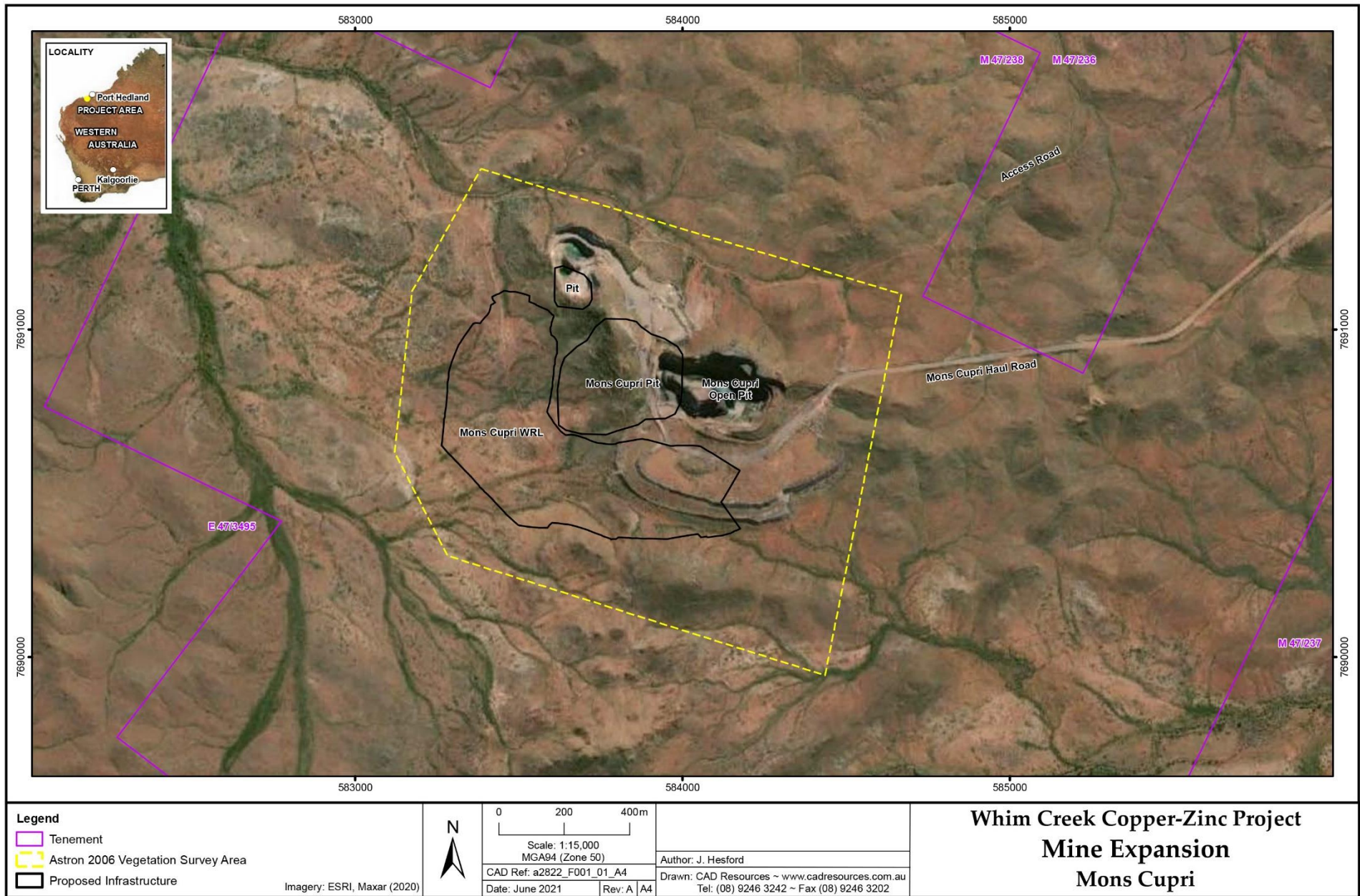


Figure 1. Mining Lease M47/238 incorporating the proposed and actual Mons Cupri Disturbance Areas

2. METHODOLOGY

2.1 Approach and Methodology adopted for this Desktop Review

The desktop study included:

- A review of current environmental legislation appropriate to vegetation and flora.
- Database searches with a 40km radius from the centre of the proposed expansion area to ascertain whether any potential conservation significant flora and ecological communities have been recorded within the Study Area or immediate surrounds (Appendix 1). The databases searched included:
 - *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed Threatened Flora (DoEE 2020)
 - Department of Biodiversity, Conservation and Attractions (DBCA) Threatened and Flora databases (DBCA 2020a)
 - NatureMap custom reports of recorded species in the locality (DBCA 2021)
 - FloraBase (Western Australian Herbarium (1998–2021))

These current database searches were used to determine whether:

- flora and vegetation of conservation significance identified in 2006 have the same listings and conservation significance in 2021
 - there are any Priority Ecological Communities (PECs) or Threatened Ecological Communities (TECs) as per the *Biodiversity Conservation Act 2016* (BC Act) known to occur within the Study Area
 - there are any species associated with Groundwater Dependent Ecosystems in the Study Area.
- A review of information provided in the following documents:
 - *Mons Cupri Vegetation and Flora Survey* (Astron 2006) and,
 - *Flora and Vegetation Survey – Whim Creek Copper Mine* (Onshore 2007)
 - *Reconnaissance flora and vegetation survey and targeted fauna survey for the Balla Balla Infrastructure – Rail and Conveyor Project* (Phoenix 2020) was reviewed to assist with determining likelihood of flora of Conservation Significance and PECs

For each report, the following criteria were given prime consideration:

- Flora species of conservation significance (including Priority species) that were found to occur during those surveys.
- Species of conservation significance (including Priority species) that were noted as ‘likely to occur’ within the Study Area at that time.
- Vegetation types identified and any vegetation of conservation significance
- Any vegetation types considered to have high conservation value
- Types and abundance of any weed species present

3 RESULTS

3.1 General

A review of the two flora and vegetation survey reports (Astron 2006; Onshore 2007) confirmed that the general information presented in these reports regarding the Study Area location, context within the Pilbara region, geology, landform, climate and vegetation on both a broad and local scale remains relevant and correct.

Species of Conservation Significance (including Priority flora), Vegetation of Conservation Significance including TECs / PECs and Declared Pests have changed since 2006 and several species have been re-named. The listing of TECs/PECs as protected under the BC Act occurred after the 2006 and 2007 surveys. These changes are detailed in the following sections.

3.2 New / Amended Acts / Lists

New / amended Acts and updated lists since preparation of the 2006 report include:

- *Environmental Protection Amendment Bill 2020* – amends *Environmental Protection Act 1986*
- *Biodiversity Conservation Act (2016)*
- *Biosecurity and Agriculture Management Act 2007* (includes Weeds of National Significance and updated Declared Pests)
- Updated DBCA Priority Flora Lists, Priority Ecological Communities lists (2020b)

3.3 Conservation Significant Species

Conservation significant species are those listed as Threatened Flora (Commonwealth EPBC Act and State BC Act) and Priority Flora (State BC Act).

At Commonwealth level, the EPBC Act provides a legal framework to protect and manage Matters of National Environmental Significance (MNES) including listed flora, fauna and ecological communities. These listed flora, fauna and vegetation are allocated conservation categories, which are summarised in Appendix 2.

The status of Threatened and Priority Species as listed in the BC Act is reviewed on a regular basis by the DBCA as new information becomes available. Threatened flora species are categorised as one of the following: Critically Endangered (CR), Endangered (EN) or Vulnerable (VU). Explanations of these categories are given in Appendix 3.

According to current information available, Priority flora includes species considered to be under threat, but for which there is insufficient information available to make a proper evaluation of their conservation status. These flora species are included on a supplementary conservation list managed by DBCA called the *Priority Flora List*. Priority flora are categorised according to level of threat and other information; the conservation categories are described in Appendix 3.

In the 2006 and 2007 surveys (Astron 2006, Onshore 2007), three flora species, *Acacia glaucocaesia*, *Abutilon trudgenii* and *Gomphrena cucullata*, were listed as Priority species for the Study Area. Two of these species (*Acacia glaucocaesia* and *Abutilon trudgenii*) are no longer listed as Priority species, whilst *Gomphrena cucullata* still remains a Priority 3 species.

Since the surveys of 2006 and 2007, nine new Priority flora have been identified within a 40 km radius of the Whim Creek/Mons Cupri area (DBCA 2020a). This search radius is considered suitable for desktop flora and vegetation studies for sites within the Pilbara Region.

The changes in Priority status of previously identified flora and the new Priority flora identified during this review are detailed in Table 1.

Table 1: Changes to Priority Flora as reported Astron 2006 and Onshore 2007 and Priority species identified from the 2021 database searches (DBCA 2021, Western Australian Herbarium 2021).

Priority Species	Year	Current Status	Comment
Previous Priority flora known to occur in Study Area which are no longer current.			
<i>Acacia glaucocaesia</i>	2006 2007	No longer Priority	Not abundant, but widespread in the Pilbara. Not found in the 2006 or 2007 surveys.
<i>Abutilon trudgenii</i>	2007	Now known as <i>Abutilon</i> sp Pilbara (WR Barker 2025) No longer a Priority species.	No longer threatened – widespread in Pilbara. One occurrence found in the Onshore 2007 Survey
Current Priority flora known to occur within a 40km radius of the Study Area			
<i>Gomphrena cucullata</i>	2006 2021	Current Priority 3	Remains Priority species for Whim Creek area. Not found in the 2006 or 2007 surveys but is an annual and occurrence depends on timing.
<i>Abutilon</i> sp <i>Pritzelianum</i> (S van Leeuwen 5059)	2021	Priority 3	Current P3 species not found in 2006 or 2007 surveys
<i>Corchorus congener</i>	2021	Priority 3	Current P3 species not found in 2006 or 2007 surveys.
<i>Goodenia nuda</i>	2021	Priority 4	Current P3 species not found in 2006 or 2007 surveys.
<i>Heliotropium muticum</i>	2021	Priority 3	Current P3 species. Restricted habitat. Only occurs between Roebourne and Port Hedland. <i>Heliotropium</i> sp was recorded in 2006 and 2007 and is likely to be that species. It has only recently been described in 2006.
<i>Heliotropium parviantrum</i>	2021	Priority 1	Current P1 species. Not recorded in 2006 or 2007 and is well out of range.
<i>Rhynchosia bungarensis</i>	2021	Priority 4	Current P4 species not found in 2006 or 2007 surveys.
<i>Solanum cataphractum</i>	2021	Priority 3	Current P4 species not found in 2006 or 2007 surveys. Out of range
<i>Tephrosia rosea</i> var <i>port Hedland</i> (A S George 1114)	2021	Priority 1	Current P1 species. Not recorded in 2006 or 2007 and recorded on banks of Peawah River.

In accordance with the EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (2016), a likelihood of occurrence ranking is required for each of the Priority species identified as occurring within 40 km of the Study Area.

Potential habitats within the Study Area were reviewed and the likelihood of occurrence of the Priority flora identified from the previous surveys and from the database searches were then assessed using the criteria in Table 2.

Table 2: Criteria used to determine likelihood of occurrence of conservation significant flora

Likelihood of Occurrence	Desktop Criteria
Likely	<ul style="list-style-type: none"> ○ Species has been recorded before in Study Area or within 10 km of the Survey Area ○ Known to be present in the Study Area based on site observations (expert advice) ○ Species has been recorded within the same habitat as occurs in the Study Area
Potential	<ul style="list-style-type: none"> ○ Species has been recorded within 20 km of the Study Area ○ Species reported as known in the Study Area by local community ○ Species has been recorded within the same habitat type as occurs in the Study Area
Unlikely	<ul style="list-style-type: none"> ○ Species has not been recorded within 20 km of the Study Area ○ No suitable habitat occurs in the Study Area

The likelihood of occurrence for Priority flora (currently listed for 2021) occurring in the Study Area is shown in Appendix 4 and summarised here.

One P3 species, *Heliotropium muticum* and one P4 species, *Goodenia nuda* are **likely** to occur in the Study Area. One P1 species, *Tephrosia rosea* var *Port Hedland* (A S George 1114), one P3 species, *Gomphrena cucullata* and one P4 species, *Rhynchosia bungarensis* have the **potential** to occur the Study Area and the remaining four Priority species, *Abutilon* sp *Pritzelianum* (S van Leeuwen 5059) (P3), *Corchorus congener* (P3), *Heliotropium parviantnum* (P1) and *Solanum cataphractum* (P3) are **unlikely** to occur in the Study Area.

The EPA Technical Guidance (EPA 2016) lists several criteria which may indicate high conservation significance for a species, even if it is not listed as a Priority species. These criteria include species occurring within a restricted habitat type; ground water dependent ecosystems (GDE) (includes phreatophytic species *Eucalyptus camaldulensis*, *Eucalyptus victrix*, *Melaleuca argentea*) or sheet flow dependent vegetation (SFDV), locally endemic species, unusual species, species with relictual status and species at the extreme end of their range (more than 100 km or in a different bioregion).

Onshore (2007) presents a combined list of total flora collected during surveys conducted in the area since 1991 (Ecologia, 1991, Connell 2005, Bennett 2005, Astron 2006, Onshore 2007). This combined flora list indicates that there are 15 taxa which would be considered range extensions. One of these species *Trachymene coerulea* has only been recorded along the coastline south of Geraldton. Five species have only been recorded in the far north Kimberley, one species *Acacia strongylophylla* does not occur in WA and is not listed on FloraBase, and the remaining eight species occur in the vicinity of Newman and south or east of Newman.

Some of these species may occur in the Whim Creek area but have not yet been collected and lodged at the WA Herbarium, or it may be possible that some of these species have been mis-identified. Due to this uncertainty, it is not possible to categorise any of them as being species of high conservation significance (as described in the EPA Technical Guidance (2016)) for the Study Area.

3.4 Other Flora

A total of 254 taxa are listed in the collated flora list presented in the Onshore (2007) report for the Whim Creek area. Of these however, 14 are out of range (some are very out of range and not likely) and 11 are only identified to the level of genus. The Astron (2006) survey of the Mons Cupri area (Study Area) recorded 130 taxa and Onshore (2007) who surveyed the Whim Creek and Mons Cupri area

recorded 162 taxa. The combined list includes a *Heliotropium* sp which has the potential to be the Priority 3 species *Heliotropium muticum* (P3).

Many of the species recorded by Onshore were potentially identified by West Australian taxonomist Malcom E Trudgen and therefore have been allocated an additional identifying feature by way of a “form”. For example, *Triodia epactia* (Burrup form) and *Triodia angusta* (Shaw River form). These have not yet been accepted by the WA Herbarium and do not appear on FloraBase, and as such *Triodia epactia* is considered to be the same entity as *Triodia epactia* (Burrup form).

Several species in the collated flora list have changed names. These changes are summarised in Table 3.

Table 3. Name changes of flora species from the collated list (Onshore 2007)

Family	Previous Name	Current Name (FloraBase 2021)
Amaranthaceae	<i>Ptilotus macrocephalus</i>	Excluded name – no longer on Flora Base does not occur in WA
Apocymaceae	<i>Carissa spinarum</i>	<i>Carissa lanceolata</i>
Asclepiadaceae	<i>Sarcostemma viminale</i> ssp <i>australe</i>	<i>Cynanchum viminale</i> subsp <i>australe</i>
Asteraceae	<i>Helipterum strictum</i>	<i>Rhodanthe strictum</i>
Capparaceae	<i>Cleome viscosa</i>	<i>Arivela viscosa</i>
Cucurbitaceae	<i>Mukia maderaspatana</i>	<i>Cucumis variabilis</i>
Euphorbiaceae	<i>Euphorbia alsiniflora</i>	Excluded name – now either <i>E. coghlanii</i> or <i>E. trigonosperma</i>
Malvaceae	<i>Abutilon trudgenii</i>	<i>Abutilon</i> . sp Pilbara (WR Barker 2025)
	<i>Notoxylinon australe</i>	<i>Gossypium australe</i>
	<i>Sida excedentifolia</i>	<i>Sida</i> sp. Excedentifolia (J L Egan 1925)
Molluginaceae	<i>Mollugo molluginea</i>	<i>Trigastrotheca molluginea</i>
Violaceae	<i>Hybanthus aurantiacus</i>	<i>Afrohybanthus aurantiacus</i>

3.5 Vegetation

Astron (2006) recorded 14 “vegetation types” which are the equivalent of NVIS level IV, Vegetation Complex and 40 “vegetation associations”, at a more refined level, the equivalent of NVIS level V Associations, within four broad geomorphic habitats. Onshore (2007) identified 12 vegetation types each with a wide range of structural and floristic variants. The vegetation described by Astron (2006) and Onshore (2007) are compatible. The author considers the vegetation described for M47/238 is relatively well represented beyond the Study Area and into the broader region. This is substantiated by the vegetation types described by Phoenix (2020). Although the landform (predominantly plains) on the BBI survey area as described in the Phoenix 2020 report is different from the hill slopes in the Study Area, repeated fire in the area has resulted in local, spatial heterogeneity of *Acacia* species which extends across various landforms. Therefore, many of the vegetation types described by Astron (2006) are comparable to those described by Phoenix (2020)

3.6 Vegetation of National, State and Local Significance

Vegetation communities listed as Threatened Ecological Communities (TECs) under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* are regarded as being of National Significance.

The State BC Act provides a statutory listing for TECs and statutory processes for preparing recovery plans, the registration of their critical habitat and penalties for unauthorised modification of TECs. The Minister for the Environment (WA) has endorsed 69 ecological communities as Threatened (DBCA 2020). The BC Act also allows for the listing of vegetation communities with insufficient information

at this stage to be considered a TEC. In May 2020, 391 ecological communities in this category are placed on a Priority list referred to as Priority Ecological Communities (PECs).

No TECs were found to occur within or immediately surrounding the Study Area. One PEC and its associated buffer zone is recorded as occurring within one kilometre of the north-west corner of the Study Area (DBCA 2020), but not within it, although it should be noted the areas to be disturbed are not defined at the time of this report.

At the time of the 2006 and 2007 surveys conducted for the Study Area, PECs were not listed and therefore it is unknown as to which PEC this may be. From publicly available databases, it appears that this PEC is associated with the Roebourne subregion of the Pilbara Bioregion, as described in the Interim Biogeographic Rationalisation for Australia (IBRA version 7). The PEC is the 'Horseflat land system of the Roebourne plains' (P3) which 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.

This PEC has been subject to varying degrees of degradation resulting from historical clearing and weed invasion.

The 'Horseflat land system of the Roebourne Plains' PEC does not include the two P1 PECs 'Roebourne plains gilgai grasslands' and the 'Chenopod association of the Roebourne Plains area'.

There is another PEC, the Gregory Land System, which occurs approximately 20 km south of the Study Area. This PEC is described as:

Linear dunes and restricted sandplains supporting shrubby hard spinifex (occasionally soft spinifex) grasslands.

This southern PEC would not be impacted by any expansion of the Mons Cupri mine and it is unlikely that this type of PEC would exist in the Study Area due to lack of suitable habitat to support its growth.

Vegetation associated with Groundwater Dependent Ecosystems (GDEs) is considered to have conservation value. This includes species growing in riparian areas and in particular, phreatophytic species, ie those species that rely on groundwater sources for water intake. There are no phreatophytes in the Study Area, but they do occur along Balla Balla river to the north of the Whim Creek mine. These phreatophytes include *Eucalyptus camaldulensis*, *Melaleuca argentea* and *Eucalyptus victrix*.

There are minor drainage lines within the Study Area which are dominated by *Acacia tumida* and *A. acradenia* shrublands. *Corymbia hamersleyana*, *C. opaca* and *C. candida* are all listed as being present in the Study Area (Astron 2006). None of these are GDE species however, these shallow drainage lines indicate drainage occurs from the Study Area onto the plain below. Potentially, sheetflow may occur across the plain (which appears from aerial photography to have been previously disturbed) and then drain into a much larger creek line west of the Study Area.

3.7 Vegetation Condition

Vegetation Condition is based on percent cover of native vegetation and how intact it is, signs of European disturbance and weed cover and abundance.

Astron (2006) determined the condition of vegetation within the Study Area as being “excellent” to “good” according to an assessment scale adapted from Keighery (1994) and Kaesehagen (1995) (Appendix 5).

It was noted that vegetation had been modified by continuous fire history, as well as previous and current mining activity and associated infrastructure (tracks, old camp, man-made mining adits). Despite the disturbances, the cover of weeds was at that time considered to be very low (<5%).

3.8 Weeds

Significant weed species are identified at both the State and National level. At a State level the management of weeds in Western Australia is primarily regulated through the *Biosecurity and Agriculture Management Act 2007* (BAM Act). Species listed under this Act are allocated one of three declared pest categories which define the required level of management (Department of Primary Industries and Regional Development 2017). The Australian Weeds Strategy (Australian Weeds Committee 2012) identifies ‘Weeds of National Significance’ (WoNS) which have the potential to impact primary industry and/or environmental and social values. Declared pest categories and listed weed species’ priority ratings are presented in Appendix 6.

No Declared Pests or WONS were recorded in the Study Area (Astron 2006).

One weed, **Cenchrus ciliaris*, was recorded by Astron (2006) and Onshore (2007) and was reported not to be abundant, occurring mainly along existing tracks and the banks of the Balla Balla River.

During a monitoring survey (Astron 2020) of the Whim Creek and Mons Cupri mine areas, four weed species were recorded (**Cenchrus ciliaris*, **C. setiger*, **Aerva javanica*, **Indigofera oblongifolia*). It is likely weed diversity and abundance is greater in the Study Area now, than was recorded in 2006.

4. Conclusions

The findings from the desktop review of the flora and vegetation reports prepared by Astron (2006) and Onshore (2007) and searches of current flora and vegetation databases indicate that the general information provided in these reports remains relevant and correct, but new regulatory Acts and updates to Threatened flora lists, conservation significant flora and vegetation and weed species have occurred.

A summary of the findings is provided in the following sections.

4.1 Conservation Significant Species

Two of the species identified in the previous flora and vegetation surveys (*Acacia glaucocaesia* and *Abutilon trudgenii*) are no longer listed as Priority, whilst *Gomphrena cucullata* still remains a Priority 3 species.

There are currently nine conservation significant species recorded within a 40 km radius of the Study Area. An assessment of likelihood of occurrence in the Study Area indicates one P3 species, *Heliotropium muticum* and one P4 *Goodenia nuda* are likely to occur within the area, whilst one P1 species, *Tephrosia rosea* var *port Hedland* (A S George 1114), one P3 species, *Gomphrena cucullata* and one P4 species *Rhynchosia bungarensis* have the potential to occur the Study Area. The remaining 4 conservation significant species are unlikely to occur.

Although the P3 species, *Heliotropium muticum* was not recorded in previous surveys, a *Heliotropium* sp. was recorded implying this may have been the Priority *H. muticum*. It occurs predominantly on plains with red-orange sands or stony brown loams over calcrete or ironstone. Because the actual area of disturbance is not known at this stage, there is a likelihood that it will occur in the area.

Phoenix (2020) recorded *H. muticum* at seven locations within the BBI survey area, within vegetation types that are consistent with those mapped by Astron (2006) and Onshore (2007). Although vegetation types are similar between the two areas, landforms in the BBI survey area would be predominantly plains rather than the hillslopes found in the Study Area and therefore more likely to be suitable habitat for *H. muticum*.

The proposed area for the pit extension and Waste Rock Landform (WRL) is small, therefore removal of any conservation significant species is unlikely to significantly impact the species population. The size and the location of the waste dump is unknown, but it is not expected to be large enough to significantly impact Priority species populations.

Some flora, for example *Trachymene coerulea*, which was recorded by Onshore (2007) is significantly out of range according to distribution maps on FloraBase which has it as occurring from Geraldton southwards. Based on this it is unlikely that it would occur in the Study Area. It is difficult to make a judgement as to whether these species can occur outliers in the Study Area or whether some mistake in identification was made at the time. Previous surveys were conducted 15 to 30 years ago and knowledge of Pilbara species, taxonomy and identification aids have significantly improved since that time. If the significantly out of range species did in fact occur in the Study Area, they would have high local conservation significance.

There are no GDE species recorded as being present in the Study Area.

4.2 Other Flora

There have been several changes in nomenclature since the earlier surveys were conducted, and some sub-species have been determined which has increased the number of species on the collated flora list presented by Onshore (2007). There are 11 taxa which are not identified beyond genus level in this flora list.

Based on the flora lists from the Astron (2006) and Onshore (2007) surveys, the flora (with the exception of *Trachymene coerulea*) that occur in the Study Area are relatively widespread and well represented in the region.

4.3 Vegetation

The vegetation types described by Astron (2006) and Onshore (2007) are all well represented in the area. Vegetation in the Study Area has been modified by repeated historical fire and past European activities, but there remained at the time of those surveys, areas of vegetation in excellent to good condition.

There are no TECs of National Significance (EPBC Act) in the Study Area and no vegetation of conservation significance associated with GDE. However, there may be phreatotphytic species in the drainage line approximately 500 m west of the Study Area however it is not a major drainage line and not heavily vegetated. Other drainage lines within the Study Area are dominated by *Acacia* sp shrubs.

There is one PEC and its associated buffer, the *Horseflat Land System of the Roebourne Plains*, identified through the database searches, within 1 km of the Study Area, which should not be directly impacted by the mining and associated activities, but there may potentially be indirect impacts which should be considered and mitigated in the planning stage.

4.4 Weeds

At the time of the 2006 and 2007 surveys there was only one weed, buffel grass (**Cenchrus ciliaris*) recorded and at the time it was confined to tracks and the Balla Balla River. Based on observations made (Astron 2020), there are currently four weed species in the Whim Creek / Mons Cupri area and they are abundant in some areas. Phoenix (2020) reported four weed species in their survey area, none of which are Declared Pests. It is not known what the current status of weeds is within the Study Area however standard weed management and hygiene practices should apply.

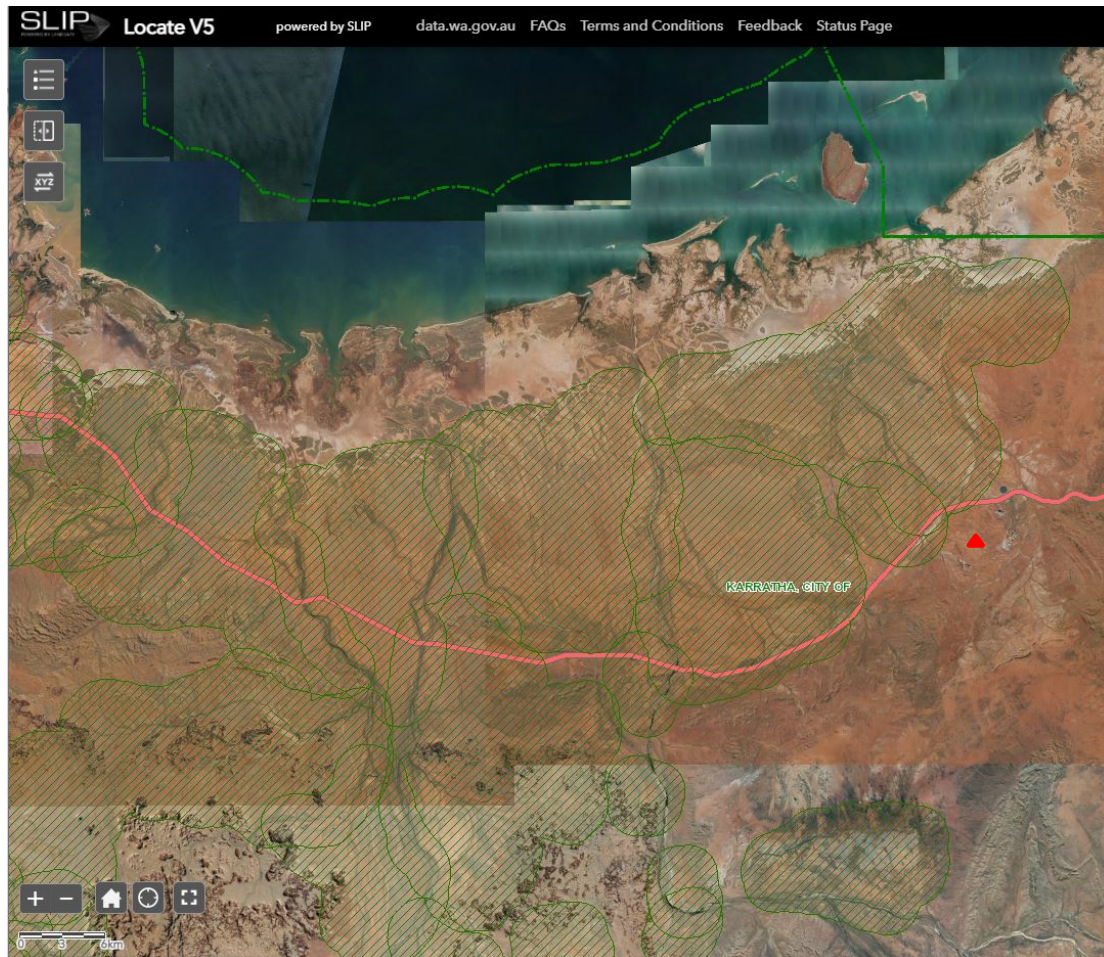
The general area to be disturbed is relatively small and the direct impacts (clearing of land) are considered insignificant in terms of populations of flora of conservation significance. Information is unknown regarding the current state of weeds in the area. Based on the Astron (2006) and Onshore (2007) and the more recent Phoenix (2020) reports, it is unlikely that Declared Pests or Weeds of National Significance (WONS) occur in the area, but it is likely that more environmental weeds occur now than in 2006. The P3 'Horseflat Land System of the Roebourne plains' PEC is unlikely to be impacted by the proposed expansion activities, however there is potential to cause indirect changes through introduction or spread of weeds and these should be managed.

5. REFERENCES

- Astron Environmental Services, 2005: *Flora and Vegetation Survey, gas pipeline easement*. Unpublished report prepared for Straits (Whim Creek) Pty Ltd.
- Astron Environmental Services, 2006: *Mons Cupri Vegetation and Flora Survey* Unpublished report prepared for Straits (Whim Creek) Pty Ltd.
- Astron Environmental Services, 2008: *Salt Creek Flora and Vegetation Survey* Unpublished report prepared for Straits (Whim Creek) Pty Ltd.
- Astron Environmental Services, 2014a: *Whim Creek and Mons Cupri Rehabilitated Landscapes Assessment* Unpublished report prepared for Venturex Resources Ltd.
- Astron Environmental Services, 2014b: *Whim Creek Environmental Pond Vegetation Health Monitoring*. Unpublished report prepared for Straits (Whim Creek) Pty Ltd.
- Bennett Environmental Consulting, 2005: *Vegetation overview of gas pipeline easement, Whim Creek, Western Australia*. Unpublished report prepared for Astron Environmental Services.
- Connell S, 2005: *Flora and Vegetation of proposed Mons Cupri haul road and main pit waste dump extension, Straits, Whim Creek*. A report to Straits Resources Limited.
- Department of Biodiversity, Conservation and Attractions (DBCA) 2020 a, 'Threatened and Priority Flora database', DBCA, Kensington.
- Department of Biodiversity, Conservation and Attractions (DBCA) 2020 b, 'Threatened and Priority Ecological Communities database', DBCA, Kensington.
- Department of Biodiversity Conservation and Attractions (DBCA) 2021, *NatureMap Database Search*, <<https://naturemap.dpaw.wa.gov.au/>>.
- Department of the Environment and Energy (DoEE) 2020, *Protected Matters Search Tool*, 2017, <www.environment.gov.au/epbc/pmst/index.html>.
- Ecologia Environmental Consultants, 1991: *Whim Creek -Mons Cupri Copper Mine Project, Notice of Intent: Biological Assessment Survey*. A report to Dominion Mining Limited.
- Environmental Protection Authority 2016, *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment*, Environmental Protection Authority, Perth.
- Kaesehagen DB 1995, Bushland condition mapping In *Invasive Weeds and Regenerating Ecosystems in Western Australia* Conference Proceedings. G. Burke. Murdoch University, Perth: 33-39
- Keighery, B 1994, *Bushland Plant Survey – a guide to plant community survey for Community*. Wildflower Society of WA (Inc.) Publication, Nedlands.
- Phoenix Environmental Sciences 2020 *Reconnaissance flora and vegetation survey and targeted terrestrial fauna survey for the Balla Balla Infrastructure – Rail and Conveyor Project*. Unpublished report prepared for BBI Group Pty Ltd
- Western Australian Herbarium (1998–2021). FloraBase—the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <https://florabase.dpaw.wa.gov.au/>

APPENDIX 1
DATABASE SEARCH RESULTS

Known TEC and PEC Locations within the Vicinity of the Survey Area



Location of PEC/TEC sites (green striped areas) within the vicinity of the survey area (as designated by red triangle – not drawn to scale) (Government of Western Australia, 2021).

Government of Western Australia (2021) Landgate. Interactive Map 'Locate': providing information from Shared Location Information Platform (SLIP) and Western Australia's location-based information. [<https://maps.slip.wa.gov.au/landgate/locate/>]

NatureMap Database Search Results for a 40 km radius from the Survey Area (DBCA 2021)

DBCA (2021). Department Biodiversity, Conservation and Attractions, Conservation and Attractions.
Government of Western Australia. NatureMap: Mapping Western Australia's Biodiversity.
<http://naturemap.dpaw.wa.gov.au/>

NatureMap Species Report

Created By Vicki Long on 04/02/2021

Current Names Only Yes
Core Datasets Only Yes
Method 'By Circle'
Centre 117° 48' 42" E, 20° 52' 52" S
Buffer 40km
Group By Species Group

Species Group	Species	Records
Amphibian	3	23
Bird	210	2730
Dicotyledon	374	1240
Fish	12	12
Invertebrate	461	942
Mammal	41	575
Monocotyledon	89	321
Pteridophyte (Fern)	5	5
Reptile	84	846
TOTAL	1279	6694

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
Amphibian				
1.	25375 <i>Cyclorana maini</i> (Sheep Frog)			
2.	25392 <i>Litoria rubella</i> (Little Red Tree Frog)			
3.	25430 <i>Notaden nicholli</i> (Desert Spadefoot)			
Bird				
4.	24559 <i>Acanthagenys rufogularis</i> (Spiny-cheeked Honeyeater)			
5.	25535 <i>Accipiter cirrocephalus</i> (Collared Sparrowhawk)			
6.	25536 <i>Accipiter fasciatus</i> (Brown Goshawk)			
7.	25755 <i>Acrocephalus australis</i> (Australian Reed Warbler)			
8.	41323 <i>Actitis hypoleucos</i> (Common Sandpiper)		IA	
9.	25544 <i>Aegotheles cristatus</i> (Australian Owlet-nightjar)			
10.	24301 <i>Aegotheles cristatus</i> subsp. <i>cristatus</i> (Australian Owlet-nightjar)			
11.	25647 <i>Amytornis striatus</i> (Striated Grasswren)			
12.	24312 <i>Anas gracilis</i> (Grey Teal)			
13.	24316 <i>Anas superciliosa</i> (Pacific Black Duck)			
14.	47414 <i>Anhinga novaehollandiae</i> (Australasian Darter)			
15.	25670 <i>Anthus australis</i> (Australian Pipit)			
16.	25554 <i>Apus pacificus</i> (Fork-tailed Swift, Pacific Swift)		IA	
17.	24285 <i>Aquila audax</i> (Wedge-tailed Eagle)			
18.	25557 <i>Ardea garzetta</i> (Little Egret)			
19.	25559 <i>Ardea intermedia</i> (Intermediate Egret)			
20.	41324 <i>Ardea modesta</i> (great egret, white egret)			
21.	24340 <i>Ardea novaehollandiae</i> (White-faced Heron)			
22.	24341 <i>Ardea pacifica</i> (White-necked Heron)			
23.	25560 <i>Ardea sacra</i> (Eastern Reef Egret, Eastern Reef Heron)			
24.	24610 <i>Ardeotis australis</i> (Australian Bustard)			
25.	25736 <i>Arenaria interpres</i> (Ruddy Turnstone)		IA	
26.	25566 <i>Artamus cinereus</i> (Black-faced Woodswallow)			
27.	<i>Artamus cinereus</i> subsp. <i>albiventris</i>			
28.	24352 <i>Artamus cinereus</i> subsp. <i>melanops</i> (Black-faced Woodswallow)			
29.	<i>Artamus leucorhynchus</i>			
30.	25567 <i>Artamus leucorhynchus</i> (White-breasted Woodswallow)			
31.	24354 <i>Artamus leucorhynchus</i> subsp. <i>leucopygialis</i> (White-breasted Woodswallow)			
32.	24355 <i>Artamus minor</i> (Little Woodswallow)			
33.	24356 <i>Artamus personatus</i> (Masked Woodswallow)			
34.	24357 <i>Artamus superciliosus</i> (White-browed Woodswallow)			
35.	24318 <i>Aythya australis</i> (Hardhead)			
36.	<i>Barnardius zonarius</i>			
37.	24359 <i>Burhinus grallarius</i> (Bush Stone-curlew)			
38.	47897 <i>Butorides striata</i> (Striated Heron, Mangrove Heron)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
39.	25715 <i>Cacatua roseicapilla</i> (Galah)			
40.	24725 <i>Cacatua roseicapilla</i> subsp. <i>assimilis</i> (Galah)			
41.	25716 <i>Cacatua sanguinea</i> (Little Corella)			
42.	24727 <i>Cacatua sanguinea</i> subsp. <i>westralensis</i> (Little Corella)			
43.	42307 <i>Cacomantis pallidus</i> (Pallid Cuckoo)			
44.	24779 <i>Calidris acuminata</i> (Sharp-tailed Sandpiper)		IA	
45.	24780 <i>Calidris alba</i> (Sanderling)		IA	
46.	25738 <i>Calidris canutus</i> (Red Knot, knot)		IA	
47.	24784 <i>Calidris ferruginea</i> (Curlew Sandpiper)		T	
48.	24786 <i>Calidris melanotos</i> (Pectoral Sandpiper)		IA	
49.	24788 <i>Calidris ruficollis</i> (Red-necked Stint)		IA	
50.	24789 <i>Calidris subminuta</i> (Long-toed Stint)		IA	
51.	24790 <i>Calidris tenuirostris</i> (Great Knot)		T	
52.	25600 <i>Centropus phasianinus</i> (Pheasant Coucal)			
53.	24564 <i>Certhionyx variegatus</i> (Pied Honeyeater)			
54.	25575 <i>Charadrius leschenaultii</i> (Greater Sand Plover)		T	
55.	25576 <i>Charadrius mongolus</i> (Lesser Sand Plover)		T	
56.	24377 <i>Charadrius ruficapillus</i> (Red-capped Plover)			
57.	24321 <i>Chenonetta jubata</i> (Australian Wood Duck, Wood Duck)			
58.	47909 <i>Cheramoeca leucosterna</i> (White-backed Swallow)			
59.	<i>Chroicocephalus novaehollandiae</i>			
60.	24431 <i>Chrysococcyx basalis</i> (Horsfield's Bronze Cuckoo)			
61.	24288 <i>Circus approximans</i> (Swamp Harrier)			
62.	24289 <i>Circus assimilis</i> (Spotted Harrier)			
63.	24774 <i>Cladorhynchus leucocephalus</i> (Banded Stilt)			
64.	25675 <i>Colluricincla harmonica</i> (Grey Shrike-thrush)			
65.	25568 <i>Coracina novaehollandiae</i> (Black-faced Cuckoo-shrike)			
66.	24416 <i>Corvus bennetti</i> (Little Crow)			
67.	25592 <i>Corvus coronoides</i> (Australian Raven)			
68.	25593 <i>Corvus orru</i> (Torresian Crow)			
69.	24418 <i>Corvus orru</i> subsp. <i>ceciliae</i> (Western Crow)			
70.	24671 <i>Coturnix pectoralis</i> (Stubble Quail)			
71.	25701 <i>Coturnix ypsilophora</i> (Brown Quail)			
72.	24420 <i>Cracticus nigrogularis</i> (Pied Butcherbird)			
73.	25595 <i>Cracticus tibicen</i> (Australian Magpie)			
74.	24422 <i>Cracticus tibicen</i> subsp. <i>dorsalis</i> (White-backed Magpie)			
75.	24322 <i>Cygnus atratus</i> (Black Swan)			
76.	25547 <i>Dacelo leachii</i> (Blue-winged Kookaburra)			
77.	24325 <i>Dendrocygna eytoni</i> (Plumed Whistling Duck)			
78.	24470 <i>Dromaius novaehollandiae</i> (Emu)			
79.	<i>Egretta garzetta</i>			
80.	<i>Egretta novaehollandiae</i>			
81.	<i>Elanus axillaris</i>			
82.	25540 <i>Elanus caeruleus</i> (Black-shouldered Kite)			
83.	47937 <i>Elseya melanops</i> (Black-fronted Dotterel)			
84.	24631 <i>Emblema pictum</i> (Painted Finch)			
85.	<i>Eolophus roseicapillus</i>			
86.	24653 <i>Eopsaltria pulverulenta</i> (Mangrove Robin)			
87.	25578 <i>Ephippiorhynchus asiaticus</i> (Black-necked Stork)			
88.	24387 <i>Ephippiorhynchus asiaticus</i> subsp. <i>australis</i> (Black-necked Stork)			
89.	24570 <i>Epthianura tricolor</i> (Crimson Chat)			
90.	24837 <i>Eremiornis carteri</i> (Spinifex-bird)			
91.	24379 <i>Erythrogonys cinctus</i> (Red-kneed Dotterel)			
92.	24368 <i>Eurostopodus argus</i> (Spotted Nightjar)			
93.	25621 <i>Falco berigora</i> (Brown Falcon)			
94.	25622 <i>Falco cenchroides</i> (Australian Kestrel, Nankeen Kestrel)			
95.	24472 <i>Falco cenchroides</i> subsp. <i>cenchrionides</i> (Australian Kestrel, Nankeen Kestrel)			
96.	24473 <i>Falco hypoleucos</i> (Grey Falcon)		T	
97.	25623 <i>Falco longipennis</i> (Australian Hobby)			
98.	25624 <i>Falco peregrinus</i> (Peregrine Falcon)		S	
99.	25727 <i>Fulica atra</i> (Eurasian Coot)			
100.	24761 <i>Fulica atra</i> subsp. <i>australis</i> (Eurasian Coot)			
101.	25730 <i>Gallirallus philippensis</i> (Buff-banded Rail)			
102.	42314 <i>Gavialis virens</i> (Singing Honeyeater)			
103.	47954 <i>Gelochelidon nilotica</i> (Gull-billed Tern)		IA	
104.	24401 <i>Geopelia cuneata</i> (Diamond Dove)			
105.	24402 <i>Geopelia humeralis</i> (Bar-shouldered Dove)			
106.	25585 <i>Geopelia striata</i> (Zebra Dove)			
107.	24403 <i>Geopelia striata</i> subsp. <i>placida</i> (Peaceful Dove)			
108.	24404 <i>Geophaps plumifera</i> (Spinifex Pigeon)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
109.	25530 <i>Gerygone fusca</i> (Western Gerygone)			
110.	24276 <i>Gerygone tenebrosa</i> (Dusky Gerygone)			
111.	24481 <i>Glareola maldivarum</i> (Oriental Pratincole)		IA	
112.	24443 <i>Grallina cyanoleuca</i> (Magpie-lark)			
113.	24484 <i>Grus rubicunda</i> (Brolga)			
114.	25627 <i>Haematopus fuliginosus</i> (Sooty Oystercatcher)			
115.	24487 <i>Haematopus longirostris</i> (Pied Oystercatcher)			
116.	24293 <i>Haliaeetus leucogaster</i> (White-bellied Sea-Eagle)			
117.	25541 <i>Haliastur indus</i> (Brahminy Kite)			
118.	24295 <i>Haliastur sphenurus</i> (Whistling Kite)			
119.	47965 <i>Hieraaetus morphnoides</i> (Little Eagle)			
120.	25734 <i>Himantopus himantopus</i> (Black-winged Stilt)			
121.	24491 <i>Hirundo neoxena</i> (Welcome Swallow)			
122.	48587 <i>Hydroprogne caspia</i> (Caspian Tern)		IA	
123.	25562 <i>Ixobrychus flavicollis</i> (Black Bittern)			
124.	24367 <i>Lalage tricolor</i> (White-winged Triller)			
125.	25637 <i>Larus novaehollandiae</i> (Silver Gull)			
126.	25661 <i>Lichmera indistincta</i> (Brown Honeyeater)			
127.	25739 <i>Limicola falcinellus</i> (Broad-billed Sandpiper)		IA	
128.	30932 <i>Limosa lapponica</i> (Bar-tailed Godwit)		IA	
129.	25741 <i>Limosa limosa</i> (Black-tailed Godwit)		IA	
130.	24326 <i>Malacorhynchus membranaceus</i> (Pink-eared Duck)			
131.	25651 <i>Malurus lamberti</i> (Variegated Fairy-wren)			
132.	25652 <i>Malurus leucopterus</i> (White-winged Fairy-wren)			
133.	24583 <i>Manorina flavigula</i> (Yellow-throated Miner)			
134.	25758 <i>Megalurus gramineus</i> (Little Grassbird)			
135.	25665 <i>Melithreptus gularis</i> (Black-chinned Honeyeater)			
136.	24736 <i>Melopsittacus undulatus</i> (Budgerigar)			
137.	24598 <i>Merops ornatus</i> (Rainbow Bee-eater)			
138.	<i>Microcarbo melanoleucos</i>			
139.	25542 <i>Milvus migrans</i> (Black Kite)			
140.	25545 <i>Mirafra javanica</i> (Horsfield's Bushlark, Singing Bushlark)			
141.	24302 <i>Mirafra javanica</i> subsp. <i>horsfieldii</i> (Horsfield's Bushlark, Singing Bushlark)			
142.	25685 <i>Neochmia ruficauda</i> (Star Finch)			
143.	48016 <i>Ninox boobook</i> (Boobook Owl)			
144.	25747 <i>Ninox connivens</i> (Barking Owl)			
145.	24798 <i>Numenius madagascariensis</i> (Eastern Curlew)		T	
146.	25742 <i>Numenius phaeopus</i> (Whimbrel)		IA	
147.	25564 <i>Nycticorax caledonicus</i> (Rufous Night Heron)			
148.	24742 <i>Nymphicus hollandicus</i> (Cockatiel)			
149.	24407 <i>Ocyphaps lophotes</i> (Crested Pigeon)			
150.	41347 <i>Onychoprion anaethetus</i> (Bridled Tern)		IA	
151.	24620 <i>Pachycephala lanioides</i> (White-breasted Whistler)			
152.	25678 <i>Pachycephala melanura</i> (Mangrove Golden Whistler)			
153.	24621 <i>Pachycephala melanura</i> subsp. <i>melanura</i> (Mangrove Golden Whistler)			
154.	25680 <i>Pachycephala rufiventris</i> (Rufous Whistler)			
155.	24624 <i>Pachycephala rufiventris</i> subsp. <i>rufiventris</i> (Rufous Whistler)			
156.	48591 <i>Pandion cristatus</i> (Osprey, Eastern Osprey)		IA	
157.	24627 <i>Pardalotus rubricatus</i> (Red-browed Pardalote)			
158.	25682 <i>Pardalotus striatus</i> (Striated Pardalote)			
159.	24674 <i>Pavo cristatus</i> (Common Peafowl, Indian Peafowl)	Y		
160.	24648 <i>Pelecanus conspicillatus</i> (Australian Pelican)			
161.	48060 <i>Petrochelidon ariel</i> (Fairy Martin)			
162.	48061 <i>Petrochelidon nigricans</i> (Tree Martin)			
163.	24659 <i>Petroica goodenovii</i> (Red-capped Robin)			
164.	25697 <i>Phalacrocorax carbo</i> (Great Cormorant)			
165.	25698 <i>Phalacrocorax melanoleucos</i> (Little Pied Cormorant)			
166.	24667 <i>Phalacrocorax sulcirostris</i> (Little Black Cormorant)			
167.	25699 <i>Phalacrocorax varius</i> (Pied Cormorant)			
168.	24409 <i>Phaps chalcoptera</i> (Common Bronzewing)			
169.	24411 <i>Phaps histrionica</i> (Flock Bronzewing, Flock Pigeon)			
170.	24841 <i>Platalea flavipes</i> (Yellow-billed Spoonbill)			
171.	24842 <i>Platalea regia</i> (Royal Spoonbill)			
172.	25721 <i>Platyercus zonarius</i> (Australian Ringneck, Ring-necked Parrot)			
173.	24843 <i>Plegadis falcinellus</i> (Glossy Ibis)		IA	
174.	24382 <i>Pluvialis fulva</i> (Pacific Golden Plover)		IA	
175.	25703 <i>Podargus strigoides</i> (Tawny Frogmouth)			
176.	25704 <i>Podiceps cristatus</i> (Great Crested Grebe)			
177.	24681 <i>Poliiocephalus poliocephalus</i> (Hoary-headed Grebe)			
178.	25706 <i>Pomatostomus temporalis</i> (Grey-crowned Babbler)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
179.	24684 <i>Pomatostomus temporalis</i> subsp. <i>rubeculus</i> (Grey-crowned Babbler)			
180.	25731 <i>Porphyrio porphyrio</i> (Purple Swamphen)			
181.	<i>Ptilonorhynchus guttatus</i>			
182.	25724 <i>Ptilonorhynchus maculatus</i> (Spotted Bowerbird)			
183.	42323 <i>Ptilotula keartlandi</i> (Grey-headed Honeyeater)			
184.	24716 <i>Puffinus pacificus</i> (Wedge-tailed Shearwater)		IA	
185.	24776 <i>Recurvirostra novaehollandiae</i> (Red-necked Avocet)			
186.	48096 <i>Rhipidura albiscapa</i> (Grey Fantail)			
187.	25614 <i>Rhipidura leucophrys</i> (Willie Wagtail)			
188.	24457 <i>Rhipidura phasiana</i> (Mangrove Grey Fantail)			
189.	30948 <i>Smicromis brevirostris</i> (Weebill)			
190.	24521 <i>Sterna bengalensis</i> (Lesser Crested Tern)			
191.	24522 <i>Sterna bergii</i> (Crested Tern)			
192.	25640 <i>Sterna dougallii</i> (Roseate Tern)		IA	
193.	25642 <i>Sterna hirundo</i> (Common Tern)		IA	
194.	25643 <i>Sterna hybrida</i> (Whiskered Tern)			
195.	24482 <i>Stiltia isabella</i> (Australian Pratincole)			
196.	25705 <i>Tachybaptus novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
197.	30870 <i>Taeniopygia guttata</i> (Zebra Finch)			
198.	48597 <i>Thalasseus bergii</i> (Crested Tern)		IA	
199.	24845 <i>Threskiornis spinicollis</i> (Straw-necked Ibis)			
200.	25548 <i>Todiramphus chloris</i> (Collared Kingfisher)			
201.	24306 <i>Todiramphus chloris</i> subsp. <i>pilbara</i> (Pilbara Collared Kingfisher)			
202.	42351 <i>Todiramphus pyrrhopygius</i> (Red-backed Kingfisher)			
203.	25549 <i>Todiramphus sanctus</i> (Sacred Kingfisher)			
204.	48141 <i>Tribonyx ventralis</i> (Black-tailed Native-hen)			
205.	24803 <i>Tringa brevipes</i> (Grey-tailed Tattler)		P4	
206.	24806 <i>Tringa glareola</i> (Wood Sandpiper)		IA	
207.	24808 <i>Tringa nebularia</i> (Common Greenshank, greenshank)		IA	
208.	24809 <i>Tringa stagnatilis</i> (Marsh Sandpiper, little greenshank)		IA	
209.	24851 <i>Turnix velox</i> (Little Button-quail)			
210.	24386 <i>Vanellus tricolor</i> (Banded Lapwing)			
211.	41351 <i>Xenus cinereus</i> (Terek Sandpiper)		IA	
212.	24857 <i>Zosterops luteus</i> (Yellow White-eye)			
213.	<i>Zosterops luteus</i> subsp. <i>balstoni</i>			

Dicotyledon

214.	42920 <i>Abutilon</i> sp. <i>Dioicum</i> (A.A. Mitchell PRP 1618)			
215.	14113 <i>Abutilon</i> sp. <i>Pilbara</i> (W.R. Barker 2025)			
216.	43021 <i>Abutilon</i> sp. <i>Pritzelianum</i> (S. van Leeuwen 5095)		P1	
217.	3198 <i>Acacia acradenia</i>			
218.	3209 <i>Acacia ampliceps</i>			
219.	3214 <i>Acacia ancistrocarpa</i> (Fitzroy Wattle)			
220.	3223 <i>Acacia arida</i>			
221.	3224 <i>Acacia arrecta</i>			
222.	3241 <i>Acacia bivenosa</i>			
223.	13403 <i>Acacia colei</i>			
224.	17013 <i>Acacia colei</i> var. <i>colei</i>			
225.	3270 <i>Acacia coriacea</i> (Wirewood)			
226.	13502 <i>Acacia coriacea</i> subsp. <i>pendens</i>			
227.	12673 <i>Acacia glaucocaesia</i>			
228.	3356 <i>Acacia gregorii</i> (Gregory's Wattle)			
229.	3377 <i>Acacia inaequilatera</i> (Baderi)			
230.	3471 <i>Acacia orthocarpa</i> (Needleleaf Wattle)			
231.	3506 <i>Acacia pyrifolia</i> (Ranji Bush, Kandji)			
232.	29015 <i>Acacia pyrifolia</i> var. <i>pyrifolia</i>			
233.	15203 <i>Acacia sabulosa</i>			
234.	13078 <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i>			
235.	29135 <i>Acacia sericophylla</i>			
236.	19456 <i>Acacia stellaticeps</i>			
237.	13070 <i>Acacia synchronicia</i>			
238.	3579 <i>Acacia trachycarpa</i> (Minni Ritchi, Balgali)			
239.	29992 <i>Acacia trachycarpa</i> x <i>tumida</i> var. <i>pilbarensis</i>			
240.	20319 <i>Acacia tumida</i> var. <i>pilbarensis</i>			
241.	3595 <i>Acacia victoriae</i> (Bramble Wattle, Ngatunpa)			
242.	3606 <i>Acacia xiphophylla</i>			
243.	2645 <i>Achyranthes aspera</i> (Chaff Flower)			
244.	4583 <i>Adriana tomentosa</i>			
245.	17422 <i>Adriana tomentosa</i> var. <i>tomentosa</i>			
246.	6478 <i>Aegiceras corniculatum</i> (River Mangrove)			
247.	2646 <i>Aerva javanica</i> (Kapok Bush)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
		Y		
248.	3680 <i>Aeschynomene indica</i> (Budda Pea)			
249.	4739 <i>Alectryon oleifolius</i>			
250.	11487 <i>Alectryon oleifolius</i> subsp. <i>oleifolius</i>			
251.	2647 <i>Alternanthera angustifolia</i>			
252.	2648 <i>Alternanthera denticulata</i> (Lesser Joyweed)			
253.	2651 <i>Alternanthera nana</i> (Hairy Joyweed)			
254.	2652 <i>Alternanthera nodiflora</i> (Common Joyweed)			
255.	17147 <i>Alysicarpus muelleri</i>			
256.	2660 <i>Amaranthus cuspidifolius</i>			
257.	20018 <i>Amaranthus undulatus</i>			
258.	5277 <i>Ammannia baccifera</i>			
259.	5278 <i>Ammannia multiflora</i>			
260.	7836 <i>Angianthus tomentosus</i> (Camel-grass)			
261.	4740 <i>Atalaya hemiglauca</i> (Whitewood)			
262.	2453 <i>Atriplex codonocarpa</i> (Flat-topped Saltbush)			
263.	6828 <i>Avicennia marina</i> (White Mangrove)			
264.	5184 <i>Bergia pedicellaris</i>			
265.	5186 <i>Bergia trimera</i>			
266.	7866 <i>Blumea tenella</i>			
267.	2770 <i>Boerhavia coccinea</i> (Tar Vine, Wituka)			
268.	8357 <i>Boerhavia diffusa</i>			
269.	2772 <i>Boerhavia gardneri</i>			
270.	2773 <i>Boerhavia paludosa</i>			
271.	2775 <i>Boerhavia schomburgkiana</i>			
272.	<i>Boerhavia</i> sp.			
273.	6603 <i>Bonamia alatisemina</i>			
274.	11167 <i>Bonamia erecta</i>			
275.	6605 <i>Bonamia linearis</i>			
276.	6606 <i>Bonamia media</i>			
277.	6608 <i>Bonamia pannosa</i>			
278.	12716 <i>Brachychiton acuminatus</i>			
279.	11055 <i>Cajanus cinereus</i>			
280.	40825 <i>Calandrinia pentavalvis</i>			
281.	2864 <i>Calandrinia Ptychosperma</i>			
282.	2870 <i>Calandrinia stagnensis</i>			
283.	14090 <i>Calocephalus beardii</i>			
284.	7891 <i>Calocephalus francisii</i> (Fine-leaf Beauty-heads)			
285.	3749 <i>Canavalia rosea</i> (Wild Jack Bean)			
286.	2981 <i>Capparis spinosa</i>			
287.	48291 <i>Capparis spinosa</i> subsp. <i>nummularia</i>			
288.	2982 <i>Capparis umbonata</i> (Wild Orange, Nanggalu)			
289.	6567 <i>Carissa lanceolata</i> (Conkerberry, Marnuwiji)			
290.	2949 <i>Cassytha capillaris</i>			
291.	2950 <i>Cassytha filiformis</i> (Love Vine, Jirawan)			
292.	2952 <i>Cassytha glabella</i> (Tangled Dodder Laurel)			
293.	7919 <i>Centipeda minima</i> (Spreading Sneezewood, Kanjirralaa, Inteng-inteng, Karengkal, Kata-palkalpa, Munyu-parnti-parnti)			
294.	33516 <i>Chrysocephalum gilesii</i>			
295.	2987 <i>Cleome uncifera</i>			
296.	29101 <i>Cleome uncifera</i> subsp. <i>uncifera</i>			
297.	2988 <i>Cleome viscosa</i> (Tickweed, Tjinduwadhu)			
298.	13689 <i>Clerodendrum tomentosum</i> var. <i>lanceolatum</i>			
299.	2778 <i>Codonocarpus cotinifolius</i> (Native Poplar, Kundurangu)			
300.	18411 <i>Corchorus congener</i>		P3	
301.	4857 <i>Corchorus elachocarpus</i>			
302.	25847 <i>Corchorus incanus</i> subsp. <i>incanus</i>			
303.	13659 <i>Corchorus laniflorus</i>			
304.	18408 <i>Corchorus lasiocarpus</i> subsp. <i>parvus</i>			
305.	4862 <i>Corchorus parviflorus</i>			
306.	<i>Corchorus</i> sp.			
307.	17661 <i>Corchorus tectus</i>			
308.	4865 <i>Corchorus tridens</i>			
309.	13467 <i>Corchorus trilocularis</i>			
310.	17073 <i>Corymbia aspera</i>			
311.	16783 <i>Corymbia candida</i>			
312.	16780 <i>Corymbia candida</i> subsp. <i>dipsodes</i>			
313.	19125 <i>Corymbia dichromophloia</i>			
314.	17077 <i>Corymbia ferriticola</i>			
315.	17093 <i>Corymbia hamersleyana</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
316.	17092 <i>Corymbia opaca</i>			
317.	17084 <i>Corymbia zygophylla</i>			
318.	3783 <i>Crotalaria medicaginea</i>			
319.	20179 <i>Crotalaria medicaginea</i> var. <i>neglecta</i>			
320.	3785 <i>Crotalaria novae-hollandiae</i> (New Holland Rattlepod)			
321.	11231 <i>Crotalaria novae-hollandiae</i> subsp. <i>novae-hollandiae</i>			
322.	19398 <i>Crotalaria ramosissima</i>			
323.	41720 <i>Cucumis argenteus</i>			
324.	41721 <i>Cucumis variabilis</i>			
325.	17117 <i>Cullen cinereum</i>			
326.	17436 <i>Cullen graveolens</i>			
327.	17439 <i>Cullen lachnostachys</i>			
328.	17118 <i>Cullen leucanthum</i>			
329.	17119 <i>Cullen leucochaites</i>			
330.	17116 <i>Cullen martinii</i>			
331.	17120 <i>Cullen pogonocarpum</i>			
332.	15714 <i>Cullen stipulaceum</i>			
333.	6662 <i>Cuscuta australis</i> (Australian Dodder)			
334.	7317 <i>Dentella asperata</i>			
335.	3856 <i>Desmodium muelleri</i>			
336.	3612 <i>Dichrostachys spicata</i> (Pied Piper Bush)			
337.	4759 <i>Dodonaea coriacea</i>			
338.	48390 <i>Dolichandrone occidentalis</i>			
339.	2504 <i>Dysphania plantaginella</i>			
340.	11653 <i>Dysphania rhadinostachya</i> subsp. <i>inflata</i>			
341.	11890 <i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>			
342.	6682 <i>Ehretia saligna</i> (False Cedar)			
343.	14301 <i>Ehretia saligna</i> var. <i>saligna</i>			
344.	7234 <i>Eremophila longifolia</i> (Berrigan, Tulypurpa)			
345.	3871 <i>Erythrina vespertilio</i> (Yulbah)			
346.	35345 <i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i> (Blunt-budded River Red Gum)			
347.	35343 <i>Eucalyptus camaldulensis</i> subsp. <i>refulgens</i>			
348.	5714 <i>Eucalyptus microtheca</i> (Coolibah)			
349.	<i>Eucalyptus</i> sp.			
350.	14548 <i>Eucalyptus victrix</i>			
351.	4617 <i>Euphorbia australis</i> (Namana)			
352.	35307 <i>Euphorbia australis</i> var. <i>australis</i>			
353.	35303 <i>Euphorbia australis</i> var. <i>subtomentosa</i>			
354.	4620 <i>Euphorbia boophthona</i> (Gascoyne Spurge)			
355.	9048 <i>Euphorbia careyi</i>			
356.	4623 <i>Euphorbia coghlanii</i> (Namana)			
357.	4626 <i>Euphorbia drummondii</i> (Caustic Weed, Piwi)			
358.	4635 <i>Euphorbia myrtoides</i>			
359.	12097 <i>Euphorbia tannensis</i> subsp. <i>eremophila</i> (Desert Spurge)			
360.	42879 <i>Euphorbia trigonosperma</i>			
361.	42876 <i>Euphorbia vaccaria</i> var. <i>vaccaria</i>			
362.	6617 <i>Evolvulus alsinoides</i> (Tropical Speedwell)			
363.	11416 <i>Evolvulus alsinoides</i> var. <i>decumbens</i>			
364.	11200 <i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>			
365.	31578 <i>Ficus aculeata</i> var. <i>indecora</i> (Ranji)			
366.	19648 <i>Ficus brachypoda</i>			
367.	1757 <i>Ficus subpuberula</i>			
368.	35558 <i>Flaveria trinervia</i> (Speedy Weed)	Y		
369.	4654 <i>Flueggea virosa</i>			
370.	12013 <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> (Dogwood, Guwal)			
371.	5188 <i>Frankenia ambita</i>			
372.	2836 <i>Glinus oppositifolius</i>			
373.	7060 <i>Glossostigma diandrum</i>			
374.	2674 <i>Gomphrena affinis</i>			
375.	18361 <i>Gomphrena affinis</i> subsp. <i>pilbarensis</i>			
376.	2676 <i>Gomphrena canescens</i> (Batchelors Buttons)			
377.	2680 <i>Gomphrena cunninghamii</i>			
378.	2682 <i>Gomphrena flaccida</i> (Gomphrena Weed)			
379.	18257 <i>Gomphrena leptoclada</i> subsp. <i>leptoclada</i>			
380.	7509 <i>Goodenia forrestii</i>			
381.	7521 <i>Goodenia lamprosperma</i>			
382.	7526 <i>Goodenia microptera</i>			
383.	12552 <i>Goodenia muelleriana</i>			
384.	7530 <i>Goodenia nuda</i>			P4
385.	7558 <i>Goodenia triodiophila</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
386.	4910 <i>Gossypium australe</i> (Native Cotton)			
387.	4918 <i>Gossypium robinsonii</i> (Wild Cotton)			
388.	2079 <i>Grevillea pyramidalis</i> (Caustic Bush, Tjungu)			
389.	19570 <i>Grevillea pyramidalis</i> subsp. <i>leucadendron</i>			
390.	15975 <i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>			
391.	2789 <i>Gyrostemon tepperi</i>			
392.	19137 <i>Hakea lorea</i> subsp. <i>lorea</i>			
393.	6704 <i>Heliotropium conocarpum</i>			
394.	6705 <i>Heliotropium crispatum</i>			
395.	6707 <i>Heliotropium curassavicum</i> (Smooth Heliotrope)			
396.	17307 <i>Heliotropium inexplicitum</i>			
397.	10891 <i>Heliotropium muticum</i>		P3	
398.	6713 <i>Heliotropium ovalifolium</i>			
399.	17390 <i>Heliotropium parviantrum</i>		P1	
400.	17031 <i>Heliotropium transforme</i>			
401.	29317 <i>Hibiscus austrinus</i> var. <i>austrinus</i>			
402.	4922 <i>Hibiscus brachychlaenus</i>			
403.	4925 <i>Hibiscus coatesii</i>			
404.	4933 <i>Hibiscus leptocladus</i>			
405.	4942 <i>Hibiscus sturtii</i> (Sturt's Hibiscus)			
406.	11651 <i>Hibiscus sturtii</i> var. <i>campylochlamys</i>			
407.	5215 <i>Hybanthus aurantiacus</i>			
408.	48203 <i>Hypertelis cerviana</i>			
409.	14587 <i>Indigastrium parviflorum</i>			
410.	17113 <i>Indigofera bovipерda</i> subsp. <i>bovipерda</i>			
411.	3973 <i>Indigofera colutea</i> (Sticky Indigo)			
412.	38080 <i>Indigofera hochstetteri</i>	Y		
413.	3980 <i>Indigofera linifolia</i>			
414.	3981 <i>Indigofera linnaei</i> (Birdsville Indigo)			
415.	3982 <i>Indigofera monophylla</i>			
416.	3985 <i>Indigofera rugosa</i>			
417.	3987 <i>Indigofera trita</i>			
418.	31035 <i>Indigofera trita</i> subsp. <i>trita</i>			
419.	6623 <i>Ipomoea coptica</i>			
420.	6633 <i>Ipomoea muelleri</i> (Poison Morning Glory, Yumbu)			
421.	6635 <i>Ipomoea pes-caprae</i>			
422.	11312 <i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i>			
423.	6637 <i>Ipomoea polymorpha</i>			
424.	3989 <i>Isotropis atropurpurea</i> (Poison Sage)			
425.	6501 <i>Jasminum didymum</i>			
426.	12059 <i>Jasminum didymum</i> subsp. <i>lineare</i> (Desert Jasmine)			
427.	3035 <i>Lepidium pedicellosum</i>			
428.	4054 <i>Leptosema anomalum</i>			
429.	37480 <i>Lobelia arnhemiaca</i>			
430.	4060 <i>Lotus australis</i> (Austral Trefoil)			
431.	6136 <i>Ludwigia perennis</i>			
432.	11662 <i>Maireana tomentosa</i> subsp. <i>tomentosa</i>			
433.	4658 <i>Mallotus nesophilus</i>			
434.	4962 <i>Malvastrum americanum</i> (Spiked Malvastrum)	Y		
435.	5875 <i>Melaleuca argentea</i> (Silver Cadjeput, Bandaran)			
436.	5915 <i>Melaleuca glomerata</i>			
437.	5051 <i>Melhania oblongifolia</i>			
438.	7082 <i>Mimulus gracilis</i>			
439.	6490 <i>Muellerolimon salicorniaceum</i>			
440.	17158 <i>Myoporum montanum</i> (Native Myrtle)			
441.	6201 <i>Myriophyllum verrucosum</i> (Red Water Milfoil)			
442.	2573 <i>Neobassia astrocarpa</i>			
443.	3614 <i>Neptunia dimorphantha</i> (Sensitive Plant)			
444.	14817 <i>Nicotiana heterantha</i>			
445.	6976 <i>Nicotiana occidentalis</i> (Native Tobacco)			
446.	11734 <i>Nicotiana rosulata</i> subsp. <i>rosulata</i>			
447.	38422 <i>Notoleptopus decaisnei</i> var. <i>decaisnei</i>			
448.	13341 <i>Oldenlandia argillacea</i>			
449.	7338 <i>Oldenlandia crouchiana</i>			
450.	6651 <i>Operculina aequisepala</i>			
451.	6005 <i>Osbornia octodonta</i> (Myrtle Mangrove)			
452.	4518 <i>Owenia reticulata</i> (Native Walnut, Bandal)			
453.	42160 <i>Pentalepis trichodesmoides</i> subsp. <i>trichodesmoides</i>			
454.	12486 <i>Peplidium aithocheilum</i>			
455.	3675 <i>Petalostylis labicheoides</i> (Slender Petalostylis)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
456.	17626 <i>Phyllanthus erwinii</i>			
457.	4680 <i>Phyllanthus maderaspatensis</i>			
458.	5230 <i>Pimelea ammocharis</i>			
459.	8167 <i>Pluchea dentex</i>			
460.	17816 <i>Pluchea ferdinandi-muelleri</i>			
461.	8168 <i>Pluchea rubelliflora</i>			
462.	8170 <i>Pluchea tetranthera</i>			
463.	12075 <i>Polycarpaea corymbosa</i> var. <i>corymbosa</i>			
464.	2901 <i>Polycarpaea holtzei</i>			
465.	41363 <i>Polygala galeocephala</i>			
466.	41365 <i>Polygala glaucifolia</i>			
467.	6653 <i>Polymeria ambigua</i> (Morning Glory)			
468.	<i>Polymeria</i> sp.			
469.	2876 <i>Portulaca bicolor</i>			
470.	2884 <i>Portulaca oleracea</i> (Purslane, Wakati)			
471.	2886 <i>Portulaca pilosa</i> (Djanggara)	Y		
472.	8192 <i>Pterocaulon sphacelatum</i> (Apple Bush, Fruit Salad Plant)			
473.	8193 <i>Pterocaulon sphaeranthoides</i>			
474.	2695 <i>Ptilotus arthrolasius</i>			
475.	2696 <i>Ptilotus astrolasius</i>			
476.	2698 <i>Ptilotus auriculifolius</i>			
477.	2699 <i>Ptilotus axillaris</i> (Mat Mulla Mulla)			
478.	2706 <i>Ptilotus carinatus</i>			
479.	2721 <i>Ptilotus exaltatus</i> (Tall Mulla Mulla)			
480.	2725 <i>Ptilotus fusiformis</i>			
481.	2728 <i>Ptilotus gomphrenoides</i>			
482.	2731 <i>Ptilotus helipteroides</i> (Hairy Mulla Mulla)			
483.	2745 <i>Ptilotus murrayi</i>			
484.	2746 <i>Ptilotus nobilis</i> (Tall Mulla Mulla)			
485.	2747 <i>Ptilotus obovatus</i> (Cotton Bush)			
486.	10809 <i>Ptilotus sessilifolius</i>			
487.	2584 <i>Rhagodia preissii</i>			
488.	20862 <i>Rhynchosia bungarensis</i>		P4	
489.	4191 <i>Rhynchosia minima</i> (Rhynchosia)			
490.	5285 <i>Rotala diandra</i>			
491.	30434 <i>Salsola australis</i>			
492.	2357 <i>Santalum lanceolatum</i> (Northern Sandalwood, Yarrnguli)			
493.	13178 <i>Scaevola amblyanthera</i> var. <i>centralis</i>			
494.	7606 <i>Scaevola crassifolia</i> (Thick-leaved Fan-flower)			
495.	7644 <i>Scaevola spinescens</i> (Currant Bush, Maroon)			
496.	41646 <i>Schenkia clementii</i>			
497.	2617 <i>Sclerolaena hostilis</i>			
498.	<i>Senna artemisioides</i> subsp. <i>X sturtii</i>			Y
499.	12280 <i>Senna artemisioides</i> subsp. <i>oligophylla</i>			
500.	18346 <i>Senna glutinosa</i>			
501.	12307 <i>Senna glutinosa</i> subsp. <i>glutinosa</i>			
502.	12309 <i>Senna glutinosa</i> subsp. <i>pruinosa</i>			
503.	12312 <i>Senna notabilis</i>			
504.	12319 <i>Senna venusta</i>			
505.	46821 <i>Seringia nephrosperma</i> (Free carpel fire-bush)			
506.	<i>Sesbania aculeata</i>			Y
507.	4196 <i>Sesbania cannabina</i> (Sesbania Pea)			
508.	4198 <i>Sesbania formosa</i> (White Dragon Tree)			
509.	4966 <i>Sida arenicola</i>			
510.	4972 <i>Sida clementii</i>			
511.	4976 <i>Sida echinocarpa</i>			
512.	4977 <i>Sida fibulifera</i> (Silver Sida)			
513.	4988 <i>Sida rohlenae</i>			
514.	18149 <i>Sida rohlenae</i> subsp. <i>rohlenae</i>			
515.	33698 <i>Sida</i> sp. <i>Pilbara</i> (A.A. Mitchell PRP 1543)			
516.	16993 <i>Sida</i> sp. <i>Rabbit Flat</i> (B.J. Carter 626)			
517.	4989 <i>Sida spinosa</i> (Spiny Sida)			
518.	16924 <i>Sida spodochroma</i>			
519.	6989 <i>Solanum ashbyae</i>			
520.	6994 <i>Solanum cataphractum</i>		P3	
521.	6998 <i>Solanum cleistogamum</i>			
522.	7002 <i>Solanum diversiflorum</i>			
523.	7007 <i>Solanum esuriale</i> (Quena)			
524.	7014 <i>Solanum horridum</i>			
525.	7018 <i>Solanum lasiophyllum</i> (Flannel Bush, Mindjulu)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
526.	7022 <i>Solanum nigrum</i> (Black Berry Nightshade)	Y		
527.	7029 <i>Solanum phlomoides</i>			
528.	8231 <i>Sonchus oleraceus</i> (Common Sowthistle)	Y		
529.	7098 <i>Stemodia grossa</i> (Marsh Stemodia, Mindjaara)			
530.	7099 <i>Stemodia kingii</i>			
531.	7102 <i>Stemodia viscosa</i> (Pagurda)			
532.	8235 <i>Streptoglossa bubakii</i>			
533.	8236 <i>Streptoglossa cylindriceps</i>			
534.	8237 <i>Streptoglossa decurrens</i>			
535.	8238 <i>Streptoglossa liatroides</i>			
536.	8239 <i>Streptoglossa macrocephala</i>			
537.	8240 <i>Streptoglossa odora</i>			
538.	8241 <i>Streptoglossa tenuiflora</i>			
539.	7103 <i>Striga curviflora</i>			
540.	12492 <i>Striga squamigera</i>			
541.	7729 <i>Styloidium fluminense</i>			
542.	3182 <i>Stylobasium spathulatum</i> (Pebble Bush)			
543.	43203 <i>Surreya diandra</i>			
544.	4242 <i>Swainsona pterostylis</i>			
545.	13339 <i>Synaptantha tillaeacea</i> var. <i>tillaeacea</i>			
546.	33236 <i>Tecticornia halocnemoides</i> (Shrubby Samphire)			
547.	33237 <i>Tecticornia halocnemoides</i> subsp. <i>halocnemoides</i>			
548.	33318 <i>Tecticornia indica</i> subsp. <i>leiostachya</i> (Samphire)			
549.	33216 <i>Tecticornia</i> sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)			
550.	4263 <i>Tephrosia clementii</i>			
551.	4280 <i>Tephrosia rosea</i> (Flinders River Poison, Bungoo'dah)			
552.	41920 <i>Tephrosia rosea</i> var. <i>Port Hedland</i> (A.S. George 1114)		P1	
553.	19531 <i>Tephrosia rosea</i> var. <i>clementii</i>			
554.	17768 <i>Tephrosia</i> sp. Bungaroo Creek (M.E. Trudgen 11601)			
555.	42442 <i>Tephrosia</i> sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)			
556.	4285 <i>Tephrosia supina</i>			
557.	4286 <i>Tephrosia uniovulata</i>			
558.	5300 <i>Terminalia canescens</i> (Joolal)			
559.	45698 <i>Terminalia circumalata</i>			
560.	2644 <i>Threlkeldia diffusa</i> (Coast Bonefruit)			
561.	2942 <i>Tinospora smilacina</i> (Snakevine, Oondala)			
562.	6270 <i>Trachymene didiscoides</i>			
563.	19043 <i>Trachymene oleracea</i> subsp. <i>oleracea</i>			
564.	44305 <i>Trianthema pilosum</i>			
565.	44362 <i>Trianthema triquetrum</i>			
566.	4375 <i>Tribulus cistoides</i>			
567.	4377 <i>Tribulus hirsutus</i>			
568.	4379 <i>Tribulus macrocarpus</i>			
569.	4380 <i>Tribulus occidentalis</i> (Perennial Caltrop)			
570.	4381 <i>Tribulus platypterus</i> (Cork Hopbush)			
571.	18072 <i>Tribulus suberosus</i>			
572.	6727 <i>Trichodesma zeylanicum</i> (Camel Bush, Kumbalin)			
573.	11750 <i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>			
574.	7381 <i>Trichosanthes cucumerina</i>			
575.	48201 <i>Trigastrotheca molluginea</i>			
576.	4873 <i>Triumfetta appendiculata</i>			
577.	14694 <i>Triumfetta clementii</i>			
578.	14942 <i>Triumfetta maconochieana</i>			
579.	17317 <i>Triumfetta propinqua</i>			
580.	13481 <i>Triumfetta ramosa</i>			
581.	30716 <i>Vachellia farnesiana</i> (Mimosa Bush)	Y		
582.	11576 <i>Vigna lanceolata</i> var. <i>lanceolata</i>			
583.	<i>Vigna</i> sp.			
584.	31391 <i>Vigna</i> sp. Hamersley Clay (A.A. Mitchell PRP 113)			
585.	7393 <i>Wahlenbergia tumidiflucta</i>			
586.	5106 <i>Waltheria indica</i>			
587.	18661 <i>Zornia muelleriana</i>			

Fish

588.	??			
589.	<i>Amniataba percoides</i>			
590.	<i>Eucrossorhinus dasypogon</i>			
591.	<i>Leiopotherapon unicolor</i>			
592.	<i>Lobotes surinamensis</i>			
593.	<i>Melanotaenia australis</i>			
594.	<i>Neosilurus hyrtlii</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
595.	<i>Peristrominus dolosus</i>			
596.	<i>Peristrominus</i> sp.			Y
597.	<i>Pseudomonacanthus elongatus</i>			
598.	<i>Richardsonichthys leucogaster</i>			
599.	<i>Triacanthus</i> sp.			

Invertebrate

600.	<i>Acariformes</i> sp.			
601.	<i>Achnanthes exilis</i> Kütz.			
602.	<i>Achnantheidium minutissima</i> (Kütz.) Czarnecki			
603.	<i>Aedeomyia catacticta</i>			
604.	<i>Aeolosoma</i> sp. 1 (PSS)			
605.	<i>Aeshnidae</i> sp.			
606.	<i>Agraptocorixa parvipunctata</i>			
607.	<i>Albia</i> sp.			
608.	<i>Allodessus bistrigatus</i>			
609.	<i>Alona rectangula novaezealandiae</i>			
610.	<i>Alona rigidicaudis</i>			
611.	<i>Ameriana</i> sp.			
612.	<i>Amphora coffeaeformis</i> (Ag.) Kütz.			
613.	<i>Amphora coffeaeformis</i> var. <i>acutiscula</i> (Kütz.) rabh.			
614.	<i>Aname ellenae</i>			
615.	<i>Aname mainae</i>			
616.	<i>Aname mellosa</i>			
617.	<i>Anax papuensis</i>			
618.	<i>Ancylidae</i> sp.			
619.	<i>Anisops canaliculatus</i>			
620.	<i>Anisops hackeri</i>			
621.	<i>Anisops nasutus</i>			
622.	<i>Anisops stali</i>			
623.	<i>Anopheles annulipes</i> s.l.			
624.	<i>Anopheles</i> sp.			
625.	<i>Antiporus bakewelli</i>			
626.	<i>Anuraeopsis navicula</i>			
627.	<i>Arcella</i> sp.			
628.	<i>Arcella</i> sp. P1			
629.	<i>Areacandona 'korallion'</i> (PSS)			
630.	<i>Areacandona 'scanlonii'</i> (PSS)			
631.	<i>Areacandona</i> cf. <i>'iuno'</i> (PSS)			
632.	<i>Areacandona</i> cf. <i>'korallion'</i> (PSS)			Y
633.	<i>Areacandona</i> cf. <i>'quasilepte'</i> (PSS)			
634.	<i>Argiope protensa</i>			
635.	<i>Armatalona macrocopa</i>			
636.	<i>Arrenurus (Arrenurus) ensifer</i>			
637.	<i>Arrenurus (Micruracarus) purpureus</i>			
638.	<i>Artema atlanta</i>			
639.	<i>Asplanchna sieboldi</i>			
640.	<i>Atyidae</i> sp.			
641.	<i>Australiobates queenslandensis</i>			
642.	<i>Australospilus elongatus</i>			
643.	<i>Australutica</i> sp.1			
644.	<i>Austroagrion pindrina/lschnura heterosticta</i>			
645.	<i>Austroepigomphus (Xerogomphus) gordonii</i>			
646.	<i>Austrolestes aridus</i>			
647.	<i>Axonopsella nr truzza</i> (PSW)			
648.	<i>Axonopsella</i> sp. P2 (PSW)			
649.	<i>Backbourkia collina</i>			
650.	<i>Baetidae</i> sp.			
651.	<i>Batrachomatus wingi</i>			
652.	<i>Bdelloidea</i> sp.			
653.	<i>Bdelloidea</i> sp. 2:2			
654.	<i>Belostomatidae</i> sp.			
655.	<i>Bennelongia 'elongangular'</i>			
656.	<i>Bennelongia australis lineage</i>			
657.	<i>Bennelongia barangaroo lineage</i>			
658.	<i>Bennelongia nimala</i>			
659.	<i>Berosus approximans</i>			
660.	<i>Berosus dallasae</i>			
661.	<i>Berosus nutans</i>			
662.	<i>Berosus pulchellus</i>			
663.	<i>Berosus</i> sp.			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
664.	<i>Bezzia</i> sp. P4 (PSW) (=Ceratopogon?)			
665.	<i>Boeckella</i> triarticulata			
666.	<i>Bogdiellidae</i> sp.			
667.	<i>Bolboleaus</i> trifoveicollis			
668.	<i>Bolboleaus</i> truncatus			
669.	<i>Brachionus</i> angularis			
670.	<i>Brachionus</i> dichotomus			
671.	<i>Brachionus</i> dichotomus var reductus			
672.	<i>Brachionus</i> ibericus			
673.	<i>Brachionus</i> leydigii			
674.	<i>Brachionus</i> lyratus			
675.	<i>Brachionus</i> n sp P2 (PSW)			
676.	<i>Brachionus</i> nilsoni			
677.	<i>Brachionus</i> quadridentatus			
678.	<i>Brachionus</i> urceolaris s.l.			
679.	<i>Branchinella</i> affinis			
680.	<i>Branchinella</i> australiensis			
681.	<i>Branchinella</i> mcraei			
682.	<i>Branchiura</i> sowerbyi			
683.	<i>Caenidae</i> sp.			
684.	<i>Calamoecia</i> baylyi (Cue form) (ex nr lucasi CB)			
685.	<i>Calanoida</i> sp.			
686.	<i>Candonopsis</i> sp. '1' (PSS)			
687.	<i>Carenum</i> pulchrum			
688.	<i>Carenum</i> subplanatum			
689.	<i>Caridina</i> indistincta			
690.	<i>Cavisternum</i> clavatum			
691.	<i>Cephalodella</i> biungulata			
692.	<i>Cephalodella</i> cf forficula			
693.	<i>Cephalodella</i> gibba			
694.	<i>Ceratopogonidae</i> sp.			
695.	<i>Ceriodaphnia</i> cornuta			
696.	<i>Chaetogaster</i> diaphanus			
697.	<i>Chaoborus</i> punctilliger			
698.	<i>Chironominae</i> sp.			
699.	<i>Chironomus</i> aff. alternans (V24) (CB)			
700.	<i>Chironomus</i> tepperi			
701.	<i>Cloeon</i> sp.			
702.	<i>Coelopynia</i> pruinosa			
703.	<i>Coenagrionidae</i> sp.			
704.	<i>Coenobita</i> variabilis			
705.	<i>Conchostraca</i> (unident.)			
706.	<i>Conochilus</i> natans			
707.	<i>Conochironomus</i> cygnus			
708.	<i>Copelatus</i> irregularis			
709.	<i>Copelatus</i> nigrolineatus			
710.	<i>Corduliidae</i> sp.			
711.	<i>Corixidae</i> sp.			
712.	<i>Cryptochironomus</i> griseidorsum			
713.	<i>Cryptodus</i> caviceps			
714.	<i>Culex</i> (<i>Culex</i>) annulirostris			
715.	<i>Culex</i> crinicauda			
716.	<i>Culex</i> sp.			
717.	<i>Culicidae</i> sp.			
718.	<i>Culicoides</i> sp.			
719.	<i>Cybister</i> tripunctatus			
720.	<i>Cyrtella</i> menghiniana Kütz.			
721.	<i>Cymbella</i> affinis Kütz.			
722.	<i>Cymbella</i> delicatula Kütz.			
723.	<i>Cymbella</i> pusilla Grun.			
724.	<i>Cypretta</i> ?lutea			
725.	<i>Cypretta</i> baylyi			
726.	<i>Cypretta</i> seurati			
727.	<i>Cypretta</i> sp PSW074			
728.	<i>Cypretta</i> sp. 2 (PSS)			
729.	<i>Cypretta</i> sp. BOS18			
730.	<i>Cypricercus</i> sp. 422 (CB)			
731.	<i>Cyprididae</i> sp.			
732.	<i>Cyprinotus</i> cingalensis (ex kimberleyensis)			
733.	<i>Darwinula</i> stvensoni			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
734.	<i>Dasyhelea</i> sp.			
735.	<i>Dasyheleinae</i> sp. P1 (PSW)			
736.	<i>Dasyheleinae</i> sp. P2 (PSW)			
737.	<i>Demicroptochironomus</i> sp. P1 (PSW)			
738.	<i>Diacyclops cockingi</i>			
739.	<i>Diacyclops humphreysi humphreysi</i>			
740.	<i>Diaphanosoma excisum</i>			
741.	<i>Dicranophorus epicharis</i>			
742.	<i>Dicrotendipes jobetus</i>			
743.	<i>Diffugia</i> sp. P1			
744.	<i>Diplacodes bipunctata</i>			
745.	<i>Diplacodes haematodes</i>			
746.	<i>Dipleuchlanis propatula propatula</i>			
747.	<i>Diploneis ovalis</i> (Hilse) Cl.			
748.	<i>Diploneis pseudovalis</i> Hust.			
749.	<i>Diplonychus eques</i>			
750.	<i>Djalmabatista</i> sp.			
751.	<i>Dunhevedia crassa</i>			
752.	34111 <i>Dupucharopa millestriata</i> (Depuch Island charopid land snail, land snail)		P2	Y
753.	<i>Dytiscidae</i> sp.			
754.	<i>Ecnomidae</i> sp.			
755.	<i>Ecnomus pilbarensis</i>			
756.	<i>Ecnomus</i> sp. AV16 (PSW)			
757.	<i>Elaphoidella</i> sp.			
758.	<i>Encentridophorus sarasini</i>			
759.	<i>Enchytraeidae</i> sp.			
760.	<i>Enchytraeus Pilbara</i> sp. 1 (PSS)			
761.	<i>Enochrus deserticola</i>			
762.	<i>Entomoneis paludosa</i> (W. Sm.) Reimer			
763.	<i>Eodiaptomus lumholtzi</i>			
764.	<i>Eoleptestheria ticinensis</i>			Y
765.	<i>Eosphora najas</i>			
766.	<i>Ephemeroporus barroisi</i> s.l.			
767.	<i>Ephydriidae</i> sp.			
768.	<i>Epistylis</i> sp.			
769.	<i>Epithemia smithii</i> Carruthers			
770.	<i>Eretes australis</i>			
771.	<i>Euchlanidae</i> sp.			Y
772.	<i>Euchlanis dilatata</i>			
773.	<i>Euchlanis oropha</i>			
774.	<i>Euglypha</i> sp.			
775.	<i>Eurysticta coolawanyah</i>			
776.	<i>Eylais</i> sp.			
777.	<i>Filinia cf terminalis</i> (PSW)			
778.	<i>Fragilaria ulna</i> (Nitz.) Lange Bertalot			
779.	<i>Frontipoda spinosa</i>			
780.	<i>Gastrotricha</i> sp.			
781.	<i>Gretacarus</i> nsp. P1 (PSW)			
782.	<i>Gretacarus</i> sp.			
783.	<i>Gyraulus essingtonensis</i>			
784.	<i>Gyraulus hesperus</i>			
785.	<i>Gyrinidae</i> sp.			
786.	<i>Halacaridae</i> sp.			
787.	<i>Halicyclops (Rochacyclops) roachi</i>			
788.	<i>Haliphus halsei</i>			
789.	<i>Halosbaena tulki</i>			
790.	<i>Hantzschia amphioxys</i> (Ehr.) Grun.			
791.	<i>Hantzschia marina</i> (Donk.) Cl.			
792.	<i>Harpacticoida</i> sp.			
793.	<i>Helluapterus niger</i>			
794.	<i>Hellyethira</i> sp.			
795.	<i>Helochares/E mastersi</i> larvae			
796.	<i>Hemicordulia koomina</i>			
797.	<i>Hemicordulia tau</i>			
798.	<i>Heterocypris tatei</i>			
799.	<i>Hexarthra cf brandorffi</i> (PSW)			
800.	<i>Hexarthra fennica</i>			
801.	<i>Hexarthra intermedia</i>			
802.	<i>Hexarthra mira</i>			
803.	<i>Hogna crispipes</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
804.	<i>Hogna hickmani</i>			
805.	<i>Hydaticus consanguineus</i>			
806.	<i>Hydra</i> sp.			
807.	<i>Hydrachna</i> sp. 4/5 (PSW)			
808.	<i>Hydraena barbipes</i>			
809.	<i>Hydraena</i> sp.			
810.	<i>Hydrochus burdekinensis</i>			
811.	<i>Hydrochus eurypleuron</i>			
812.	<i>Hydrochus interioris</i>			
813.	<i>Hydrochus obscuroaeueus</i>			
814.	<i>Hydrochus</i> sp. P1 (PSW)			
815.	<i>Hydrodroma</i> sp.			
816.	<i>Hydroglyphus grammopterus (=trilineatus)</i>			
817.	<i>Hydroglyphus leai</i>			
818.	<i>Hydroglyphus orthogrammus</i>			
819.	<i>Hydrophilidae</i> sp.			
820.	<i>Hydrovatus</i> sp.			
821.	<i>Hydrovatus weiri</i>			
822.	<i>Hyphydrus elegans</i>			
823.	<i>Hyphydrus lyratus</i>			
824.	<i>Hyphydrus</i> sp.			
825.	<i>Hyriidae</i> sp.			
826.	<i>Ictinogomphus dobsoni</i>			
827.	<i>Ilyocypris raridentatus</i>			
828.	<i>Ilyocypris australiensis</i>			
829.	<i>Ilyodromus dikrus</i>			
830.	<i>Ilyodromus</i> sp. BW			Y
831.	<i>Ilyodromus</i> sp. PB			
832.	<i>Ilyodromus viridulus</i>			
833.	<i>Insulodrilus angela</i>			
834.	<i>Ischnura aurora aurora</i>			
835.	<i>Isidorella egraria</i>			
836.	<i>Isocypris williamsi</i> (ex <i>Ilyodromus</i> sp. 413)			
837.	<i>Isostictidae</i> sp.			
838.	<i>Keratella procurva</i>			
839.	<i>Keratella tropica</i>			
840.	<i>Kiefferulus intertinctus</i>			
841.	<i>Laccobius matthewsi</i>			
842.	<i>Laccophilus sharpi</i>			
843.	<i>Lacinularia flosculosa</i>			
844.	<i>Lampona ampeinna</i>			
845.	<i>Larsia albiceps</i>			
846.	<i>Latonopsis australis</i>			
847.	<i>Leberis</i> cf. <i>diaphanus</i>			
848.	<i>Lecane bulla</i>			
849.	<i>Lecane crepida</i>			
850.	<i>Lecane curvicornis</i>			
851.	<i>Lecane furcata</i>			
852.	<i>Lecane grandis</i>			
853.	<i>Lecane halsei</i>			
854.	<i>Lecane hornemanni</i>			
855.	<i>Lecane luna</i>			
856.	<i>Lecane lunaris</i>			
857.	<i>Lecane ohioensis</i>			
858.	<i>Lecane papuana</i>			
859.	<i>Lecane punctata</i>			
860.	<i>Lecane pusilla</i>			
861.	<i>Lecane</i> sp. s.str.			
862.	<i>Lecane thalera</i>			
863.	<i>Lecane unguitata</i>			
864.	<i>Lecane ungulata</i>			
865.	<i>Lepadella ovalis</i>			
866.	<i>Lepadella patella</i>			
867.	<i>Lepadella triptera</i>			
868.	<i>Leptoceridae</i> sp.			
869.	<i>Leptocerus atsou</i>			
870.	<i>Leptocerus</i> sp. AV2 (<i>atsou?</i>) (PSW)			
871.	<i>Lesquereusia spiralis</i>			
872.	<i>Libellulidae</i> sp.			
873.	<i>Limbodessus compactus</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
874.	<i>Limnadopsis birchii</i>			
875.	<i>Limnadopsis tatei</i>			
876.	<i>Limnebius</i> sp.			
877.	<i>Limnesia</i> sp. 4 (PSW)			
878.	<i>Limnichidae</i> sp. P4			
879.	<i>Limnocythere dorsosicula</i>			
880.	<i>Limnocythere</i> n. sp. BOS017			
881.	<i>Limnogonus</i> sp.			
882.	<i>Lindeniidae</i> sp.			
883.	<i>Lophocharis</i> n. sp. (psw079)			
884.	<i>Lophocharis salpina</i>			
885.	<i>Loxandrus micantior</i>			
886.	<i>Lychas</i> sp. 1			
887.	<i>Lychas</i> sp. 2			
888.	<i>Lycidas</i> sp. 1			
889.	<i>Lycidas</i> sp. 2			
890.	<i>Lynceus argillaphilus</i>			
891.	<i>Macrochaetus altamirai</i>			
892.	<i>Macrochaetus collinsi</i>			
893.	<i>Macrodiplax cora</i>			
894.	<i>Macrothrix capensis</i>			
895.	<i>Masasteron tealei</i>			
896.	<i>Mastogloia elliptica</i> (Ag.) Cl.			
897.	<i>Mastogloia elliptica</i> var. <i>dansiei</i> (thwaites) grun.			
898.	<i>Mastogloia smithii</i> Thwaites			
899.	<i>Meedo houstoni</i>			
900.	<i>Melitidae</i> sp. 1 (PSS)			
901.	<i>Mesocyclops brooksi</i>			
902.	<i>Mesocyclops darwini</i>			
903.	<i>Mesovelgia vittigera</i>			
904.	<i>Metacyclops</i> sp. P2 (PSW)			
905.	<i>Microchironomus 'K1'</i> (PSW)			
906.	<i>Microcyclops varicans</i>			
907.	<i>Micronecta adelaidae</i>			
908.	<i>Micronecta adelaidae</i> (ex P4)			
909.	<i>Micronecta micra</i>			
910.	<i>Micronecta</i> n. sp. P3 (PSW)			
911.	<i>Micronecta robusta</i>			
912.	<i>Micronecta</i> sp.			
913.	<i>Microvelia</i> (<i>Austromicrovelia</i>) <i>peramoena</i>			
914.	<i>Microvelia</i> (<i>Pacificovelia</i>) <i>oceanica</i>			
915.	<i>Minasteron minusculum</i>			
916.	<i>Missulena rutraspina</i>			
917.	<i>Moina micrura</i> s.l.			
918.	<i>Molycria vokes</i>			
919.	<i>Monohelea</i> sp. P2 (PSW)			
920.	<i>Naididae</i> (ex <i>Tubificidae</i>)			
921.	<i>Nais communis</i>			
922.	<i>Naucoris</i> sp.			Y
923.	<i>Navicula duerrenbergiana</i> Hust.			
924.	<i>Navicula subrhynchocephala</i> Hust.			
925.	<i>Nebela barbata</i> (ex protozoan P3)			Y
926.	<i>Necterosoma regulare</i>			
927.	<i>Nedsia</i> sp.			
928.	<i>Nematoda</i> sp.			
929.	<i>Nematoda</i> sp. 1 (PSS)			
930.	<i>Nematoda</i> sp. 13 (PSS)			
931.	<i>Nematoda</i> sp. P2/P4 (PSW)			
932.	<i>Nematoda</i> sp. P6 (PSW)			
933.	<i>Nematoda</i> sp. P9(PSW)			
934.	<i>Nematomorpha</i> sp.			
935.	<i>Neoscona theisii</i>			
936.	<i>Nepidae</i> sp.			
937.	<i>Nilobezzia</i> sp. P2 (PSW)			
938.	<i>Nitzschia amphibia</i> Grun.			
939.	<i>Nitzschia brevissima</i> Grun.			Y
940.	<i>Nitzschia compressa</i> (Bailey) Boyer			
941.	<i>Nitzschia desertorum</i> Hust.			
942.	<i>Nitzschia filiformis</i> (W. Sm.) Van Heurck			
943.	<i>Nitzschia frustulum</i> (Kütz.) Grun.			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
944.	<i>Nitzschia microcephala</i> Grun.			
945.	<i>Nitzschia obtusa</i> W. Sm			
946.	<i>Nitzschia palea</i> (Kütz.) W. Sm.			
947.	<i>Nitzschia supralitorea</i> Lange-Bertalot			Y
948.	No invertebrates			
949.	<i>Notobathynella</i> sp.			
950.	<i>Notonectidae</i> sp.			
951.	<i>Oecetis</i> sp.			
952.	<i>Oecetis</i> sp. Pilbara 2 (PSW)			
953.	<i>Oecetis</i> sp. Pilbara 5 (PSW)			
954.	<i>Oligochaeta</i> sp.			
955.	<i>Onthophagus consentaneus</i>			
956.	<i>Onthophagus mjobergi</i>			
957.	<i>Onthophagus nevoissi</i>			
958.	<i>Onthophagus pugnacior</i>			
959.	<i>Onychocampptus bengalensis</i>			
960.	<i>Oribatida</i> group 1 (PSS)			
961.	<i>Orthetrum caledonicum</i>			
962.	<i>Ostracoda</i> (unident.)			
963.	<i>Ovatalona</i> cf. <i>cambouei</i>			
964.	<i>Ovatalona</i> cf. <i>pulchella</i>			
965.	<i>Oxus orientalis</i>			
966.	<i>Ozestheria packardi</i>			
967.	<i>Paracyclops</i> sp. 8 (PSW)			
968.	<i>Paracymus spenceri</i>			
969.	<i>Paramelitidae</i> sp.			
970.	<i>Paramelitidae</i> sp. 2 (PSS)			
971.	<i>Paramelitidae</i> sp. 9 (PSS)			Y
972.	<i>Parastenocaris jane</i>			
973.	<i>Parastenocaris</i> sp. 2 (PSS)			Y
974.	<i>Pellenes bitaeniata</i>			
975.	<i>Pescecyclus</i> sp. P1			
976.	<i>Phorticosomus gularis</i>			
977.	<i>Phreodrilid</i> with dissimilar ventral chaetae			
978.	<i>Phreodrilid</i> with similar ventral chaetae			
979.	<i>Pilbarascutigera incola</i>			
980.	<i>Pilbarophreatoicus</i> sp.			
981.	<i>Pilbarus</i> sp.			
982.	<i>Piona cumberlandensis</i>			
983.	<i>Planorbidae</i> sp.			
984.	<i>Platonus patulus</i>			
985.	<i>Pleidae</i> sp.			
986.	<i>Pleurosigma delicatulum</i> W. Sm.			
987.	<i>Plotiopsis australis</i>			
988.	<i>Polyarthra dolichoptera</i>			
989.	<i>Polypedilum leei</i>			
990.	<i>Polypedilum nubifer</i>			
991.	<i>Polypedilum watsoni</i>			
992.	<i>Pristina longiseta</i>			
993.	<i>Proalidae</i> sp.			
994.	<i>Procladius paludicola</i>			
995.	<i>Prodidomus woodleigh</i>			
996.	<i>Pseudagrion microcephalum</i>			
997.	<i>Pseudagrion</i> sp.			
998.	<i>Pseudocloeon hypodelum</i> (ex <i>Baetid</i> genus3 WA sp. 2) (PSW)			
999.	<i>Pseudohydrphantes</i> sp. P1 (PSW)			
1000.	<i>Pyralidae Pilbara</i> sp 2 (PSW)			
1001.	<i>Pyralidae</i> nr. sp. 39/40 of JHH (SAP)			
1002.	<i>Pyralidae</i> sp.			
1003.	<i>Ranatra diminuta</i>			
1004.	<i>Recifella</i> sp.			
1005.	<i>Regimbartia attenuata</i>			
1006.	<i>Rhagadotarsus anomalus</i>			
1007.	<i>Rhantaticus congestus</i>			
1008.	<i>Rheotanytarsus juliae</i>			
1009.	<i>Rheotanytarsus trivittatus</i>			
1010.	<i>Rhodothemis lieftincki</i>			
1011.	<i>Rhopalodia gibberula</i> (Ehr.) O. Müll.			
1012.	<i>Scaridium longicaudum</i>			
1013.	<i>Scirtidae</i> sp.			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1014.	<i>Scolopendra morsitans</i>			
1015.	<i>Scytodes thoracica</i>			
1016.	<i>Sinantherina semibullata</i>			
1017.	<i>Skusella subvittata</i>			
1018.	<i>Speocirolana</i> sp.			
1019.	<i>Spongillidae</i> sp.			
1020.	<i>Staphylinidae</i> sp.			
1021.	<i>Sternolophus immarginatus</i>			
1022.	<i>Sternopriscus pilbarensis</i>			
1023.	<i>Sternopriscus</i> sp.			
1024.	<i>Stilobezzia</i> sp P1 (PSW)			
1025.	<i>Stratiomyidae</i> sp.			
1026.	<i>Streptocephalus</i> sp.			
1027.	<i>Stygonitocrella trispinosa</i>			
1028.	<i>Tabanidae</i> sp.			
1029.	<i>Tanypodinae</i> sp.			
1030.	<i>Tanytarsus fuscithorax/semibarbitarsus</i>			
1031.	<i>Tanytarsus</i> sp. D (SAP)			
1032.	<i>Tanytarsus</i> sp. P8 (PSW)			
1033.	<i>Tasmanocoenis arcuata</i>			
1034.	<i>Teinogenys aurilegulus</i>			
1035.	<i>Tesserodon novaehollandiae</i>			
1036.	<i>Testudinella insica</i> (PSW)			
1037.	<i>Testudinella patina</i>			
1038.	<i>Thermocyclops decipiens</i>			
1039.	<i>Thiaridae</i> sp.			
1040.	<i>Tiporus</i> sp.			
1041.	<i>Tiporus tambreyi</i>			
1042.	<i>Tipulidae</i> type D (SAP)			
1043.	<i>Triaenodes</i> sp.			
1044.	<i>Trichocarenum cylindricum</i>			
1045.	<i>Trichocerca</i> P1 (nr myersi)			Y
1046.	<i>Trichocerca cf tenuior</i>			
1047.	<i>Trichocerca pusilla</i>			
1048.	<i>Trichocerca similis</i>			
1049.	<i>Trichocerca similis grandis</i>			
1050.	<i>Trichocerca tenuior</i>			Y
1051.	<i>Triops australiensis australiensis</i>			
1052.	<i>Triplectides australicus</i>			
1053.	<i>Tropocyclops confinis</i> (ex <i>Paracyclops</i> sp. 6)			
1054.	<i>Turbellaria</i> sp.			
1055.	<i>Unionicola crassipalpis</i>			
1056.	<i>Unionicola nr minutissima</i> (PSW)			
1057.	<i>Velesunio wilsoni</i>			
1058.	<i>Venator yalkara</i>			
1059.	<i>Vestalenula marmonieri</i>			
1060.	<i>Wydundra kennedy</i>			

Mammal

1061.	24251	<i>Bos taurus</i> (European Cattle)	Y	
1062.	24254	<i>Camelus dromedarius</i> (Dromedary, Camel)	Y	
1063.	24181	<i>Chaerephon jobensis</i> (Greater Northern Freetail-bat, Northern Mastiff Bat)		
1064.	24186	<i>Chalinolobus gouldii</i> (Gould's Wattleed Bat)		
1065.	24091	<i>Dasykaluta rosamondae</i> (Little Red Kaluta)		
1066.	24093	<i>Dasyurus hallucatus</i> (Northern Quoll)		T
1067.	24258	<i>Equus caballus</i> (Horse)	Y	
1068.	24041	<i>Felis catus</i> (Cat)	Y	
1069.	24215	<i>Hydromys chrysogaster</i> (Water-rat, Rakali)		P4
1070.	24217	<i>Leggadina lakedownensis</i> (Northern Short-tailed Mouse, Lakeland Downs Mouse, Kerakenga)		P4
1071.	24180	<i>Macroderma gigas</i> (Ghost Bat)		T
1072.	25489	<i>Macropus robustus</i> (Euro, Biggada)		
1073.	24135	<i>Macropus robustus</i> subsp. <i>erubescens</i> (Euro, Biggada)		
1074.	24136	<i>Macropus rufus</i> (Red Kangaroo, Marlu)		
1075.	24183	<i>Mormopterus loriae</i> (Little Northern Freetail-bat)		
1076.	24223	<i>Mus musculus</i> (House Mouse)	Y	
1077.	24095	<i>Ningau timealeyi</i> (Pilbara Ningau)		
1078.	24192	<i>Nyctophilus arnhemensis</i> (Arnhem Land Long-eared Bat)		
1079.	24194	<i>Nyctophilus geoffroyi</i> (Lesser Long-eared Bat)		
1080.		<i>Nyctophilus geoffroyi</i> subsp. <i>pallescens</i>		
1081.	25506	<i>Petrogale lateralis</i> (Black-footed Rock-wallaby, Black-flanked Rock-wallaby)		

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1082.	24142 <i>Petrogale lateralis</i> subsp. <i>lateralis</i> (Black-flanked Rock-wallaby, Black-footed Rock-wallaby)		T	
1083.	24144 <i>Petrogale rothschildi</i> (Rothschild's Rock-wallaby)		T	
1084.	24106 <i>Pseudantechinus woolleyae</i> (Woolley's Pseudantechinus)			
1085.	24233 <i>Pseudomys chapmani</i> (Western Pebble-mound Mouse, Ngadjji)		P4	
1086.	24234 <i>Pseudomys delicatulus</i> (Delicate Mouse)			
1087.	24235 <i>Pseudomys desertor</i> (Desert Mouse)			
1088.	24237 <i>Pseudomys hermannsburgensis</i> (Sandy Inland Mouse)			
1089.	24172 <i>Pteropus alecto</i> (Black Flying-fox)			
1090.	24245 <i>Rattus rattus</i> (Black Rat)	Y		
1091.	24246 <i>Rattus tunneyi</i> (Pale Field-rat)			
1092.	24174 <i>Saccolaimus flaviventris</i> (Yellow-bellied Sheath-tailed Bat)			
1093.	24200 <i>Scotorepens greyii</i> (Little Broad-nosed Bat)			
1094.	24114 <i>Sminthopsis hirtipes</i> (Hairy-footed Dunnart)			
1095.	24116 <i>Sminthopsis macroura</i> (Stripe-faced Dunnart)			
1096.	24120 <i>Sminthopsis youngsoni</i> (Lesser Hairy-footed Dunnart)			
1097.	24207 <i>Tachyglossus aculeatus</i> (Short-beaked Echidna)			
1098.	24175 <i>Taphozous georgianus</i> (Common Sheath-tailed Bat)			
1099.	24205 <i>Vespadelus finlaysoni</i> (Finlayson's Cave Bat)			
1100.	24040 <i>Vulpes vulpes</i> (Red Fox)	Y		
1101.	24248 <i>Zyomys argurus</i> (Common Rock-rat)			

Monocotyledon

1102.	207 <i>Aristida contorta</i> (Bunched Kerosene Grass)			
1103.	210 <i>Aristida holathera</i>			
1104.	12063 <i>Aristida holathera</i> var. <i>holathera</i>			
1105.	211 <i>Aristida hygrometrica</i> (Northern Kerosene Grass)			
1106.	212 <i>Aristida inaequiglumis</i> (Feathertop Threeawn)			
1107.	<i>Aristida</i> sp.			
1108.	240 <i>Bothriochloa ewartiana</i> (Desert Bluegrass)			
1109.	750 <i>Bulbostylis barbata</i>			
1110.	752 <i>Bulbostylis turbinata</i>			
1111.	258 <i>Cenchrus ciliaris</i> (Buffel Grass)	Y		
1112.	29721 <i>Cenchrus setiger</i> (Birdwood Grass)	Y		
1113.	270 <i>Chloris pumilio</i>			
1114.	273 <i>Chrysopogon fallax</i> (Golden Beard Grass)			
1115.	1286 <i>Corynotheca pungens</i>			
1116.	279 <i>Cymbopogon ambiguus</i> (Scentgrass)			
1117.	282 <i>Cymbopogon procerus</i> (Lemon Grass)			
1118.	774 <i>Cyperus bifax</i> (Downs Nutgrass)			
1119.	12801 <i>Cyperus blakeanus</i>			
1120.	786 <i>Cyperus cunninghamii</i>			
1121.	12811 <i>Cyperus cunninghamii</i> subsp. <i>cunninghamii</i>			
1122.	789 <i>Cyperus difformis</i> (Rice Sedge)			
1123.	798 <i>Cyperus iria</i>			
1124.	807 <i>Cyperus pulchellus</i>			
1125.	810 <i>Cyperus rotundus</i> (Nut Grass)	Y		
1126.	814 <i>Cyperus squarrosus</i>			
1127.	818 <i>Cyperus vaginatus</i> (Stiffleaf Sedge)			
1128.	290 <i>Dactyloctenium radulans</i> (Button Grass)			
1129.	13741 <i>Dichanthium sericeum</i> subsp. <i>humilius</i>			
1130.	328 <i>Echinochloa colona</i> (Awnless Barnyard Grass)	Y		
1131.	823 <i>Eleocharis atropurpurea</i>			
1132.	827 <i>Eleocharis geniculata</i>			
1133.	355 <i>Elytrophorus spicatus</i> (Spikegrass)			
1134.	360 <i>Enneapogon lindleyanus</i> (Wiry Nineawn, Purple-head Nineawn)			
1135.	12749 <i>Enneapogon purpurascens</i> (Purple Nineawn)			
1136.	375 <i>Eragrostis cumingii</i> (Cuming's Love Grass)			
1137.	380 <i>Eragrostis eriopoda</i> (Woollybutt Grass, Wangurnu)			
1138.	381 <i>Eragrostis falcata</i> (Sickle Lovegrass)			
1139.	388 <i>Eragrostis leptocarpa</i> (Drooping Lovegrass)			
1140.	391 <i>Eragrostis parviflora</i> (Weeping Lovegrass)			
1141.	392 <i>Eragrostis pergracilis</i>			
1142.	17609 <i>Eragrostis pilosa</i>	Y		
1143.	398 <i>Eragrostis tenellula</i> (Delicate Lovegrass)			
1144.	399 <i>Eragrostis xerophila</i> (Knotty-butt Neverfail)			
1145.	400 <i>Eriachne aristidea</i>			
1146.	403 <i>Eriachne benthamii</i> (Swamp Wanderrrie)			
1147.	404 <i>Eriachne ciliata</i> (Slender Wandarrrie Grass)			
1148.	409 <i>Eriachne gardneri</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1149.	12055 <i>Eriachne glauca</i> var. <i>glauca</i>			
1150.	411 <i>Eriachne helmsii</i> (Buck Wanderrie Grass)			
1151.	413 <i>Eriachne mucronata</i> (Mountain Wanderrie Grass)			
1152.	417 <i>Eriachne pulchella</i> (Pretty Wanderrie)			
1153.	16486 <i>Eriachne pulchella</i> subsp. <i>pulchella</i>			
1154.	1154 <i>Eriocaulon cinereum</i>			
1155.	11011 <i>Eulalia aurea</i>			
1156.	841 <i>Fimbristylis caespitosa</i>			
1157.	851 <i>Fimbristylis dichotoma</i> (Eight Day Grass)			
1158.	859 <i>Fimbristylis littoralis</i>			
1159.	862 <i>Fimbristylis microcarya</i>			
1160.	458 <i>Iseilema dolichotrichum</i>			
1161.	464 <i>Iseilema membranaceum</i> (Small Flinders Grass)			
1162.	465 <i>Iseilema vaginiflorum</i> (Red Flinders Grass)			
1163.	952 <i>Lipocarpha microcephala</i>			
1164.	505 <i>Panicum laevinode</i>			
1165.	515 <i>Paraneurachne muelleri</i> (Northern Mulga Grass)			
1166.	518 <i>Paspalidium clementii</i> (Clements Paspalidium)			
1167.	523 <i>Paspalidium rarum</i> (Rare Paspalidium)			
1168.	525 <i>Paspalidium tabulatum</i>			
1169.	546 <i>Perotis rara</i> (Comet Grass)			
1170.	590 <i>Pseudoraphis spinescens</i> (Spiny Mudgrass)			
1171.	16257 <i>Schoenoplectus subulatus</i>			
1172.	613 <i>Setaria verticillata</i> (Whorled Pigeon Grass)	Y		
1173.	622 <i>Sorghum timorense</i>			
1174.	625 <i>Spinifex longifolius</i> (Beach Spinifex)			
1175.	628 <i>Sporobolus actinocladius</i> (Ray Grass, Katoora)			
1176.	629 <i>Sporobolus australasicus</i> (Fairy Grass)			
1177.	633 <i>Sporobolus mitchellii</i> (Ratstail Couch)			
1178.	635 <i>Sporobolus virginicus</i> (Marine Couch)			
1179.	673 <i>Themeda triandra</i>			
1180.	679 <i>Triodia angusta</i>			
1181.	680 <i>Triodia basedowii</i> (Lobed Spinifex)			
1182.	13131 <i>Triodia epactia</i>			
1183.	689 <i>Triodia lanigera</i>			
1184.	696 <i>Triodia pungens</i> (Soft Spinifex)			
1185.	700 <i>Triodia secunda</i>			
1186.	704 <i>Triodia wiseana</i> (Limestone Spinifex)			
1187.	12066 <i>Urochloa holosericea</i> subsp. <i>holosericea</i>			
1188.	729 <i>Xerochloa barbata</i> (Rice Grass)			
1189.	731 <i>Xerochloa laniflora</i> (Rice Grass)			
1190.	732 <i>Yakirra australiensis</i>			

Pteridophyte (Fern)

1191.	75 <i>Marsilea exarata</i>			
1192.	77 <i>Marsilea mutica</i>			
1193.	<i>Marsilea</i> sp.			
1194.	13892 <i>Paraceterach muelleri</i>			
1195.	45 <i>Pteris vittata</i> (Chinese Brake)			

Reptile

1196.	30831 <i>Amphibolurus gilberti</i> (Ta-ta, Gilbert's Dragon)			
1197.	30833 <i>Amphibolurus longirostris</i> (Long-nosed Dragon)			
1198.	25318 <i>Antaresia perthensis</i> (Pygmy Python)			
1199.	25241 <i>Antaresia stimsoni</i> subsp. <i>stimsoni</i> (Stimson's Python)			
1200.	25236 <i>Aspidites ramsayi</i> (Woma)			
1201.	25017 <i>Carlia triacantha</i> (Desert Rainbow Skink)			
1202.	25336 <i>Chelonia mydas</i> (Green Turtle)		T	
1203.	30893 <i>Cryptoblepharus buchananii</i>			
1204.	42383 <i>Cryptoblepharus metallicus</i>			
1205.	25020 <i>Cryptoblepharus plagiocephalus</i>			
1206.	25458 <i>Ctenophorus caudicinctus</i> (Ring-tailed Dragon)			
1207.	24865 <i>Ctenophorus caudicinctus</i> subsp. <i>caudicinctus</i> (Ring-tailed Dragon)			
1208.	25459 <i>Ctenophorus isolepis</i> (Crested Dragon, Military Dragon)			
1209.	24876 <i>Ctenophorus isolepis</i> subsp. <i>isolepis</i> (Crested Dragon, Military Dragon)			
1210.	24882 <i>Ctenophorus nuchalis</i> (Central Netted Dragon)			
1211.	25027 <i>Ctenotus australis</i>			
1212.	25036 <i>Ctenotus duricola</i>			
1213.	25462 <i>Ctenotus grandis</i>			
1214.	25043 <i>Ctenotus grandis</i> subsp. <i>titan</i>			
1215.	25045 <i>Ctenotus helenae</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1216.	25463 <i>Ctenotus pantherinus</i> (Leopard Ctenotus)			
1217.	25064 <i>Ctenotus pantherinus</i> subsp. <i>ocellifer</i> (Leopard Ctenotus)			
1218.	25072 <i>Ctenotus rubicundus</i>			
1219.	25073 <i>Ctenotus saxatilis</i> (Rock Ctenotus)			
1220.	25074 <i>Ctenotus schomburgkii</i>			
1221.	25077 <i>Ctenotus serventyi</i>			
1222.	25002 <i>Delma pax</i>			
1223.	25004 <i>Delma tincta</i>			
1224.	25297 <i>Demansia rufescens</i> (Rufous Whipsnake)			
1225.	24926 <i>Diplodactylus conspicillatus</i> (Fat-tailed Gecko)			
1226.	41404 <i>Diplodactylus galaxias</i> (Northern Pilbara Beak-faced Gecko)			
1227.	24899 <i>Diporiphora valens</i> (Southern Pilbara Tree Dragon)			
1228.	42402 <i>Diporiphora vescus</i> (Northern Pilbara Tree Dragon)			
1229.	41406 <i>Egernia cygnitos</i> (Western Pilbara Spiny-tailed Skink)			
1230.	41407 <i>Egernia eos</i> (Central Pygmy Spiny-tailed Skink)			
1231.	41408 <i>Egernia epsisolus</i> (Eastern Pilbara Spiny-tailed Skink)			
1232.	42404 <i>Eremiascincus isolepis</i>			
1233.	41409 <i>Eremiascincus musivus</i> (Mosaic Desert Skink)			
1234.	43381 <i>Eremiascincus pallidus</i> (Western Narrow-banded Skink, Narrow-banded Sand Swimmer)			
1235.	24956 <i>Gehyra pilbara</i>			
1236.	24958 <i>Gehyra punctata</i>			
1237.	24957 <i>Gehyra purpurascens</i>			
1238.	24959 <i>Gehyra variegata</i>			
1239.	24961 <i>Heteronotia binoei</i> (Bynoe's Gecko)			
1240.	24962 <i>Heteronotia spelea</i> (Desert Cave Gecko, Pilbara Cave Gecko)			
1241.	25125 <i>Lerista bipes</i>			
1242.	30928 <i>Lerista clara</i>			
1243.	30929 <i>Lerista jacksoni</i>			
1244.	25155 <i>Lerista muelleri</i>			
1245.	30921 <i>Lerista neviniae</i> (Nevin's slider)		T	
1246.	30925 <i>Lerista verhmens</i>			
1247.	25005 <i>Lialis burtonis</i>			
1248.	25238 <i>Liasis olivaceus</i> subsp. <i>barroni</i> (Pilbara Olive Python)		T	
1249.	30933 <i>Lucasium stenodactylum</i>			
1250.	30934 <i>Lucasium wombeyi</i>			
1251.	25184 <i>Menetia greyii</i>			
1252.	25495 <i>Morethia ruficauda</i>			
1253.	25193 <i>Morethia ruficauda</i> subsp. <i>exquisita</i>			
1254.	25344 <i>Natator depressus</i> (Flatback Turtle)		T	
1255.	25497 <i>Nephurus levis</i>			
1256.	24969 <i>Nephurus levis</i> subsp. <i>pilbarensis</i>			
1257.	25197 <i>Notoscincus ornatus</i> subsp. <i>ornatus</i>			
1258.	25510 <i>Pogona minor</i> (Dwarf Bearded Dragon)			
1259.	24907 <i>Pogona minor</i> subsp. <i>minor</i> (Dwarf Bearded Dragon)			
1260.	24908 <i>Pogona minor</i> subsp. <i>mitchelli</i> (Dwarf Bearded Dragon)			
1261.	25199 <i>Proablepharus reginae</i>			
1262.	25261 <i>Pseudechis australis</i> (Mulga Snake)			
1263.	42416 <i>Pseudonaja mengdeni</i> (Western Brown Snake)			
1264.	24982 <i>Rhynchoedura ornata</i> (Western Beaked Gecko)			
1265.	24927 <i>Strophurus elderi</i>			
1266.	25269 <i>Suta fasciata</i> (Rosen's Snake)			
1267.	25307 <i>Suta punctata</i> (Spotted Snake)			
1268.	25202 <i>Tiliqua multifasciata</i> (Central Blue-tongue)			
1269.	30814 <i>Tympanocryptis cephalus</i> (Pebble Dragon)			
1270.	25209 <i>Varanus acanthurus</i> (Spiny-tailed Monitor)			
1271.	25210 <i>Varanus brevicauda</i> (Short-tailed Pygmy Monitor)			
1272.	25212 <i>Varanus eremius</i> (Pygmy Desert Monitor)			
1273.	25216 <i>Varanus giganteus</i> (Perentie)			
1274.	25218 <i>Varanus gouldii</i> (Bungarra or Sand Monitor)			
1275.	25223 <i>Varanus panoptes</i> subsp. <i>rubidus</i>			
1276.	25224 <i>Varanus pilbarensis</i> (Pilbara Rock Monitor, Northern Pilbara Rock Goanna)			
1277.	25526 <i>Varanus tristis</i> (Racehorse Monitor)			
1278.	25227 <i>Varanus tristis</i> subsp. <i>tristis</i> (Racehorse Monitor)			
1279.	25311 <i>Vermicella snelli</i>			

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

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
---------	--------------	-------------	-------------------	------------------------------------

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 wholly 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.

APPENDIX 2

CATEGORIES FOR THREATENED FLORA SPECIES AND PECs UNDER THE EPBC ACT

Table 2.1: 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)	<p>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:</p> <ul style="list-style-type: none"> 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 <p>Fish includes all taxa of bony fish, sharks, rays, crustaceans, molluscs and other marine organisms, but does not include marine mammals/reptiles.</p>

Table 2.2: 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.

APPENDIX 3
CATEGORIES FOR THREATENED AND PRIORITY FLORA SPECIES AND PECs
UNDER THE BC ACT

Table 3.1: Threatened Flora categories under the Western Australian *Biodiversity Conservation Act 2016*.

Threatened Flora
Critically Endangered (CR) – species facing an extremely high risk of extinction in the wild and in the immediate future ¹ .
Endangered (EN) - species facing a very high risk of extinction in the wild in the near future ¹
Vulnerable (VU) -species facing a high risk of extinction in the wild in the medium term future ¹

¹ as determined in accordance with criteria set out in the ministerial guidelines

Table 3.2: Priority species categories under the 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.

Table 3.3: 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
<p>(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:</p> <p>(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;</p> <p>(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.</p> <p>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.</p>
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.
<p>(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.</p> <p>(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.</p> <p>(iii) Ecological communities that have been removed from the list of threatened communities during the past five years.</p>
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.

APPENDIX 4

LIKELIHOOD OF OCCURRENCE OF PRIORITY SPECIES WITHIN THE STUDY AREA

Table 4.1. Likelihood of Occurrence of Priority Species within the Study Area

Species	Habit and flowering information	Life Form A/P	Habitat	Likelihood of occurrence
Priority 1				
<i>Heliotropium parviantrum</i>	Small erect her to 15 cm tall. Branchlets with appressed hairs. Leaflets linear to narrow elliptic 6-25 x 0.7 – 2.5m. Small white flowers on simple cyme. Flowers February to June.	Annual	Stony plains, sandy plains with <i>Triodia</i> species.	Unlikely Rarely collected from further north. No records within 20 km of Study Area
<i>Tephrosia rosea</i> var <i>port Hedland</i> (A S George 1114)	Medium open grey-green shrub, stems and leaves with dense velvety fine white hairs. Leaflets 5-7, pinnate, terminal leaf. Corolla uniformly pink, fruits woolly. 9-10 mm long. Flowers July – September.	Perennial	Occurs in coastal and near-coastal locations from Port Hedland to Point Samson, also collected along the Peawah River. In sandy and sandy loam soils, and tan, deep sands in coastal dunes.	Potential Usually coastal but record from the Peawah River, less than 20 km from Study Area
Priority 3				
<i>Abutilon</i> sp <i>Pritzelianum</i> (S van Leeuwen 5059)	Tall erect but open multi-stemmed shrub 1 – 2m tall. Dull grey-green circular-elliptical leaves 15-55 mm x 10-45 mm. Flower orangy-yellow 27 mm across.	Perennial	Occurs on sand plains, generally in red sands but also on coastal orange sands. Very occasionally on shallow soiled granitic plain	Unlikely Habitat not present or collected in study area. No records within 20 km of Study Area
<i>Corchorus congener</i>	Small pale grey-green shrub to 40cm, often spreading. Stems and leaves with short pale hairs. Leaves lanceolate, shallowly serrated. Corolla yellow. Flowers April – June or August to November.	Perennial	Sandy habitat, red sands, red sandy loam with limestone, dunes or plains.	Unlikely Habitat not present and not recorded within 20 km of Study Area.

Species	Habit and flowering information	Life Form A/P	Habitat	Likelihood of occurrence
<i>Gomphrena cucullata</i>	Herb, compact 5-10 cm x 5-10 cm, 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 Habitat present. Recorded within 20 km of Study Area.
<i>Heliotropium muticum</i>	A small grey-green scabrous herb or spreading shrub to 30 cm. Leaves are small and ovate (to 10mm). Flowers are small, white with stiff spiny hairs.	Perennial	Plains, red-orange sand, stony brown loams over calcrete or ironstone. Red-brown sandy clays.	Likely Habitat present, collected within 5 km of Study Area
<i>Solanum cataphractum</i>	Erect or sprawling prickly shrub, green, sparsely hairy when young, prickles to 7mm long abundant. Leaves dark green deeply lobed 6-14 linear segments. Flowers purple.	Perennial	Occur on sand, sandstone, restricted to coastal area and islands.	Unlikely Habitat not present and no records within 20 km of Study Area
Priority 4				
<i>Goodenia nuda</i>	Small herb to 15 cm with flat linear leaves 25-110 mm long, 0.6-2mm wide, sparse hairs, margins entire or toothed. Yellow flowers on pedicels 30-50 mm. Flowers with sparse hairs on outside and hairy inside. Flowers April to August.	Perennial	Mixed alluvial plain with sandy brown loam; red-brown loamy floodplains, red sandy loams over ironstone, granite or quartz	Likely Habitat present and collected from within 10 km from Study Area

Species	Habit and flowering information	Life Form A/P	Habitat	Likelihood of occurrence
<i>Rhynchosia bungarensis</i>	Compact, prostrate or climbing vinelike shrub, to 0.5 m high. Leaves are distinctly sticky distinguishing it from <i>R. minima</i> . Small yellow pea flower. Flowers when vine is healthy after summer or winter rains.	Perennial	Base of rockpiles. Pebbly, shingly coarse sand amongst boulders. Rocky gully walls. Rocky habitat.	Potential Habitat present and more widely distributed than currently recorded.

APPENDIX 5

**VEGETATION CONDITION SCALE ADAPTED FROM KEIGHERY (1994) AND
KAESEHAGEN (1995) AS USED IN THE ASTRON (2006) REPORT.**

Table 5.1: Vegetation condition scale adapted from Keighery (1994) and Kaesehagen (1995).

Rating	Condition	Descriptive Features
5	Excellent	>80% native flora composition Vegetation Structure intact or nearly so Minor signs of disturbance Weeds are non-aggressive species (cover <5%).
4	Good	60-80% native flora composition Vegetation Structure altered in places Obvious signs of disturbance Weed cover abundance 5-20%.
3	Fair	40-60% native flora composition Vegetation Structure significantly altered Very obvious signs of multiple disturbance Weed cover abundance 20-50%.
2	Poor/Partially degraded	20-40% native flora composition Vegetation Structure severely impacted by disturbance Scope for regeneratin but not without intensive management Weed cover abundance 50-80%.
1	Completely degraded	0-20% native flora composition Vegetation Structure no longer intact Extensive disturbance/modification present Weeds are highly invasive (cover >80%).

APPENDIX 6

**CATEGORIES FOR DECLARED PESTS UNDER THE BIOSECURITY AND
AGRICULTURE MANAGEMENT REGULATIONS 2013**

Table 6.1: 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.