

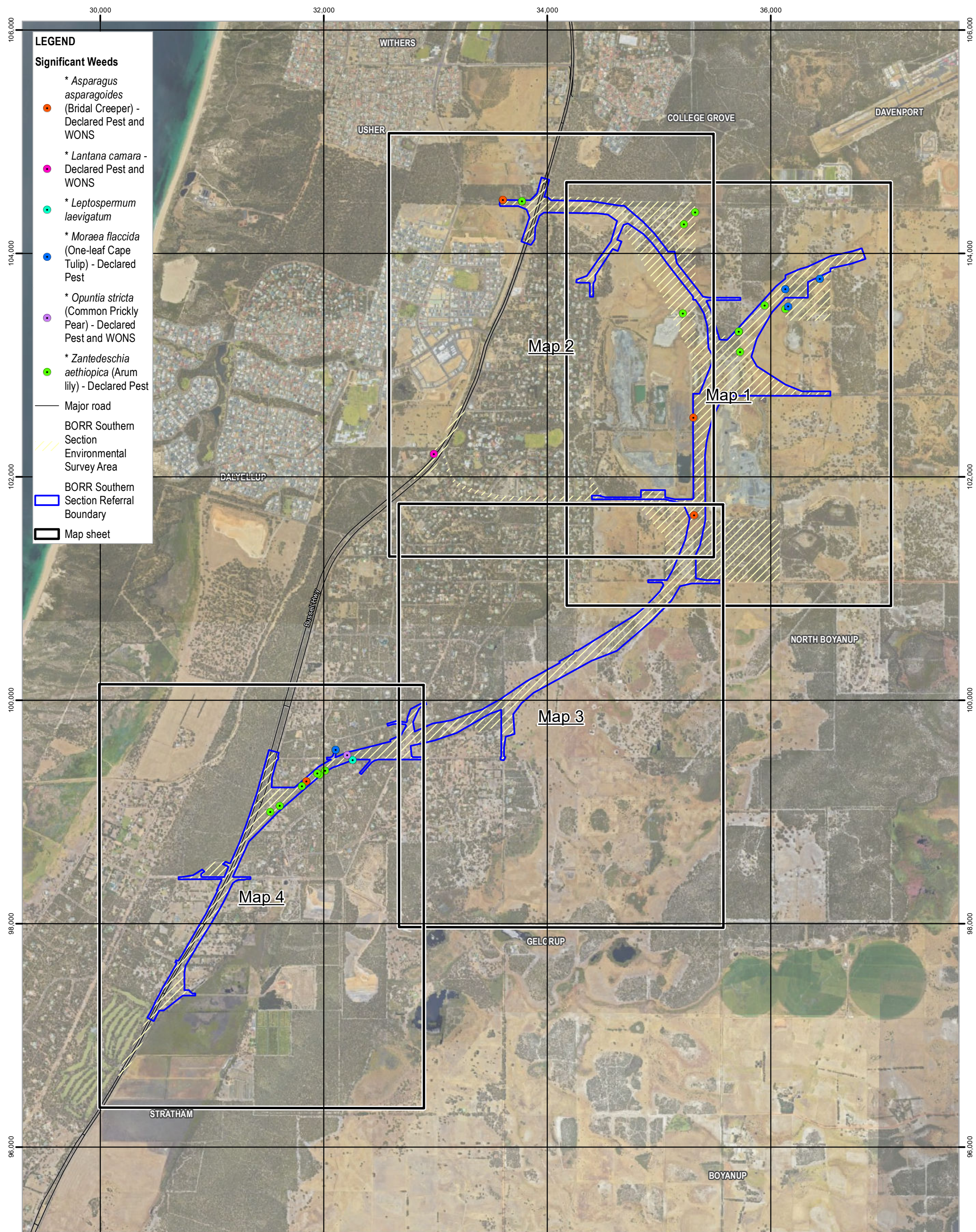
Vegetation and Flora Study (BORR IPT, 2020h)

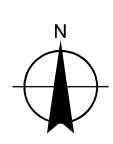
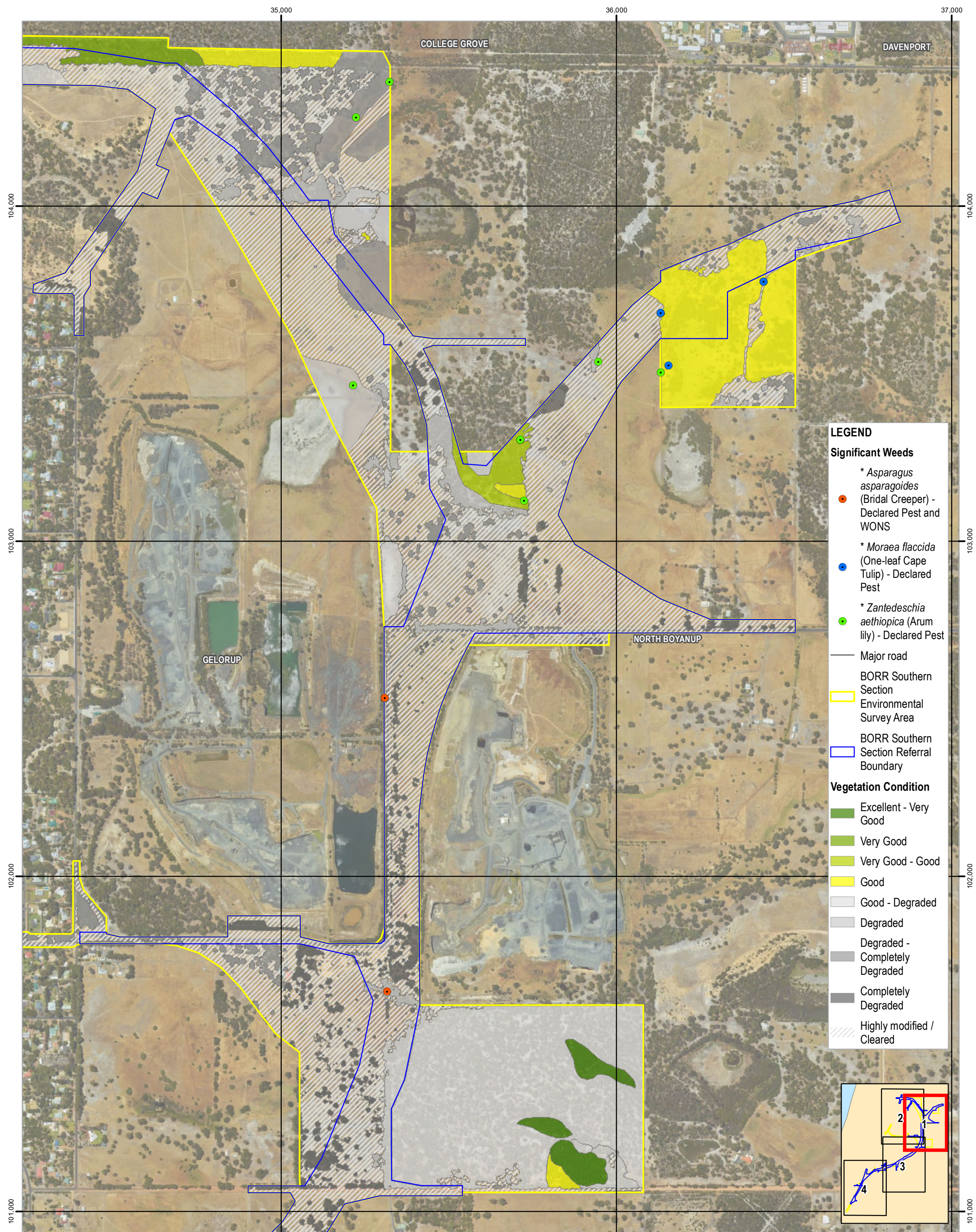
Part 3: Appendix A (Figures 10-11) and Appendices B-I

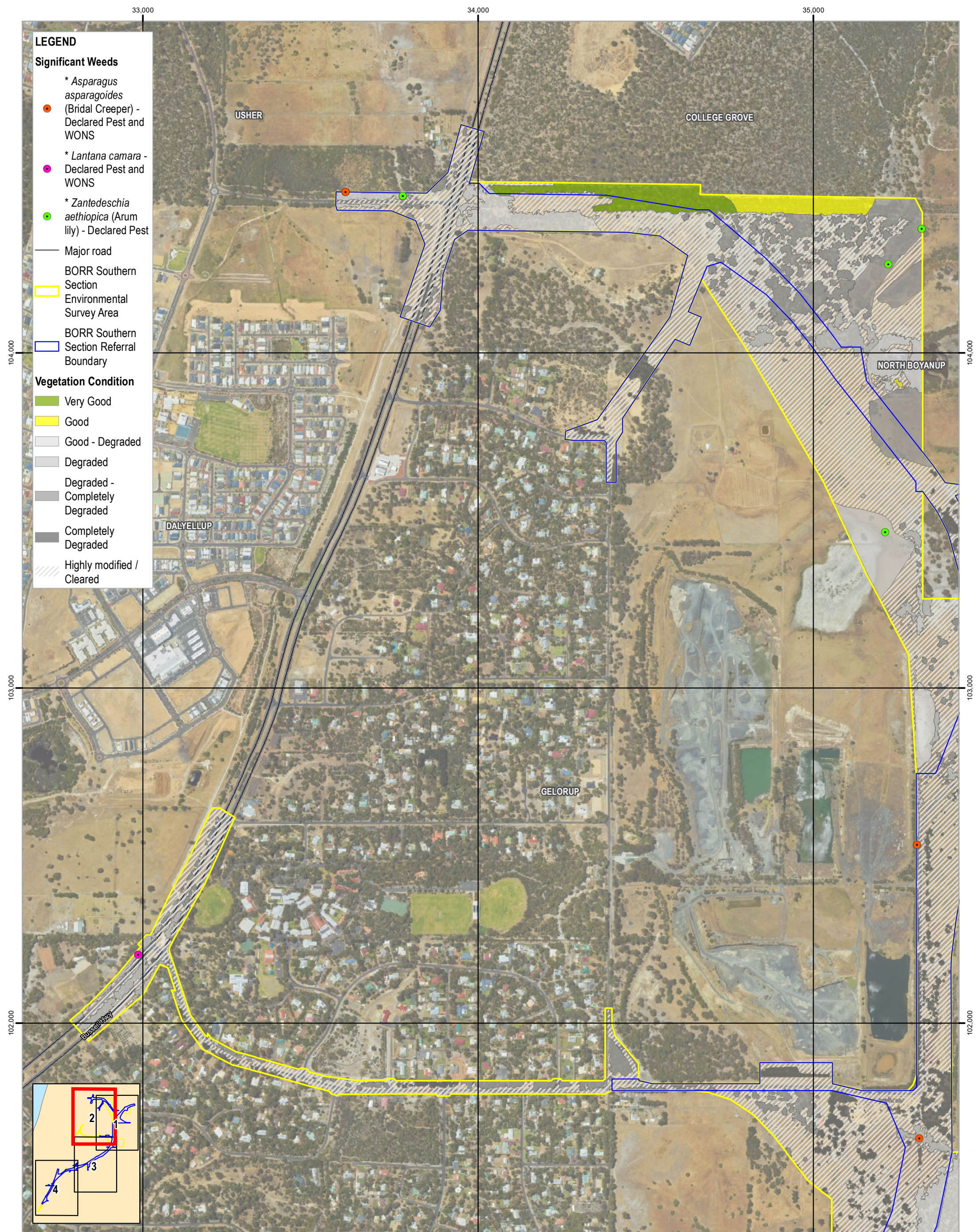
APPENDIX A

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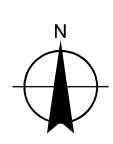






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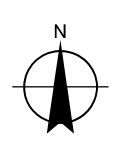
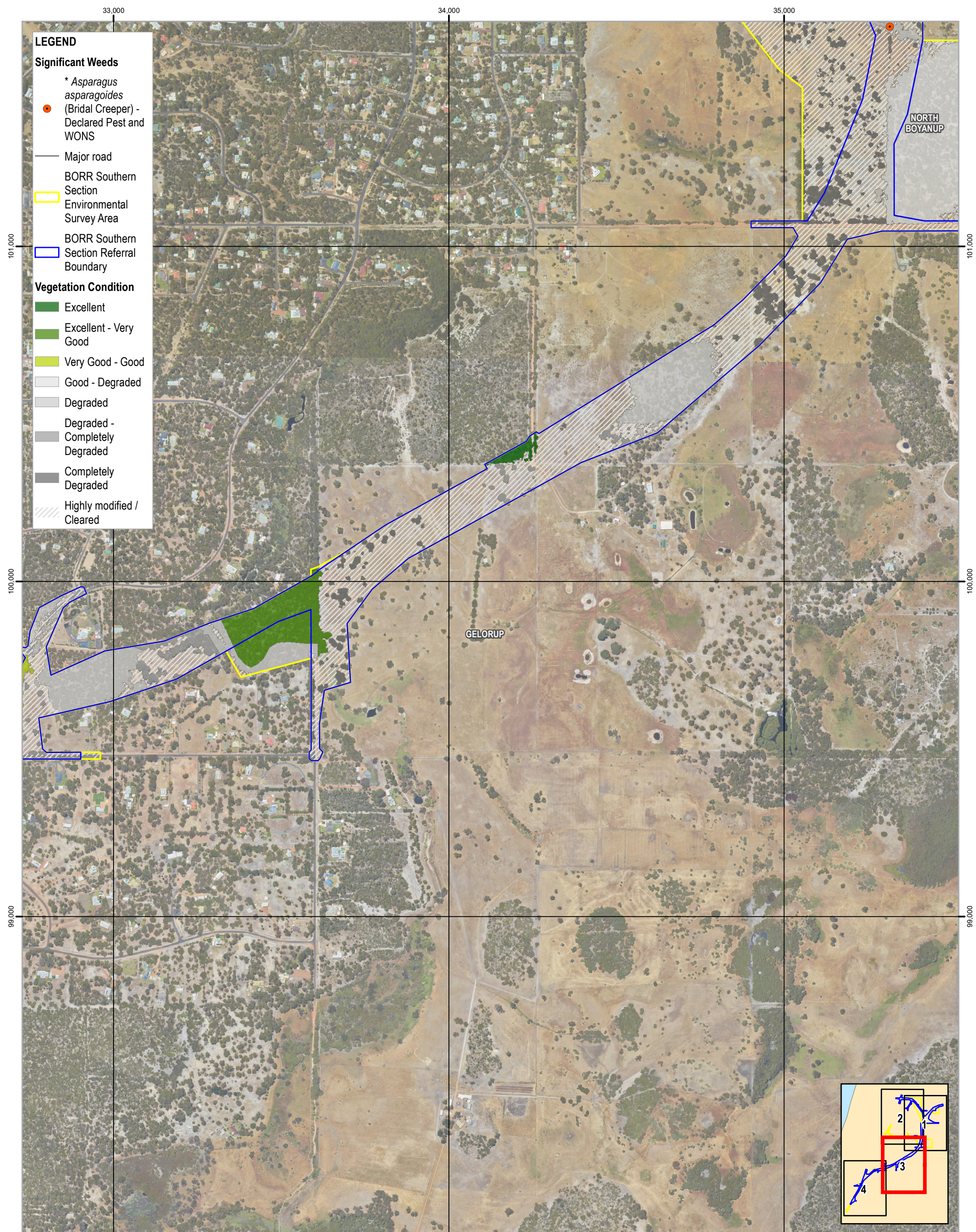
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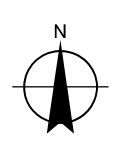
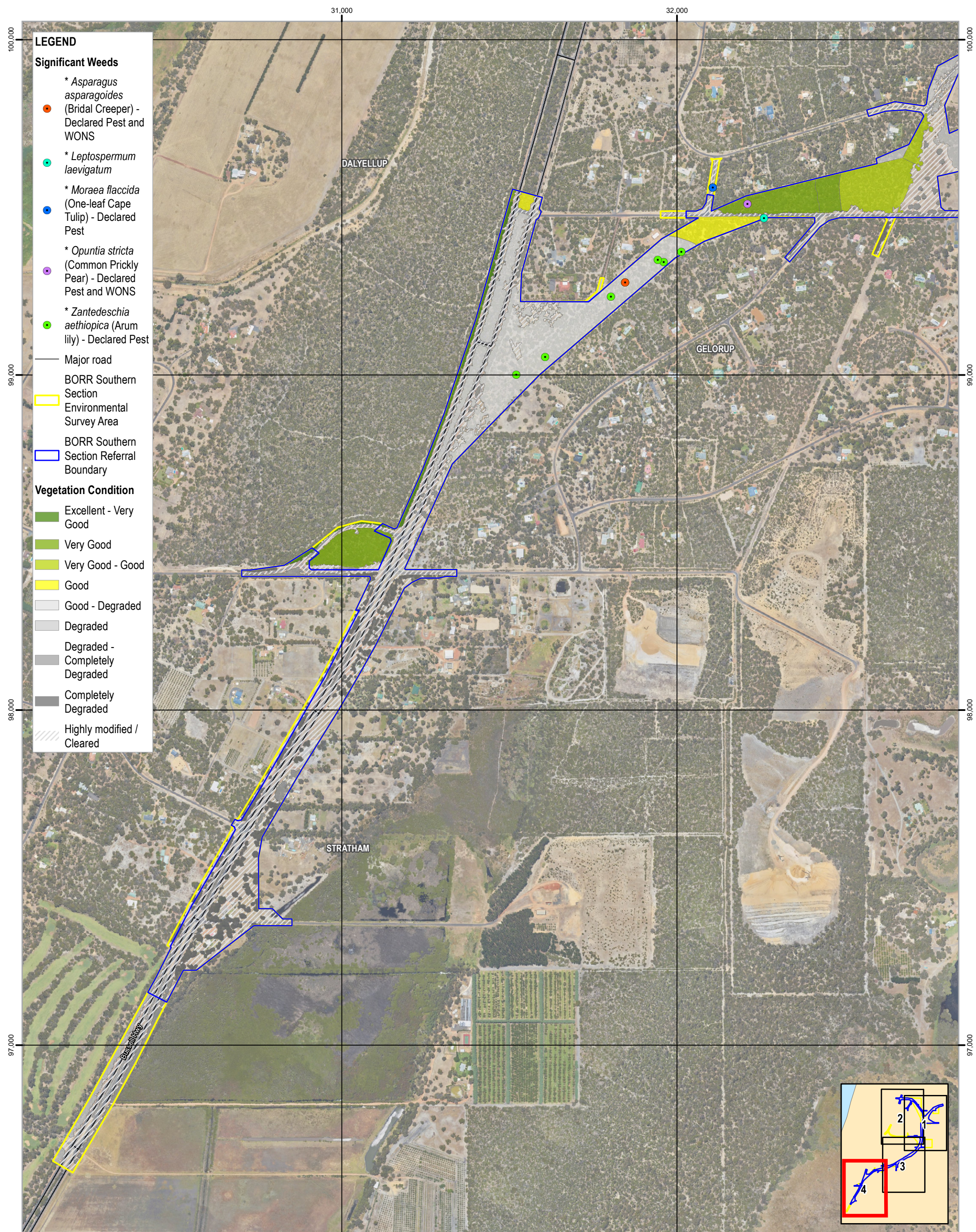


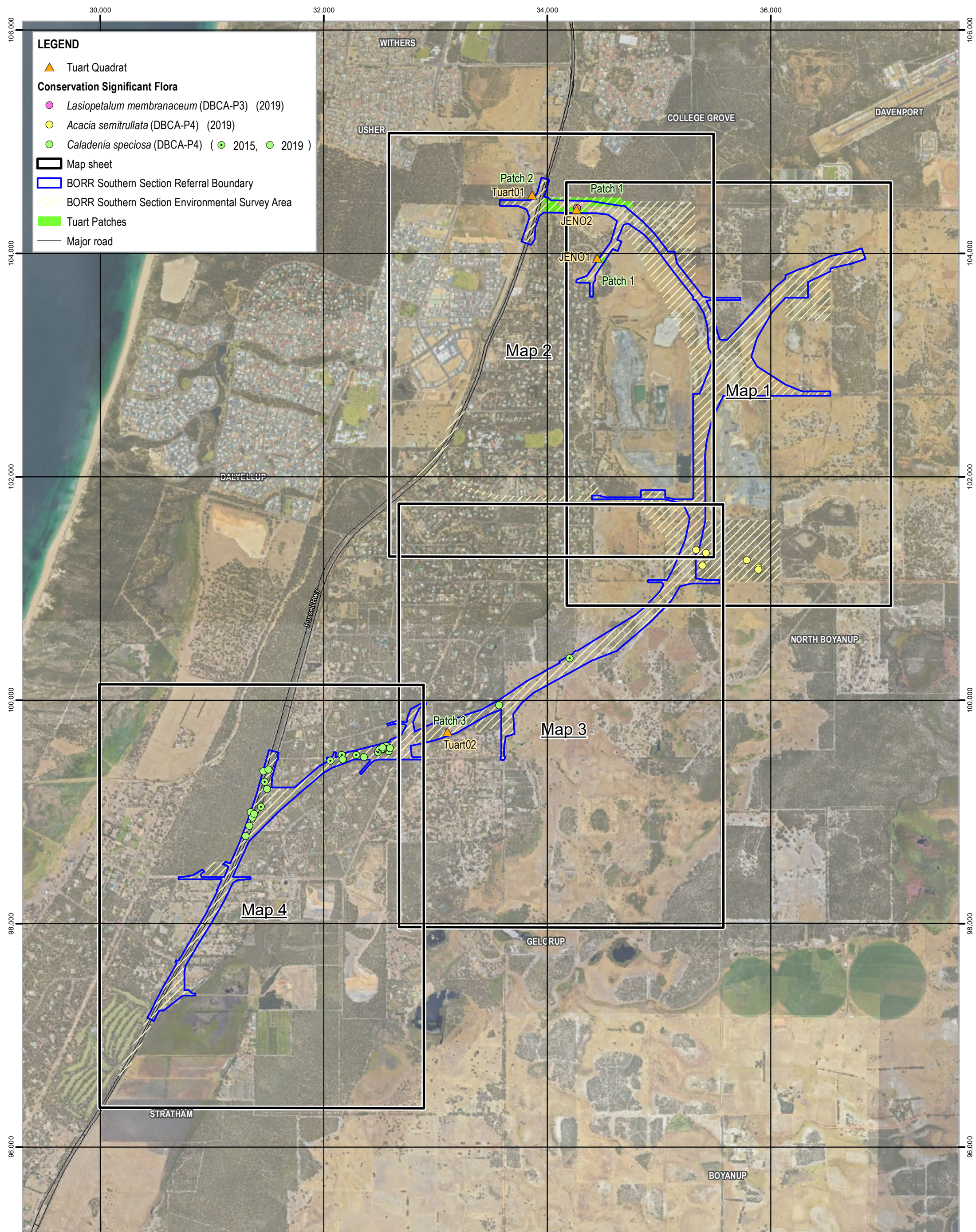
Main Roads Western Australia
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Vegetation Condition and Significant Weeds

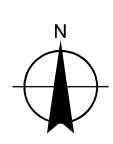
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Revision No. 3
Date 27 May 2020







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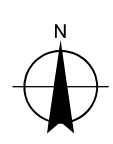
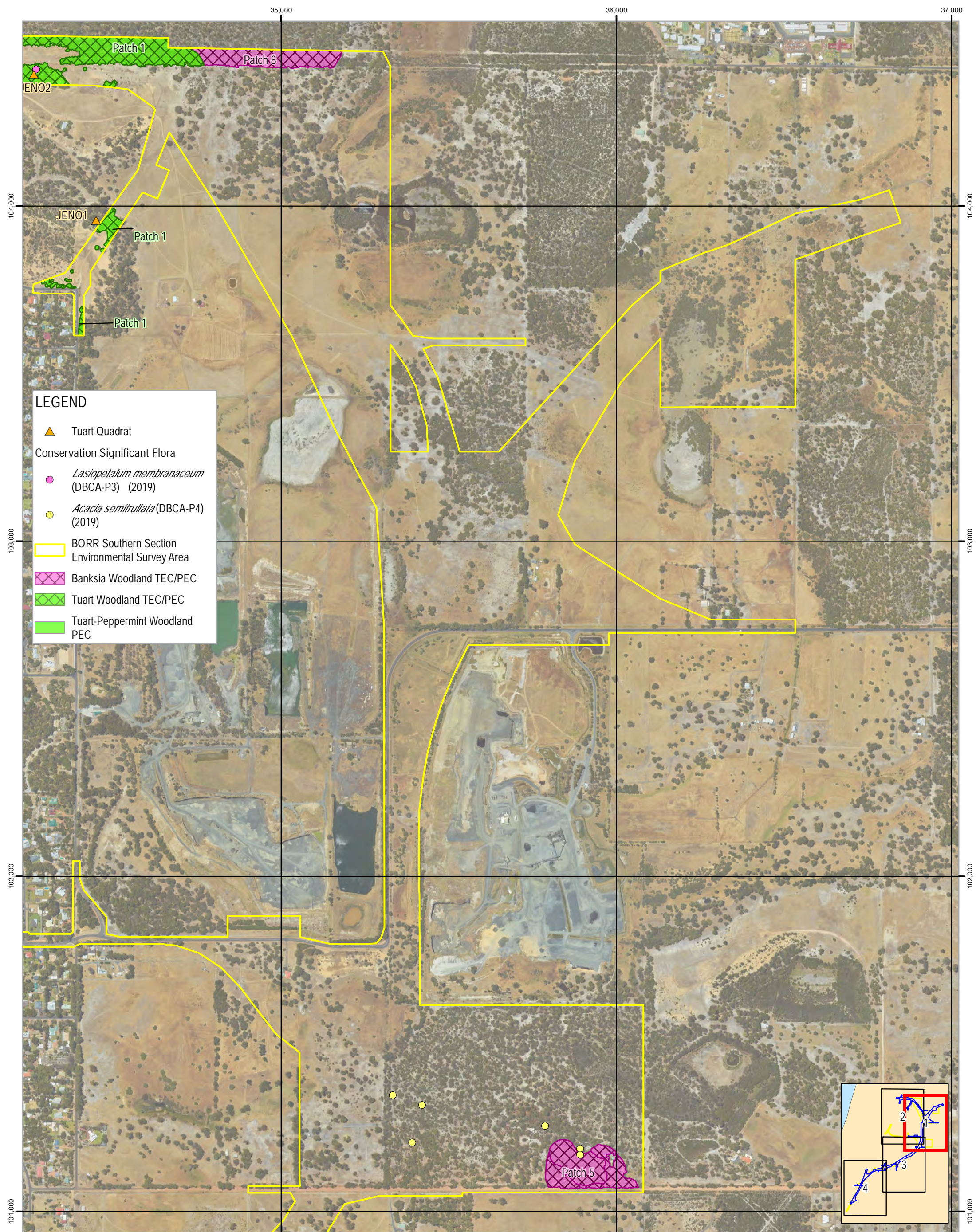


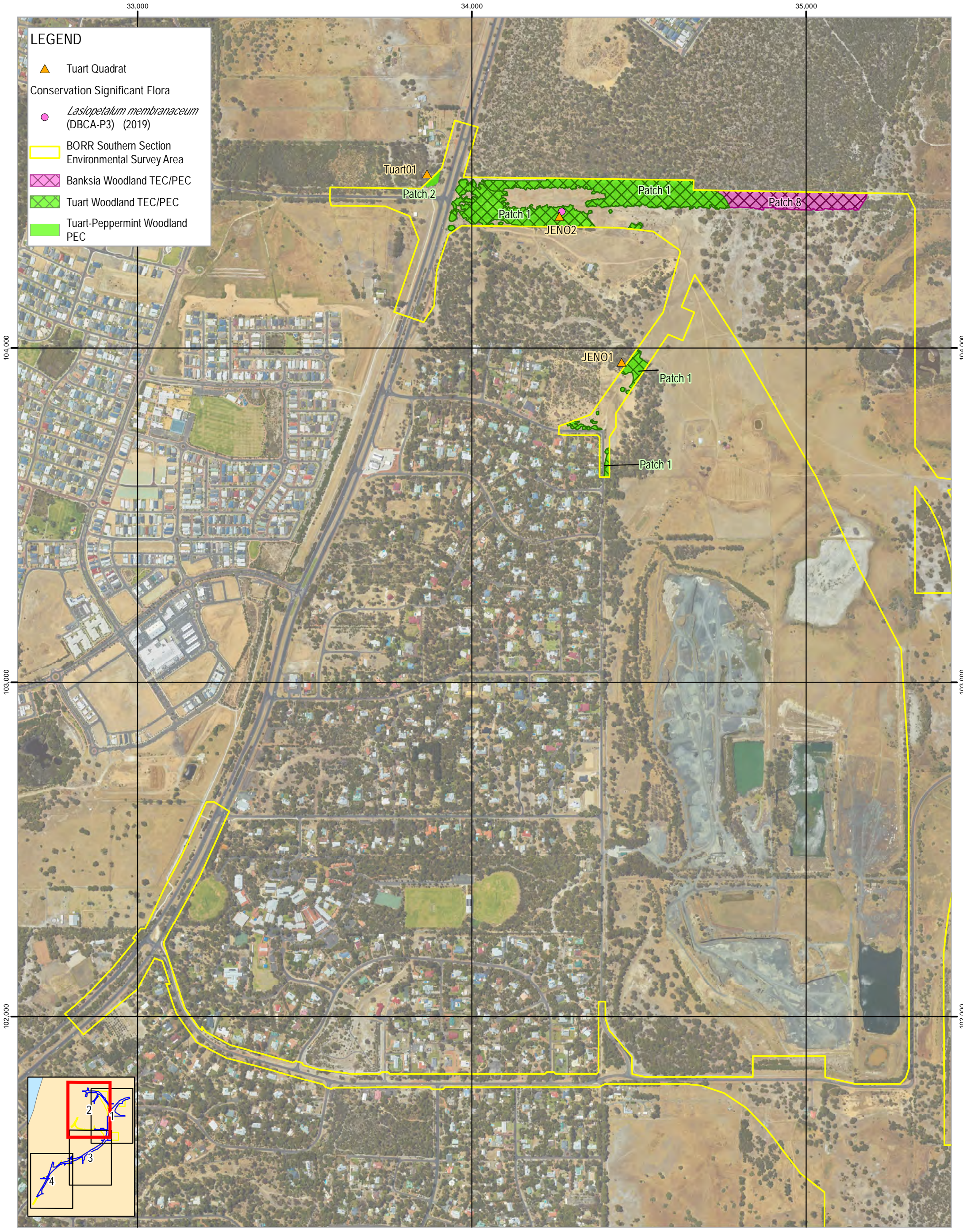
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**Conservation and Other Significant
Ecological Communities and Flora**

Project No. 61-37041
Revision No. 2
Date 23 May 2020

[OVERVIEW](#)

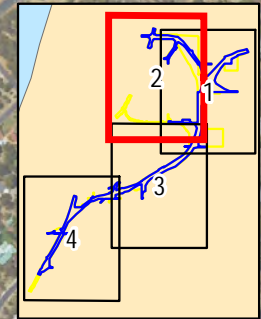
FIGURE 11





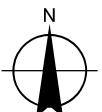
LEGEND

- ▲ Tuart Quadrat
- Conservation Significant Flora
 - *Lasiopetalum membranaceum* (DBCA-P3) (2019)
- BORR Southern Section Environmental Survey Area
- ▨ Banksia Woodland TEC/PEC
- ▨ Tuart Woodland TEC/PEC
- Tuart-Peppermint Woodland PEC



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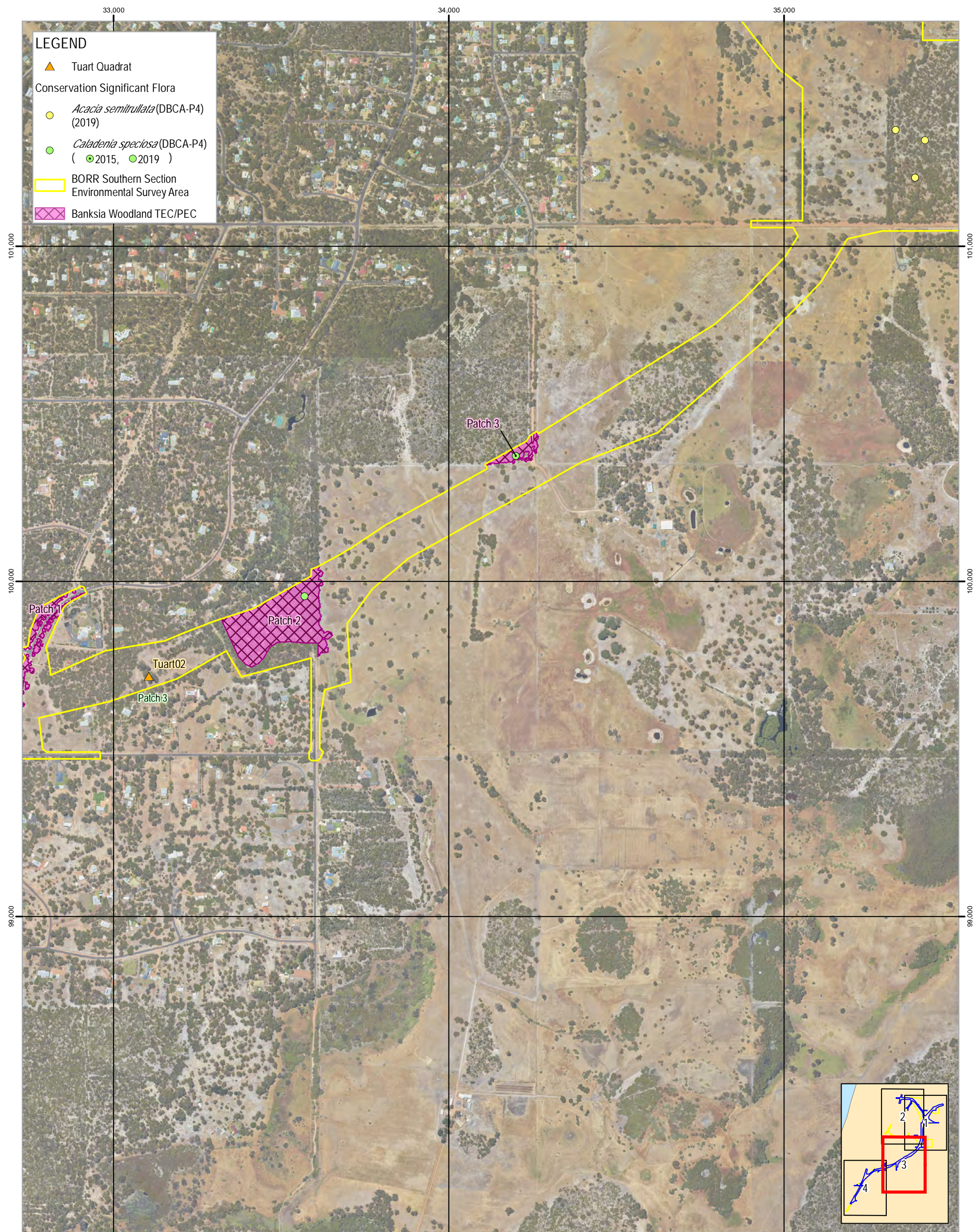
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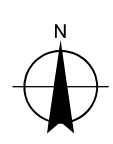
Conservation and Other Significant
Ecological Communities and Flora

Project No. 61-37041
Revision No. 4
Date 08 Jul 2020



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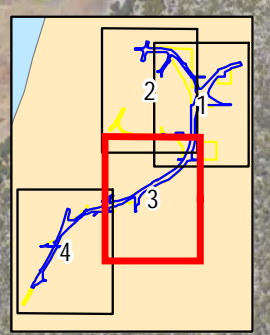
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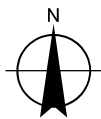
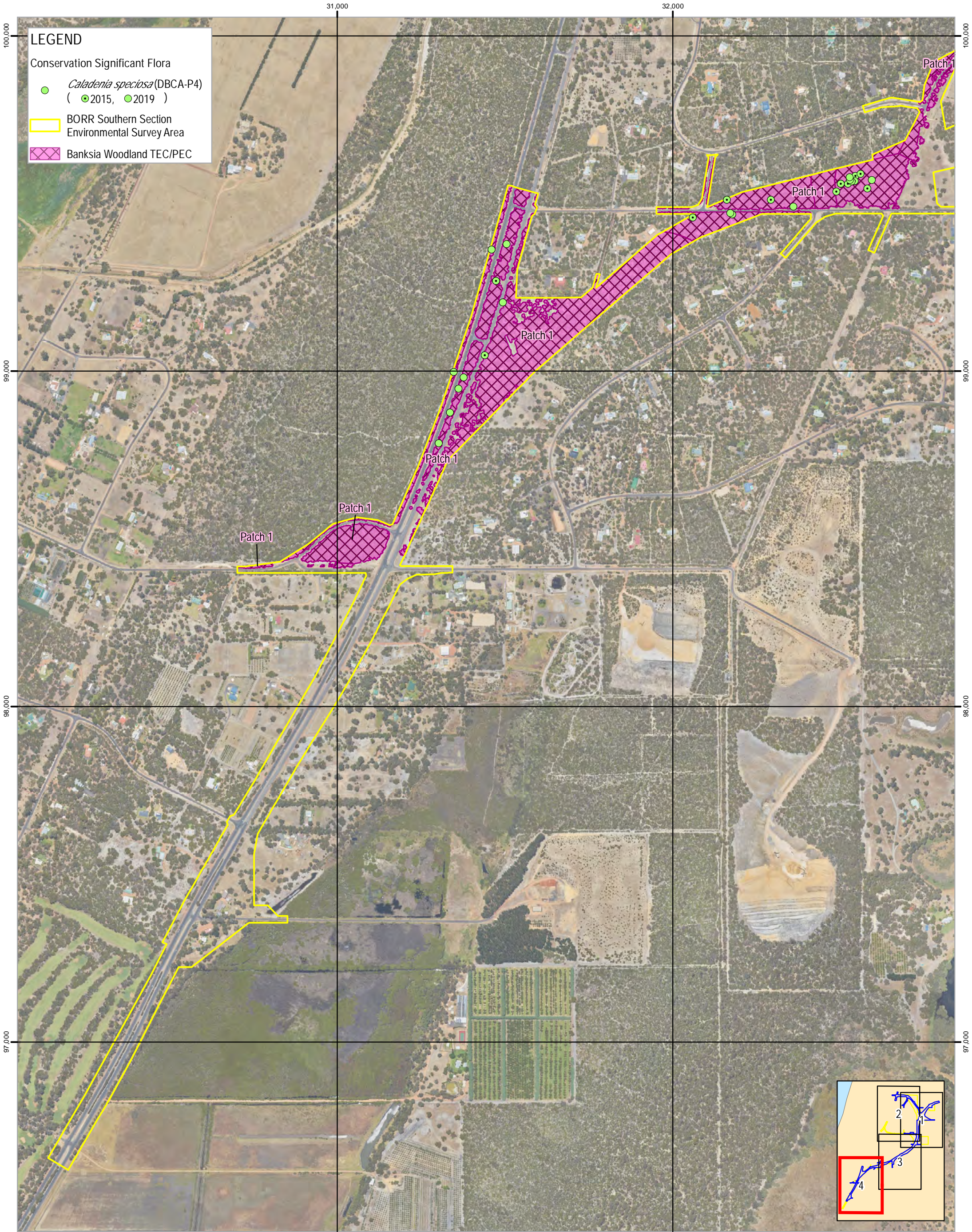


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Conservation and Other Significant
Ecological Communities and Flora

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APPENDIX B

Conservation codes

Relevant legislation

Federal *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Federal Government's central piece of environmental legislation. It provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places, which are defined in the EPBC Act as Matters of National Environmental Significance (MNES).

The biological aspects listed as MNES include:

- Nationally threatened flora and fauna species and ecological communities
- Migratory species

A person must not undertake an action that has, will have, or is likely to have a significant impact (direct or indirect) on MNES, without approval from the Federal Minister for the Environment.

The EPBC Act is administered by the Department of the Environment and Energy (DEE).

State *Environmental Protection Act 1986*

The *Environmental Protection Act 1986* (EP Act) is the primary legislative Act dealing with the protection of the environment in Western Australia. The Act allows the Environmental Protection Authority (EPA), to prevent, control and abate pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment and for matters incidental to or connected with the foregoing. Part IV of the EP Act is administered by the EPA and makes provisions for the EPA to undertake environmental impact assessment of significant proposals, strategic proposals and land use planning schemes.

The Department of Water and Environment Regulation (DWER) is responsible for administering the clearing provisions of the EP Act (Part V). Clearing of native vegetation in Western Australia requires a permit from the DWER, unless exemptions apply. Applications for clearing permits are assessed by the Department and decisions are made to grant or refuse the application in accordance with the Act. When making a decision the assessment considers clearing against the ten clearing principles as specified in Schedule 5 of the EP Act:

- a) Native vegetation should not be cleared if it comprises a high level of biodiversity.
- b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significance habitat for fauna indigenous to Western Australia.
- c) Native vegetation should not be cleared if it includes, or is necessary, for the continued existence of rare flora.
- d) Native vegetation should not be cleared if it comprises the whole or part of native vegetation in an area that has been extensively cleared.
- e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.
- f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- g) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.
- h) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

- i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.
- j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.

Exemptions for clearing include clearing that is a requirement of a written law or authorised under certain statutory processes (listed in Schedule 6 of the EP Act) and exemptions for prescribed low impact day-to-day activities (prescribed in the Environmental Protection (Clearing of Native Vegetation) Regulations 2004); these exemptions do not apply in environmentally sensitive areas (ESAs).

State Biodiversity and Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) provides for the conservation and protection of biodiversity and biodiversity components, as well as the promotion of the ecologically sustainable use of biodiversity components in Western Australia. The BC Act replaces both the repealed *Wildlife Conservation Act 1950* (WC Act) and the *Sandalwood Act 1929* (Sandalwood Act), as well as their associated regulations. To attain the objectives of the BC Act, principles of ecological sustainable development have been established:

- Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations
- If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation
- The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations
- The conservation of biodiversity and ecological integrity should be a fundamental consideration in decision-making
- Improved valuation, pricing and incentive mechanisms should be promoted.

The BC Act is administered by the Department of Biodiversity Conservation and Attractions (DBCA).

State Biosecurity and Agriculture Management Act 2007

The *Biosecurity and Agriculture Management Act 2007* (BAM Act) and associated regulations are administered by the Department of Primary Industries and Regional Development (DPIRD) and replace the repealed *Agriculture and Related Resources Protection Act 1976*. The main purposes of the BAM Act and its regulations are to:

- Prevent new animal and plant pests (vermin and weeds) and diseases from entering WA
- Manage the impact and spread of those pests already present in the state
- Safely manage the use of agricultural and veterinary chemicals
- Increased control over the sale of agricultural products that contain violative chemical residues.

The Western Australian Organism List (WAOL) provides the status of organisms which have been categorised under the BAM Act. A Declared Pest is a prohibited organism or an organism for which a declaration under Section 22(2) of the Act is in force. Declared Pests may be assigned a control category including: C1 (exclusion), C2 (eradication) and C3 (management). The category may apply to the whole of the State, LGAs, districts, individual properties or even paddocks, and all landholders are obliged to comply with the specific category of control. Categories of control are defined below.

DPIRD Categories for Declared Pests under the BAM Act

Control class code	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.

Background information

Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) are declared by the Minister for Environment under Section 51B of the EP Act. The Table below outlines the aspects of areas declared as ESA in the Environmental Protection (Environmentally Sensitive Areas) Notice 2005.

Aspects of ESAs

Aspects of Environmentally Sensitive Areas
A declared World Heritage property as defined in Section 13 of the EPBC Act.
An area that is included on the Register of the National Estate (RNE), because of its natural values, under the <i>Australian Heritage Commission Act 1975</i> of the Commonwealth (the RNE was closed in 2007 and is no longer a statutory list – all references to the RNE were removed from the EPBC Act on 19 February 2012).
A defined wetland and the area within 50 m of the wetland. Defined wetlands include Ramsar wetlands, conservation category wetlands and nationally important wetlands.
The area covered by vegetation within 50 m of rare flora, to the extent to which the vegetation is continuous with the vegetation in which the rare flora is located.
The area covered by a Threatened Ecological Community.
A Bush Forever Site listed in “Bush Forever” Volumes 1 and 2 (2000), published by the Western Australia Planning Commission, except to the extent to which the site is approved to be developed by the Western Australia Planning Commission.
The areas covered by the <i>Environmental Protection (Gnangara Mound Crown Land) Policy 1992</i> .
The areas covered by the <i>Environmental Protection (Western Swamp Tortoise Habitat) Policy 2002</i> .
The areas covered by the lakes to which the <i>Environmental Protection (Swan Coastal Plain Lakes) Policy 1992</i> (EPP Lakes) applies.
Protected wetlands as defined in the <i>Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998</i> .

Reserves and conservation areas

Department of Biodiversity, Conservation and Attractions managed lands and waters

DBCA manages lands and waters throughout Western Australia to conserve ecosystems and species, and to provide for recreation and appreciation of the natural environment. DBCA managed lands and waters include national parks, conservation parks and reserves, marine parks and reserves, regional parks, nature reserves, State forest and timber reserves. DBCA managed conservation estate, is vested with the Conservation Commission of Western Australia. Access to, or through, some areas of DBCA managed lands may require a permit or could be restricted due to management activities. Proposed land use changes and development proposals that about DBCA managed lands will generally be referred to DBCA throughout the assessment process.

Wetlands

Wetlands include not only lakes with open water, but areas of seasonally, intermittently or permanently waterlogged soil.

Ramsar Listed Wetlands

The Convention of Wetlands of International Importance was signed in 1971 at the Iranian town of Ramsar. The Convention has since been referred to as the Ramsar Convention. Ramsar Listed wetlands are “sites containing representative, rare or unique wetlands, or wetlands that are important for conserving biological diversity ... because of their ecological, botanical, zoological, limnological or hydrological importance” (DEE 2019b). Once a Ramsar Listed Wetland is designated, the country agrees to manage its conservation and ensure its wise use. Under the Convention, wise use is broadly defined as “maintaining the ecological character of a wetland” (DEE 2019b).

Nationally important wetlands

Wetlands of national significance are listed under the Directory of Important Wetlands in Australia. Nationally important wetlands are wetlands which meet at least one of the following criteria (DEE 2019a):

- It is a good example of a wetland type occurring within a biogeographic region in Australia
- It is a wetland which plays an important ecological or hydrological role in the natural functioning of a major wetland system/complex
- It is a wetland which is important as the habitat for animal taxa at a vulnerable stage in their life cycles, or provides a refuge when adverse conditions such as drought prevail
- The wetland supports one percent or more of the national populations of any native plant or animal taxa
- The wetland supports native plant or animal taxa or communities which are considered endangered or vulnerable at the national level
- The wetland is of outstanding historical or cultural significance

Geomorphic wetlands

Categorisation of wetlands has been conducted by Hill et al. (1996), delineating Swan Coastal Plain wetlands into levels of protection and management categories. Conservation Category Wetlands are wetlands that support high levels of attributes and functions. Resource Enhancement Wetlands are those that have been partly modified but still support substantial functions and attributes. Multiple Use Wetlands are classified as those wetlands with few attributes that still provide important wetland functions. Multiple Use wetlands have few important ecological attributes and functions remaining.

The Geomorphic Wetlands Swan Coastal Plain dataset displays the location, boundary, geomorphic classification (wetland type) and management category of wetlands on the Swan Coastal Plain.

Vegetation extent and status

The National Objectives and Targets for Biodiversity Conservation 2001–2005 (Commonwealth of Australia 2001) recognise that the retention of 30 percent or more of the pre-clearing extent of each ecological community is necessary if Australia’s biological diversity is to be protected. This is the threshold level below which species loss appears to accelerate exponentially and loss below this level should not be permitted. This level of recognition is in keeping with the targets recommended in the review of the National Strategy for the Conservation of Australia’s Biological Diversity (ANZECC 2000).

The extent of remnant native vegetation in WA has been assessed by Shepherd et al. (2002) and the GoWA (2018), based on broadscale vegetation association mapping by Beard (various publications). The GoWA produces Statewide Vegetation Statistics Reports that are used for a number of purposes including conservation planning, land use planning and when assessing development applications. The reports are updated at least every two years.

Vegetation condition

The vegetation condition can be assessed in accordance with the vegetation condition rating scale for the South West and Interzone Botanical Provinces (EPA 2016a). The scale recognises the intactness of vegetation and consists of six rating levels as outlined below.

Vegetation condition rating scale for the South West and Interzone Botanical Provinces

Condition	South West and Interzone Botanical Provinces description
Pristine	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.
Very Good	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.
Completely Degraded	The structure of vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Vegetation condition rating scale for the Eremaean and Northern Botanical Provinces

Condition	Eremaean and Northern Botanical Provinces description
Excellent	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
Very Good	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
Good	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds

Condition	Eremaean and Northern Botanical Provinces description
Poor	Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds..
Degraded	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
Completely Degraded	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Conservation codes

Species of significant flora, fauna and communities are protected under both Federal and State Acts. The Federal EPBC Act provides a legal framework to protect and manage nationally important flora and communities. The State BC Act is the primary wildlife conservation legislation in Western Australia. Information on the conservation codes is summarised in the following sections.

Ecological communities

Conservation significant communities

Ecological communities are defined as naturally occurring biological assemblages that occur in a particular type of habitat (English and Blyth 1997). Federally listed Threatened Ecological Communities (TECs) are protected under the EPBC Act. The BC Act provides for the Minister to list an ecological community as a TEC (section 27), or as a collapsed ecological community (section 31) statutory listing of State TECs by the Minister. The legislation also describes statutory processes for preparing recovery plans for TECs, the registration of their critical habitat, and penalties for unauthorised modification of TECs.

Possible TECs that do not meet survey criteria are added to the DBCA Priority Ecological Community (PEC) List under Priorities 1, 2 and 3. These are ecological communities that are adequately known; are rare but not threatened, or meet criteria for Near Threatened. PECs that have been recently removed from the threatened list are placed in Priority 4. These ecological communities require regular monitoring. Conservation dependent ecological communities are placed in Priority 5. PECs are not listed under any formal Federal or State legislation, however, may be listed as TECs under the EPBC Act.

Conservation codes and definitions for TECs listed under the EPBC Act and/ or BC Act

Categories	Definition
Federal Government Conservation Categories (EPBC Act)	
Critically Endangered (CR)	An ecological community if, at that time, is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria (as outlined in Environment Protection and Biodiversity Conservation Regulations 2000)
Endangered (EN)	An ecological community if, at that time: A) is not critically endangered; and B) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria (as outlined in Environment Protection and Biodiversity Conservation Regulations 2000)
Vulnerable (VU)	An ecological community if, at that time: A) is not critically endangered or endangered; and B) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria (as outlined in Environment Protection and Biodiversity Conservation Regulations 2000)
Western Australia Conservation Categories (BC Act)	
<u>Threatened Ecological Communities</u>	

Categories	Definition
Critically Endangered (CR)	An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or that was originally of limited distribution and is facing severe modification or destruction throughout its range in the immediate future, or is already severely degraded throughout its range but capable of being substantially restored or rehabilitated.
Endangered (EN)	An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or was originally of limited distribution and is in danger of significant modification throughout its range or severe modification or destruction over most of its range in the near future.
Vulnerable (VU)	An ecological community that has been adequately surveyed and is found to be declining and/or has declined in distribution and/or condition and whose ultimate security has not yet been assured and/or a community that is still widespread but is believed likely to move into a category of higher threat in the near future if threatening processes continue or begin operating throughout its range.

Collapsed ecological communities

An ecological community is eligible for listing as a collapsed ecological community at a particular time if, at that time –

- (a) there is no reasonable doubt that the last occurrence of the ecological community has collapsed); or
- (b) the ecological community has been so extensively modified throughout its range that no occurrence of it is likely to recover –
 - (i) its species composition or structure; or
 - (ii) its species composition and structure.

Section 33 of the BC Act provides for a collapsed ecological community to be regarded as a threatened ecological community if it is discovered in a state that no longer makes it eligible for listing as a collapsed ecological community.

Conservation categories and definitions for PECS as listed by the DBCA

Category	Description
Priority 1	<p>Poorly known ecological communities.</p> <p>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.</p>
Priority 2	<p>Poorly known ecological communities.</p> <p>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.</p>

Category	Description
Priority 3	<p>Poorly known ecological communities.</p> <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 with 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 may 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>
Priority 4	<p>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> <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>
Priority 5	<p>Conservation Dependent ecological communities.</p> <p>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.</p>

Other significant vegetation

Vegetation may be significant for a range of reasons other than a statutory listing. The EPA (2016b) states that significant vegetation may include vegetation that includes the following:

- Restricted distribution
- Degree of historical impact from threatening processes
- Local endemism in restricted habitats
- Novel combinations of taxa
- A role as a refuge
- A role as a key habitat for Threatened species or large population representing a significant proportion of the local to regional total population of a species
- Being representative of a vegetation unit in 'pristine' condition in a highly cleared landscape, recently discovered range extensions, or isolated outliers of the main range)
- Being poorly reserved.

This may apply at a number of levels, so the unit may be significant when considered at the fine-scale (intra-locality), intermediate-scale (locality or inter-locality) or broad-scale (local to region).

Flora

Conservation significant flora

Species of significant flora are protected under both Federal and State legislation. Any activities that are deemed to have a significant impact on species that are recognised by the EPBC Act, and/or the BC Act can warrant referral to the DEE and/or the EPA.

The Federal conservation level of flora and fauna species and their significance status is assessed under the EPBC Act. The significance levels for flora and fauna used in the EPBC Act align with the International Union for Conservation of Nature (IUCN) Red List criteria, which are internationally recognised as providing best practice for assigning the conservation status of species.

The State conservation level of flora and fauna species and their significance status also follows the IUCN Red List criteria. Under the BC Act flora and fauna can be listed as Threatened, Extinct and as Specially Protected species.

Threatened species are those are species which have been adequately searched for and are deemed to be, in the wild, either rare, under identifiable threat of extinction, or otherwise in need of special protection, and have been gazetted as such. The assessment of the conservation status of Threatened species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria. Specially protected species meet one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection. Species that are listed as Threatened or Extinct species under the BC Act cannot also be listed as Specially Protected species.

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened flora or fauna.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

For the purposes of this assessment, all species listed under the EPBC Act, BC Act and DBCA Priority species are considered conservation significant.

Conservation categories and definitions for EPBC Act and BC Act listed flora and fauna species

Conservation category	Definition
Threatened species	
Critically Endangered (CR)	<p>Threatened species considered to be “facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines”.</p> <p>Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines.</p>
Endangered (EN)	<p>Threatened species considered to be “facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines”.</p> <p>Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines.</p>
Vulnerable (VU)	<p>Threatened species considered to be “facing a high risk of extinction in the wild in the medium term future, as determined in accordance with criteria set out in the ministerial guidelines”.</p> <p>Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines.</p>
Extinct species	
Extinct (EX)	Species where “there is no reasonable doubt that the last member of the species has died”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).
Extinct in the Wild (EW)	Species that “is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form”, and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Conservation codes for DBCA listed Priority flora and fauna

Priority category	Definition
Priority 1	<p>Poorly-known taxa</p> <p>Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.</p>
Priority 2	<p>Poorly-known taxa</p> <p>Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks,</p>

Priority category	Definition
	conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
Priority 3	<p>Poorly-known taxa</p> <p>Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.</p>
Priority 4	<p>Rare, Near Threatened and other taxa in need of monitoring</p> <p>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.</p> <p>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.</p> <p>C. Taxa that have been removed from the list of threatened taxa during the past five years for reasons other than taxonomy.</p>

Other significant flora

Flora species, subspecies, varieties, hybrids and ecotypes may be significant for a range of reasons, other than a statutory listing. The EPA (2016b) states that significant flora may include taxa that have:

- A keystone role in a particular habitat for threatened or Priority flora or fauna species, or large populations representing a considerable proportion of the local or regional total population of a species
- Relictual status, being representation of taxonomic or physiognomic groups that no longer occur widely in the broader landscape
- Anomalous features that indicate a potential new discovery
- Being representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range)
- The presence of restricted subspecies, varieties, or naturally occurring hybrids
- Local endemism (a restricted distribution) or association with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems)
- Being poorly reserved

Introduced plants (weeds)

Declared Pests

Information on species considered to be Declared Pests is provided under *State Biosecurity and Agriculture Management Act 2007*.

Weeds of National Significance

The spread of weeds across a range of land uses or ecosystems is important in the context of socio-economic and environmental values. The assessment of Weeds of National Significance (WoNS) is based on four major criteria:

- Invasiveness
- Impacts
- Potential for spread
- Socio-economic and environmental values

Australian state and territory governments have identified thirty-two Weeds of National Significance (WoNS); a list of 20 WoNS was endorsed in 1999 and a further 12 were added in 2012.

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Desktop Searches

NatureMap Species Report

Created By Guest user on 18/10/2018

Kingdom Plantae
Current Names Only Yes
Core Datasets Only Yes
Method 'By Line'
Vertices 33° 24' 36" S, 115° 39' 04" E 33° 26' 49" S, 115° 38' 29" E 33° 28' 48" S, 115° 36' 53" E 33° 29' 25" S, 115° 34' 60" E
Group By Family

Family	Species	Records
Aizoaceae	2	2
Amaranthaceae	2	2
Amaryllidaceae	1	1
Anarthriaceae	3	6
Apiaceae	8	29
Apocynaceae	1	2
Apodanthaceae	1	1
Aponogetonaceae	1	12
Araceae	1	1
Araliaceae	5	18
Asparagaceae	22	68
Asphodelaceae	2	3
Asteraceae	34	72
Boryaceae	1	2
Brassicaceae	3	4
Bryaceae	1	1
Campanulaceae	6	12
Caprifoliaceae	1	2
Caryophyllaceae	6	9
Casuarinaceae	1	2
Celastraceae	2	2
Centrolepidaceae	6	17
Chenopodiaceae	5	5
Colchicaceae	3	8
Commelinaceae	1	2
Convolvulaceae	1	1
Crassulaceae	2	3
Cyperaceae	45	82
Dasyopogonaceae	1	5
Dennstaedtiaceae	1	1
Dicranaceae	1	1
Dilleniaceae	10	42
Droseraceae	14	22
Elaeocarpaceae	3	10
Ericaceae	12	27
Euphorbiaceae	4	8
Fabaceae	66	177
Funariaceae	1	1
Geraniaceae	4	7
Goodeniaceae	16	25
Haemodorumaceae	14	26
Haloragaceae	3	4
Hemerocallidaceae	9	21
Hydatellaceae	3	6
Hypoxidaceae	4	4
Iridaceae	10	26
Isoetaceae	1	2
Juncaceae	4	7
Juncaginaceae	5	5
Lamiaceae	1	6
Lauraceae	3	6
Lentibulariaceae	1	1
Loganiaceae	2	2
Loranthaceae	1	2
Malvaceae	1	7
Marsileaceae	1	2
Menyanthaceae	3	5
Montiaceae	1	1
Myrtaceae	26	52
Onagraceae	1	1
Orchidaceae	49	121
Orobanchaceae	3	7
Oxalidaceae	4	8
Phrymaceae	1	1
Phyllanthaceae	1	8
Plantaginaceae	2	3
Poaceae	40	102
Podocarpaceae	1	1
Polygalaceae	1	1
Polygonaceae	1	1
Pottiaceae	2	2
Primulaceae	3	4
Proteaceae	27	88
Ranunculaceae	2	4
Restionaceae	13	23

Rhamnaceae	2	3
Rubiaceae	7	11
Rutaceae	6	15
Santalaceae	5	7
Scrophulariaceae	2	2
Selaginellaceae	1	1
Solanaceae	3	4
Stylidiaceae	17	32
Thymelaeaceae	3	3
Urticaceae	1	5
Xanthorrhoeaceae	4	11
Zamiaceae	1	7
Zygophyllaceae	1	1
TOTAL	597	1357

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Aizoaceae				
1.	2798 <i>Carpobrotus virescens</i> (Coastal Pigface, Kolboko, Bain)			
2.	2820 <i>Tetragonia decumbens</i> (Sea Spinach)	Y		
Amaranthaceae				
3.	25840 <i>Amaranthus blitum</i>	Y		
4.	2668 <i>Amaranthus powellii</i> (Powell's Amaranth)	Y		
Amaryllidaceae				
5.	1489 <i>Amaryllis belladonna</i> (Belladonna Lily)	Y		
Anarthriaceae				
6.	1062 <i>Anarthria prolifera</i>			
7.	1097 <i>Lyginia barbata</i>			
8.	18049 <i>Lyginia imberbis</i>			
Apiaceae				
9.	6203 <i>Actinotus glomeratus</i>			
10.	6218 <i>Daucus glochidiatus</i> (Australian Carrot)			
11.	6219 <i>Eryngium pinnatifidum</i> (Blue Devils)			
12.	15446 <i>Eryngium pinnatifidum</i> subsp. <i>pinnatifidum</i>			
13.	6222 <i>Homalosciadium homalocarpum</i>			
14.	6249 <i>Platysace compressa</i> (Tapeworm Plant)			
15.	11132 <i>Platysace ramosissima</i>		P3	
16.	6289 <i>Xanthosia huegelii</i>			
Apocynaceae				
17.	6565 <i>Alyxia buxifolia</i> (Dysentery Bush)			
Apodanthaceae				
18.	2408 <i>Pilostyles hamiltonii</i>			
Aponogetonaceae				
19.	141 <i>Aponogeton hexatepalus</i> (Stalked Water Ribbons)		P4	
Araceae				
20.	1049 <i>Zantedeschia aethiopica</i> (Arum Lily)	Y		
Araliaceae				
21.	6223 <i>Hydrocotyle alata</i>			
22.	6225 <i>Hydrocotyle bonariensis</i>	Y		
23.	6229 <i>Hydrocotyle diantha</i>			
24.	11546 <i>Hydrocotyle pilifera</i> var. <i>glabrata</i>			
25.	6280 <i>Trachymene pilosa</i> (Native Parsnip)			
Asparagaceae				
26.	1208 <i>Acanthocarpus preissii</i>			
27.	1287 <i>Dichopogon capillipes</i>			
28.	1289 <i>Dichopogon preissii</i>			
29.	1304 <i>Laxmannia minor</i>			
30.	11464 <i>Laxmannia sessiliflora</i> subsp. <i>australis</i>			
31.	1223 <i>Lomandra caespitosa</i> (Tufted Mat Rush)			
32.	1228 <i>Lomandra hermaphrodita</i>			
33.	1232 <i>Lomandra micrantha</i> (Small-flower Mat-rush)			
34.	1234 <i>Lomandra nigricans</i>			
35.	1236 <i>Lomandra odora</i> (Tiered Matrush)			
36.	1239 <i>Lomandra preissii</i>			
37.	1240 <i>Lomandra purpurea</i> (Purple Mat Rush)			
38.	1243 <i>Lomandra sericea</i> (Silky Mat Rush)			
39.	1246 <i>Lomandra suaveolens</i>			
40.	20664 <i>Ornithogalum longebracteatum</i>	Y		
41.	1312 <i>Sowerbaea laxiflora</i> (Purple Tassels)			
42.	1319 <i>Thysanotus arenarius</i>			
43.	1339 <i>Thysanotus multiflorus</i> (Many-flowered Fringe Lily)			
44.	1343 <i>Thysanotus patersonii</i>			
45.	1351 <i>Thysanotus sparteus</i>			
46.	1354 <i>Thysanotus tenellus</i>			
47.	1357 <i>Thysanotus thyrsoides</i>			
Asphodelaceae				
48.	1366 <i>Bulbine semibarbata</i> (Leek Lily)			
49.	1368 <i>Trachyandra divaricata</i>	Y		

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Asteraceae				
50.	7829 <i>Angianthus drummondii</i>		P3	
51.	7833 <i>Angianthus preissianus</i>			
52.	7851 <i>Asteridea pulverulenta</i> (Common Bristle Daisy)			
53.	7925 <i>Chondrilla juncea</i> (Skeleton Weed)	Y		
54.	20074 <i>Conyza sumatrensis</i>	Y		
55.	7943 <i>Cotula australis</i> (Common Cotula)			
56.	7944 <i>Cotula bipinnata</i> (Ferny Cotula)	Y		
57.	7947 <i>Cotula turbinata</i> (Funnel Weed)	Y		
58.	13354 <i>Craspedia variabilis</i>			
59.	15137 <i>Euchiton sphaericus</i>			
60.	12016 <i>Helianthus debilis</i> subsp. <i>cucumerifolius</i>	Y		
61.	16759 <i>Hyalosperma simplex</i> subsp. <i>simplex</i>			
62.	8086 <i>Hypochaeris glabra</i> (Smooth Catsear)	Y		
63.	9356 <i>Logfia gallica</i>			
64.	8105 <i>Millotia myosotidifolia</i>			
65.	8127 <i>Olearia axillaris</i> (Coastal Daisybush)			
66.	8133 <i>Olearia elaeophila</i>			
67.	14371 <i>Picris angustifolia</i>			
68.	8160 <i>Picris squarrosa</i>			
69.	42281 <i>Pithocarpa cordata</i>			
70.	8175 <i>Podolepis gracilis</i> (Slender Podolepis)			
71.	8189 <i>Pseudognaphalium luteoalbum</i> (Jersey Cudweed)			
72.	8195 <i>Quinetia urvillei</i>			
73.	13300 <i>Rhodanthe citrina</i>			
74.	20663 <i>Senecio multicaulis</i> subsp. <i>multicaulis</i>			
75.	20161 <i>Senecio pinnatifolius</i>			
76.	8225 <i>Siloxerus humifusus</i> (Procumbent Siloxerus)			
77.	9367 <i>Sonchus hydrophilus</i> (Native Sowthistle)			
78.	8231 <i>Sonchus oleraceus</i> (Common Sowthistle)	Y		
79.	8251 <i>Trichocline spathulata</i> (Native Gerbera)			
80.	8255 <i>Ursinia anthemoides</i> (Ursinia)	Y		
81.	38388 <i>Ursinia anthemoides</i> subsp. <i>anthemoides</i>	Y		
82.	8257 <i>Vellereophyton dealbatum</i> (White Cudweed)	Y		
83.	8282 <i>Waitzia suaveolens</i> (Fragrant Waitzia)			
Boryaceae				
84.	1272 <i>Borya scirpoidea</i>			
Brassicaceae				
85.	3000 <i>Brassica tournefortii</i> (Mediterranean Turnip)	Y		
86.	3002 <i>Cakile maritima</i> (Sea Rocket)	Y		
87.	19403 <i>Stenopetalum gracile</i>			
Bryaceae				
88.	<i>Bryum</i> sp.			
Campanulaceae				
89.	7399 <i>Isotoma scapigera</i> (Long-scaped Isotome)			
90.	7407 <i>Lobelia rhytidospema</i> (Wrinkled-seeded Lobelia)			
91.	7408 <i>Lobelia tenuior</i> (Slender Lobelia)			
92.	37440 <i>Monopsis debilis</i> var. <i>depressa</i>	Y		
93.	7384 <i>Wahlenbergia capensis</i> (Cape Bluebell)	Y		
94.	7389 <i>Wahlenbergia preissii</i>			
Caprifoliaceae				
95.	7366 <i>Centranthus macrosiphon</i>	Y		
Caryophyllaceae				
96.	2889 <i>Cerastium glomeratum</i> (Mouse Ear Chickweed)	Y		
97.	2891 <i>Corrigiola litoralis</i> (Strapwort)	Y		
98.	2894 <i>Moenchia erecta</i> (Erect Chickweed)	Y		
99.	19825 <i>Petrorhagia dubia</i>	Y		
100.	2909 <i>Silene gallica</i> (French Catchfly)	Y		
101.	15972 <i>Silene gallica</i> var. <i>gallica</i>	Y		
Casuarinaceae				
102.	1732 <i>Allocasuarina humilis</i> (Dwarf Sheoak)			
Celastraceae				
103.	4733 <i>Stackhousia monogyna</i>			
104.	4737 <i>Tripterococcus brunonis</i> (Winged Stackhousia)			
Centrolepidaceae				
105.	1117 <i>Aphelia cyperoides</i>			

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
106.	1118	<i>Aphelia drummondii</i>			
107.	1121	<i>Centrolepis aristata</i> (Pointed Centrolepis)			
108.	1125	<i>Centrolepis drummondiana</i>			
109.	1129	<i>Centrolepis glabra</i> (Smooth Centrolepis)			
110.	1134	<i>Centrolepis polygyna</i> (Wiry Centrolepis)			
Chenopodiaceae					
111.	2491	<i>Chenopodium macrospermum</i>	Y		
112.	2578	<i>Rhagodia baccata</i> (Berry Saltbush)			
113.	11341	<i>Rhagodia baccata</i> subsp. <i>baccata</i>			
114.	11930	<i>Rhagodia baccata</i> subsp. <i>dioica</i> (Sea Berry Saltbush)			
115.	2644	<i>Threlkeldia diffusa</i> (Coast Bonefruit)			
Colchicaceae					
116.	12770	<i>Burchardia congesta</i>			
117.	1385	<i>Burchardia multiflora</i> (Dwarf Burchardia)			
118.	12072	<i>Wurmbea dioica</i> subsp. <i>alba</i>			
Commelinaceae					
119.	1162	<i>Cartonema phillyroides</i>			
Convolvulaceae					
120.	6616	<i>Dichondra repens</i> (Kidney Weed)			
Crassulaceae					
121.	3137	<i>Crassula colorata</i> (Dense Stonecrop)			
122.	11563	<i>Crassula colorata</i> var. <i>colorata</i>			
Cyperaceae					
123.	743	<i>Baumea juncea</i> (Bare Twigrush)			
124.	747	<i>Baumea rubiginosa</i>			
125.	748	<i>Baumea vaginalis</i> (Sheath Twigrush)			
126.	43241	<i>Carex thecata</i>			
127.	763	<i>Chorizandra enodis</i> (Black Bristlerush)			
128.	768	<i>Cyathochaeta avenacea</i>			
129.	792	<i>Cyperus eragrostis</i> (Umbrella Sedge)	Y		
130.	822	<i>Eleocharis acuta</i> (Common Spikerush)			
131.	17605	<i>Eleocharis keigheryi</i>		T	
132.	835	<i>Evandra pauciflora</i>			
133.	20216	<i>Ficinia nodosa</i> (Knotted Club Rush)			
134.	902	<i>Gahnia decomposita</i>			
135.	907	<i>Gahnia trifida</i> (Coast Saw-sedge)			
136.	20200	<i>Isolepis cernua</i> var. <i>setiformis</i>			
137.	912	<i>Isolepis cyperoides</i>			
138.	20198	<i>Isolepis fluitans</i> var. <i>fluitans</i>			
139.	917	<i>Isolepis marginata</i> (Coarse Club-rush)			
140.	919	<i>Isolepis oldfieldiana</i>			
141.	925	<i>Lepidosperma angustatum</i>			
142.	42742	<i>Lepidosperma calcicola</i>			
143.	930	<i>Lepidosperma costale</i>			
144.	932	<i>Lepidosperma effusum</i> (Spreading Sword-sedge)			
145.	933	<i>Lepidosperma gladiatum</i> (Coast Sword-sedge, Kerbin)			
146.	937	<i>Lepidosperma longitudinale</i> (Pithy Sword-sedge)			
147.	940	<i>Lepidosperma pubisquamum</i>			
148.		<i>Lepidosperma</i> sp.			
149.	20398	<i>Lepidosperma</i> sp. Blackwood (R. Davis 7696)			
150.	29150	<i>Lepidosperma</i> sp. Margaret River (B.J. Lepschi 1841)			
151.	945	<i>Lepidosperma squamatum</i>			
152.	946	<i>Lepidosperma striatum</i>			
153.	957	<i>Mesomelaena tetragona</i> (Semaphore Sedge)			
154.	973	<i>Schoenus asperocarpus</i> (Poison Sedge)			
155.	974	<i>Schoenus benthamii</i>		P3	
156.	975	<i>Schoenus bifidus</i>			
157.	986	<i>Schoenus efoliatus</i>			
158.	992	<i>Schoenus grandiflorus</i> (Large Flowered Bogrush)			
159.	996	<i>Schoenus laevigatus</i>			
160.	999	<i>Schoenus loliaceus</i>		P2	
161.	17614	<i>Schoenus plumosus</i>			
162.	1011	<i>Schoenus rigens</i>			
163.	1013	<i>Schoenus sculptus</i> (Gimlet Bog-rush)			
164.	1020	<i>Schoenus sublateralis</i>			
165.	1023	<i>Schoenus tenellus</i>			
166.	17409	<i>Schoenus variicellae</i>			

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
167.	1036	<i>Tetraria octandra</i>			
Dasypogonaceae					
168.	1218	<i>Dasypogon bromeliifolius</i> (Pineapple Bush)			
Dennstaedtiaceae					
169.	41651	<i>Pteridium esculentum</i> subsp. <i>esculentum</i>			
Dicranaceae					
170.	32338	<i>Campylopus introflexus</i>	Y		
Dilleniaceae					
171.	5109	<i>Hibbertia amplexicaulis</i>			
172.	5117	<i>Hibbertia cuneiformis</i> (Cutleaf Hibbertia)			
173.	5118	<i>Hibbertia cunninghamii</i>			
174.	20051	<i>Hibbertia diamesogenos</i>			
175.	5135	<i>Hibbertia hypericoides</i> (Yellow Buttercups)			
176.	45534	<i>Hibbertia hypericoides</i> subsp. <i>hypericoides</i>			
177.	5162	<i>Hibbertia racemosa</i> (Stalked Guinea Flower)			
178.	5172	<i>Hibbertia stellaris</i> (Orange Stars)			
179.	5173	<i>Hibbertia subvaginata</i>			
180.	5176	<i>Hibbertia vaginata</i>			
Droseraceae					
181.	3091	<i>Drosera bulbigena</i> (Midget Sundew)			
182.	3095	<i>Drosera erythrorhiza</i> (Red Ink Sundew)			
183.	13217	<i>Drosera erythrorhiza</i> subsp. <i>erythrorhiza</i>			
184.	3097	<i>Drosera gigantea</i> (Giant Sundew)			
185.	14298	<i>Drosera macrantha</i> subsp. <i>macrantha</i>			
186.	3108	<i>Drosera marchantii</i>			
187.	13209	<i>Drosera marchantii</i> subsp. <i>marchantii</i>			
188.	48710	<i>Drosera micrantha</i>			
189.	13189	<i>Drosera oreopodium</i>			
190.	3118	<i>Drosera pallida</i> (Pale Rainbow)			
191.	8911	<i>Drosera rosulata</i>			
192.	13385	<i>Drosera stelliflora</i>			
193.	3131	<i>Drosera stolonifera</i> (Leafy Sundew)			
194.	13205	<i>Drosera tubaestylis</i>			
Elaeocarpaceae					
195.	4524	<i>Platytheca galioides</i>			
196.	4535	<i>Tetratheca hirsuta</i> (Black Eyed Susan)			
197.	48341	<i>Tetratheca hirsuta</i> subsp. <i>viminea</i>			
Ericaceae					
198.	6306	<i>Andersonia caerulea</i> (Foxtails)			
199.	6323	<i>Astroloma ciliatum</i> (Candle Cranberry)			
200.	6334	<i>Astroloma pallidum</i> (Kick Bush)			
201.	6348	<i>Conostephium pendulum</i> (Pearl Flower)			
202.	6360	<i>Leucopogon australis</i> (Spiked Beard-heath)			
203.	6374	<i>Leucopogon conostephioides</i>			
204.	6375	<i>Leucopogon cordatus</i>			
205.	6427	<i>Leucopogon parviflorus</i> (Coast Beard-heath)			
206.	6436	<i>Leucopogon propinquus</i>			
207.	6440	<i>Leucopogon racemulosus</i>			
208.	29492	<i>Leucopogon</i> sp. <i>Busselton</i> (D. Cooper 243)		P2	
209.	34736	<i>Lysinema pentapetalum</i>			
Euphorbiaceae					
210.	4585	<i>Amperea ericoides</i>			
211.	4636	<i>Euphorbia paralias</i> (Sea Spurge)	Y		
212.	4666	<i>Monotaxis occidentalis</i>			
213.	20537	<i>Stachystemon virgatus</i>			
Fabaceae					
214.	3207	<i>Acacia alata</i> (Winged Wattle)			
215.	15466	<i>Acacia applanata</i>			
216.	3262	<i>Acacia cochlearis</i> (Rigid Wattle)			
217.	3282	<i>Acacia cyclops</i> (Coastal Wattle)			
218.	3331	<i>Acacia extensa</i> (Wiry Wattle)			
219.	3339	<i>Acacia flagelliformis</i>		P4	
220.	3374	<i>Acacia huegelii</i>			
221.	3383	<i>Acacia incurva</i>			
222.	3502	<i>Acacia pulchella</i> (Prickly Moses)			
223.	15481	<i>Acacia pulchella</i> var. <i>glaberrima</i>			

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224.	15482	<i>Acacia pulchella</i> var. <i>goadbyi</i>			
225.	3504	<i>Acacia pycnantha</i> (Golden Wattle)	Y		
226.	3527	<i>Acacia saligna</i> (Orange Wattle, Kudjong)			
227.	30036	<i>Acacia saligna</i> subsp. <i>stolonifera</i>			
228.	3537	<i>Acacia semitrullata</i>		P4	
229.	3557	<i>Acacia stenoptera</i> (Narrow Winged Wattle)			
230.	3576	<i>Acacia tetragonocarpa</i>			
231.	3602	<i>Acacia willdenowiana</i> (Grass Wattle)			
232.	3688	<i>Aotus gracillima</i>			
233.	3710	<i>Bossiaea eriocarpa</i> (Common Brown Pea)			
234.	18497	<i>Bossiaea</i> sp. <i>Waroona</i> (B.J. Keighery & N. Gibson 229)			
235.	3793	<i>Daviesia angulata</i>			
236.	3807	<i>Daviesia divaricata</i> (Marno)			
237.	18560	<i>Daviesia divaricata</i> subsp. <i>divaricata</i>			
238.	3832	<i>Daviesia physodes</i>			
239.	3835	<i>Daviesia preissii</i>			
240.	3872	<i>Euchilopsis linearis</i> (Swamp Pea)			
241.	3876	<i>Eutaxia epacridoides</i>			
242.	3880	<i>Eutaxia virgata</i>			
243.	20475	<i>Gastrolobium capitatum</i>			
244.	20512	<i>Gastrolobium praemorsum</i>			
245.	3948	<i>Gompholobium capitatum</i>			
246.	3957	<i>Gompholobium tomentosum</i> (Hairy Yellow Pea)			
247.	3961	<i>Hardenbergia comptoniana</i> (Native Wisteria)			
248.	3964	<i>Hovea chorizemifolia</i> (Holly-leaved Hovea)			
249.	3968	<i>Hovea trisperma</i> (Common Hovea)			
250.	12859	<i>Hovea trisperma</i> var. <i>trisperma</i>			
251.	3992	<i>Isotropis cuneifolia</i> (Granny Bonnets)			
252.	4012	<i>Jacksonia furcellata</i> (Grey Stinkwood)			
253.	20462	<i>Jacksonia gracillima</i>		P3	
254.	4017	<i>Jacksonia horrida</i>			
255.	4029	<i>Jacksonia sternbergiana</i> (Stinkwood, Kapur)			
256.	4037	<i>Kennedia coccinea</i> (Coral Vine)			
257.	37960	<i>Kennedia coccinea</i> subsp. <i>calcaria</i>			
258.	4044	<i>Kennedia prostrata</i> (Scarlet Runner)			
259.		<i>Kennedia rubicunda</i>			
260.	4052	<i>Latrobea tenella</i>			
261.	4059	<i>Lotus angustissimus</i> (Narrowleaf Trefoil)	Y		
262.	8564	<i>Lotus subbiflorus</i>	Y		
263.	4065	<i>Lupinus angustifolius</i> (Narrowleaf Lupin)	Y		
264.	4079	<i>Medicago polymorpha</i> (Burr Medic)	Y		
265.	4085	<i>Melilotus indicus</i>	Y		
266.	4113	<i>Ornithopus compressus</i> (Yellow Serradella)	Y		
267.	3618	<i>Paraserianthes lophantha</i> (Albizia)			
268.	4177	<i>Pultenaea ochreatea</i>			
269.	4183	<i>Pultenaea skinneri</i> (Skinner's Pea)		P4	
270.	4205	<i>Sphaerolobium linophyllum</i>			
271.	4292	<i>Trifolium campestre</i> (Hop Clover)	Y		
272.	17763	<i>Trifolium campestre</i> var. <i>campestre</i> (Hop Clover)	Y		
273.	4293	<i>Trifolium cernuum</i> (Drooping Flower Clover)	Y		
274.	4297	<i>Trifolium glomeratum</i> (Cluster Clover)	Y		
275.	4298	<i>Trifolium hirtum</i> (Rose Clover)	Y		
276.	4313	<i>Trifolium subterraneum</i> (Subterranean Clover)	Y		
277.	4320	<i>Vicia hirsuta</i> (Hairy Vetch)	Y		
278.	4322	<i>Vicia sativa</i> (Common Vetch)	Y		
279.	11474	<i>Vicia sativa</i> subsp. <i>nigra</i>	Y		

Funariaceae

280. 32370 *Funaria hygrometrica*

Geraniaceae

281. 4332 *Erodium botrys* (Long Storksbill)

282. 4333 *Erodium cicutarium* (Common Storksbill)

283. 4339 *Geranium molle* (Dove's Foot Cranesbill)

284. 4340 *Geranium retrorsum*

Goodeniaceae

285. 12724 *Anthotium junciforme*

286. 7428 *Dampiera coronata* (Wedge-leaved Dampiera)

287. 7454 *Dampiera linearis* (Common Dampiera)

288. 7462 *Dampiera pedunculata*

289. 7487 *Diaspasis filifolia* (Thread-leaved Diaspasis)

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
290.	7505	<i>Goodenia eatoniana</i>			
291.	7517	<i>Goodenia incana</i> (Hoary Goodenia)			
292.	12551	<i>Goodenia micrantha</i>			
293.	7538	<i>Goodenia pulchella</i>			
294.	19284	<i>Goodenia pulchella</i> subsp. <i>Coastal Plain B</i> (L.W. Sage 2336)			
295.	7568	<i>Lechenaultia biloba</i> (Blue Leschenaultia)			
296.	7572	<i>Lechenaultia expansa</i>			
297.	7595	<i>Scaevola anchusifolia</i>			
298.	7602	<i>Scaevola calliptera</i>			
299.	7606	<i>Scaevola crassifolia</i> (Thick-leaved Fan-flower)			
300.	7619	<i>Scaevola lanceolata</i> (Long-leaved Scaevola)			

Haemodoraceae

301.	1411	<i>Anigozanthos manglesii</i> (Mangles Kangaroo Paw, Kurulbrang)			
302.	1416	<i>Anigozanthos viridis</i> (Green Kangaroo Paw, Kurulbardang)			
303.	1418	<i>Conostylis aculeata</i> (Prickly Conostylis)			
304.	11826	<i>Conostylis aculeata</i> subsp. <i>aculeata</i>			
305.	12118	<i>Conostylis aculeata</i> subsp. <i>gracilis</i>			
306.	12109	<i>Conostylis aculeata</i> subsp. <i>preissii</i>			
307.	1438	<i>Conostylis laxiflora</i>			
308.	1453	<i>Conostylis serrulata</i>			
309.	11597	<i>Conostylis setigera</i> subsp. <i>setigera</i>			
310.	1474	<i>Haemodorum sparsiflorum</i>			
311.	1478	<i>Phlebocarya ciliata</i>			
312.	1481	<i>Tribonanthes australis</i>			
313.	1482	<i>Tribonanthes brachypetala</i>			
314.	1483	<i>Tribonanthes longipetala</i>			

Haloragaceae

315.	6159	<i>Gonocarpus nodulosus</i>			
316.	6189	<i>Myriophyllum crispatum</i>			
317.	6199	<i>Myriophyllum tillaeoides</i>			

Hemerocallidaceae

318.	23474	<i>Agrostocrinum hirsutum</i>			
319.	1261	<i>Agrostocrinum scabrum</i> (Blue Grass Lily)			
320.	1276	<i>Caesia micrantha</i> (Pale Grass Lily)			
321.	1277	<i>Caesia occidentalis</i>			
322.	1285	<i>Corynotheca micrantha</i> (Sand Lily)			
323.	16326	<i>Dianella brevicaulis</i>			
324.	1259	<i>Dianella revoluta</i> (Blueberry Lily)			
325.	1295	<i>Johnsonia acaulis</i>			
326.	1361	<i>Tricoryne elatior</i> (Yellow Autumn Lily)			

Hydatellaceae

327.	33019	<i>Trithuria australis</i>		P4	
328.	1139	<i>Trithuria bibracteata</i>			
329.	1141	<i>Trithuria submersa</i>			

Hypoxidaceae

330.	43763	<i>Pauridia glabella</i>			
331.	43760	<i>Pauridia occidentalis</i>			
332.	43761	<i>Pauridia occidentalis</i> var. <i>occidentalis</i>			
333.	43782	<i>Pauridia vaginata</i> var. <i>vaginata</i>			

Iridaceae

334.	18392	<i>Freesia alba</i> x <i>leichtlinii</i>	Y		
335.	19179	<i>Moraea flaccida</i> (One-leaf Cape Tulip)	Y		
336.	19438	<i>Moraea ochroleuca</i>	Y		
337.	1537	<i>Orthrosanthus laxus</i> (Morning Iris)			
338.	1550	<i>Patersonia occidentalis</i> (Purple Flag, Koma)			
339.	11550	<i>Patersonia umbrosa</i> var. <i>xanthina</i> (Yellow Flags)			
340.	1556	<i>Romulea rosea</i> (Guildford Grass)	Y		
341.	14924	<i>Romulea rosea</i> var. <i>communis</i>	Y		
342.	1557	<i>Sisyrinchium exile</i>	Y		
343.	1561	<i>Tritonia crocata</i>	Y		

Isoetaceae

344.	11	<i>Isoetes drummondii</i> (Quillwort)			
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Juncaceae

345.	1178	<i>Juncus bufonius</i> (Toad Rush)	Y		
346.	1179	<i>Juncus caespiticius</i> (Grassy Rush)			
347.	1180	<i>Juncus capitatus</i> (Capitate Rush)	Y		

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348.	1198 <i>Luzula meridionalis</i> (Field Woodrush)			
Juncaginaceae				
349.	40661 <i>Cynogeton lineare</i>			
350.	33276 <i>Triglochin isingiana</i>			
351.	147 <i>Triglochin mucronata</i>			
352.	18587 <i>Triglochin nana</i>			
353.	152 <i>Triglochin trichophora</i>			
Lamiaceae				
354.	6839 <i>Hemiandra pungens</i> (Snakebush)			
Lauraceae				
355.	11501 <i>Cassytha glabella forma casuarinae</i>			
356.	2957 <i>Cassytha racemosa</i> (Dodder Laurel)			
357.	11799 <i>Cassytha racemosa forma racemosa</i>			
Lentibulariaceae				
358.	7145 <i>Utricularia menziesii</i> (Redcoats)			
Loganiaceae				
359.	43201 <i>Adelphacme minima</i>		P3	
360.	16825 <i>Phyllangium divergens</i>			
Loranthaceae				
361.	2401 <i>Nuytsia floribunda</i> (Christmas Tree, Mudja)			
Malvaceae				
362.	5038 <i>Lasiopetalum membranaceum</i>		P3	
Marsileaceae				
363.	78 <i>Pilularia novae-hollandiae</i> (Austral Pillwort)			
Menyanthaceae				
364.	36160 <i>Liparophyllum capitatum</i>			
365.	36181 <i>Ornduffia parnassifolia</i>			
366.	36200 <i>Ornduffia submersa</i>		P4	
Montiaceae				
367.	2845 <i>Calandrinia brevipedata</i> (Short-stalked Purslane)			
Myrtaceae				
368.	5316 <i>Agonis flexuosa</i> (Peppermint, Wonil)			
369.	17202 <i>Agonis flexuosa</i> var. <i>flexuosa</i>			
370.	20283 <i>Astartea scoparia</i> (Common Astartea)			
371.	5415 <i>Calothamnus lateralis</i>			
372.	5458 <i>Calytrix flavescens</i> (Summer Starflower)			
373.	5460 <i>Calytrix fraseri</i> (Pink Summer Calytrix)			
374.	5519 <i>Darwinia oederoides</i>			
375.	5625 <i>Eucalyptus diversicolor</i> (Karri)			
376.	5659 <i>Eucalyptus gomphocephala</i> (Tuart, Duart)			
377.	5708 <i>Eucalyptus marginata</i> (Jarrah, Djara)			
378.	5817 <i>Hypocalymma angustifolium</i> (White Myrtle, Kudjid)			
379.	35070 <i>Hypocalymma angustifolium</i> subsp. <i>Swan Coastal Plain</i> (G.J. Keighery 16777)			
380.	5825 <i>Hypocalymma robustum</i> (Swan River Myrtle)			
381.	5832 <i>Kunzea ericifolia</i> (Spearwood, Pondil)			
382.	17461 <i>Kunzea micrantha</i> subsp. <i>micrantha</i>			
383.	5841 <i>Kunzea recurva</i>			
384.	37580 <i>Melaleuca acutifolia</i>			
385.	5946 <i>Melaleuca pauciflora</i>			
386.	5952 <i>Melaleuca preissiana</i> (Moonah)			
387.	5959 <i>Melaleuca raphiophylla</i> (Swamp Paperbark)			
388.	5978 <i>Melaleuca teretifolia</i> (Banbar)			
389.	5980 <i>Melaleuca thymoides</i>			
390.	13280 <i>Melaleuca viminea</i> subsp. <i>viminea</i>			
391.	6006 <i>Pericalymma ellipticum</i> (Swamp Teatree)			
392.	12392 <i>Verticordia attenuata</i>		P3	
393.	15432 <i>Verticordia densiflora</i> var. <i>densiflora</i>			
Onagraceae				
394.	6140 <i>Oenothera mollissima</i>	Y		
Orchidaceae				
395.	15332 <i>Caladenia attingens</i> subsp. <i>atingens</i>			
396.	15579 <i>Caladenia chapmanii</i>			
397.	1586 <i>Caladenia discoidea</i> (Dancing Orchid)			
398.	1592 <i>Caladenia flava</i> (Cowslip Orchid)			

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399.	15348	<i>Caladenia flava</i> subsp. <i>flava</i>			
400.	15352	<i>Caladenia georgei</i>			
401.	15354	<i>Caladenia hirta</i> subsp. <i>hirta</i>			
402.	1596	<i>Caladenia huegelii</i> (Grand Spider Orchid)		T	
403.	1599	<i>Caladenia latifolia</i> (Pink Fairy Orchid)			
404.	1602	<i>Caladenia longicauda</i> (Common White Spider Orchid)			
405.	13859	<i>Caladenia longicauda</i> subsp. <i>clivicola</i>			
406.	17760	<i>Caladenia nobilis</i>			
407.	15503	<i>Caladenia paludosa</i>			
408.	15377	<i>Caladenia reptans</i> subsp. <i>reptans</i>			
409.	13862	<i>Caladenia speciosa</i>		P4	
410.	18019	<i>Caladenia vulgata</i>			
411.	15114	<i>Cyanicula gemmata</i>			
412.	15404	<i>Cyanicula sericea</i>			
413.	10916	<i>Cyrtostylis huegelii</i>			
414.	19649	<i>Disa bracteata</i>	Y		
415.	10796	<i>Diuris drummondii</i> (Tall Donkey Orchid)		T	
416.	48253	<i>Diuris porphyrochila</i>			
417.	1639	<i>Drakaea elastica</i> (Glossy-leaved Hammer Orchid)		T	
418.	11156	<i>Drakaea livida</i>			
419.	1643	<i>Elythranthera brunonis</i> (Purple Enamel Orchid)			
420.	1646	<i>Eriochilus dilatatus</i> (White Bunny Orchid)			
421.	15411	<i>Eriochilus dilatatus</i> subsp. <i>magnus</i>			
422.	15412	<i>Eriochilus dilatatus</i> subsp. <i>multiflorus</i>			
423.	1653	<i>Leporella fimbriata</i> (Hare Orchid)			
424.	10954	<i>Microtis media</i> (Tall Mignonette Orchid)			
425.	15419	<i>Microtis media</i> subsp. <i>media</i>			
426.	1660	<i>Microtis orbicularis</i> (Dark Mignonette Orchid)			
427.	1674	<i>Prasophyllum giganteum</i> (Bronze Leek Orchid)			
428.	10853	<i>Prasophyllum plumiforme</i>			
429.	44084	<i>Prasophyllum</i> sp. <i>early</i> (G. Brockman GBB 1626)			
430.		<i>Pterostylis</i> aff. <i>nana</i>			
431.	1685	<i>Pterostylis angusta</i>			
432.	15426	<i>Pterostylis aspera</i>			
433.	17267	<i>Pterostylis brevissepala</i>			
434.	11054	<i>Pterostylis hamiltonii</i> (Red-veined Shell Orchid)			
435.	1693	<i>Pterostylis recurva</i> (Jug Orchid)			
436.	1694	<i>Pterostylis rogersii</i> (Curled-tongue Shell Orchid)			
437.	18655	<i>Pterostylis</i> sp. <i>crinkled leaf</i> (G.J. Keighery 13426)			
438.	1698	<i>Pterostylis vittata</i> (Banded Greenhood)			
439.	1705	<i>Thelymitra crinita</i> (Blue Lady Orchid)			
440.	1707	<i>Thelymitra flexuosa</i> (Twisted Sun Orchid)			
441.	1708	<i>Thelymitra fuscolutea</i> (Chestnut Sun Orchid)			
442.	20730	<i>Thelymitra paludosa</i>			
443.	1717	<i>Thelymitra variegata</i> (Queen of Sheba)		P2	
Orobanchaceae					
444.	7122	<i>Orobanche minor</i> (Lesser Broomrape)	Y		
445.	7089	<i>Parentucellia latifolia</i> (Common Bartsia)	Y		
446.	7090	<i>Parentucellia viscosa</i> (Sticky Bartsia)	Y		
Oxalidaceae					
447.	4352	<i>Oxalis glabra</i>	Y		
448.	4354	<i>Oxalis incarnata</i>	Y		
449.	4355	<i>Oxalis perennans</i>			
450.	4356	<i>Oxalis pes-caprae</i> (Sour sob)	Y		
Phrymaceae					
451.	7060	<i>Glossostigma diandrum</i>			
Phyllanthaceae					
452.	4675	<i>Phyllanthus calycinus</i> (False Boronia)			
Plantaginaceae					
453.	14282	<i>Gratiola pubescens</i>			
454.	7108	<i>Veronica arvensis</i> (Wall Speedwell)	Y		
Poaceae					
455.	184	<i>Aira caryophyllea</i> (Silvery Hairgrass)	Y		
456.	186	<i>Aira elegantissima</i>	Y		
457.	13380	<i>Amphibromus nervosus</i>			
458.	200	<i>Amphipogon turbinatus</i>			
459.	202	<i>Anthoxanthum odoratum</i> (Sweet Vernal Grass)	Y		

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460.	17233	<i>Austrostipa campylachne</i>			
461.	17234	<i>Austrostipa compressa</i>			
462.	17240	<i>Austrostipa flavescens</i>			
463.	38481	<i>Austrostipa jacobsoniana</i>		T	
464.	17253	<i>Austrostipa semibarbata</i>			
465.	231	<i>Avellinia michelii</i>	Y		
466.	233	<i>Avena barbata</i> (Bearded Oat)	Y		
467.	234	<i>Avena fatua</i> (Wild Oat)	Y		
468.	244	<i>Briza maxima</i> (Blowfly Grass)	Y		
469.	245	<i>Briza minor</i> (Shivery Grass)	Y		
470.	247	<i>Bromus arenarius</i> (Sand Brome)			
471.	249	<i>Bromus diandrus</i> (Great Brome)	Y		
472.	48259	<i>Cortaderia selloana</i> subsp. <i>selloana</i>	Y		
473.	299	<i>Deyeuxia quadrifida</i> (Reed Bentgrass)			
474.	306	<i>Dichelachne crinita</i> (Longhair Plumegrass)			
475.	347	<i>Ehrharta calycina</i> (Perennial Veldt Grass)	Y		
476.	349	<i>Ehrharta longiflora</i> (Annual Veldt Grass)	Y		
477.	376	<i>Eragrostis curvula</i> (African Lovegrass)	Y		
478.	444	<i>Holcus lanatus</i> (Yorkshire Fog)	Y		
479.	19955	<i>Lachnagrostis plebeia</i>			
480.	467	<i>Lagurus ovatus</i> (Hare's Tail Grass)	Y		
481.	476	<i>Lolium perenne</i> (Perennial Ryegrass)	Y		
482.	478	<i>Lolium rigidum</i> (Wimmera Ryegrass)	Y		
483.	11073	<i>Lolium x hybridum</i>	Y		
484.	485	<i>Microlaena stipoides</i> (Weeping Grass)			
485.	547	<i>Phalaris angusta</i>	Y		
486.	573	<i>Poa drummondiana</i> (Knotted Poa)			
487.	577	<i>Poa poliformis</i> (Coastal Poa)			
488.	583	<i>Polypogon tenellus</i>			
489.	40425	<i>Rytidosperma caespitosum</i>			
490.	40426	<i>Rytidosperma occidentale</i>			
491.	625	<i>Spinifex longifolius</i> (Beach Spinifex)			
492.	722	<i>Vulpia bromoides</i> (Squirrel Tail Fescue)	Y		
493.	11137	<i>Vulpia fasciculata</i>	Y		
494.	724	<i>Vulpia myuros</i> (Rat's Tail Fescue)	Y		
Podocarpaceae					
495.	86	<i>Podocarpus drouynianus</i> (Wild Plum, Kula)			
Polygalaceae					
496.	4564	<i>Comesperma virgatum</i> (Milkwort)			
Polygonaceae					
497.	13911	<i>Persicaria decipiens</i>			
Pottiaceae					
498.	32315	<i>Barbula calycina</i>			
499.	32439	<i>Syntrichia papillosa</i>			
Primulaceae					
500.	36375	<i>Lysimachia arvensis</i> (Pimpernel)	Y		
501.	6483	<i>Samolus junceus</i>			
502.	6484	<i>Samolus repens</i> (Creeping Brookweed)			
Proteaceae					
503.	14970	<i>Adenanthos barbiger</i>			
504.	1790	<i>Adenanthos meisneri</i>			
505.	1791	<i>Adenanthos obovatus</i> (Basket Flower)			
506.	1800	<i>Banksia attenuata</i> (Slender Banksia, Piara)			
507.	1822	<i>Banksia ilicifolia</i> (Holly-leaved Banksia)			
508.	1830	<i>Banksia littoralis</i> (Swamp Banksia, Pungura)			
509.	1863	<i>Conospermum capitatum</i>			
510.	1945	<i>Franklandia triaristata</i> (Lanoline Bush)		P4	
511.	19628	<i>Grevillea bipinnatifida</i> subsp. <i>bipinnatifida</i>			
512.	2119	<i>Grevillea vestita</i>			
513.	12824	<i>Grevillea vestita</i> subsp. <i>vestita</i>			
514.	2216	<i>Hakea varia</i> (Variable-leaved Hakea)			
515.	16522	<i>Isopogon formosus</i> subsp. <i>dasylepis</i>		P3	
516.	2267	<i>Persoonia longifolia</i> (Snottygobble)			
517.	2273	<i>Persoonia saccata</i> (Snottygobble)			
518.	2299	<i>Petrophile linearis</i> (Pixie Mops)			
519.	2316	<i>Stirlingia latifolia</i> (Blueboy)			
520.	16769	<i>Synaphea hians</i>		P3	

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
521.	16865	<i>Synaphea odocoileops</i>		P1	
522.	2324	<i>Synaphea petiolaris</i> (<i>Synaphea</i>)			
523.	16862	<i>Synaphea petiolaris</i> subsp. <i>simplex</i>		P3	
524.	2326	<i>Synaphea polymorpha</i> (<i>Albany Synaphea</i> , <i>Pinda</i>)			
525.	18590	<i>Synaphea</i> sp. <i>Fairbridge Farm</i> (<i>D. Papenfus</i> 696)		T	
526.	30751	<i>Synaphea</i> sp. <i>Pinjarra Plain</i> (<i>A.S. George</i> 17182)		T	
527.	28354	<i>Synaphea</i> sp. <i>Serpentine</i> (<i>G.R. Brand</i> 103)		T	
528.	16749	<i>Synaphea stenoloba</i>		T	
529.	2331	<i>Xylomelum occidentale</i> (<i>Woody Pear</i> , <i>Djandin</i>)			

Ranunculaceae

530.	2932	<i>Ranunculus colonorum</i> (<i>Common Buttercup</i>)			
531.	2935	<i>Ranunculus pumilio</i> (<i>Smallflower Buttercup</i>)			

Restionaceae

532.	17685	<i>Chaetanthus aristatus</i>			
533.	17691	<i>Desmocladius fasciculatus</i>			
534.	16595	<i>Desmocladius flexuosus</i>			
535.	1070	<i>Hypolaena exsulca</i>			
536.	17841	<i>Hypolaena pubescens</i>			
537.	1077	<i>Leptocarpus canus</i> (<i>Hoary Twine-rush</i>)			
538.	19833	<i>Leptocarpus laxus</i>			
539.	46382	<i>Leptocarpus royci</i>			
540.	1080	<i>Leptocarpus scariosus</i>			
541.	46377	<i>Leptocarpus scoparius</i>			
542.	1082	<i>Leptocarpus tenax</i> (<i>Slender Twine Rush</i>)			
543.	46379	<i>Leptocarpus thysananthus</i>			
544.	1088	<i>Lepyrodia macra</i> (<i>Large Scale Rush</i>)			

Rhamnaceae

545.	13484	<i>Cryptandra arbutiflora</i> var. <i>tubulosa</i>			
546.	4828	<i>Spyridium globulosum</i> (<i>Basket Bush</i>)			

Rubiaceae

547.	7321	<i>Galium divaricatum</i>	Y		
548.	7323	<i>Galium murale</i> (<i>Small Goosegrass</i>)	Y		
549.	25797	<i>Galium spurium</i>	Y		
550.	18254	<i>Opercularia apiciflora</i>			
551.	7348	<i>Opercularia hispidula</i> (<i>Hispid Stinkweed</i>)			
552.	18255	<i>Opercularia vaginata</i> (<i>Dog Weed</i>)			
553.	7362	<i>Sherardia arvensis</i> (<i>Field Madder</i>)	Y		

Rutaceae

554.	4417	<i>Boronia dichotoma</i>			
555.	4420	<i>Boronia fastigiata</i> (<i>Bushy Boronia</i>)			
556.	4441	<i>Boronia spathulata</i> (<i>Boronia</i>)			
557.	17804	<i>Boronia tetragona</i>		P3	
558.	4454	<i>Diplolaena dampieri</i> (<i>Southern Diplolaena</i>)			
559.	18529	<i>Philotheca spicata</i> (<i>Pepper and Salt</i>)			

Santalaceae

560.	10907	<i>Exocarpos odoratus</i> (<i>Scented Ballart</i>)			
561.	10765	<i>Exocarpos sparteus</i> (<i>Broom Ballart</i> , <i>Djuk</i>)			
562.	2342	<i>Leptomeria cunninghamii</i>			
563.	17702	<i>Leptomeria furtiva</i>		P2	
564.	2353	<i>Leptomeria scrobiculata</i>			

Scrophulariaceae

565.	7054	<i>Dischisma arenarium</i>	Y		
566.	17175	<i>Eremophila glabra</i> subsp. <i>albicans</i>			

Selaginellaceae

567.	6	<i>Selaginella gracillima</i> (<i>Tiny Clubmoss</i>)			
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Solanaceae

568.	6949	<i>Anthocercis littorea</i> (<i>Yellow Tailflower</i>)			
569.	6983	<i>Physalis peruviana</i> (<i>Cape Gooseberry</i>)	Y		
570.	7022	<i>Solanum nigrum</i> (<i>Black Berry Nightshade</i>)	Y		

Stylidiaceae

571.	7677	<i>Levenhookia stipitata</i> (<i>Common Stylewort</i>)			
572.	30278	<i>Stylidium androsaceum</i>			
573.	25831	<i>Stylidium araeophyllum</i> (<i>Stilt Walker</i>)			
574.	7693	<i>Stylidium brunonianum</i> (<i>Pink Fountain Triggerplant</i>)			
575.	25801	<i>Stylidium hesperium</i>			

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
576.	7745	<i>Stylidium junceum</i> (Reed Triggerplant)			
577.	13083	<i>Stylidium lateriticola</i>			
578.	7756	<i>Stylidium longitubum</i> (Jumping Jacks)		P4	
579.	19248	<i>Stylidium megacarpum</i>			
580.	25829	<i>Stylidium neurophyllum</i> (Coastal Plain Triggerplant)			
581.	7774	<i>Stylidium piliferum</i> (Common Butterfly Triggerplant)			
582.	7785	<i>Stylidium repens</i> (Matted Triggerplant)			
583.	7798	<i>Stylidium schoenoides</i> (Cow Kicks)			
584.		<i>Stylidium</i> sp.			
585.	23511	<i>Stylidium thesioides</i> (Delicate Triggerplant)			
586.	7806	<i>Stylidium utricularioides</i> (Pink Fan Triggerplant)			
587.	7808	<i>Stylidium violaceum</i> (Violet Triggerplant)			

Thymelaeaceae

588.	5231	<i>Pimelea angustifolia</i> (Narrow-leaved Pimelea)			
589.	11928	<i>Pimelea ciliata</i> subsp. <i>ciliata</i>			
590.	11402	<i>Pimelea imbricata</i> var. <i>piligera</i>			

Urticaceae

591.	1762	<i>Parietaria debilis</i> (Pellitory)			
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Xanthorrhoeaceae

592.	1280	<i>Chamaescilla corymbosa</i> (Blue Squill)			
593.	19338	<i>Chamaescilla gibsonii</i>		P3	
594.	1251	<i>Xanthorrhoea brunonis</i>			
595.	1256	<i>Xanthorrhoea preissii</i> (Grass tree, Palga)			

Zamiaceae

596.	85	<i>Macrozamia riedlei</i> (Zamia, Djiridji)			
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Zygophyllaceae

597.	4390	<i>Zygophyllum fruticosum</i> (Shrubby Twinleaf)			
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Conservation Codes

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

¹ For NatureMap's purposes, species flagged as endemic are those whose records are 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.



EPBC Act Protected Matters Report

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

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

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 19/10/18 13:11:54

[Summary](#)

[Details](#)

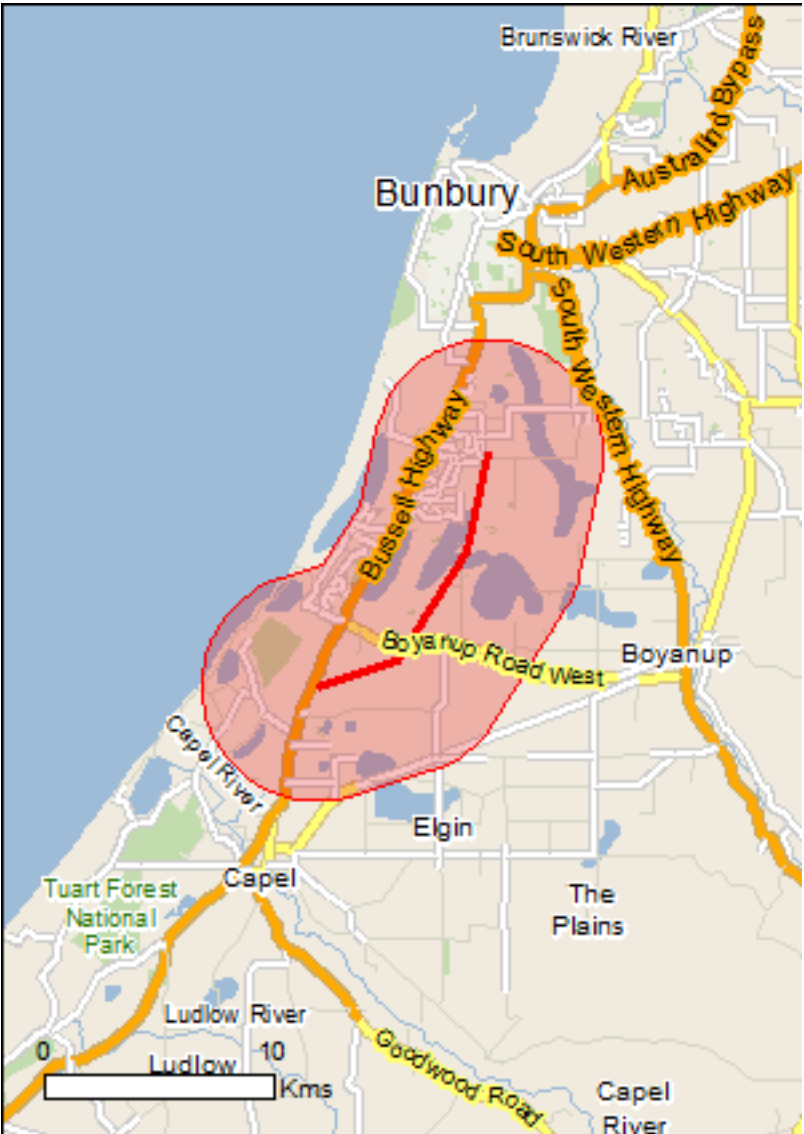
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

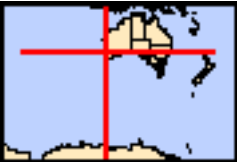
[Acknowledgements](#)



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[Buffer: 5.0Km](#)



Summary

Matters of National Environmental Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	2
Listed Threatened Species:	60
Listed Migratory Species:	41

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	63
Whales and Other Cetaceans:	13
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	1
Regional Forest Agreements:	None
Invasive Species:	31
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities

[Resource Information]

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

Name	Status	Type of Presence
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area
Clay Pans of the Swan Coastal Plain	Critically Endangered	Community likely to occur within area

Listed Threatened Species

[Resource Information]

Name	Status	Type of Presence
Birds		
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area
Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769]	Endangered	Breeding known to occur within area
Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Species or species habitat known to occur within area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or

Name	Status	Type of Presence
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	related behaviour likely to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat likely to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat likely to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat likely to occur within area
Thalassarche cauta cauta Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Breeding likely to occur within area
Thalassarche cauta steadi White-capped Albatross [82344]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Mammals		
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat known to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Species or species habitat may occur within area

Name	Status	Type of Presence
Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Breeding known to occur within area
Setonix brachyurus Quokka [229]	Vulnerable	Species or species habitat known to occur within area
Other		
Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat known to occur within area
Plants		
Andersonia gracilis Slender Andersonia [14470]	Endangered	Species or species habitat may occur within area
Austrostipa bronwenae [87808]	Endangered	Species or species habitat likely to occur within area
Austrostipa jacobsoniana [87809]	Critically Endangered	Species or species habitat known to occur within area
Banksia nivea subsp. uliginosa Swamp Honey-pot [82766]	Endangered	Species or species habitat may occur within area
Banksia squarrosa subsp. argillacea Whicher Range Dryandra [82769]	Vulnerable	Species or species habitat may occur within area
Brachyscias verecundus Ironstone Brachyscias [81321]	Critically Endangered	Species or species habitat may occur within area
Caladenia huegelii King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat known to occur within area
Chamelaucium sp. S coastal plain (R.D.Royce 4872) Royce's Waxflower [87814]	Vulnerable	Species or species habitat may occur within area
Diuris drummondii Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat likely to occur within area
Diuris micrantha Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area
Diuris purdiei Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat may occur within area
Drakaea elastica Glossy-leaved Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat known to occur within area
Drakaea micrantha Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat known to occur within area
Eleocharis keigheryi Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat known to occur within area
Gastrolobium papilio Butterfly-leaved Gastrolobium [78415]	Endangered	Species or species habitat may occur within area

Name	Status	Type of Presence
Lambertia echinata subsp. occidentalis Western Prickly Honeysuckle [64528]	Endangered	Species or species habitat may occur within area
Petrophile latericola Laterite Petrophile [64532]	Endangered	Species or species habitat may occur within area
Synaphea sp. Fairbridge Farm (D. Papenfus 696) Selenia's Synaphea [82881]	Critically Endangered	Species or species habitat known to occur within area
Synaphea sp. Serpentine (G.R. Brand 103) [86879]	Critically Endangered	Species or species habitat known to occur within area
Synaphea stenoloba Dwellingup Synaphea [66311]	Endangered	Species or species habitat known to occur within area
Verticordia densiflora var. pedunculata Long-stalked Featherflower [55689]	Endangered	Species or species habitat likely to occur within area

Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area

Sharks		
Carcharias taurus (west coast population) Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat known to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species

Name	Threatened	Type of Presence
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	habitat may occur within area Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Onychoprion anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Migratory Marine Species		
Balaena glacialis australis Southern Right Whale [75529]	Endangered*	Breeding known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur

Name	Threatened	Type of Presence
		within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Manta alfredi Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat may occur within area
Manta birostris Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat likely to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur

Name	Threatened	Type of Presence
Tringa nebularia Common Greenshank, Greenshank [832]		within area Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species	[Resource Information]	
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely to occur within area
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Breeding known to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat likely to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species

Name	Threatened	Type of Presence
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	habitat may occur within area Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat likely to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat likely to occur within area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Puffinus assimilis Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Species or species habitat likely to occur within area
Sterna anaethetus Bridled Tern [814]		Foraging, feeding or related behaviour likely to occur within area
Sterna caspia Caspian Tern [59467]		Foraging, feeding or related behaviour known to occur within area
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely

Name	Threatened	Type of Presence
to occur within area		
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis Hooded Plover [59510]		Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area
Fish		
Acentronura australe Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
Campichthys galei Gale's Pipefish [66191]		Species or species habitat may occur within area
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus angustus Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Hippocampus subelongatus West Australian Seahorse [66722]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus fatiloquus Prophet's Pipefish [66250]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Mitotichthys meraculus Western Crested Pipefish [66259]		Species or species habitat may occur within area
Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within

Name	Threatened	Type of Presence
area		
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammals		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Species or species habitat may occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Natator depressus Flatback Turtle [59257]	Vulnerable	Species or species habitat known to occur within area
Whales and other Cetaceans		[Resource Information]
Name	Status	Type of Presence
Mammals		
Balaenoptera acutorostrata Minke Whale [33]		Species or species

Name	Status	Type of Presence
Balaenoptera edeni Bryde's Whale [35]	Endangered	habitat may occur within area
Balaenoptera musculus Blue Whale [36]		Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat likely to occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves		[Resource Information]
Name	State	
Tuart Forest	WA	
Invasive Species		[Resource Information]
Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.		
Name	Status	Type of Presence

Name	Status	Type of Presence
Birds		
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		Species or species habitat likely to occur within area
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax,		Species or species

Name	Status	Type of Presence
Florist's Smilax, Smilax Asparagus [22473]		habitat likely to occur within area
Asparagus declinatus Bridal Veil, Bridal Veil Creeper, Pale Berry Asparagus Fern, Asparagus Fern, South African Creeper [66908]		Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
Brachiaria mutica Para Grass [5879]		Species or species habitat may occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat may occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Genista linifolia Flax-leaved Broom, Mediterranean Broom, Flax Broom [2800]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Olea europaea Olive, Common Olive [9160]		Species or species habitat may occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Solanum elaeagnifolium Silver Nightshade, Silver-leaved Nightshade, White Horse Nettle, Silver-leaf Nightshade, Tomato Weed, White Nightshade, Bull-nettle, Prairie-berry, Satansbos, Silver-leaf Bitter-apple, Silverleaf-nettle, Trompillo [12323]		Species or species habitat likely to occur within area

Caveat

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

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

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

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

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

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

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

- migratory and
- marine

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

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

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

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

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

Coordinates

-33.415691 115.651124,-33.447495 115.642884,-33.483868 115.615075,-33.491886 115.583833

Acknowledgements

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

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

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

Please feel free to provide feedback via the [Contact Us](#) page.

Quadrat and Photo Point Data

Quadrat Species List

Row Labels	Status	GB 01	GB 02	GB 03	GB 04	GB 05	GB 06	GB 07	GB 08	GB 09	GB 10	GB 11	GB 12	GB 13	GB 14	GB 15	GB 16	GB 17	GB 18	GB 19	GB 20
<i>Acacia applanata</i>									1					1	1						
<i>Acacia extensa</i>			1																		
<i>Acacia huegelii</i>									1												
<i>Acacia longifolia</i>	*		1																		
<i>Acacia pulchella</i> var. <i>pulchella</i>			1												1						
<i>Acacia pulchella</i> var. <i>glaberrima</i>																			1	1	1
<i>Agonis flexuosa</i>					1		2	1				1	1	1			1				1
<i>Agrostocrinum scabrum</i>			1			1															
<i>Alyxia buxifolia</i>															1						
<i>Anthoxanthum odoratum</i>	*										1										
<i>Astartea scoparia</i>											1										
<i>Asteridea pulverulenta</i>					1	1															
<i>Astroloma pallidum</i>						1															
<i>Austrostipa campylachne</i>		1											1		1		1		1		
<i>Austrostipa flavescens</i>																				1	
<i>Austrostipa semibarbata</i>																					1
<i>Avena barbata</i>	*	1						1									1	1			
<i>Avena fatua</i>	*			1			1														
<i>Banksia attenuata</i>		1	1		1	1	1	1	1			1	1	1	1	1	1	1	1	1	1
<i>Banksia grandis</i>		1					1		1						1					1	
<i>Banksia ilicifolia</i>									1												1
<i>Baumea juncea</i>											1										
<i>Billardiera variifolia</i>															1						
<i>Bossiaea eriocarpa</i>		1			1	1			1										1		1
<i>Briza maxima</i>	*	1	1	1	1	1	1	1	1		1	1	1	1		1	1	1	1	1	1
<i>Briza minor</i>	*												1								

Row Labels	Status	GB 01	GB 02	GB 03	GB 04	GB 05	GB 06	GB 07	GB 08	GB 09	GB 10	GB 11	GB 12	GB 13	GB 14	GB 15	GB 16	GB 17	GB 18	GB 19	GB 20
<i>Bromus diandrus</i>	*															1					
<i>Burchardia congesta</i>		1	1		1	1			1						1		1	1	1		
<i>Caladenia flava</i> subsp. <i>flava</i>		1	1			1									1				1		
<i>Callitriche stagnalis</i>	*																				
<i>Carex divisa</i>	*									1											
<i>Cassytha</i> sp.																					
<i>Chamaescilla corymbosa</i>		1					1					1									
<i>Conostylis aculeata</i>																				1	
<i>Conostylis aculeata</i> subsp. <i>preissii</i>		1	1		1	1						1	1	1	1	1	1	1	1		1
<i>Conostylis juncea</i>							1														
<i>Conyza bonariensis</i>	*			1																	
<i>Corymbia calophylla</i>			1						1			1		1	1	1	1	1	1	1	
<i>Cotula coronopifolia</i>	*			1						1											
<i>Cotula turbinata</i>	*			1				1		1											
<i>Crassula colorata</i> var. <i>colorata</i>																1					
<i>Crassula natans</i> var. <i>minus</i>	*			1												1					
<i>Cryptostylis ovata</i> (leaf only)			1																		
<i>Cyathochaeta avenacea</i>											1										
<i>Cycnogeton lineare</i>																					
<i>Cynodon dactylon</i>	*									1											
<i>Cyperus tenellus</i>	*										1										
<i>Dasypogon bromeliifolius</i>			1						1					1							
<i>Daucus glochidiatus</i>														1				1			
<i>Daviesia physodes</i>			1																		
<i>Desmocladus fascicularis</i>		1	1		1	1			1			1		1		1		1		1	1
<i>Desmocladus flexuosa</i>												1						1			
<i>Dianella revoluta</i>							1					1		1			1	1	1		

Row Labels	Status	GB 01	GB 02	GB 03	GB 04	GB 05	GB 06	GB 07	GB 08	GB 09	GB 10	GB 11	GB 12	GB 13	GB 14	GB 15	GB 16	GB 17	GB 18	GB 19	GB 20
<i>Hovea trisperma</i>					1				1												
<i>Hyalosperma cotula</i>					1	1															
<i>Hybanthus calycinus</i>					1	1	1														
<i>Hypocalymma robustum</i>			1																		1
<i>Hypochaeris glabra</i>	*		1	1	1	1		1		1	1	1	1		1	1		1	1		1
<i>Hypochaeris radicata</i>	*	1		1																	
<i>Hypolaena exsulca</i>		1	1						1												1
<i>Isolepis cernua</i> var. <i>setiformis</i>										1											
<i>Ixia</i> sp.	*														1	1	1	1	1		
<i>Jacksonia furcellata</i>															1				1		1
<i>Jacksonia horrida</i>									1												
<i>Juncus pallidus</i>										1											
<i>Kennedia prostrata</i>					1				1					1		1	1	1			1
<i>Kunzea glabrescens</i>									1		2							1			
<i>Lagenophora huegelii</i>		1	1		1	1	1					1									1
<i>Lemna disperma</i>																					
<i>Lepidosperma longitudinale</i>				1																	
<i>Lepidosperma pubisquameum</i>		1	1		1	1	1		1			1			1	1	1		1		1
<i>Lepidosperma</i> sp. (nf)																				1	
<i>Leptocarpus kraussii</i>																					
<i>Leucopogon propinquus</i>		1			1	1	1					1	1	1	1		1		1		
<i>Levenhookia pusilla</i>		1			1	1	1												1		
<i>Lobelia heterophylla</i>							1														
<i>Lolium rigidum</i>	*							1		1											
<i>Lomandra ?odora</i>																					1
<i>Lomandra caespitosa</i>					1	1															1
<i>Lomandra hermaphrodita</i>		1													1		2				

Row Labels	Status	GB 01	GB 02	GB 03	GB 04	GB 05	GB 06	GB 07	GB 08	GB 09	GB 10	GB 11	GB 12	GB 13	GB 14	GB 15	GB 16	GB 17	GB 18	GB 19	GB 20
<i>Lomandra odora</i>							1							1			1				
<i>Lomandra purpurea</i>		1	1												1						
<i>Lomandra sericea</i>																					1
<i>Lomandra</i> sp.			1		1																
<i>Lotus subbiflorus</i>	*			1						1	1					1					
<i>Lyginia barbata</i>									1												
<i>Lyperanthus serratus</i>															1				1		
<i>Lysimachia arvensis</i>	*					1	1					1	1								
<i>Macrozamia riedlei</i>		1			1		1	1	1			1		1	1	1		1	1	1	
<i>Melaleuca preissiana</i>				1						1											
<i>Melaleuca raphiophylla</i>										1											
<i>Melaleuca thymoides</i>									1												
<i>Mentha pulegium</i>	*			1																	
<i>Microtis media</i> subsp. <i>media</i>			1							1				1	1		1		1		
<i>Microtis</i> sp. nf tall (45 cm)												1									
<i>Moraea flaccida</i>																1					
<i>Nuytsia floribunda</i>																				1	
<i>Opercularia apiciflora</i>		1																	1		
<i>Opercularia hispidula</i>			1									1									
<i>Opercularia vaginata</i>							1														
<i>Ornithopus compressus</i>											1							1			
<i>Orthrosanthus laxus</i> var. <i>laxus</i>															1		1	1	1		
<i>Oxalis pes-caprae</i>	*							1					1	1	1	1	1	1			
<i>Patersonia occidentalis</i>			1		1							1			1		1		1	1	
<i>Persoonia longifolia</i>															1						
<i>Petrophile linearis</i>			1									1			1						1
<i>Petrorhagia dubia</i>	*					1	1	1					1								

Row Labels	Status	GB 01	GB 02	GB 03	GB 04	GB 05	GB 06	GB 07	GB 08	GB 09	GB 10	GB 11	GB 12	GB 13	GB 14	GB 15	GB 16	GB 17	GB 18	GB 19	GB 20
<i>Stylidium calcaratum</i>						1															
<i>Stylidium ciliatum</i>									1												
<i>Stylidium schoenoides</i>		1			1	1															
<i>Stypandra glauca</i>												1									
<i>Thelymitra benthamiana</i>		2	1		1	1			1			1		1	1		1	1			
<i>Thelymitra graminea</i>									1										1		
<i>Thelymitra macrophylla</i>			2			1			1						1		1		1		
<i>Thysanotus ? manglesianus</i>		1			1				1						1		1	1	1		
<i>Thysanotus multiflorus</i>		1																			
<i>Trachyandra divaricata</i>																1					
<i>Trachymene pilosa</i>		1	1		1	1	1		1		1	1	1	1					1		
<i>Tricoryne elatior</i>							1						1								
<i>Trifolium arvense</i> var. <i>arvense</i>	*									1											
<i>Trifolium campestre</i>	*											1	1			1	1	1			
<i>Trifolium repens</i>	*			1						1								1			
<i>Trifolium</i> sp.	*					1		1													
<i>Ursinia anthemoides</i>	*	1	1		1	1	1				1			1		1	1	1			
<i>Xanthorrhoea brunonis</i>					1				1			1			1	1	1	1	1	1	1
<i>Xanthorrhoea gracilis</i>		1				1	1														
<i>Xanthosia huegelii</i>		1			1				1												1
<i>Xylomelum occidentale</i>		1	1										1							1	
<i>Zantedeschia aethiopica</i>	*									1						1	1				
Grand Total		46	40	25	39	36	35	16	35	20	16	32	18	26	42	27	33	32	39	21	29

APPENDIX E

Flora Data

Combined species list for BORR South

Family	Genus	Species	Status	BORR IPT 2018/2019	GHD 2015	GHD 2014	Biota 2016	Biota 2018
Alismataceae	<i>Alisma</i>	<i>lanceolatum</i>	*	X				
Amaranthaceae	<i>Ptilotus</i>	<i>sericostachyus</i>		X				
Anarthriaceae	<i>Anarthria</i>	<i>prolifera</i>				X		
Anarthriaceae	<i>Lyginia</i>	<i>barbata</i>		X				
Anarthriaceae	<i>Lyginia</i>	<i>imberbis</i>		X	X	X		
Anthericaceae	<i>Agrostocrinum</i>	sp.			X			
Apiaceae	<i>Centella</i>	<i>asiatica</i>		X				
Apiaceae	<i>Daucus</i>	<i>glochidiatus</i>		X				
Apiaceae	<i>Eryngium</i>	<i>pinnatifidum</i>		X				
Apiaceae	<i>Platysace</i>	<i>compressa</i>		X				
Apiaceae	<i>Platysace</i>	<i>filiiformis</i>				X		
Apiaceae	<i>Xanthosia</i>	<i>huegelii</i>		X			X	X
Apocynaceae	<i>Alyxia</i>	<i>buxifolia</i>		X		X		
Araceae	<i>Lemna</i>	<i>disperma</i>		X				
Araceae	<i>Zantedeschia</i>	<i>aethiopica</i>	*DP/WoNS	X	X	X	X	X
Araliaceae	<i>Hydrocotyle</i>	sp.			X			
Araliaceae	<i>Trachymene</i>	<i>pilosa</i>		X	X		X	X
Asparagaceae	<i>Acanthocarpus</i>	<i>preissii</i>		X				
Asparagaceae	<i>Asparagus</i>	<i>asparagoides</i>	*DP/WoNS	X	X	X	X	
Asparagaceae	<i>Dichopogon</i>	<i>capillipes</i>		X				
Asparagaceae	<i>Lomandra</i>	? <i>preissii</i>			X			
Asparagaceae	<i>Lomandra</i>	<i>caespitosa</i>		X				X
Asparagaceae	<i>Lomandra</i>	<i>hermaphrodita</i>		X				X
Asparagaceae	<i>Lomandra</i>	<i>integra</i>						X
Asparagaceae	<i>Lomandra</i>	<i>micrantha</i> subsp. <i>micrantha</i>			X	X		
Asparagaceae	<i>Lomandra</i>	<i>nigricans</i>			X	X		X
Asparagaceae	<i>Lomandra</i>	<i>odora</i>		X				
Asparagaceae	<i>Lomandra</i>	<i>preissii</i>			X			
Asparagaceae	<i>Lomandra</i>	<i>purpurea</i>		X				
Asparagaceae	<i>Lomandra</i>	<i>sericea</i>						X
Asparagaceae	<i>Lomandra</i>	sp.		X	X			
Asparagaceae	<i>Sowerbaea</i>	<i>laxiflora</i>		X	X		X	X
Asparagaceae	<i>Thysanotus</i>	? <i>manglesianus</i>		X	X			
Asparagaceae	<i>Thysanotus</i>	<i>arbuscula</i>						X
Asparagaceae	<i>Thysanotus</i>	<i>arenarius</i>				X		
Asparagaceae	<i>Thysanotus</i>	<i>multiflorus</i>		X				X
Asparagaceae	<i>Thysanotus</i>	<i>patersonii</i>					X	X
Asparagaceae	<i>Thysanotus</i>	<i>tenellus</i>		X				
Asphodelaceae	<i>Trachyandra</i>	<i>divaricata</i>	*	X				
Asteraceae	<i>Arctotheca</i>	<i>calendula</i>	*	X	X	X	X	
Asteraceae	<i>Asteridea</i>	<i>pulverulenta</i>		X			X	X
Asteraceae	<i>Conyza</i>	<i>bonariensis</i>	*	X	X			

Family	Genus	Species	Status	BORR IPT 2018/2019	GHD 2015	GHD 2014	Biota 2016	Biota 2018
Asteraceae	<i>Conyza</i>	sp.	*	X			X	
Asteraceae	<i>Cotula</i>	<i>bipinnata</i>	*	X				
Asteraceae	<i>Cotula</i>	<i>coronopifolia</i>	*	X	X			
Asteraceae	<i>Cotula</i>	<i>turbinata</i>	*	X	X		X	
Asteraceae	<i>Craspedia</i>	<i>variabilis</i>		X	X			X
Asteraceae	<i>Hyalosperma</i>	<i>cotula</i>		X	X			
Asteraceae	<i>Hypochaeris</i>	? <i>glabra</i>	*		X			
Asteraceae	<i>Hypochaeris</i>	<i>glabra</i>	*	X	X	X	X	X
Asteraceae	<i>Hypochaeris</i>	<i>radicata</i>	*	X			X	
Asteraceae	<i>Hypochaeris</i>	sp.	*		X	X		
Asteraceae	<i>Lagenophora</i>	<i>huegelii</i>		X	X		X	X
Asteraceae	<i>Olearia</i>	<i>axillaris</i>			X			
Asteraceae	<i>Pithocarpa</i>	<i>cordata</i>		X				
Asteraceae	<i>Podolepis</i>	<i>gracilis</i>						X
Asteraceae	<i>Rhodanthe</i>	<i>citrina</i>		X				
Asteraceae	<i>Siloxerus</i>	<i>humifusus</i>		X				
Asteraceae	<i>Senecio</i>	<i>pinnatifolius</i> var. <i>pinnatifolius</i>		X				
Asteraceae	<i>Sonchus</i>	<i>asper</i>	*		X			
Asteraceae	<i>Sonchus</i>	<i>oleraceus</i>	*	X			X	X
Asteraceae	<i>Sonchus</i>	sp.		X				
Asteraceae	sp.				X			
Asteraceae	<i>Taraxacum</i>	<i>officinale</i>	*		X			
Asteraceae	<i>Trichocline</i>	<i>spathulata</i>		X				X
Asteraceae	<i>Ursinia</i>	<i>anthemoides</i>	*	X	X	X	X	X
Asteraceae	<i>Waitzia</i>	<i>suaveolens</i> var. <i>suaveolens</i>		X				X
Brassicaceae	<i>Raphanus</i>	<i>raphanistrum</i>	*	X				
Campanulaceae	<i>Hybanthus</i>	<i>calycinus</i>		X				
Campanulaceae	<i>Lobelia</i>	<i>anceps</i>				X		
Campanulaceae	<i>Lobelia</i>	<i>heterophylla</i>		X				
Campanulaceae	<i>Lobelia</i>	<i>tenuior</i>						X
Campanulaceae	<i>Wahlenbergia</i>	<i>capensis</i>	*	X				
Caryophyllaceae	<i>Cerastium</i>	<i>glomeratum</i>	*	X				
Caryophyllaceae	<i>Petrorhagia</i>	<i>dubia</i>	*	X	X			X
Caryophyllaceae	<i>Silene</i>	<i>gallica</i>	*	X				
Caryophyllaceae	<i>Spergula</i>	<i>arvensis</i>	*	X				
Caryophyllaceae	<i>Stellaria</i>	<i>media</i>	*	X				
Casuarinaceae	<i>Allocasuarina</i>	? <i>humilis</i>			X			
Casuarinaceae	<i>Allocasuarina</i>	<i>humilis</i>		X				
Casuarinaceae	<i>Allocasuarina</i>	sp.			X			
Casuarinaceae	<i>Casuarina</i>	<i>obesa</i>		X				
Celastraceae	<i>Tripterococcus</i>	<i>brunonis</i>		X			X	
Centrolepidaceae	<i>Aphelia</i>	<i>cyperoides</i>		X				
Centrolepidaceae	<i>Centrolepis</i>	<i>aristata</i>		X				

Family	Genus	Species	Status	BORR IPT 2018/2019	GHD 2015	GHD 2014	Biota 2016	Biota 2018
Centrolepidaceae	<i>Centrolepis</i>	<i>polygyna</i>		X				
Chenopodiaceae	<i>Atriplex</i>	<i>prostrata</i>	*		X			
Colchicaceae	<i>Burchardia</i>	<i>congesta</i>		X	X	X	X	X
Colchicaceae	<i>Burchardia</i>	<i>multiflora</i>					X	
Colchicaceae	<i>Wurmbea</i>	<i>monantha</i>			X			
Crassulaceae	<i>Crassula</i>	? <i>glomerata</i>			X			
Crassulaceae	<i>Crassula</i>	<i>colorata</i> var. <i>colorata</i>		X	X			
Crassulaceae	<i>Crassula</i>	<i>decumbens</i>		X				
Crassulaceae	<i>Crassula</i>	<i>natans</i>		X				
Crassulaceae	<i>Crassula</i>	<i>natans</i> var. <i>minus</i>	*	X				
Cyperaceae	? <i>Caustis</i>	<i>dioica</i>			X			
Cyperaceae	<i>Baumea</i>	<i>articulata</i>		X				
Cyperaceae	<i>Baumea</i>	<i>juncea</i>		X				
Cyperaceae	<i>Baumea</i>	<i>vaginalis</i>		X				
Cyperaceae	<i>Carex</i>	<i>divisa</i>	*	X				
Cyperaceae	<i>Chorizandra</i>	<i>enodis</i>		X				
Cyperaceae	<i>Cyathochaeta</i>	<i>avenacea</i>		X			X	
Cyperaceae	<i>Cyperus</i>	<i>congestus</i>		X				
Cyperaceae	<i>Cyperus</i>	<i>eragrostis</i>	*	X				
Cyperaceae	<i>Cyperus</i>	<i>tenellus</i>	*	X			X	
Cyperaceae	<i>Ficinia</i>	<i>nodosa</i>		X			X	
Cyperaceae	<i>Isolepis</i>	? <i>cernua</i>			X			
Cyperaceae	<i>Isolepis</i>	<i>cernua</i> var. <i>setiformis</i>		X				
Cyperaceae	<i>Isolepis</i>	<i>marginata</i>	*	X	X			
Cyperaceae	<i>Isolepis</i>	<i>oldfieldiana</i>		X				
Cyperaceae	<i>Lepidosperma</i>	? <i>longitudinale</i>			X			
Cyperaceae	<i>Lepidosperma</i>	? <i>pubisquameum</i>			X			
Cyperaceae	<i>Lepidosperma</i>	<i>gladiatum</i>			X			
Cyperaceae	<i>Lepidosperma</i>	<i>longitudinale</i>		X	X	X	X	
Cyperaceae	<i>Lepidosperma</i>	<i>pubisquameum</i>		X	X	X		X
Cyperaceae	<i>Lepidosperma</i>	sp.		X	X			
Cyperaceae	<i>Lepidosperma</i>	<i>squamatum</i>			X	X	X	
Cyperaceae	<i>Mesomelaena</i>	<i>stygia</i>		X				
Cyperaceae	<i>Mesomelaena</i>	<i>tetragona</i>		X	X			
Cyperaceae	<i>Schoenus</i>	<i>curvifolius</i>		X				
Cyperaceae	<i>Schoenus</i>	<i>grandiflorus</i>		X	X			X
Cyperaceae	<i>Tetraria</i>	<i>octandra</i>		X			X	X
Dasypogonaceae	<i>Calectasia</i>	<i>narragara</i>		X				
Dasypogonaceae	<i>Dasypogon</i>	<i>bromeliifolius</i>		X	X	X	X	X
Dennstaedtiaceae	<i>Pteridium</i>	<i>esculentum</i> subsp. <i>esculentum</i>		X		X		
Dilleniaceae	<i>Hibbertia</i>	<i>cuneiformis</i>		X	X			X
Dilleniaceae	<i>Hibbertia</i>	<i>hypericoides</i> subsp. <i>hypericoides</i>		X	X	X	X	X

Family	Genus	Species	Status	BORR IPT 2018/2019	GHD 2015	GHD 2014	Biota 2016	Biota 2018
Dilleniaceae	<i>Hibbertia</i>	<i>racemosa</i>		X	X	X	X	X
Dilleniaceae	<i>Hibbertia</i>	<i>vaginata</i>		X		X		X
Droseraceae	<i>Drosera</i>	? <i>erythrorhiza</i>			X			X
Droseraceae	<i>Drosera</i>	? <i>pallida</i>						X
Droseraceae	<i>Drosera</i>	? <i>porrecta</i>			X			
Droseraceae	<i>Drosera</i>	? <i>stolonifera</i>						X
Droseraceae	<i>Drosera</i>	<i>erythrorhiza</i>		X	X	X		
Droseraceae	<i>Drosera</i>	<i>glanduligera</i>		X		X		
Droseraceae	<i>Drosera</i>	<i>menziesii</i>		X				
Droseraceae	<i>Drosera</i>	<i>pallida</i>		X	X			
Droseraceae	<i>Drosera</i>	<i>porrecta</i>		X				
Droseraceae	<i>Drosera</i>	sp.			X	X		
Droseraceae	<i>Drosera</i>	<i>stolonifera</i>		X				
Droseraceae	<i>Drosera</i>	sp. climbing (nf)		X				
Elaeocarpaceae	<i>Platytheca</i>	<i>galioides</i>						X
Elaeocarpaceae	<i>Tetratheca</i>	<i>hirsuta</i>			X			
Ericaceae	<i>Astroloma</i>	<i>pallidum</i>		X				X
Ericaceae	<i>Conostephium</i>	<i>pendulum</i>				X		
Ericaceae	<i>Leucopogon</i>	? <i>conostephioides</i> s. lat			X			
Ericaceae	<i>Leucopogon</i>	<i>propinquus</i>		X	X	X	X	X
Ericaceae	<i>Leucopogon</i>	sp.			X			
Ericaceae	<i>Petrophile</i>	<i>linearis</i>		X				X
Ericaceae	<i>Styphelia</i>	<i>tenuiflora</i>				X		
Euphorbiaceae	<i>Euphorbia</i>	<i>peplus</i>	*	X			X	
Euphorbiaceae	<i>Ricinus</i>	<i>communis</i>	*	X				
Fabaceae	? <i>Daviesia</i>	<i>divaricata</i>			X			
Fabaceae	<i>Acacia</i>	<i>applanata</i>		X				
Fabaceae	<i>Acacia</i>	<i>baileyana</i>	*		X	X		
Fabaceae	<i>Acacia</i>	<i>cochlearis</i>		X				
Fabaceae	<i>Acacia</i>	<i>cyclops</i>			X			
Fabaceae	<i>Acacia</i>	<i>extensa</i>		X	X	X		
Fabaceae	<i>Acacia</i>	<i>huegelii</i>		X			X	
Fabaceae	<i>Acacia</i>	<i>incurva</i>			X			
Fabaceae	<i>Acacia</i>	<i>iteaphylla</i>	*	X	X	X		
Fabaceae	<i>Acacia</i>	<i>longifolia</i>	*	X		X		X
Fabaceae	<i>Acacia</i>	<i>podalyriifolia</i>	*	X		X		
Fabaceae	<i>Acacia</i>	<i>pulchella</i>			X	X	X	
Fabaceae	<i>Acacia</i>	<i>pulchella</i> var. <i>glaberrima</i>		X				
Fabaceae	<i>Acacia</i>	<i>pulchella</i> var. <i>pulchella</i>		X				X
Fabaceae	<i>Acacia</i>	<i>saligna</i>		X	X			
Fabaceae	<i>Acacia</i>	<i>semitrullata</i>	P4		X	X		
Fabaceae	<i>Acacia</i>	<i>stenoptera</i>		X				X

Family	Genus	Species	Status	BORR IPT 2018/2019	GHD 2015	GHD 2014	Biota 2016	Biota 2018
Fabaceae	<i>Aotus</i>	<i>gracillima</i>		X		X		
Fabaceae	<i>Aotus</i>	<i>intermedia</i>				X		
Fabaceae	<i>Bossiaea</i>	<i>? eriocarpa</i>			X			
Fabaceae	<i>Bossiaea</i>	<i>eriocarpa</i>		X	X	X		X
Fabaceae	<i>Chamaecytisus</i>	<i>palmensis</i>	*	X	X			
Fabaceae	<i>Chorizema</i>	<i>retrorsum</i>				X		
Fabaceae	<i>Daviesia</i>	<i>? divaricata</i>			X			
Fabaceae	<i>Daviesia</i>	<i>decurrens</i>			X			
Fabaceae	<i>Daviesia</i>	<i>divaricata</i> subsp. <i>divaricata</i>		X	X	X	X	
Fabaceae	<i>Daviesia</i>	<i>incrassata</i>		X		X		
Fabaceae	<i>Daviesia</i>	<i>physodes</i>		X	X			
Fabaceae	<i>Daviesia</i>	sp.			X			
Fabaceae	<i>Euchilopsis</i>	<i>linearis</i>				X		X
Fabaceae	<i>Gastrolobium</i>	<i>capitatum</i>			X			
Fabaceae	<i>Gompholobium</i>	<i>polymorphum</i>		X				X
Fabaceae	<i>Gompholobium</i>	<i>tomentosum</i>		X		X	X	X
Fabaceae	<i>Hardenbergia</i>	<i>comptoniana</i>		X	X	X	X	X
Fabaceae	<i>Hovea</i>	<i>trisperma</i>		X			X	X
Fabaceae	<i>Jacksonia</i>	<i>furcellata</i>		X	X	X		
Fabaceae	<i>Jacksonia</i>	<i>horrida</i>		X				
Fabaceae	<i>Jacksonia</i>	<i>sternbergiana</i>						X
Fabaceae	<i>Kennedia</i>	<i>prostrata</i>		X	X	X	X	X
Fabaceae	<i>Kennedia</i>	sp.				X		
Fabaceae	<i>Lotus</i>	<i>angustissimus</i>	*	X	X			
Fabaceae	<i>Lotus</i>	<i>subbiflorus</i>	*	X			X	X
Fabaceae	<i>Lupinus</i>	<i>angustifolius</i>	*	X	X			
Fabaceae	<i>Lupinus</i>	<i>cosentinii</i>	*		X			
Fabaceae	<i>Ornithopus</i>	<i>compressus</i>	*	X	X		X	
Fabaceae	<i>Ornithopus</i>	<i>sativus</i>	*	X				
Fabaceae	<i>Trifolium</i>	<i>arvense</i> var. <i>arvense</i>	*	X				
Fabaceae	<i>Trifolium</i>	<i>campestre</i>	*	X				X
Fabaceae	<i>Trifolium</i>	<i>repens</i>	*	X				X
Fabaceae	<i>Trifolium</i>	sp.	*	X	X			
Fabaceae	<i>Trifolium</i>	<i>subterraneum</i>	*		X			X
Fabaceae	<i>Vicia</i>	<i>sativa</i>	*	X			X	
Fabaceae	<i>Vicia</i>	sp.	*		X			
Fabaceae	<i>Viminaria</i>	<i>juncea</i>		X	X		X	
Geraniaceae	<i>Erodium</i>	<i>botrys</i>	*		X			
Geraniaceae	<i>Geranium</i>	<i>molle</i>	*	X				
Goodeniaceae	<i>Dampiera</i>	<i>lindleyi</i>			X			
Goodeniaceae	<i>Dampiera</i>	<i>linearis</i>		X		X		
Goodeniaceae	<i>Dampiera</i>	<i>pedunculata</i>		X				
Goodeniaceae	<i>Scaevola</i>	<i>calliptera</i>		X				X

Family	Genus	Species	Status	BORR IPT 2018/2019	GHD 2015	GHD 2014	Biota 2016	Biota 2018
Haemodoraceae	<i>Anigozanthos</i>	<i>manglesii</i>		X	X			
Haemodoraceae	<i>Conostylis</i>	<i>aculeata</i>			X	X		
Haemodoraceae	<i>Conostylis</i>	<i>aculeata</i> ? subsp. <i>preissii</i>		X				
Haemodoraceae	<i>Conostylis</i>	<i>aculeata</i> subsp. <i>gracilis</i>			X		X	X
Haemodoraceae	<i>Conostylis</i>	<i>aculeata</i> subsp. <i>preissii</i>		X	X		X	
Haemodoraceae	<i>Conostylis</i>	<i>juncea</i>		X				
Haemodoraceae	<i>Conostylis</i>	sp.		X				
Haemodoraceae	<i>Haemodorum</i>	sp.			X			X
Haemodoraceae	<i>Haemodorum</i>	<i>spicatum</i>		X	X	X		
Haemodoraceae	<i>Phlebocarya</i>	<i>ciliata</i>		X	X			X
Haemodoraceae	sp.				X			
Hemerocallidaceae	<i>Agrostocrinum</i>	<i>hirsutum</i>						X
Hemerocallidaceae	<i>Agrostocrinum</i>	<i>scabrum</i>		X				
Hemerocallidaceae	<i>Caesia</i>	<i>micrantha</i>			X		X	X
Hemerocallidaceae	<i>Dianella</i>	<i>revoluta</i>		X		X		X
Hemerocallidaceae	<i>Stypandra</i>	<i>glauca</i>		X	X			
Hemerocallidaceae	<i>Tricoryne</i>	<i>elatior</i>		X	X			X
Iridaceae	<i>Freesia</i>	<i>alba</i> x <i>leichtlinii</i>	*	X	X			
Iridaceae	<i>Gladiolus</i>	<i>caryophyllaceus</i>	*	X				
Iridaceae	<i>Ixia</i>	sp.	*	X				X
Iridaceae	<i>Moraea</i>	<i>flaccida</i>	* DP	X	X		X	
Iridaceae	<i>Orthrosanthus</i>	<i>laxus</i> var. <i>laxus</i>		X	X		X	X
Iridaceae	<i>Patersonia</i>	<i>occidentalis</i>		X	X		X	X
Iridaceae	<i>Patersonia</i>	<i>occidentalis</i> var. <i>angustifolia</i>		X				
Iridaceae	<i>Patersonia</i>	sp.				X		
Iridaceae	<i>Romulea</i>	<i>rosea</i>	*	X	X	X	X	
Iridaceae	<i>Sparaxis</i>	<i>bulbifera</i>	*	X				
Iridaceae	<i>Watsonia</i>	<i>meriana</i> var. <i>bulbifera</i>	*	X				
Juncaceae	<i>Juncus</i>	<i>articulatus</i>	*	X			X	
Juncaceae	<i>Juncus</i>	<i>bufonius</i>	*				X	
Juncaceae	<i>Juncus</i>	<i>kraussii</i>		X				
Juncaceae	<i>Juncus</i>	<i>microcephalus</i>	*			X		
Juncaceae	<i>Juncus</i>	<i>pallidus</i>		X	X	X		
Juncaceae	<i>Juncus</i>	sp.					X	
Juncaceae	<i>Juncus</i>	<i>subsecundus</i>			X			
Juncaceae	<i>Luzula</i>	<i>meridionalis</i>		X				
Juncaginaceae	<i>Cycnogeton</i>	<i>lineare</i>		X				
Lamiaceae	<i>Hemiandra</i>	<i>pungens</i>			X			X
Lamiaceae	<i>Mentha</i>	<i>pulegium</i>	*	X				
Lauraceae	<i>Cassytha</i>	<i>glabella</i>						X
Lauraceae	<i>Cassytha</i>	sp.		X	X	X		

Family	Genus	Species	Status	BORR IPT 2018/2019	GHD 2015	GHD 2014	Biota 2016	Biota 2018
Loganiaceae	<i>Orianthera</i>	<i>serpyllifolia</i> subsp. <i>angustifolia</i>			X			
Loranthaceae	<i>Nuytsia</i>	<i>floribunda</i>		X	X	X	X	X
Malvaceae	<i>Lasiopetalum</i>	<i>membranaceum</i>	P3	X				
Menyanthaceae	<i>Liparophyllum</i>	? <i>latifolium</i>		X				
Menyanthaceae	<i>Ornduffia</i>	<i>albiflora</i>				X		
Montiaceae	<i>Calandrinia</i>	<i>brevipedata</i>		X				
Myrtaceae	<i>Agonis</i>	<i>flexuosa</i>		X	X	X	X	X
Myrtaceae	<i>Astartea</i>	? <i>scoparia</i>				X		
Myrtaceae	<i>Astartea</i>	<i>scoparia</i>		X	X			X
Myrtaceae	<i>Callistemon</i>	<i>phoeniceus</i>	# planted	X	X			
Myrtaceae	<i>Calothamnus</i>	<i>quadrifidus</i>	# planted		X			
Myrtaceae	<i>Chamelaucium</i>	<i>uncinatum</i>	# planted	X				
Myrtaceae	<i>Corymbia</i>	<i>calophylla</i>		X	X	X	X	X
Myrtaceae	<i>Eucalyptus</i>	<i>globulus</i>	# planted		X			
Myrtaceae	<i>Eucalyptus</i>	<i>gomphocephala</i> <i>marginata</i> subsp. <i>marginata</i>		X	X			X
Myrtaceae	<i>Eucalyptus</i>	<i>marginata</i> subsp. <i>marginata</i>		X	X	X	X	X
Myrtaceae	<i>Eucalyptus</i>	<i>rudis</i>		X	X	X		X
Myrtaceae	<i>Eucalyptus</i>	sp.			X			
Myrtaceae	<i>Hypocalymma</i>	<i>robustum</i>		X	X		X	X
Myrtaceae	<i>Hypocalymma</i>	sp.			X			
Myrtaceae	<i>Kunzea</i>	<i>glabrescens</i> <i>micrantha</i> subsp. <i>micrantha</i>		X	X	X	X	X
Myrtaceae	<i>Kunzea</i>	<i>micrantha</i> subsp. <i>micrantha</i>			X		X	
Myrtaceae	<i>Melaleuca</i>	? <i>huegelii</i>			X			
Myrtaceae	<i>Melaleuca</i>	? <i>lateritia</i>			X			
Myrtaceae	<i>Melaleuca</i>	<i>lanceolata</i>	# planted	X				
Myrtaceae	<i>Melaleuca</i>	<i>nesophila</i>	# planted	X				X
Myrtaceae	<i>Melaleuca</i>	<i>preissiana</i>		X	X	X		X
Myrtaceae	<i>Melaleuca</i>	<i>rhaphiophylla</i>		X	X			X
Myrtaceae	<i>Melaleuca</i>	sp.			X			
Myrtaceae	<i>Melaleuca</i>	<i>teretifolia</i>			X	X		
Myrtaceae	<i>Melaleuca</i>	<i>thymoides</i>		X	X	X	X	X
Myrtaceae	<i>Melaleuca</i>	<i>viminea</i> <i>viminea</i> subsp. <i>Viminea</i>		X	X			
Myrtaceae	<i>Melaleuca</i>	<i>viminea</i> subsp. <i>Viminea</i>					X	
Myrtaceae	<i>Pericalymma</i>	<i>ellipticum</i>			X			
Myrtaceae	sp.				X			
Oleaceae	<i>Olea</i>	<i>europaea</i>	*		X	X		
Orchidaceae	<i>Caladenia</i>	<i>attingens</i> subsp. <i>attingens</i>		X				
Orchidaceae	<i>Caladenia</i>	<i>flava</i> subsp. <i>flava</i>		X	X		X	
Orchidaceae	<i>Caladenia</i>	<i>hirta</i> subsp. <i>hirta</i>			X			
Orchidaceae	<i>Caladenia</i>	<i>latifolia</i>		X	X			
Orchidaceae	<i>Caladenia</i>	sp. (leaf only)		X				

Family	Genus	Species	Status	BORR IPT 2018/2019	GHD 2015	GHD 2014	Biota 2016	Biota 2018
Orchidaceae	<i>Caladenia</i>	<i>speciosa</i>	P4		X			
Orchidaceae	<i>Cryptostylis</i>	<i>ovata</i>		X		X		X
Orchidaceae	<i>Cyrtostylis</i>	<i>huegelii</i>		X				
Orchidaceae	<i>Disa</i>	<i>bracteata</i>	*	X	X		X	
Orchidaceae	<i>Diuris</i>	? <i>longifolia</i>			X			
Orchidaceae	<i>Diuris</i>	<i>corymbosa</i>			X			
Orchidaceae	<i>Drakaea</i>	<i>livida</i>		X				
Orchidaceae	<i>Elythranthera</i>	<i>brunonis</i>		X				
Orchidaceae	<i>Eriochilus</i>	<i>dilatatus</i> (leaf only)		X				
Orchidaceae	<i>Lyperanthus</i>	<i>serratus</i>		X				
Orchidaceae	<i>Microtis</i>	<i>media</i> subsp. <i>media</i>		X			X	X
Orchidaceae	<i>Microtis</i>	sp. nf tall (45 cm)		X				
Orchidaceae	<i>Pterostylis</i>	? <i>recurva</i>			X			
Orchidaceae	<i>Pterostylis</i>	<i>erubescens</i>		X				
Orchidaceae	<i>Pterostylis</i>	<i>aspera</i>			X			
Orchidaceae	<i>Pterostylis</i>	<i>pyramidalis</i>		X				
Orchidaceae	<i>Pterostylis</i>	<i>sanguinea</i>				X		
Orchidaceae	<i>Pterostylis</i>	sp. crinkled leaf (G.J. Keighery 13426)		X				
Orchidaceae	<i>Pterostylis</i>	sp.		X	X	X		
Orchidaceae	<i>Pterostylis</i>	<i>vittata</i>		X	X	X		X
Orchidaceae	<i>Pyrorchis</i>	<i>nigricans</i>		X	X	X	X	X
Orchidaceae	sp.					X		
Orchidaceae	<i>Thelymitra</i>	<i>benthamiana</i>		X				X
Orchidaceae	<i>Thelymitra</i>	<i>graminea</i>		X			X	
Orchidaceae	<i>Thelymitra</i>	<i>macrophylla</i>		X				
Orchidaceae	<i>Thelymitra</i>	<i>paludosa</i>						X
Orobanchaceae	<i>Orobanche</i>	<i>minor</i>	*	X	X	X	X	X
Oxalidaceae	<i>Oxalis</i>	<i>pes-caprae</i>	*	X	X	X		
Oxalidaceae	<i>Oxalis</i>	<i>purpurea</i>	*		X			
Oxalidaceae	<i>Oxalis</i>	sp.			X	X	X	X
Papaveraceae	<i>Fumaria</i>	<i>capreolata</i>	*	X			X	
Phyllanthaceae	<i>Poranthera</i>	<i>microcephala</i>		X				
Phytolaccaceae	<i>Phyllanthus</i>	<i>calycinus</i>		X	X			X
Phytolaccaceae	<i>Phytolacca</i>	<i>octandra</i>	*	X				
Pittosporaceae	<i>Billardiera</i>	<i>variifolia</i>		X			X	X
Plantaginaceae	<i>Callitriche</i>	<i>stagnalis</i>	*	X	X			
Plantaginaceae	<i>Plantago</i>	<i>lanceolata</i>	*	X				
Poaceae	<i>Anthoxanthum</i>	<i>odoratum</i>	*	X			X	
Poaceae	<i>Austrostipa</i>	<i>campylachne</i>		X				
Poaceae	<i>Austrostipa</i>	<i>flavescens</i>			X			
Poaceae	<i>Avena</i>	<i>barbata</i>	*	X			X	X
Poaceae	<i>Avena</i>	<i>fatua</i>	*	X				
Poaceae	<i>Briza</i>	<i>maxima</i>	*	X	X	X	X	X

Family	Genus	Species	Status	BORR IPT 2018/2019	GHD 2015	GHD 2014	Biota 2016	Biota 2018
Poaceae	<i>Briza</i>	<i>minor</i>	*	X			X	
Poaceae	<i>Bromus</i>	<i>diandrus</i>	*	X		X	X	X
Poaceae	<i>Bromus</i>	<i>hordeaceus</i>	*				X	
Poaceae	<i>Cenchrus</i>	<i>clandestinus</i>	*	X	X			
Poaceae	<i>Cenchrus</i>	<i>longisetus</i>	*			X		
Poaceae	<i>Cynodon</i>	<i>dactylon</i>	*	X		X	X	
Poaceae	<i>Ehrharta</i>	<i>calycina</i>	*	X	X	X	X	X
Poaceae	<i>Ehrharta</i>	<i>longiflora</i>	*	X	X	X	X	
Poaceae	<i>Ehrharta</i>	sp.	*		X			
Poaceae	<i>Eragrostis</i>	<i>curvula</i>	*		X			
Poaceae	<i>Holcus</i>	<i>lanatus</i>	*	X				
Poaceae	<i>Hordeum</i>	<i>leporinum</i>	*	X				
Poaceae	<i>Hordeum</i>	<i>marinum</i>	*				X	
Poaceae	<i>Hordeum</i>	sp.	*		X			
Poaceae	<i>Lagurus</i>	<i>ovatus</i>	*	X				
Poaceae	<i>Lolium</i>	<i>perenne</i>	*				X	
Poaceae	<i>Lolium</i>	<i>rigidum</i>	*	X				
Poaceae	<i>Microlaena</i>	<i>stipoides</i> var. <i>stipoides</i>						X
Poaceae	<i>Paspalum</i>	<i>dilatatum</i>	*		X			
Poaceae	<i>Poa</i>	<i>annua</i>	*	X	X			
Poaceae	<i>Polypogon</i>	<i>monspeliensis</i>	*	X				
Poaceae	<i>Rytidosperma</i>	<i>caespitosum</i>						X
Poaceae	<i>Rytidosperma</i>	<i>occidentale</i>					X	X
Poaceae	sp.				X			
Poaceae	<i>Sporobolus</i>	<i>africanus</i>	*	X				
Poaceae	<i>Vulpia</i>	<i>bromoides</i>	*				X	
Polygonaceae	? <i>Rumex</i>	sp.	*		X			
Polygonaceae	<i>Polygonum</i>	? <i>arenastrum</i>	*	X				
Polygonaceae	<i>Rumex</i>	<i>acetosella</i>	*	X				
Polygonaceae	<i>Rumex</i>	<i>brownii</i>	*	X				
Polygonaceae	<i>Rumex</i>	<i>conglomeratus</i>	*	X				
Polygonaceae	<i>Rumex</i>	<i>crispus</i>	*	X				
Polygonaceae	<i>Rumex</i>	sp.	*		X			
Primulaceae	<i>Lysimachia</i>	<i>arvensis</i>	*	X				
Primulaceae	<i>Lysimachia</i>	<i>arvensis</i>	*		X			X
Proteaceae	<i>Adenanthos</i>	<i>meisneri</i>			X			
Proteaceae	<i>Banksia</i>	<i>attenuata</i>		X	X	X	X	X
Proteaceae	<i>Banksia</i>	<i>dallanneyi</i> var. <i>dallanneyi</i>					X	
Proteaceae	<i>Banksia</i>	<i>grandis</i>		X	X	X		X
Proteaceae	<i>Banksia</i>	<i>ilicifolia</i>		X	X	X	X	X
Proteaceae	<i>Calothamnus</i>	sp.	# planted	X				
Proteaceae	<i>Hakea</i>	<i>ruscifolia</i>				X		
Proteaceae	<i>Hakea</i>	<i>varia</i>			X		X	

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Proteaceae	<i>Persoonia</i>	<i>longifolia</i>		X	X	X		
Proteaceae	<i>Petrophile</i>	? <i>brevifolia</i>			X			
Proteaceae	<i>Petrophile</i>	<i>linearis</i>					X	X
Proteaceae	<i>Petrophile</i>	<i>serruriae</i>				X		
Proteaceae	<i>Stirlingia</i>	<i>latifolia</i>		X	X	X	X	X
Proteaceae	<i>Synaphea</i>	<i>petiolaris</i> subsp. <i>triloba</i>		X				
Proteaceae	<i>Synaphea</i>	<i>spinulosa</i> subsp. <i>spinulosa</i>		X				
Proteaceae	<i>Xylomelum</i>	<i>occidentale</i>		X	X	X	X	X
Ranunculaceae	<i>Ranunculus</i>	<i>muricatus</i>	*	X				
Restionaceae	<i>Chaetanthus</i>	<i>tenellus</i>		X				
Restionaceae	<i>Desmocladius</i>	<i>fascicularis</i>		X	X		X	X
Restionaceae	<i>Desmocladius</i>	<i>flexuosa</i>		X				
Restionaceae	<i>Hypolaena</i>	<i>exsulca</i>		X	X	X		
Restionaceae	<i>Leptocarpus</i>	<i>decipiens</i>		X				
Restionaceae	<i>Leptocarpus</i>	<i>kraussii</i>		X				
Restionaceae	<i>Leptocarpus</i>	<i>laxus</i>		X				
Restionaceae	<i>Leptocarpus</i>	<i>royceii</i>		X				
Restionaceae	<i>Lepyrodia</i>	<i>glauca</i>		X				
Restionaceae	sp.				X	X		
Rhamnaceae	<i>Spyridium</i>	<i>globulosum</i>		X	X			X
Rubiaceae	<i>Galium</i>	<i>murale</i>	*	X	X		X	
Rubiaceae	<i>Opercularia</i>	<i>apiciflora</i>		X			X	X
Rubiaceae	<i>Opercularia</i>	<i>hispidula</i>		X		X		
Rubiaceae	<i>Opercularia</i>	<i>vaginata</i>		X	X			
Rutaceae	<i>Boronia</i>	<i>spathulata</i>		X				
Rutaceae	<i>Philothea</i>	<i>spicata</i>		X	X	X		
Solanaceae	<i>Solanum</i>	<i>nigrum</i>	*	X	X	X		
Stylidiaceae	<i>Levenhookia</i>	<i>pusilla</i>		X				
Stylidiaceae	<i>Stylidium</i>	? <i>repens</i>				X		
Stylidiaceae	<i>Stylidium</i>	<i>araeophyllum</i>						X
Stylidiaceae	<i>Stylidium</i>	<i>brunonianum</i>		X			X	
Stylidiaceae	<i>Stylidium</i>	<i>calcaratum</i>		X				X
Stylidiaceae	<i>Stylidium</i>	<i>ciliatum</i>		X				
Stylidiaceae	<i>Stylidium</i>	<i>repens</i>					X	
Stylidiaceae	<i>Stylidium</i>	<i>schoenoides</i>		X			X	
Thymelaeaceae	<i>Pimelea</i>	? <i>rosea</i> subsp. <i>rosea</i>			X			
Thymelaeaceae	<i>Pimelea</i>	<i>rosea</i> subsp. <i>rosea</i>		X				
Typhaceae	<i>Typha</i>	<i>orientalis</i>				X		
Typhaceae	<i>Typha</i>	<i>orientalis</i>		X				
Urticaceae	<i>Parietaria</i>	<i>debilis</i>		X				
Verbenaceae	<i>Lantana</i>	<i>camara</i>	DP *	X				
Violaceae	<i>Hybanthus</i>	<i>calycinus</i>			X			X
Violaceae	<i>Hybanthus</i>	<i>floribundus</i>			X			

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Xanthorrhoeaceae	<i>Chamaescilla</i>	<i>corymbosa</i>		X				
Xanthorrhoeaceae	<i>Xanthorrhoea</i>	<i>brunonis</i>		X	X	X	X	X
Xanthorrhoeaceae	<i>Xanthorrhoea</i>	<i>gracilis</i>		X				
Xanthorrhoeaceae	<i>Xanthorrhoea</i>	<i>preissii</i>			X			
Zamiaceae	<i>Macrozamia</i>	<i>riedlei</i>		X	X	X	X	X

Conservation listed species and weed location data

Species	Conservation status/weed ranking	Easting	Northings	Number of plants
<i>Acacia semitrullata</i>	P4	35420	101317	1
<i>Acacia semitrullata</i>	P4	35391	101205	1
<i>Acacia semitrullata</i>	P4	35788	101255	1
<i>Acacia semitrullata</i>	P4	35892	101187	1
<i>Acacia semitrullata</i>	P4	35892	101168	1
<i>Acacia semitrullata</i>	P4	35333	101347	1
<i>Caladenia speciosa</i>	P4	31440	99048	1
<i>Caladenia speciosa</i>	P4	32060	99458	1
<i>Caladenia speciosa</i>	P4	32293	99511	1
<i>Caladenia speciosa</i>	P4	32162	99510	1
<i>Caladenia speciosa</i>	P4	32488	99535	1
<i>Caladenia speciosa</i>	P4	32502	99559	1
<i>Caladenia speciosa</i>	P4	32523	99558	1
<i>Caladenia speciosa</i>	P4	32545	99582	1
<i>Caladenia speciosa</i>	P4	32560	99588	1
<i>Caladenia speciosa</i>	P4	32581	99545	1
<i>Caladenia speciosa</i>	P4	32543	99567	1
<i>Caladenia speciosa</i>	P4	32501	99559	1
<i>Caladenia speciosa</i>	P4	34200	100374	1
<i>Caladenia speciosa</i>	P4	31474	99269	1
<i>Caladenia speciosa</i>	P4	33570	99955	2
<i>Caladenia speciosa</i>	P4	31460	99363	1
<i>Caladenia speciosa</i>	P4	31348	98997	1
<i>Caladenia speciosa</i>	P4	31303	98785	1
<i>Caladenia speciosa</i>	P4	31362	98947	2
<i>Caladenia speciosa</i>	P4	31377	98981	1
<i>Caladenia speciosa</i>	P4	31505	99379	1
<i>Caladenia speciosa</i>	P4	32178	99467	1
<i>Caladenia speciosa</i>	P4	32594	99569	3
<i>Caladenia speciosa</i>	P4	32533	99565	2

Species	Conservation status/weed ranking	Eastings	Northings	Number of plants
<i>Caladenia speciosa</i>	P4	32529	99569	1
<i>Caladenia speciosa</i>	P4	32528	99578	7
<i>Caladenia speciosa</i>	P4	32360	99490	2
<i>Caladenia speciosa</i>	P4	31336	98877	2
<i>Caladenia speciosa</i>	P4	32172	99471	1
<i>Caladenia speciosa</i>	P4	31494	99205	3
<i>Lasiopetalum membranaceum</i>	P3	34269	104408	1
* <i>Asparagus asparagoides</i>	Declared Pest and WONS	35316	101656	1
* <i>Asparagus asparagoides</i>	Declared Pest and WONS	31846	99276	1
* <i>Asparagus asparagoides</i>	Declared Pest and WONS	33604	104480	25
* <i>Asparagus asparagoides</i>	Declared Pest and WONS	33604	104480	25
* <i>Asparagus asparagoides</i>	Declared Pest and WONS	35309	102533	1
* <i>Lantana camara</i>	Declared Pest and WONS	32985	102205	1
* <i>Moraea flaccida</i>	Declared Pest	36439	103774	1
* <i>Moraea flaccida</i>	Declared Pest	36156	103524	1
* <i>Moraea flaccida</i>	Declared Pest	32107	99559	1
* <i>Moraea flaccida</i>	Declared Pest	36132	103681	1
* <i>Opuntia stricta</i>	Declared Pest and WONS	32210	99510	1
* <i>Zantedeschia aethiopica</i>	Declared Pest	35946	103536	18
* <i>Zantedeschia aethiopica</i>	Declared Pest	36132	103681	19
* <i>Zantedeschia aethiopica</i>	Declared Pest	36439	103774	22
* <i>Zantedeschia aethiopica</i>	Declared Pest	35223	104264	0
* <i>Zantedeschia aethiopica</i>	Declared Pest	35323	104371	0
* <i>Zantedeschia aethiopica</i>	Declared Pest	36132	103504	0
* <i>Zantedeschia aethiopica</i>	Declared Pest	35214	103465	0
* <i>Zantedeschia aethiopica</i>	Declared Pest	35725	103121	0

Species	Conservation status/weed ranking	Eastings	Northings	Number of plants
* <i>Zantedeschia aethiopica</i>	Declared Pest	31846	99276	0
* <i>Zantedeschia aethiopica</i>	Declared Pest	31607	99054	0
* <i>Zantedeschia aethiopica</i>	Declared Pest	31521	99001	0
* <i>Zantedeschia aethiopica</i>	Declared Pest	32107	99559	0
* <i>Zantedeschia aethiopica</i>	Declared Pest	35713	103303	50
* <i>Zantedeschia aethiopica</i>	Declared Pest	33775	104469	1
* <i>Zantedeschia aethiopica</i>	Declared Pest	35713	103303	50
* <i>Zantedeschia aethiopica</i>	Declared Pest	33775	104469	1
* <i>Zantedeschia aethiopica</i>	Declared Pest	32014	99368	1
* <i>Zantedeschia aethiopica</i>	Declared Pest	31961	99337	50
* <i>Zantedeschia aethiopica</i>	Declared Pest	31803	99233	1
* <i>Zantedeschia aethiopica</i>	Declared Pest	31943	99344	40

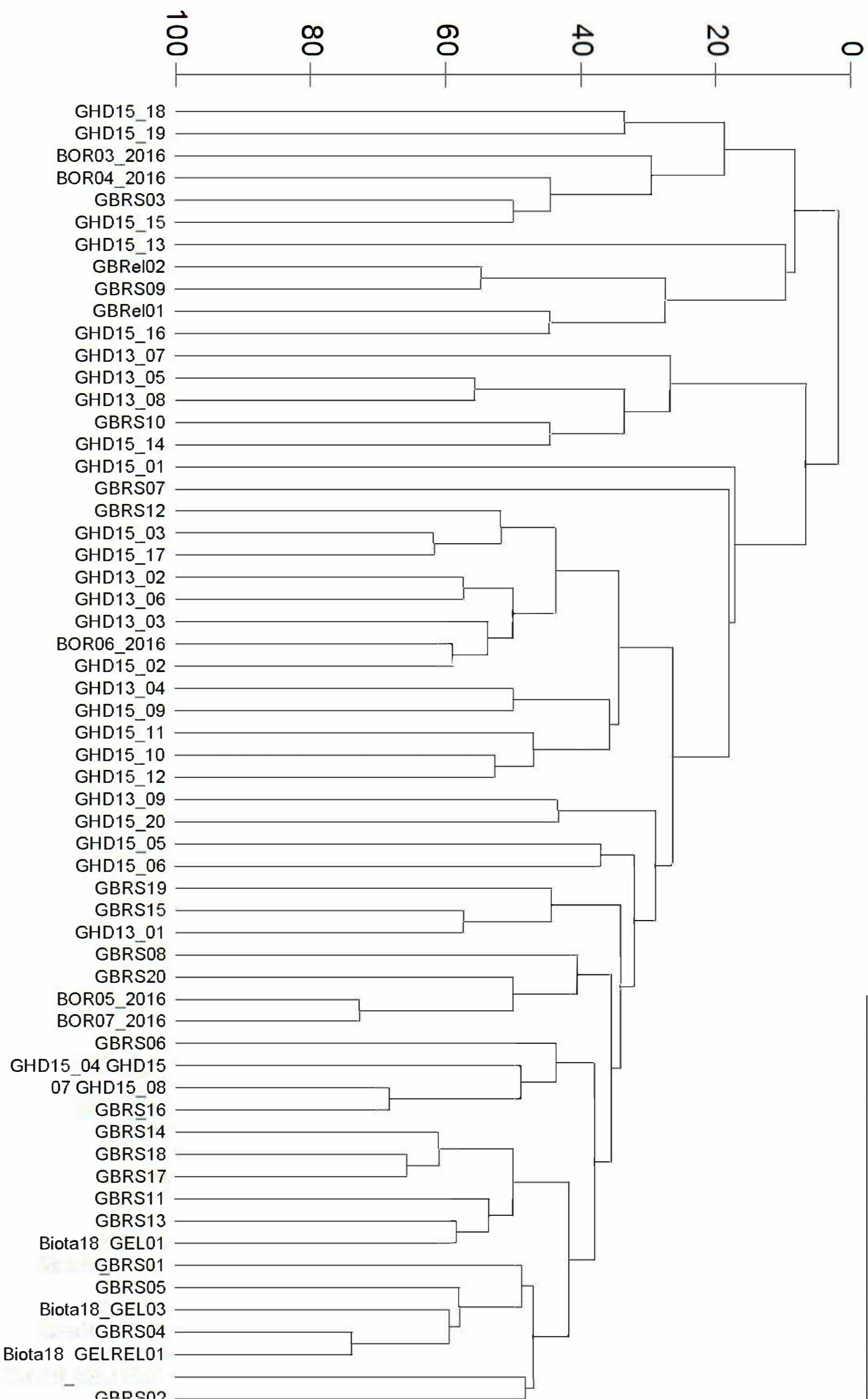
* Denotes introduced species

APPENDIX F

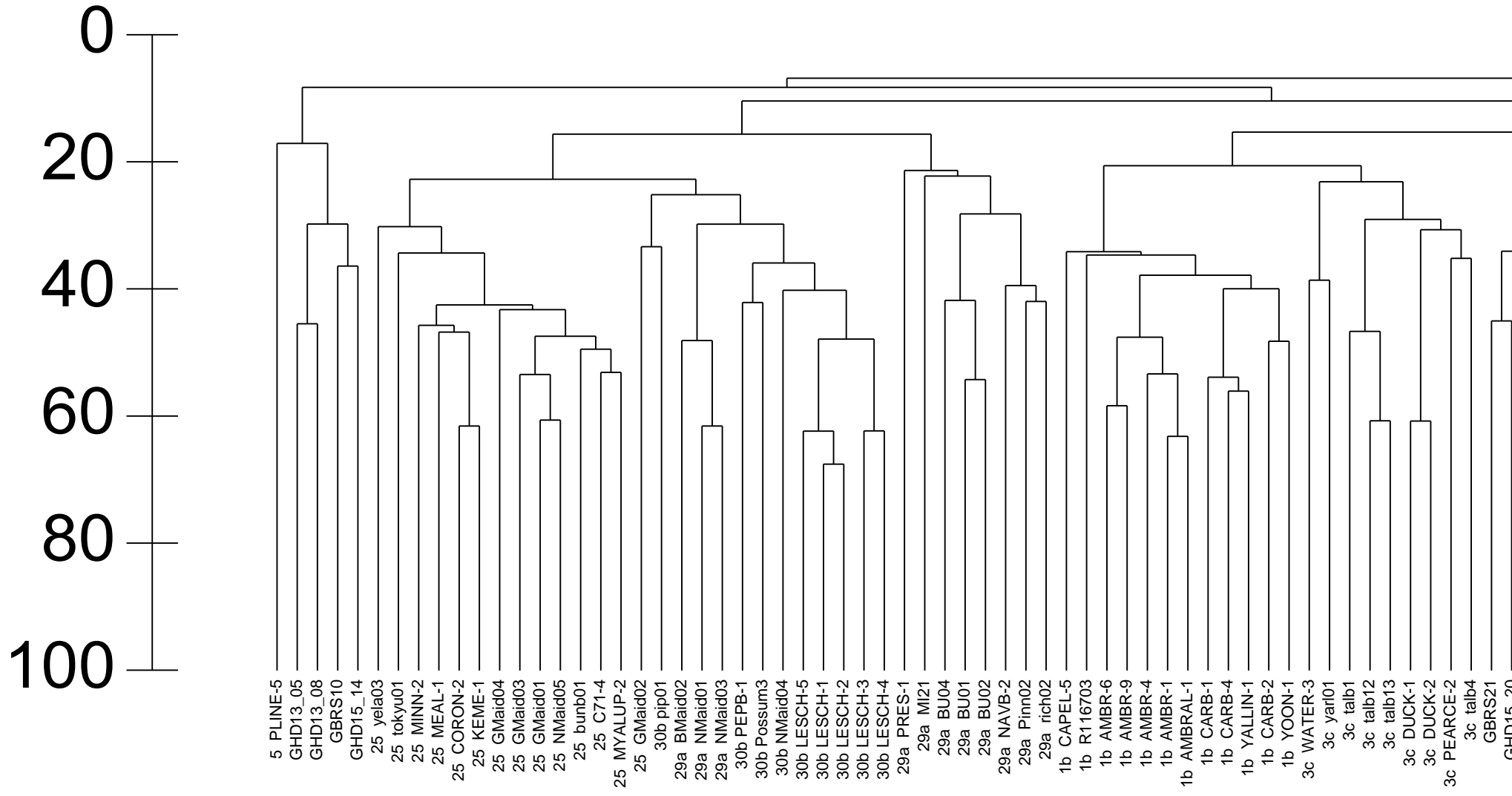
Vegetation Statistics

Quadrats (no weeds)

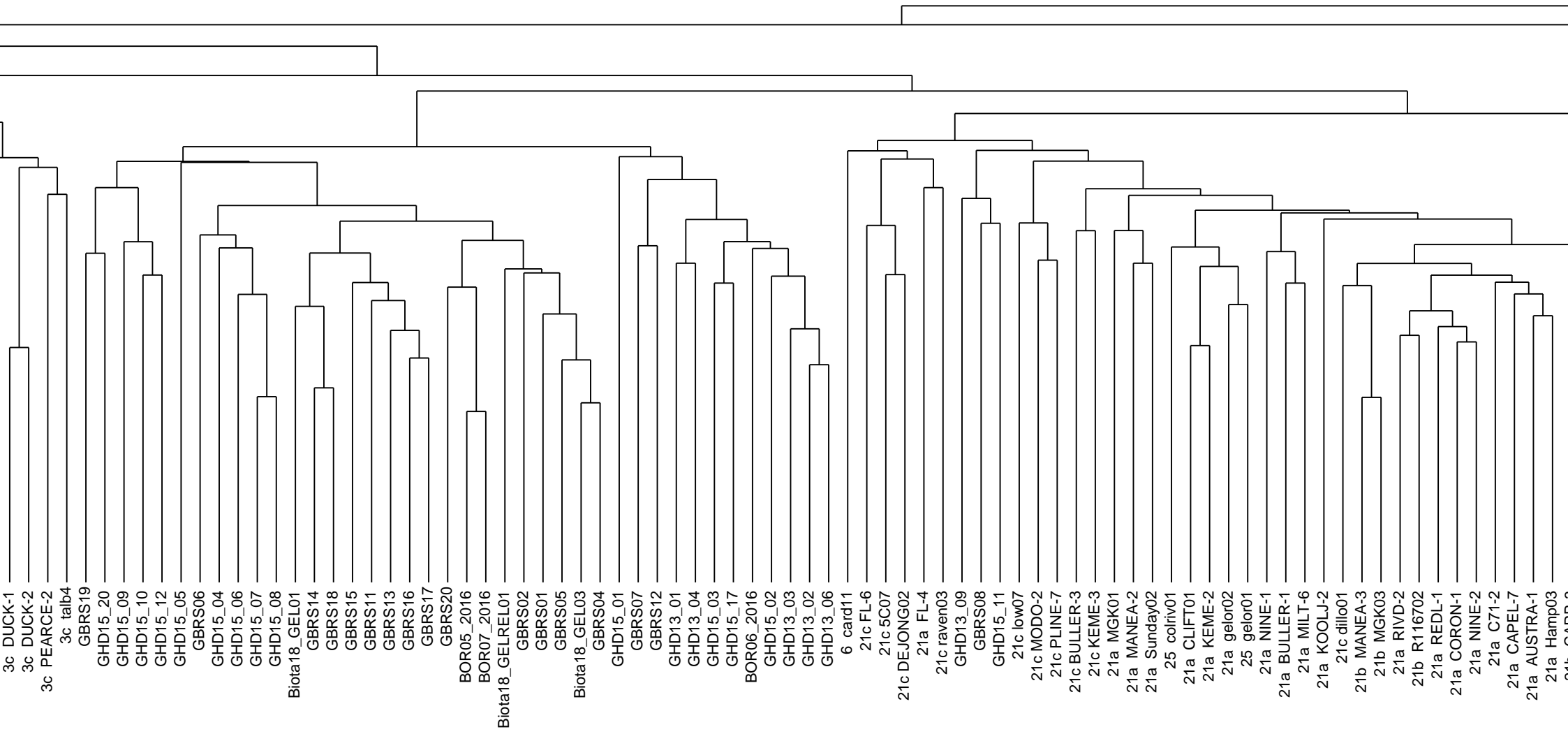
Resemblance: S17 Bray Curtis similarity



Similarity

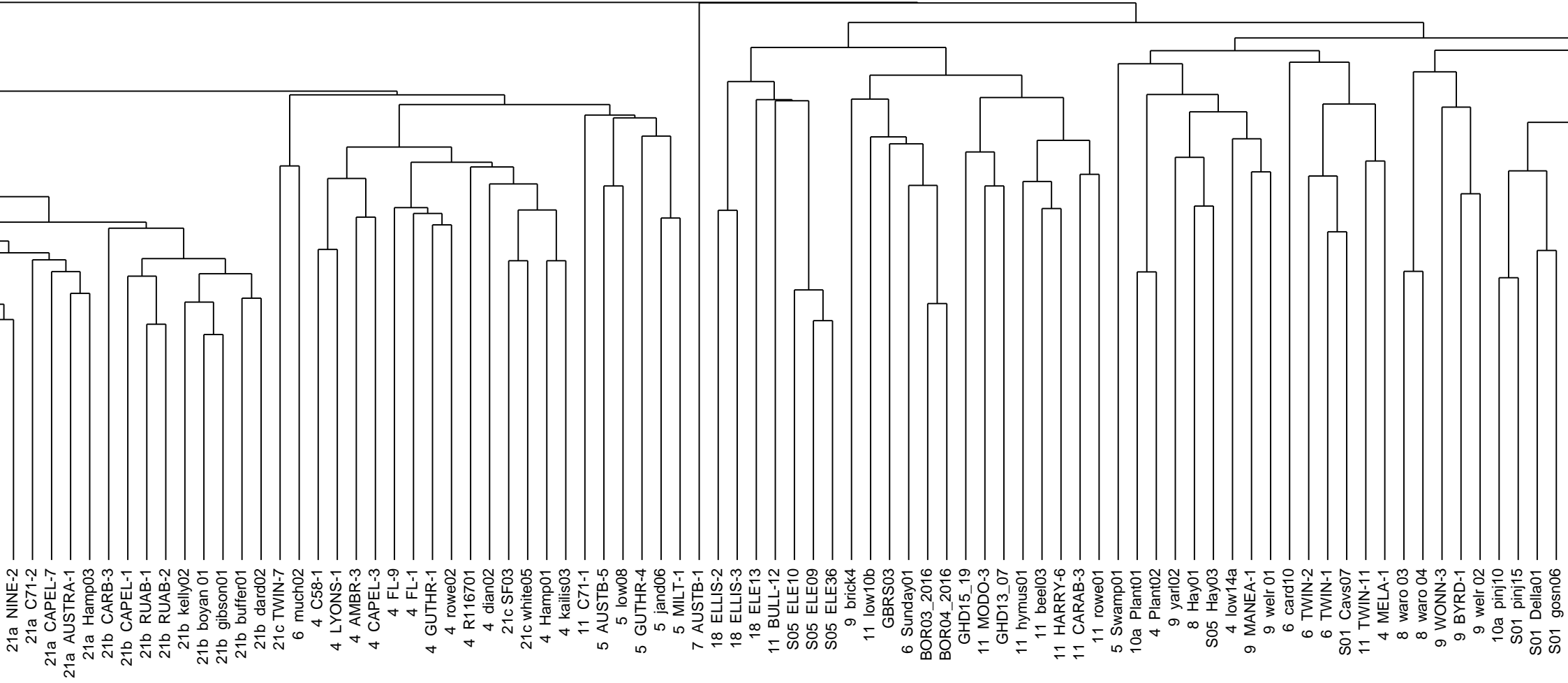


Group av



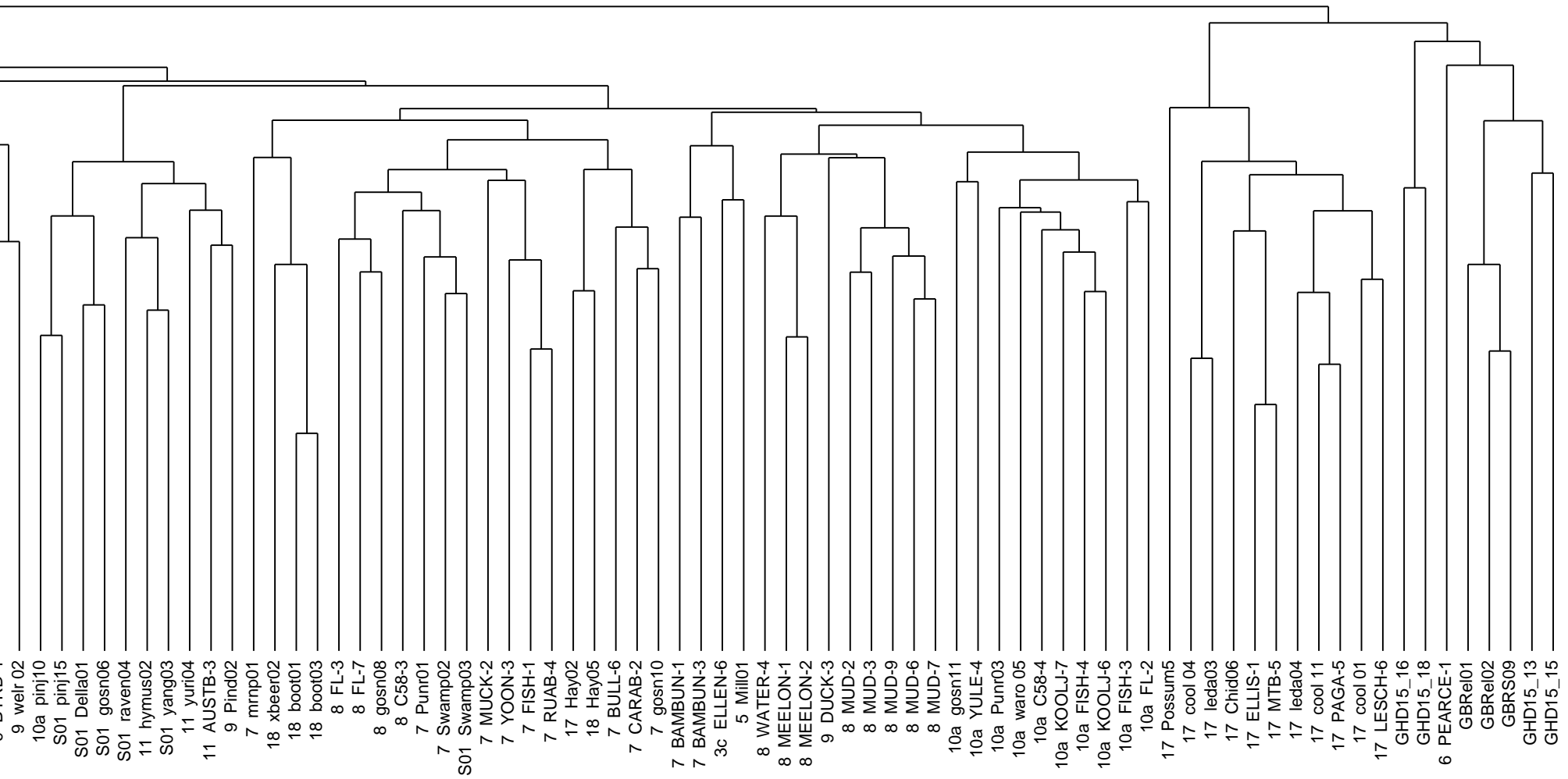
Sa

average



Samples

Resemblance: S17 Bray Curtis similarity



Claypan TEC Assessment

Memorandum

Client:	GHD MRWA BORR team
Attention:	Fionnuala Hannon < Fionnuala.Hannon@ghd.com >
From:	Debbie Brace < debbie@ecoedge.com.au > debbie@ecoedge.com.au 0484 771 825
Date:	19 August 2019
Subject:	Review of Potential Claypan Occurrences in the BORR Southern Section

Background

In July 2019 Ecoedge was requested by the Bunbury Outer Ring Road (BORR) Integrated Planning Team to carry out a desktop review of the BORR Southern Referral Corridor for the location of potential claypan wetlands that could be occurrences of the Commonwealth-listed Threatened Ecological Community (TEC) 'Clay pans of the Swan Coastal Plain'. Any areas of potential claypan wetland would then be visited with Andrew Webb from Department of Conservation and Attractions (DBCA) and a Main Roads WA (MRWA) representative to verify its conservation status.

Methods and Results

Previous vegetation mapping of the BORR Southern Section GHD (2012), recent high quality aerial imagery together with mapping of soil-landscape phases (Schoknecht *et al.*, 2004) was used to evaluate potential claypan areas within the BORR Southern Section. Only one potential claypan wetland was identified, situated on privately managed property lots 5 and 160 south of Centenary Road (**Figure 1**). This area had previously been mapped as 'Low open forest of *Melaleuca preissiana* and *Melaleuca viminea* over sedgeland' by GHD (2012) and was situated partly on Pinjarra Plain soil and partly on Bassendean sand.

The site was visited on 1 August 2019 by Ecoedge Botanists (Russell Smith & Colin Spencer), DBCA Senior Botanist (Andrew Webb) and a MRWA representative, Senior Environmental Officer (Freea Itzstein-Davey).

The wetland was found not to be a claypan community, the soil being a sandy-loam at the surface. The vegetation was dominated by *Melaleuca raphiophylla* and *M. viminea*, with an open sedgeland of *Lepidosperma longitudinale* over a grassland of *Sporobolus virginicus*. On Lot 160 *Opercularia hispidula* is one of the understorey species (**Figure 2**). With normal winter rains the wetland is inundated to a depth of 0.5-0.7 m.

Conclusion

The wetland visited on Lots 5 and 160 south of Centenary Road was found not to be a clay-based wetland, and therefore is not a potential occurrence of the 'Clay pans of the Swan Coastal Plain' TEC.

References

- GHD (2012). Report for Bunbury Outer Ring Road - Southern Section (South Western Highway to Bussell Highway) Environmental Impact Assessment. Report for Main Roads WA.
- Schoknecht, N., Tille, P., and Purdie, B. (2004). Soil-landscape mapping in south-western Australia. Resource Management Technical Report 280. Department of Agriculture and Food, 3 Baron-Hay Court, South Perth, Western Australia, 6155.

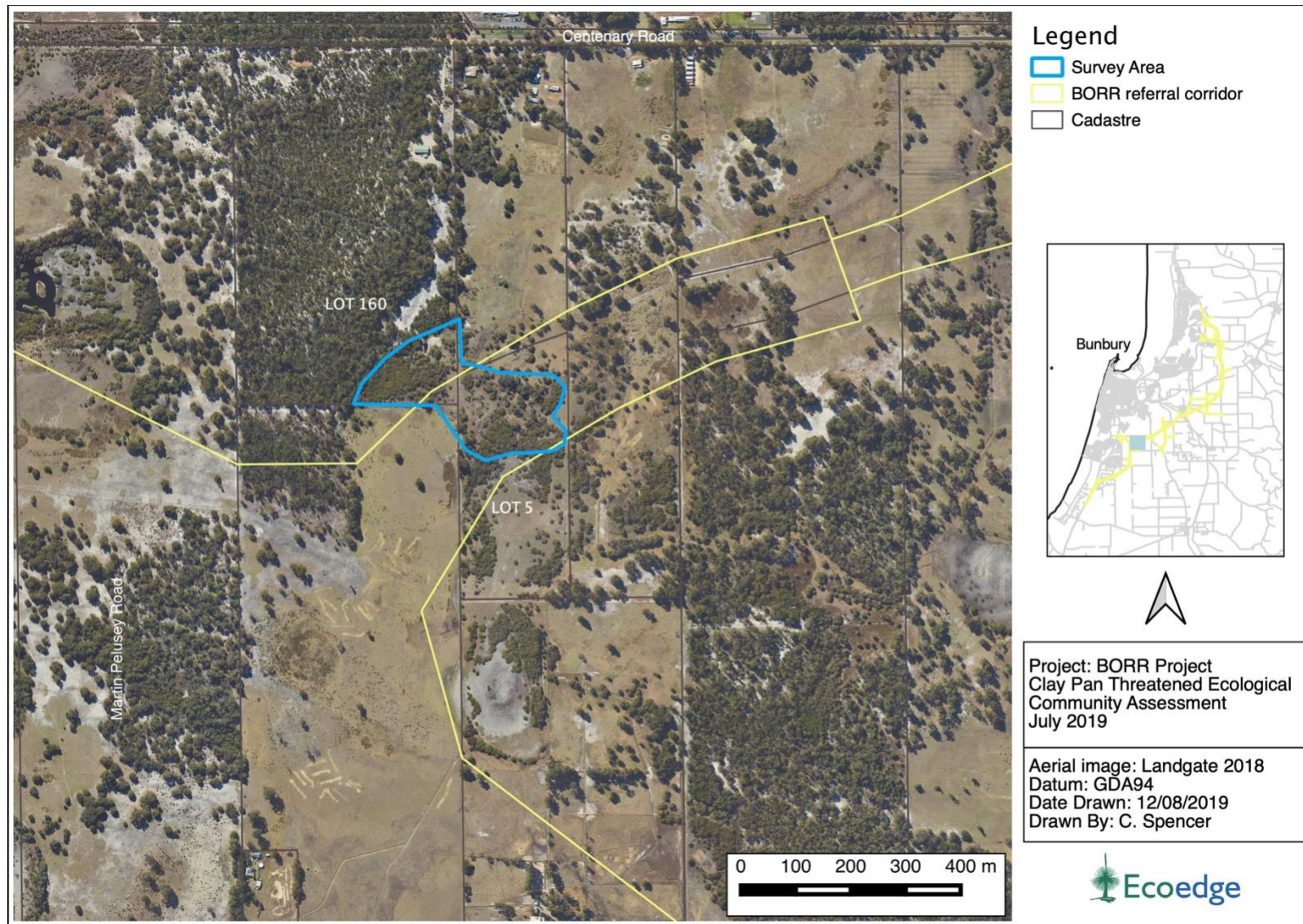



Figure 1. Location of the Survey Area, Lot 160 and Lot 5 with BORR footprint overlay.



Figure 2. Photograph of the wetland where it extends into Lot 160.

Tuart TEC/PEC Patch Assessment

Patch 1 Assessment

Site and location	Patch no. and quadrat ID	Survey date	Landform and soils	Vegetation type description	Condition	Approximate no. of Tuart trees in patch	Photographs and list of native understorey species present (<3m)
East of intersection of Bussell Highway and Centenary Road, Jenour property	Patch 1. Tuart Quadrat JENO01, JENO02	8 – 9 October 2019	Yellow sand over limestone ridges / slopes and sandplain	VT1b – Open forest of <i>Eucalyptus gomphocephala</i> with occasional <i>Eucalyptus marginata</i> over <i>Agonis flexuosa</i> and <i>Banksia attenuata</i> on yellow sand over limestone. Disturbances include presence of weeds, livestock grazing, previous clearing and edge effects	7.3 ha 3.7 ha Very Good 2.9 ha Good to Degraded 0.008 ha Degraded – Completely Degraded 0.7 ha Completely Degraded	Patch contains numerous mature trees within the patch. There are >200 Tuart trees in the patch over 15 cm DBH.	 <p>JENO01 (20 taxa in total)</p> <p><i>Acacia huegelii</i>, <i>Austrostipa flavescens</i>, <i>Caladenia flava</i>, <i>Calandrinia</i> sp. sterile, <i>Conostylis aculeata</i>, <i>Corynotheca micrantha</i>, <i>Dichopogon capillipes</i>, <i>Hardenbergia comptoniana</i>, <i>Homalosciadum homalocarpum</i>, <i>Hypolaena exsulca</i>, <i>Kennedia prostrata</i>, <i>Lagenophora huegelii</i>, <i>Lepidosperma squamatum</i>, <i>Lomandra caespitosa</i>, <i>Lomandra micrantha</i>, <i>Microlaena stipoides</i>, <i>Poranthera microphylla</i>, <i>Quinettia urvillei</i>, <i>Trachymene pilosa</i>, <i>Xylomelum occidentale</i></p>




JENO02 (18 taxa in total)

Billardiera variifolia, *Conostylis aculeata*,
Corynotheca micrantha, *Daucus*
glochidiatus, *Daviesia divaricata*,
Desmocladius flexuosus, *Dianella revoluta*,
Dichopogon capillipes, *Drosera stolonifera*,
Hardenbergia comptoniana, *Hibbertia*
hypericoides, *Jacksonia gracillima/horrida*,
Lomandra micrantha, *Macrozamia riedlei*,
Sowerbaea laxiflora, *Tetraria octandra*,
Xanthorrhoea brunonis, *Xylomelum*
occidentale


Structural form and size (DBH) of Tuarts	Percentage cover (%) of native understorey species	Size of patch (ha) within and outside survey area	Landscape, habitat and regeneration evidence	Weed cover (%) and dominant weed species	Outcome of patch assessment
Occurs as an open forest. Other tree species include <i>Agonis flexuosa</i> and <i>Eucalyptus marginata</i> . Tuart tree DBH ranges from 15 to > 150 cm DBH.	Cover of native species ranges from 5 – 20 % cover	The patch extends outside the survey area. The patch extends to the north and south of the survey area. Patch size within the survey area is 7.3 ha. Patch size outside of the survey area is approximately 25 ha. Total is 32.3 ha.	Provides a landscape function of being within 100 m of another patch of native vegetation. Evidence of a large number of smaller trees at 15 cm DBH that have recruited from a previous disturbance event	Weed cover ranges from 5 – 50 %. Weed species include: <i>Hypochaeris glabra</i> , <i>Trifolium campestre</i> , <i>Romulea rosea</i> , <i>Briza maxima</i> , <i>Ehrharta calycina</i> , <i>Ehrharta longiflora</i> , <i>Galium murale</i> , <i>Lagurus ovatus</i> , <i>Lysimachia arvensis</i> , <i>Oxalis pes-caprae</i> , <i>Ursinia anthemoides</i>	Meets the key diagnostic characteristics of the Tuart (<i>Eucalyptus gomphocephala</i>) woodland and forests of the SCP TEC as the patch is > 5 ha and therefore there is no condition thresholds required to be met. The Tuart quadrats assessed had between 18-20 native species (< 3 m) in the understorey which is classed as Very High Tuart condition. Patch 1 represents Tuart (<i>Eucalyptus gomphocephala</i>) woodland and forests of the SCP TEC/PEC. Patch 1 represents Southern SCP <i>Eucalyptus gomphocephala</i> - <i>Agonis flexuosa</i> woodlands (FCT25) PEC.

Patch 2 Assessment

Site and location	Patch no. and quadrat ID	Survey date	Landform and soils	Vegetation type description	Condition	Approximate no. of Tuart trees in patch	Photograph and list of native understorey species present (<3m)
North west of intersection of Bussell Highway and Centenary Road	Patch 2. Tuart Quadrat Tuart01	9 October 2019	Light grey sand on sandplain	VT1b – Open forest of <i>Eucalyptus gomphocephala</i> with occasional <i>Eucalyptus marginata</i> over <i>Agonis flexuosa</i> and <i>Banksia attenuata</i> . Disturbances include presence of low level weeds and previous ground disturbance	0.10 ha 0.10 ha Degraded – Completely Degraded	Patch contains 10 mature Tuart trees within the patch.	 <p>Tuart01 (11 taxa in total, 7 species in total classed as understorey <3 m)</p> <p><i>Acacia saligna</i>, <i>Kunzea grabrescens</i>, <i>Corymbia calophylla</i>[^], <i>Hardenbergia comptoniana</i>, <i>Agonis flexuosa</i>[^], <i>Crassula colorata</i> var. <i>colorata</i>, <i>Banksia grandis</i>[^], <i>Patersonia occidentalis</i>, <i>Gastrolobium</i> sp., <i>Acacia pulchella</i>, <i>Melaleuca raphiophylla</i>[^].</p> <p>[^]Overstorey species that are juvenile and under <3 m, however, are not classed as understorey species.</p>

Structural form and size (DBH) of Tuarts	Percentage cover (%) of native understorey species	Size of patch (ha) within and outside survey area	Landscape, habitat and regeneration evidence	Weed cover (%) and dominant weed species	Field notes	Outcome of patch assessment
Occurs as an open forest. Other tree species include <i>Eucalyptus rudis</i> , <i>Corymbia calophylla</i> and <i>Melaleuca preissiana</i> . Tuart tree DBH > 50 cm DBH.	Cover of native species ranges from 2 – 15 % cover	The patch extends outside the survey area. The patch extends to the north west of the survey area. Patch size within the survey area is 0.10 ha. Patch size outside of the survey area is approximately 0.42 ha. Total is 0.52 ha.	Provides a landscape function of being within 100 m of another patch of native vegetation and provides habitat.	Weed cover < 2 %. Weed species include: <i>Hypochaeris glabra</i> , <i>Ehrharta longiflora</i> , <i>Oxalis pes-caprae</i> , <i>Sonchus oleraceus</i>	Patch 2 has successful revegetation in the ground layer and is maintained with mulch and good weed control. Revegetated sites that meet the key diagnostics and minimum condition thresholds are considered part of the Tuart TEC.	Does not meet the key diagnostic characteristics of the Tuart (<i>Eucalyptus gomphocephala</i>) woodland and forests of the SCP TEC as the patch is between 0.5 – 2 ha (0.52 ha) therefore it must have at least eight native understorey species per 0.01 ha (10 x 10 m). The Tuart01 quadrat has seven native understorey species (10 x 10 m). These species have mostly been planted. Patch 2 does not represent Tuart (<i>Eucalyptus gomphocephala</i>) woodland and forests of the SCP TEC/PEC. Patch 2 represents Southern SCP <i>Eucalyptus gomphocephala</i> - <i>Agonis flexuosa</i> woodlands (FCT25) PEC.

Patch 3 Assessment

Site and location	Patch no. and quadrat ID	Survey date	Landform and soils	Vegetation type description	Condition	Approximate no. of Tuart trees in patch	Photographs and list of native understorey species present (<3m)
North of Woods Road, Gelorup	Patch 3. Tuart Quadrat Tuart02	9 October 2019	Light grey sand on slight undulating sandplain	VT9a – <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> +/- <i>Agonis flexuosa</i> with very occasional <i>E. gomphocephala</i> . The patch is parkland cleared with a weed understorey and heavily grazed by kangaroos.	0.37 ha 0.13 ha Degraded 0.24 ha Degraded – Completely Degraded	Patch contains 4 mature Tuart trees within the patch.	 Tuart02 (2 taxa in total) <i>Hibbertia cuneata</i> , <i>Crassula colorata</i> var. <i>colorata</i> .
Structural form and size (DBH) of Tuarts	Percentage cover (%) of native understorey species	Size of patch (ha) within and outside survey area	Landscape, habitat and regeneration evidence	Weed cover (%) and dominant weed species	Field notes		Outcome of patch assessment
Occurs as an open forest dominated by <i>Eucalyptus marginata</i> ,	Cover of native species 0.1 % cover.	The patch extends outside the survey area. The patch extends to the	Provides a landscape function of being within 100 m of	Weed cover < 2 %. Weed species include: <i>Hypochaeris glabra</i> , <i>Ehrharta</i>	Patch 3 contains a ‘Vintage’ Tuart tree. The ‘Vintage’ Tuart tree represents an example of an old-growth specimen.		Does not meet the key diagnostic characteristics of the Tuart (<i>Eucalyptus gomphocephala</i>) woodland and forests of the SCP TEC/PEC as the patch is less than 0.5 ha therefore does not meet the

<i>Cormbia calophylla</i> and <i>Agonis flexuosa</i> . Tuart trees up to DBH > 350 cm.		south of the survey area. Patch size within the survey area is 0.37 ha. Patch size outside of the survey area is approximately 0.1 ha. Total is 0.46 ha.	another patch of native vegetation and provides habitat.	<i>longiflora</i> , <i>Oxalis pes-caprae</i> , <i>Sonchus oleraceus</i>		<p>minimum patch size. The patch is predominately parkland cleared.</p> <p>Does not meet Southern SCP <i>Eucalyptus gomphocephala</i>-<i>Agonis flexuosa</i> woodlands (FCT25) PEC due to VT9a being dominated by Jarrah (<i>E. marginata</i>) and Marri (<i>C. calophylla</i>) and not dominated by Tuart trees across the vegetation type extent.</p>
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Flora Likelihood of Occurrence Assessment

Flora likelihood of occurrence assessment guidelines

Likelihood of occurrence	Guideline
Known	Species recorded within survey area from current and historical field survey results.
Likely	Species previously recorded within 5 km and large areas of suitable habitat occur in the survey area.
Possible	Species previously recorded within 5 km and areas of suitable habitat occur/may occur in the survey area.
Unlikely	Species previously recorded within 5 km, but suitable habitat does not occur in the survey area.
Highly unlikely	Species not previously recorded within 5 km, suitable habitat does not occur in the survey area and/or the survey area is outside the natural distribution of the species.
Other considerations	Intensity of survey, availability of access, growth form type, recorded flowering times, cryptic nature of species

Source information - desktop searches

PMST – DotEE Protected Matters Search Tool (PMST) to identify flora listed under the EPBC Act potentially occurring within the study area

TPFL and WAHERB – records of threatened flora from TPFL and WAHERB database searches within the study area

NM – DBCA *NatureMap* (accessed January 2019)

Species Profile and Threats Database (SPRAT) - DotEE (2019b)

Flora likelihood of Occurrence Assessment

FAMILY	TAXON	STATUS		DESCRIPTION AND CLOSEST RECORD INFORMATION (IF AVAILABLE) (WA HERBARIUM 1998-, DBCA 2018, SPRAT DATABASE (DOTEE 2019B))	LIKELIHOOD OF OCCURRENCE	SOURCE
		BC Act	EPBC Act			
Apiaceae	<i>Brachyscias verecundus</i>	T	CE	Annual (or ephemeral), herb, 0.012-0.022 m high, entirely glabrous. Fl. white/cream. In a moss sward. On a granite outcrop.	Unlikely – this species has not been recorded within 5 km of the survey area and suitable habitat is considered unlikely to be present within the survey area.	PMST
Apiaceae	<i>Platysace ramosissima</i>	P3	-	Perennial, herb, to 0.3 m high. Fl. white-cream, Oct to Nov. Sandy soils. Closest record is 2.53 km north.	Unlikely – this species has been recorded within 5 km of the survey area and suitable habitat is considered likely to be present. Suitable search effort did not record the species.	NatureMap, WA Herb, TPFL
Aponogetonaceae	<i>Aponogeton hexatepalus</i>	P4	-	Rhizomatous or cormous, aquatic perennial, herb, leaves floating. Fl. green-white, Jul to Oct. Mud. Freshwater: ponds, rivers, claypans. Closest record is 2.29 km north	Unlikely – this species has been recorded within 5 km of the survey area and suitable habitat is considered likely to be present. Suitable search effort did not record the species.	NatureMap, WA Herb, TPFL
Asteraceae	<i>Angianthus drummondii</i>	P3	-	Erect annual, herb, to 0.1 m high. Fl. yellow, Oct to Dec. Grey or brown clay soils, ironstone. Seasonally wet flats. Closest record is 1.11 km south.	Possible – species occurs within 5 km of survey area and degraded habitat occurs within survey area. Suitable search effort did not record the species.	NatureMap, WA Herb
Asteraceae	<i>Blennospora doliiformis</i>	P3	-	Erect annual, herb, to 0.15 m high. Fl. yellow, Oct to Nov. Grey or red clay soils over ironstone. Seasonally-wet flats. Recorded within 500 m of survey area	Possible – species is also known from claypan wetlands in Manea Park. Similar habitat occurs within survey	DBCA Flora Officer, Ecoedge (2019b)

FAMILY	TAXON	STATUS		DESCRIPTION AND CLOSEST RECORD INFORMATION (IF AVAILABLE) (WA HERBARIUM 1998-, DBCA 2018, SPRAT DATABASE (DOTEE 2019B))	LIKELIHOOD OF OCCURRENCE	SOURCE
		BC Act	EPBC Act			
				(Ecoedge 2019b) in a claypan wetland that is in very good condition.	area, however, suitable search effort did not record the species.	
Cyperaceae	<i>Carex tereticaulis</i>	P3	-	Monoecious, rhizomatous, tufted perennial, grass-like or herb (sedge), 0.7 m high. Fl. brown, Sep to Oct. Black peaty sand. Closest record is 4.57 km north east.	Unlikely – this species has been recorded within 5 km of the survey area and suitable habitat is considered likely to be present. Suitable search effort did not record the species.	NatureMap, WA Herb, TPFL
Cyperaceae	<i>Eleocharis keigheryi</i>	T	V	Rhizomatous, clumped perennial, grass-like or herb (sedge), to 0.4 m high. Fl. green, Aug to Nov. Clay, sandy loam. Emergent in freshwater: creeks, claypans. Closest record is 6.03 km south east.	Unlikely – this species has been recorded within 5 km of the survey area. Suitable search effort did not record the species in restricted claypan habitat within the survey area.	PMST, Naturemap, WA Herb
Cyperaceae	<i>Schoenus benthamii</i>	P3	-	Tufted perennial, grass-like or herb (sedge), 0.15-0.45 m high. Fl. brown, Oct to Nov. White, grey sand, sandy clay. Winter-wet flats, swamps. Closest record is 0.82 km west.	Possible – suitable habitat present and has been previously recorded within 1 km of the survey area.	NatureMap, WA Herb, TPFL
Cyperaceae	<i>Schoenus capillifolius</i>	P3	-	Semi-aquatic tufted annual, grass-like or herb (sedge), 0.05 m high. Fl. green, Oct to Nov. Brown mud. Claypans. Closest record is 9.46 km north east.	Unlikely – this species has been recorded within 10 km of the survey area. Suitable search effort did not record the species.	NatureMap, WA Herb
Cyperaceae	<i>Schoenus loliaceus</i>	P2	-	Annual, grass-like or herb (sedge), 0.03-0.06 m high. Fl. Aug to Nov. Sandy soils.	Possible – this species occurs within 1.22 km of survey area and habitat	NatureMap, WA Herb

FAMILY	TAXON	STATUS		DESCRIPTION AND CLOSEST RECORD INFORMATION (IF AVAILABLE) (WA HERBARIUM 1998-, DBCA 2018, SPRAT DATABASE (DOTEE 2019B))	LIKELIHOOD OF OCCURRENCE	SOURCE
		BC Act	EPBC Act			
				Winter-wet depressions. Closest record is 1.22 km north east.	occurs within the survey area. Suitable search effort did not record the species.	
Cyperaceae	<i>Schoenus natans</i>	P4	-	Aquatic annual, grass-like or herb (sedge), 0.3 m high. Fl. brown, Oct. Winter-wet depressions.	Possible – this species is known from claypans in Manea Park and identified by DBCA Flora Officer as potentially occurring. Suitable search effort did not record the species.	DBCA Flora Officer
Ericaceae	<i>Andersonia gracilis</i>	T	E	Slender erect or open straggly shrub, 0.1-0.5 m high. Flowers white-pink/purple from September to November. White/grey sand, sandy clay, gravelly loam. Winter-wet areas, near swamps.	Unlikely – this species has not been recorded within 5 km of the survey area and is known from a restricted area.	PMST
Ericaceae	<i>Leucopogon</i> sp. Busselton (D. Cooper 243)	P2	-	Erect shrub to 0.7 m, Fl white. Closest record is 2.05 km east.	Unlikely – this species occurs within 5 km of survey area with most records south of Capel. Suitable search effort did not record the species.	NatureMap, WA Herb
Fabaceae	<i>Acacia flagelliformis</i>	P4	-	Rush-like, erect or sprawling shrub, 0.3-0.75(-1.6) m high. Fl. yellow, May to Sep. Sandy soils. Winter-wet areas. Closest record is 0.42 km north.	Unlikely – this species occurs within 0.42 km of survey area in a protected area with no livestock grazing. Habitat occurs within the survey area, however, subject to livestock grazing. Suitable search effort did not record the species.	NatureMap, WA Herb, TPFL

FAMILY	TAXON	STATUS		DESCRIPTION AND CLOSEST RECORD INFORMATION (IF AVAILABLE) (WA HERBARIUM 1998-, DBCA 2018, SPRAT DATABASE (DOTEE 2019B))	LIKELIHOOD OF OCCURRENCE	SOURCE
		BC Act	EPBC Act			
Fabaceae	<i>Acacia semitrullata</i>	P4	-	Slender, erect, pungent shrub, (0.1-) 0.2-0.7(-1.5) m high. Fl. cream-white, May to Oct. White/grey sand, sometimes over laterite, clay. Sandplains, swampy areas. Closest record is 2.06 km east.	Recorded – recorded from six locations within the survey area.	NatureMap, WA Herb, TPFL
Fabaceae	<i>Jacksonia gracillima</i>	P3	-	Prostrate, spreading or scrambling, shrub, spindly shrub (broom-like). Damplands. Closest record is 7.23 km south east.	Unlikely. this species has not been recorded within 5 km of the survey area. Suitable search effort did not record the species.	NatureMap, WA Herb, TPFL
Fabaceae	<i>Gastrolobium papilio</i>	T	E	Tangled, clumped shrub, to 1.5 m high. Fl. cream-red, Oct to Dec. Sandy clay over ironstone and laterite. Flat plains.	Unlikely – this species has not been recorded within 5 km of the survey area. Suitable search effort did not record the species.	PMST
Fabaceae	<i>Gastrolobium whicherense</i>	P2	-	Slender, open shrub, to 1.6 m high. Fl. orange/yellow/red, Oct. Red-grey sandy clay over quartzite. Steep westerly slopes. Closest record is 5.72 km east.	Highly Unlikely – this species occurs within 5 km of survey area. No suitable habitat is present.	NatureMap
Fabaceae	<i>Pultenaea skinneri</i>	P4	-	Slender shrub, 1-2 m high. Fl. yellow/orange & red, Jul to Sep. Sandy or clayey soils. Winter-wet depressions. Closest record is 0.68 km north.	Unlikely – this species occurs within 1 km of survey area and grazed habitat occurs within the survey area. Suitable search effort did not record the species.	NatureMap, WA Herb, TPFL
Hydatellaceae	<i>Trithuria australis</i>	P4	-	Aquatic herb	Unlikely – this species has been recorded within 5 km of the survey area. Suitable search effort did not record the species.	NatureMap

FAMILY	TAXON	STATUS		DESCRIPTION AND CLOSEST RECORD INFORMATION (IF AVAILABLE) (WA HERBARIUM 1998-, DBCA 2018, SPRAT DATABASE (DOTEE 2019B))	LIKELIHOOD OF OCCURRENCE	SOURCE
		BC Act	EPBC Act			
Loganiaceae	<i>Adelphacme minima</i>	P3	-	Annual 10 -20 cm tall. Fl. White. Records mostly from the South Coast (Walpole) near swamps. Closest record is 2.57 km south east.	Unlikely – known to occur within 5 km of the survey area however generally restricted to the South Coast.	NatureMap, WA Herb
Malvaceae	<i>Lasiopetalum membranaceum</i>	P3	-	Multi-stemmed shrub, 0.2-1 m high. Fl. pink-blue-purple, Sep to Dec. Sand over limestone. Closest record is 0.23 km south.	Recorded. One individual was recorded from the survey area in the northern section.	NatureMap, WA Herb, TPFL
Menyanthaceae	<i>Ornduffia submersa</i>	P4	-	Small waterlily-like plant with hairy white flowers and oval, glossy leaves that float flat on the surface of the shallow water. Closest record is 2.68 km south.	Unlikely – this species occurs within 5 km of survey area. Suitable search effort did not record the species in specific preferred habitat.	NatureMap, TPFL
Myrtaceae	<i>Chamelaucium</i> sp. S coastal plain (R.D. Royce 4872)	T	V	Intricately branched, spreading shrub up to 1.2 and 0.6 m across. Greenish-white flowers. Swamp margins in winter-wet sandy clay sites.	Unlikely – this species has not been recorded within 5 km of the survey area. Suitable search effort did not record the species.	PMST
Myrtaceae	<i>Chamelaucium</i> sp. Yoongarillup (G.J. Keighery 3635)	P4	-	Erect shrub up to 1 m. Fl. Red flower. Nov – Feb. Sand, sandy loams and clayey sands on slopes and flats. Closest record is 7.4 km east.	Unlikely – this species has not been recorded within 5 km of the survey area. Suitable search effort did not record the species.	NatureMap, WA Herb
Myrtaceae	<i>Eucalyptus rudis</i> subsp. <i>cratyantha</i>	P4	-	Tree, 5-20 m high, bark rough, box-type. Fl. white, Jul to Sep. Loam. Flats, hillsides. Closest record is 4.22 km north.	Possible – this species occurs within 5 km of survey area and habitat occurs within the survey area.	Naturemap, WA Herb

FAMILY	TAXON	STATUS		DESCRIPTION AND CLOSEST RECORD INFORMATION (IF AVAILABLE) (WA HERBARIUM 1998-, DBCA 2018, SPRAT DATABASE (DOTEE 2019B))	LIKELIHOOD OF OCCURRENCE	SOURCE
		BC Act	EPBC Act			
Myrtaceae	<i>Verticordia attenuata</i>	P3	-	Shrub, 0.4-1 m high. Fl. pink, Dec or Jan to May. White or grey sand. Winter-wet depressions.	Possible – this species occurs within 5 km of survey area and habitat occurs within the survey area.	NatureMap, WA Herb, TPFL
Myrtaceae	<i>Verticordia densiflora</i> var. <i>pedunculata</i>	T	E	Erect to spreading shrub, 0.3-0.6 m high. Fl. pink/pink-white, Dec or Jan. Grey/yellow sand, sandy loam. Winter-wet low-lying areas.	Unlikely – this species has not been recorded within 5 km of the survey area. Suitable search effort did not record the species.	PMST
Orchidaceae	<i>Caladenia huegelii</i>	T	E	Tuberous, perennial, herb, 0.25-0.6 m high. Fl. green & cream & red, Sep to Oct. Grey or brown sand, clay loam. Closest record is 0.73 km east.	Unlikely – this species occurs within 1 km of survey area in protected habitat. Habitat occurs within the survey area. Suitable search effort did not record the species.	PMST, NatureMap, WA Herb, TPFL
Orchidaceae	<i>Caladenia speciosa</i>	P4	-	Tuberous, perennial, herb, 0.35-0.6 m high. Fl. white-pink, Sep to Oct. White, grey or black sand.	Recorded – this species was recorded from 30 locations within the survey area.	NatureMap, WA Herb, TPFL
Orchidaceae	<i>Diuris drummondii</i>	T	V	Tuberous, perennial, herb, 0.5-1.05 m high. Fl. yellow, Nov to Dec or Jan. Low-lying depressions, swamps. Closest record is 1.14 km south.	Unlikely – habitat occurs in the survey area, however, targeted surveys (2017 and 219) did not identify this species and suitable habitat was highly disturbed with high impacts from grazing. Suitable search effort did not record the species.	PMST, Naturemap, WA Herb, TPFL
Orchidaceae	<i>Diuris micrantha</i>	T	V	Tuberous, perennial, herb, 0.3-0.6 m high. Fl. yellow & brown, Sep to Oct.	Unlikely – this species has been recorded within 5 km of the survey	PMST, TPFL

FAMILY	TAXON	STATUS		DESCRIPTION AND CLOSEST RECORD INFORMATION (IF AVAILABLE) (WA HERBARIUM 1998-, DBCA 2018, SPRAT DATABASE (DOTEE 2019B))	LIKELIHOOD OF OCCURRENCE	SOURCE
		BC Act	EPBC Act			
				Brown loamy clay. Winter-wet swamps, in shallow water. Closest record 22.9 km north east.	area. Survey undertaken during optimal time. Suitable search effort did not record the species.	
Orchidaceae	<i>Diuris purdiei</i>	T	E	Tuberous, perennial, herb, 0.15-0.35 m high. Fl. yellow, Sep to Oct. Grey black sand, moist. Winter-wet swamps.	Unlikely – this species has not been previously recorded within 5 km of the survey area. Suitable search effort did not record the species.	PMST
Orchidaceae	<i>Drakaea elastica</i>	T	E	Tuberous, perennial, herb, 0.12-0.3 m high. Fl. red & green & yellow, Oct to Nov. White or grey sand. Low-lying situations adjoining winter-wet swamps. Closest record is 7.49 km south east.	Unlikely – this species has not been recorded within 5 km of the survey area. Survey undertaken during optimal time. Suitable search effort did not record the species.	PMST, Naturemap, TPFL
Orchidaceae	<i>Drakaea micrantha</i>	T	V	Tuberous, perennial, herb, 0.15-0.3 m high. Fl. red & yellow, Sep to Oct. White-grey sand. Closest record is 5.07 km east.	Unlikely – this species has not been recorded within 5 km of the survey area. Survey undertaken during optimal time. Suitable search effort did not record the species.	PMST, NatureMap
Orchidaceae	<i>Thelymitra variegata</i>	P2	-	Tuberous, perennial, herb, 0.1-0.35 m high. Fl. orange & red & purple & pink, Jun to Sep. Sandy clay, sand, laterite.	Unlikely – this species has not been recorded within 5 km of the survey area. Survey undertaken during optimal time. Suitable search effort did not record the species.	NatureMap

FAMILY	TAXON	STATUS		DESCRIPTION AND CLOSEST RECORD INFORMATION (IF AVAILABLE) (WA HERBARIUM 1998-, DBCA 2018, SPRAT DATABASE (DOTEE 2019B))	LIKELIHOOD OF OCCURRENCE	SOURCE
		BC Act	EPBC Act			
Poaceae	<i>Austrostipa bronwenae</i>	T	E	Perennial grass, 0.6 m high x 0.3 m wide. Flowers green. Sept to October. Closest record 2.73 km north.	Unlikely – previous records in <i>Melaleuca</i> swamps. The closest recorded occurrence is approx. 2.73 km from the survey area in protected habitat. Suitable search effort did not record the species.	PMST, NatureMap
Poaceae	<i>Austrostipa jacobiana</i>	T	CE	Tufted rhizomatous herb, to 1.2 m, leaf sheaths hairy. Marri woodland, Melaleuca tall shrubland. Closest record is 1.06 km north.	Unlikely – previous records in <i>Melaleuca</i> swamps. The closest recorded occurrence is approx. 1.06 km from the survey area in protected habitat. Suitable search effort did not record the species.	PMST, NatureMap
Poaceae	<i>Puccinellia vaccica</i>	P1	1	Caespitose annual or perennial, grass-like or herb, 0.41-0.55 m high. Saline soils. On the outer margins of coastal saltmarshes. Closest record is 6.68 km north.	Unlikely. Suitable habitat does not occur in the survey area and suitable search effort did not record the species.	Naturemap, WA Herb
Proteaceae	<i>Banksia nivea</i> subsp. <i>uliginosa</i>	T	E	Dense, erect, non-lignotuberous shrub, 0.2-1.5 m high. Fl. yellow-brown, Aug to Sep. Sandy clay, gravel.	Highly Unlikely – this species has not been recorded within 5 km of the survey area and has a limited distribution, near Busselton and Augusta. This <i>Banksia</i> grows in areas of ironstone (not present in survey area).	PMST
Proteaceae	<i>Banksia squarrosa</i>	T	V	Erect, open, non-lignotuberous shrub, 1.2-4 m high. Fl. yellow, Jun to Nov.	Highly Unlikely – this species has not been recorded within 5 km of the	PMST

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		BC Act	EPBC Act			
	subsp. <i>argillacea</i>			White/grey sand, gravelly clay or loam. Winter-wet flats, clay flats.	project area, has a limited distribution, near Busselton. Surveys were conducted during flowering times and this species was not seen.	
Proteaceae	<i>Franklandia triaristata</i>	P4	-	Erect, lignotuberous shrub, 0.2-1 m high. Fl. white-cream-yellow/brown-purple, Aug to Oct. White or grey sand. Closest record is 1.8 km south east.	Unlikely – this species occurs within 2 km of survey area and habitat occurs within the survey area. Suitable search effort did not record the species.	Naturemap, WA Herb
Proteaceae	<i>Isopogon formosus</i> subsp. <i>dasylepis</i>			Low, bushy or slender, upright, non-lignotuberous shrub, 0.2-2 m high. Fl. pink-purple/red, Jun to Dec. Sand, sandy clay, gravelly sandy soils over laterite. Often swampy areas. Closest record is 7.3 km south.	Unlikely – this species has not been recorded within 5 km of the survey area. Suitable search effort did not record the species.	Naturemap, WA Herb
Proteaceae	<i>Lambertia echinata</i> subsp. <i>occidentalis</i>	T	E	Prickly, much-branched, non-lignotuberous shrub, to 3 m high. Fl. yellow, Feb or Apr or Dec. White sandy soils over laterite, orange/brown-red clay over ironstone. Flats to foothills, winter-wet sites.	Unlikely – this species has not been recorded within 5 km of the survey area. Suitable search effort did not record the species.	PMST
Proteaceae	<i>Petrophile latericola</i>	T	E	Multi-stemmed shrub, 0.4-1.5 m high. Fl. yellow, Nov. Red lateritic clay. Winter-wet flats.	Highly Unlikely – species has not been recorded within 5 km of the survey area and has a very limited distribution. Suitable habitat is considered unlikely to be present within the survey area.	PMST

FAMILY	TAXON	STATUS		DESCRIPTION AND CLOSEST RECORD INFORMATION (IF AVAILABLE) (WA HERBARIUM 1998-, DBCA 2018, SPRAT DATABASE (DOTEE 2019B))	LIKELIHOOD OF OCCURRENCE	SOURCE
		BC Act	EPBC Act			
Proteaceae	<i>Synaphea hians</i>	P3	-	Prostrate or decumbent shrub, 0.15-0.6 m high, to 1 m wide. Fl. yellow, Jul or Sep to Nov. Sandy soils. Rises.	Unlikley – this species occurs within 5 km of survey area and habitat occurs within the survey area. Suitable search effort did not record the species.	NatureMap
Proteaceae	<i>Synaphea</i> sp. Fairbridge Farm (D. Papenfus 696)	T	CE	Dense, clumped shrub, to 0.3 m high, to 0.4 m wide. Fl. yellow, Oct. Clay soils. Near winter-wet flats, in low woodland <i>Corymbia calophylla</i> woodland with <i>Viminaria juncea</i> . Closest record is 12.4 km east.	Unlikely – this species has not been recorded within 12.4 km of the survey area and no suitable habitat exists. Suitable search effort did not record the species.	PMST
Proteaceae	<i>Synaphea</i> sp. Serpentine (G.R. Brand 103)	T	CE	Flowers from late August to November and fruits have been seen in December, occurs predominantly on flat terrain on grey-brown sandy loams to clay in seasonally wet areas. Closest record is 6.03 km south east.	Unlikely – this species has not been recorded within 5 km of the survey area. Suitable search effort did not record the species.	PMST
Proteaceae	<i>Synaphea stenoloba</i>	T	E	Caespitose shrub, 0.3-0.45 m high. Fl. yellow, Aug to Oct. Sandy or sandy clay soils. Winter-wet flats, granite.	Unlikely – this species has not been recorded within 5 km of the survey area. Suitable search effort did not record the species.	PMST
Stylidiceae	<i>Stylidium longitubum</i>	P4	-	Erect annual (ephemeral), herb, 0.05-0.12 m high. Fl. pink, Oct to Dec. Sandy clay, clay. Seasonal wetlands. Closest record is 1.09 km east.	Possible – this species occurs within 5 km of survey area and habitat occurs within the survey area. Suitable search effort did not record the species.	NatureMap, TPFL

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		BC Act	EPBC Act			
Stylidiceae	<i>Stylidium paludicola</i>	P3	-	Reed-like perennial, herb, 0.35-1 m high, Leaves tufted, linear or subulate or narrowly oblanceolate, 0.5-4 cm long, 0.5-1.5 mm wide, apex acute, margin entire, glabrous. Scape mostly glabrous, inflorescence axis glandular. Inflorescence racemose. Fl. pink, Oct to Dec. Peaty sand over clay. Winter wet habitats. Marri and <i>Melaleuca</i> woodland, <i>Melaleuca</i> shrubland. Closest record is 9.71 km north.	Possible – species was identified by DBCA flora officer as potentially occurring on the edge of wetlands near Centenary Road. Suitable search effort did not record the species.	DBCA Flora Officer
Rutaceae	<i>Boronia tetragona</i>	P3	-	Perennial, herb, 0.3-0.7 m high, leaves sessile, entire, with papillate margins, branches quadrangular, sepals ciliate. Fl. pink & red, Oct to Dec. Black/white sand, laterite, brown sandy loam. Winter-wet flats, swamps, open woodland. Closest record is 2.08 km east.	Unlikely – this species occurs within 5 km of survey area and habitat occurs within the survey area. Suitable search effort did not record the species.	NatureMap, WA Herb
Santalaceae	<i>Leptomeria furtiva</i>	P2	-	Lax, sprawling shrub, 0.2-0.45 m high. Fl. orange-brown, Aug to Oct. Grey or black peaty sand. Winter-wet flats. Closest record is 3.1 km east.	Possible – this species occurs within 5 km of survey area and habitat occurs within the survey area. Suitable search effort did not record the species.	NatureMap, WA Herb
Xanthorrhoeaceae	<i>Chamaescilla gibsonii</i>	P3	-	Clumped tuberous, herb. Fl. blue, Sep. Clay to sandy clay. Winter-wet flats,	Possible – this species occurs within 5 km of survey area and habitat occurs	NatureMap, TPFL

FAMILY	TAXON	STATUS		DESCRIPTION AND CLOSEST RECORD INFORMATION (IF AVAILABLE) (WA HERBARIUM 1998-, DBCA 2018, SPRAT DATABASE (DOTEE 2019B))	LIKELIHOOD OF OCCURRENCE	SOURCE
		BC Act	EPBC Act			
				shallow water-filled claypans. Closest record is 2.81 km south.	within the survey area. Suitable search effort did not record the species.	



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