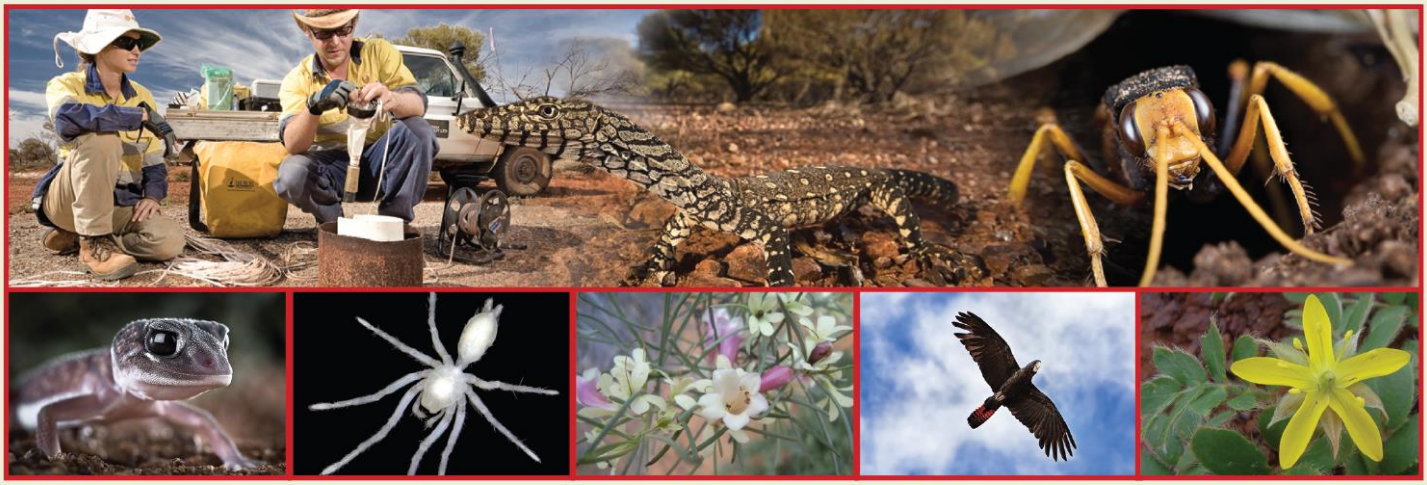
PHOENIX
ENVIRONMENTAL SCIENCES

Flora and vegetation survey for the Beyondie Sulphate of Potash Project

Prepared for Kalium Lakes Ltd

September 2018

Final Report



Flora and vegetation survey for the Beyondie Sulphate of Potash Project

Prepared for Kalium Lakes Ltd

Final Report

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Date: 30 September 2018

Submitted to: Gavin Edwards and Phil Scott (Preston Consulting), Brett Hazelden (Kalium Lakes Ltd)

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Name	Task	Version	Date
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G. Wells	Updated draft for client comments	2.0	21 March 2017
K. Crews	Final submitted to client	3.0	9 February 2018
G.Wells	Updated Final in response to ERD	3.1	29 September 2018

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Contents

List of Figures

List of Tables

List of Appendices

List of Abbreviations

Abbreviation	Description
BoM	Bureau of Meteorology
CAR	Conservation and Reserve
DAFWA	Department of Agriculture and Food, Western Australia
DBCA	Department of Biodiversity Conservation and Attractions
DPaW	Department of Biodiversity, Conservation and Attractions
EIA	Environmental Impact Assessment
EP(Act)	Environmental Protection Act
EPA	Environmental Protection Authority
EPBC(Act)	Environmental Protection and Biodiversity Conservation Act
ESA	Environmentally Sensitive Area
GPS	Global Positioning System
IBRA	Interim Biogeographic Regionalisation of Australia
IUCN	International Union for the Conservation of Nature
NES	National environmental significance
PDA	Personal data assistant
PEC	Priority Ecological Community
TEC	Threatened Ecological Communities
WA	Western Australia
WC(Act)	Wildlife Conservation Act

EXECUTIVE SUMMARY

Kalium Lakes Potash Pty Ltd (Kalium) proposes to develop the Beyondie Sulphate of Potash Project (the Project), located approximately 150 km south-southeast of Newman on the border of the Little Sandy Desert and Gascoyne bioregions. In February 2015, Phoenix Environmental Sciences Pty Ltd (Phoenix) was commissioned to conduct a flora and vegetation survey for the Project, which was undertaken over several field trips between April and November 2015.

The objective of the survey was to define the flora and vegetation values of the study area, in particular with respect to conservation significant species and communities to inform planning and an environmental impact assessment of the Project.

The study area for the survey covered 19,259 ha and included riparian vegetation fringing Beyondie Lakes, Ten Mile Lake and Lake Sunshine. Beyondie Lakes consists of a western freshwater marsh connected to two circular salt playas in line in the east. Ten Mile Lake is a large salt playa located about six kilometres to the south with several claypans located around the lakes that are not hydrologically connected to it. Lake Sunshine another large salt playa and claypans, is located approximately 24 km north-east of the Beyondie Lakes.

Survey intensity varied across the study area. A Level 2 flora and vegetation survey was conducted around Beyondie Lakes, a northern portion of Ten Mile Lake and along proposed transport corridors (collectively the Northern section) and at Lake Sunshine (Lake Sunshine section). The remainder of the study area around Ten Mile Lake (southern section) was limited to transects in riparian vegetation (for *Tecticornia*).

A desktop review of relevant databases, literature and spatial data preceded the field survey to identify potential flora species and vegetation communities in the study area.

A total of 131 sites comprising 86 quadrats, 21 relevés and 24 *Tecticornia* transects were sampled across the study area, with all quadrats and relevés located in the Northern section and Lake Sunshine section, and *Tecticornia* transects conducted in all three sections.

The first phase survey of the Northern and southern sections was conducted following substantial rainfall events. A high number of annual and short-lived plant species were present with the majority of plant species were flowering and/or fruiting enabling identification. The second phase survey of the Northern and southern sections was conducted in spring following a dry period of below average rainfall. The presence of flowers and/or fruiting bodies during the second phase facilitated identification of some species not identifiable to species level during the first phase.

The survey of Lake Sunshine section was conducted during the spring second phase and subsequently at a sub-optimal time for annual species following a dry period of below average rainfall.

Quadrat and relevé data were analysed and sites grouped by hierarchical cluster analyses (UPGMA) as implemented in the software package PATN. Vegetation types were then defined by clusters of quadrats supplemented by field observations based on species composition, structure, and dominance at the stratum level.

The field survey was conducted in accordance with relevant Environmental Protection Authority (EPA) guidance that was current at the time of the surveys, including Position Statement No. 3: *Terrestrial biological surveys as an element of biodiversity protection* and Guidance Statement No. 51: *Terrestrial flora and vegetation surveys for environmental impact assessment in Western Australia*. Where appropriate, this report was updated to reflect the new EPA guidance for the environmental factor flora and vegetation, specifically *Environmental Factor Guideline: Flora and*

vegetation and *Technical Guidance: Flora and vegetation surveys for environmental impact assessment*.

The desktop review identified 636 taxa that potentially occur in the study area, of which 44 were conservation significant flora. This included one Threatened species (*Thryptomene wittweri*) (VU – EPBC; S1 – WC Act/VU – DBCA) and 43 Priority species. Five introduced flora[1] species were returned in the desktop review (**Aerva javanica*, **Bidens bipinnata*, **Portulaca pilosa*, **Malvastrum americanum* and **Setaria verticillata)*.

The Lee Steere Range vegetation complexes (banded ironstone formation) (Priority 1) was the only State listed Priority Ecological Community (PEC) that was identified in the desktop review. The 90 km buffer zone of this PEC intersects the study area; however, no banded ironstone formation occurs within the study area. No Threatened Ecological Communities (TEC) or Environmentally Sensitive Areas (ESAs) were located within close proximity to the study area. Previous flora surveys reviewed for the desktop study did not define any vegetation units described as locally or regionally significant.

A total of 487 flora taxa representing 57 families and 184 genera were recorded during the field survey comprising 478 native species and nine introduced flora. The recorded flora included 354 perennial species and 133 annual/short-lived species. The most prominent families recorded were the Fabaceae, Chenopodiaceae, Poaceae, Malavaceae, Asteraceae, Goodeniaceae and Amaranthaceae.

Four conservation significant flora were recorded within the study area, all Priority 1 *Tecticornia* species:

- *Tecticornia globulifera*
- *Tecticornia* sp. Christmas Creek (K.A. Shepherd & T. Colmer *et. al.* KS 1063)
- *Tecticornia* willisii
- *Tecticornia* sp. Lake Sunshine (K.A. Shepherd et al. KS 867).

Two unidentified taxa collected, *Tecticornia* sp. nov. 1 (aff. pruinosa/ laevigata) and *Tecticornia* sp. nov. 2 (aff. pruinosa/undulata), potentially represent undescribed taxa and therefore may be considered locally significant as they exhibit anomalous features.

The survey records represented range extensions for 29 species, of which nine exceeded 100 km.

None of the weed species recorded in the study area is a declared pest or Weed of National Significance.

A total of 31 taxa could not be identified to species level, as they lacked reproductive structures at the time of the field survey. Two are possibly undescribed species of *Tecticornia*.

A total of 53 vegetation types were defined for the study area comprised of eight woodland communities, 16 shrublands, eight grasslands and 21 *Tecticornia* shrubland communities comprising *Tecticornia* species. The *Tecticornia* shrublands, which fringe the salt playas, were mapped as a single mosaic as it was not possible to discern community type boundaries from aerial imagery.

None of the vegetation defined for the study area resembles any listed TECs or PECs.

The condition of vegetation across the study area ranged from good to excellent, with the majority of the study area (97%) mapped as excellent. The condition of vegetation in all the *Tecticornia*

[1] Introduced flora are identified with an asterisk (*) throughout the report.

shrublands was recorded as excellent with disturbances, where recorded, limited to animal tracks from domestic stock and feral animals.

With the exception of the *Tecticornia* shrublands which are associated with the lake playas and immediate surrounds, each of the remaining vegetation types align with the one or more broad vegetation associations known from Western Australia. Each of these vegetation types are classed as Least Concern as they have in excess 90% of pre-European extent remaining. Therefore, the majority of the vegetation in the study area represents widespread communities, well represented at a regional level. In contrast, the *Tecticornia* shrublands are less regionally represented with their distribution largely restricted to salt lake playa and beaches.

In summary, the results of the survey indicate the presence of a diverse flora in a floristically poorly known region, as evidenced by a number of range extensions. However, some limitations were encountered:

- The survey of Lake Sunshine section was conducted over a single season following a dry period and it is likely that annual species that may be present in different seasons, particularly following rainfall, were absent at the time of the survey.
- It was not possible to delineate vegetation type boundaries in the *Tecticornia* mosaic although the boundary of the entire mosaic was accurately mapped utilising a helicopter.
- Difficulties in identifying *Tecticornia* spp. in the field precluded conducting population counts of conservation significant taxa.

The *Tecticornia* shrublands on the lake playa and beaches appear to hold the highest conservation value of the vegetation types defined as they represent habitat for conservation significant and undescribed species, and have a distribution restricted to the salt lake playa and beaches. Difficulties in identifying species in the field prohibits conducting population counts and mapping of population boundaries of significant *Tecticornia* species. As a substitute, the boundary of the *Tecticornia* spp. shrublands within the study area has been accurately mapped to inform an impact assessment for this community.

The detailed survey of the Lake Sunshine section was restricted to a single phase in sub-optimal survey conditions and as such further survey effort may be warranted in areas to be impacted by the Project

1 INTRODUCTION

In February 2015, Phoenix Environmental Sciences Pty Ltd (Phoenix) was commissioned by Preston Consulting Pty Ltd (Preston) on behalf of Kalium Lakes Ltd (Kalium) to conduct a flora and vegetation survey for the Beyondie Sulphate of Potash Project (the Project).

1.1 BACKGROUND

Kalium is seeking to develop the Project as a sub-surface brine deposit to produce 150 ktpa Sulphate of Potash product via an evaporation and processing operation. A concept study completed in April 2015 assessed the mine life as being 20 years with considerable upside to extend for many decades.

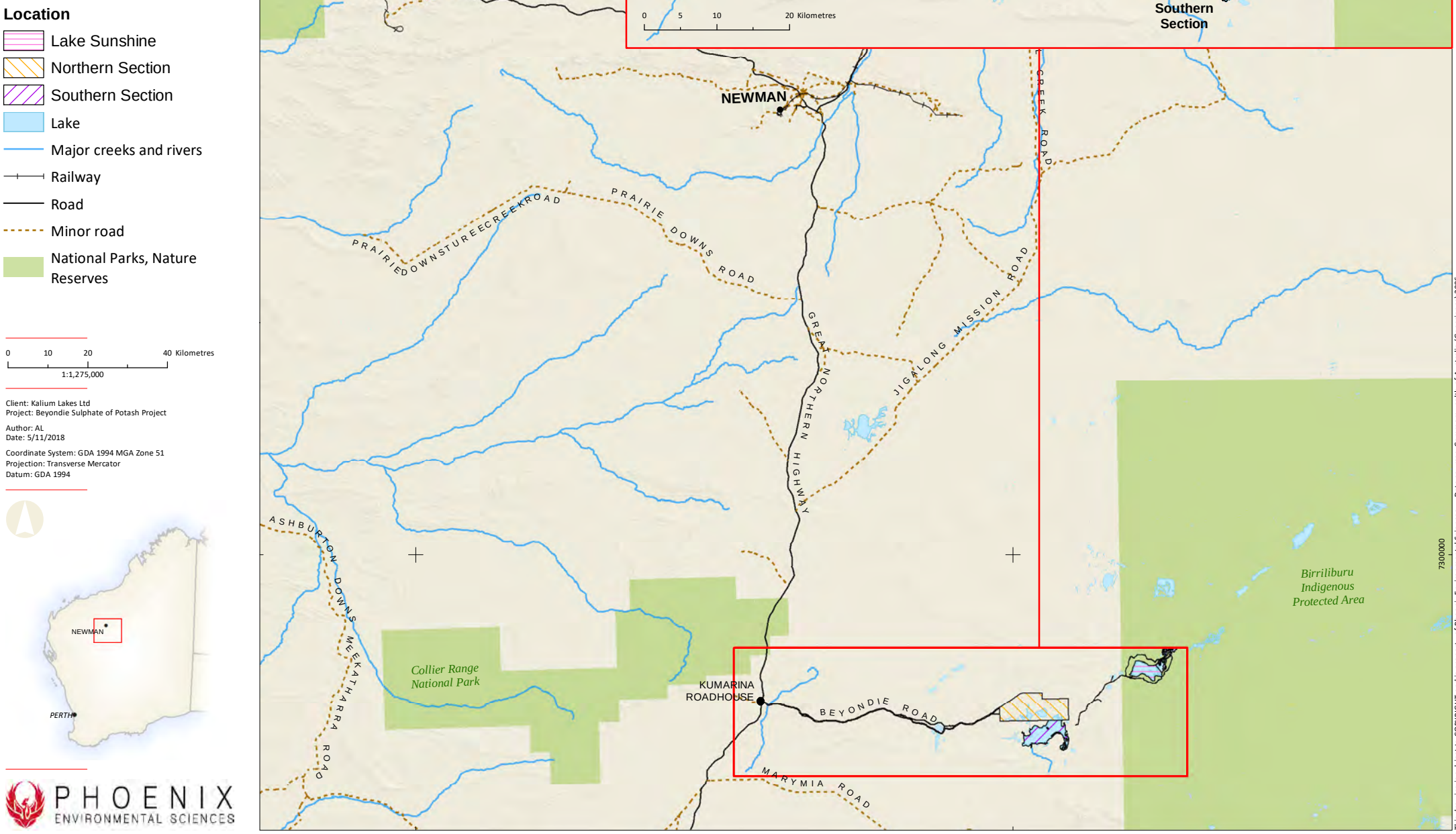
The Project is located approximately 150 km south-southeast of Newman, with access to the Great Northern Highway at Kumarina approximately 65 km to the east (Figure 1-1). The Project area spans the border between the Little Sandy Desert and Gascoyne bioregions.

The study area for the survey covered 19,255.6 ha and comprised three sections (Figure 1-1):

- Northern section (11,996.3 ha) – area around Beyondie Lakes, the northern tip of Ten Mile Lake and a proposed haul road corridor (a 40 m wide upgrade to an existing pastoral track) connecting the Project to the Great Northern Highway at Kumarina. The Northern section was systematically surveyed and included detailed vegetation mapping (Level 2 survey).
- Southern section (4,193.4 ha) – largely encompassed Ten Mile Lake and its perimeter. Survey intensity in this section was limited to transects to document the riparian *Tecticornia* spp. vegetation. Detailed vegetation mapping was not undertaken.
- Lake Sunshine section (3,065.8 ha) – including Lake Sunshine and a corridor to the south connecting it with the southern section near Ten Mile Lake. The Lake Sunshine section was systematically surveyed and included detailed vegetation mapping (Level 2 survey).

The Beyondie Lakes consist of a western freshwater marsh connected to two circular salt playas in line in the east. Ten Mile Lake is a large salt playa located about six kilometres to the south. Several claypans are located around the lakes but are not hydrologically connected. The Beyondie Lakes salt playas connect with Ten Mile Lake during extreme inundation events. Lake Sunshine, another large salt playa and claypans, is located approximately 24 km north-east of the Beyondie Lakes.

Figure 1–1
Location of the Beyondie Sulphate of Potash Project and study area for the flora and vegetation survey



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1.2 SURVEY OBJECTIVES AND SCOPE OF WORK

The objective of the flora and vegetation survey was to define the botanical values of the study area which will be used to inform planning and an environmental impact assessment for the Project. The scope of work was as follows:

- conduct a desktop review of available technical reports, relevant databases and spatial data to identify the potential flora and vegetation that may be present in the study area
- conduct a two phase Level 2 flora and vegetation survey in the Northern section, a single-phase Level 2 flora and vegetation survey at the Lake Sunshine section and documentation of the riparian *Tecticornia* spp. vegetation of the southern section
- identify the vascular plant species present
- conduct focused searches for and describe populations of plants of conservation significance particularly those recorded in or in close proximity to the study area identified from the database and literature reviews
- conduct focused searches for and describe populations of exotic plant species (weeds), particularly declared plants
- define and map vegetation types present
- review the local and regional significance of the vegetation types recorded
- record the condition of vegetation
- prepare a comprehensive flora and vegetation technical report and supporting raw and digital data incorporating results of the desktop assessment and the field survey.

The flora and vegetation survey was conducted in accordance with relevant Environmental Protection Authority (EPA) guidance that was current at the time of the surveys, in particular:

- Position Statement No. 3: *Terrestrial biological surveys as an element of biodiversity protection* (EPA 2002)
- Guidance Statement No. 51: *Terrestrial flora and vegetation surveys for environmental impact assessment in Western Australia* (EPA 2004)
- Technical guide: Flora and vegetation surveys for environmental impact assessment (EPA & DPaW 2015).

Where appropriate, this report was updated to reflect the new EPA guidance for the environmental factor flora and vegetation, specifically:

- EPA *Environmental Factor Guideline: Flora and vegetation (EPA 2016a)*
- EPA *Technical Guidance: Flora and vegetation surveys for environmental impact assessment* (EPA 2016b).

2 LEGISLATIVE CONTEXT

The protection of fauna in Western Australia (WA) is principally governed by three acts:

- Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- *Wildlife Conservation Act 1950* (WC Act)
- *Environmental Protection Act 1986* (EP Act).

The WA *Biodiversity Conservation Act 2016* (BC Act) will eventually replace the WC Act; however, the provisions in the BC Act pertaining to the listing of flora and fauna cannot be brought into effect until the necessary Biodiversity Conservation Regulations have been made.

2.1 COMMONWEALTH

Under the EPBC Act, actions that have, or are likely to have, a significant impact on a matter of national environmental significance (NES), require approval from the Australian Government Minister for the Environment. The EPBC Act provides for the listing of Threatened native flora and Threatened Ecological Communities (TECs) as matters of NES.

Conservation categories applicable to Threatened Flora under the EPBC Act are as follows:

- Extinct (EX)[2] – there is no reasonable doubt that the last individual has died
- Extinct in the Wild (EW) – taxa known to survive only in captivity
- Critically Endangered (CR) – taxa facing an extremely high risk of extinction in the wild in the immediate future
- Endangered (EN) – taxa facing a very high risk of extinction in the wild in the near future
- Vulnerable (VU) – taxa facing a high risk of extinction in the wild in the medium-term
- Conservation Dependent[2] – taxa whose survival depends upon ongoing conservation measures; without these measures, a conservation dependent taxon would be classified as Vulnerable or more severely Threatened.

Ecological communities are defined as 'naturally occurring biological assemblages that occur in a particular type of habitat' (1997). There are three categories under which ecological communities can be listed as TECs under the EPBC Act: Critically Endangered, Endangered and Vulnerable.

2.2 STATE

2.2.1 Threatened and Priority species and communities

In WA, the WC Act provides for the protection of native flora (Rare or Threatened Flora; T) species which are under identifiable threat of extinction[3]. Rare flora listed under the WC Act receive

[2] Species listed as Extinct and Conservation Dependent are not matters of NES and therefore do not trigger the EPBC Act.

[3] This function of the WC Act will be replaced by the BC Act when the relevant BC Act regulations come into effect.

statutory protection and, under current classifications (Western Australian Government 2015), are assigned to one of four categories (schedules):

- Schedule 1 (S1) – flora that are considered likely to become extinct or rare as Critically Endangered (CR) flora
- Schedule 2 (S2) – flora that are considered likely to become extinct or rare as Endangered (EN) flora
- Schedule 3 (S3) – flora that are considered likely to become extinct or rare as Vulnerable (VU) flora
- Schedule 4 (S4) – flora presumed to be extinct (EX).

All listed species are in need of special protection and are declared to be Rare Flora for the purposes of section 23F of the WC Act (Western Australian Government 2015).

The Department of Biodiversity Conservation and Attractions (DBCA) administers the WC Act and also maintains a non-statutory list of Priority Flora species, most recently updated 19 November 2015. Priority species are still considered to be of conservation significance – that is they may be rare or threatened – but cannot be considered for listing under the WC Act until there is adequate understanding of their threat levels. Species on the Priority Flora list are assigned to one of four Priority (P) categories, P1 (highest) – P4 (lowest), based on level of knowledge/concern.

The Minister for Environment may also list ecological communities which are at risk of becoming destroyed as 'Threatened'[4]. DBCA maintains a list of ministerially-endorsed TECs as well as a non-statutory list of Priority Ecological Communities (PECs) which are also assigned to one of five categories.

Any activities that are deemed to have a significant impact on listed flora species can trigger referral to the EPA for assessment under the Environmental Protection Act. The EPA's position on TECs states that proposals that result in the direct loss of TECs are likely to require formal assessment (EPA 2006).

2.2.2 Locally or regionally significant flora and vegetation

Flora and vegetation may be considered significant for a range of reasons other than being Threatened or Priority species or ecological communities, including, but not limited to (EPA 2016b):

- Flora
    - locally endemic or association with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems)
    - new species or anomalous features that indicate a potential new species
    - representative of the range of a species (particularly, at the extremes of range recently, discovered range extensions, or isolated outliers of the main range)
    - unusual species, including restricted subspecies, varieties or naturally occurring hybrids
    - relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape

[4] The BC Act will allow for the listing of TECs when the relevant BC Act regulations come into effect.

- vegetation
    - restricted distribution
    - degree of historical impact from threatening processes
    - a role as a refuge
    - providing an important function required to maintain ecological integrity of a significant ecosystem.

A vegetation community is considered regionally significant if it is classified as under-represented, that is, there is less than 30% of its original distribution remaining. Several key criteria are applied to vegetation clearing from a biodiversity perspective, as follows (EPA 2000):

- the 'threshold level' below which species loss appears to accelerate exponentially within an ecosystem level is regarded as being at a level of 30% (of the pre-European, i.e. pre-1750 extent of the vegetation type)
- a level of 10% of the original extent is regarded as being a level representing Endangered
- clearing which would result in an increase in the threat level such that it changes the assigned remaining status classification (see below) should be avoided.

Shepherd *et al.* (2002) have assigned the status of vegetation remaining (to pre-European extent) into five classes:

- Presumed Extinct – probably no longer present in the bioregion
- Endangered[5] – <10% of pre-European extent remains
- Vulnerable[5] – 10–30% of pre-European extent exists
- Depleted[5] – >30% and up to 50% of pre-European extent exists
- Least Concern – >50% pre-European extent exists and subject to little or no degradation over a majority of this area.

2.2.3 Clearing of native vegetation

The clearing of native vegetation in WA is not generally permitted where the biodiversity values, land conservation and water protection roles of native vegetation would be significantly affected. Any clearing of native vegetation in WA requires a permit under Part V Division 2 of the EP Act, except where an exemption applies under the Act, or is prescribed by the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (the Regulations), and the vegetation is not in an Environmentally Sensitive Area (ESA). Permit applications to clear native vegetation require assessment against the '10 Clearing Principles', as outlined in the Regulations.

2.2.4 Environmentally Sensitive Areas

Under section 51B of the EP Act the Minister for Environment may declare by notice either a specified area of the State or a class of areas of the State to be an ESA. ESAs are declared in the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*, which was gazetted on 8 April 2005.

ESAs are generally areas where the vegetation has high conservation value. Several types of areas which are declared ESAs include:

- the area covered by vegetation within 50 m of Threatened Flora, to the extent to which the vegetation is continuous with the vegetation in which the Threatened Flora is located
- the area covered by a TEC
- a defined wetland (Ramsar wetlands, conservation category wetlands and nationally important wetlands) and the area within 50 m of the wetland
- Bush Forever sites.

If a project falls within an ESA, project and clearing approvals enforcements include:

- flora and fauna surveys, regardless of the size of the impact area of the project
- quantified evidence of the extent of impacts.

[5] or a combination of depletion, loss of quality, current threats and rarity gives a comparable status.

2.3 INTRODUCED FLORA

Introduced flora (i.e. weeds) pose threats to biodiversity and natural values by successfully out-competing native species for available nutrients, water, space and sunlight; reducing the natural structural and biological diversity by smothering native plants or preventing them from growing back after clearing, fire or other disturbance; replacing the native plants that animals use for shelter, food and nesting; and altering fire regimes, often making fires hotter and more destructive (AWC 2007).

Management of some weed species is required under State or Federal frameworks. Key weed classifications for significant weeds that are relevant to this report are:

- declared pest – the *Biosecurity and Agriculture Management Act 2007* (BAM Act), Section 22 makes provision for a plant taxon to be listed as a declared pest organism in parts of, or the entire State. Under the *Biosecurity and Agriculture Management Regulations 2013* declared pests are assigned to one of three control categories that dictate level of management required (Table 2-1).
- Weed of National Significance (WoNS) – high impact, established weeds causing major economic, environmental, social and/or cultural impacts in a number of states/territories, and which have strong potential for further spread (Australian Weeds Committee 2012) Management is required in accordance with Department of Agriculture and Food guidelines for particular WoNS.

Throughout this report, introduced flora species are indicated with an asterisk (*).

Table 2-1 Description of control categories for declared pests (Government of Western Australia 2013)

Control category	Description
C1 Exclusion	If in the opinion of the Minister introduction of the declared pest into an area or part of an area for which it is declared should be prevented.
C2 Eradication	If in the opinion of the Minister eradication of the declared pest from an area or part of an area for which it is declared is feasible.
C3 Management	If in the opinion of the Minister eradication of the declared pest from an area or part of an area for which it is declared is not feasible but that it is necessary to — (i) alleviate the harmful impact of the declared pest in the area; or (ii) reduce the number or distribution of the declared pest in the area; or (iii) prevent or contain the spread of the declared pest in the area.

3 EXISTING ENVIRONMENT

3.1 INTERIM BIOGEOGRAPHIC REGIONALISATION OF AUSTRALIA

The Interim Biogeographic Regionalisation of Australia (IBRA) defines 'bioregions' as large land areas characterised by broad, landscape-scale natural features and environmental processes that influence the functions of entire (Department of the Environment and Energy 2016; Thackway & Cresswell 1995).They categorise the large-scale geophysical patterns that occur across the Australian continent that are linked to fauna and flora assemblages and processes at the ecosystem scale (Thackway & Cresswell 1995).

Western Australia contains 26 IBRA bioregions and 53 subregions. The study area is situated on the border to two bioregions; the Gascoyne bioregion and Little Sandy Desert bioregion (Figure 3-1). The study area is situated at the junction of the Augustus subregion (GAS3) of the Gascoyne bioregion and Trainor subregion (LSD2) of the Little Sandy Desert bioregion (Figure 3-1).

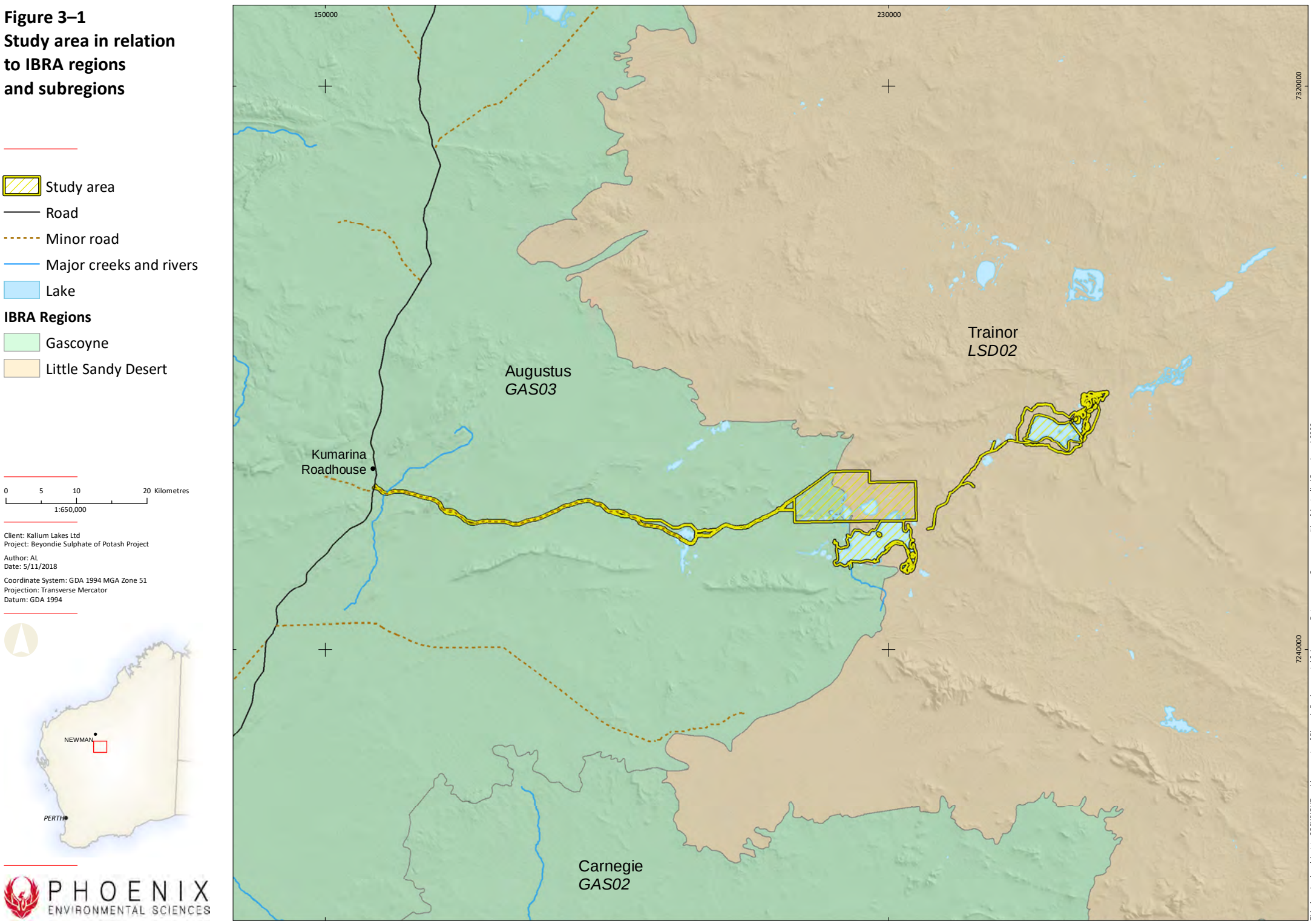
The Augustus subregion (GAS3) is characterised by (Desmond *et al.* 2001):

- low Proterozoic sedimentary and granite ranges divided by flat broad valleys
- mulga woodland with *Triodia* on shallow stony loams on rises with mulga parkland on shallow earthy loams over hardpan on the plains
- extensive areas of alluvial deposits
- calcrete aquifers of the Carnegie drainage system
- desert climate with bimodal rainfall.

The Trainor subregion (LSD2) is characterised by (Cowan & Kendrick 2001):

- red centre desert on Neoproterozoic sedimentary basement (Officer Basin)
- red Quaternary dune fields with abrupt Proterozoic sandstone ranges of Bangemall Basin
- shrub-steppe of acacias, *Aluta maisonneuvei* and grevilleas over *Triodia schinzii* on sandy surfaces
- sparse shrub-steppe over *Triodia basedowii* on stony hills
- eucalypt and coolabah communities and bunch grasses on alluvial deposits and drainage lines associated with ranges
- arid climate with episodic summer rainfall.

Figure 3–1
Study area in relation to IBRA regions and subregions



3.2 LAND SYSTEMS

The Department of Agriculture and Food (DAFWA) has mapped the land systems in the Little Sandy Desert and Gascoyne bioregions (DAFWA 2014). The study area covers 11 land systems (Table 3-1; Figure 3-2). It is dominated by the AB44, Oc49 and SV5 land systems which together cover approximately 80% of the study area (Table 3-1; Figure 3-2).

Table 3-1 Land systems of the study area

Land system	Description	Total area (ha)	% of study area
AB14	Upland sandplains with occasional dunes and minor inclusions of associated plains units	618.72	3.21
AB44	Plains with a variable, but usually high, proportion of longitudinal sand dunes, and with some clay pans; scattered sandstone hills and laterite residuals are fairly common	5034.09	26.12
Augustus System	Rugged ranges, hills, ridges and plateaux with skeletal soils supporting mulga and other acacia shrublands in southern parts or hard spinifex grasslands in northern parts	85.59	0.44
BB9	Narrow plain associated with the major river systems, usually occurring upstream of unit Oc47 and characterised by frequent outcrops of calcrete (kunkar)	1902.65	9.87
BE6	Extensive flat and gently sloping plains, which sometimes have a surface cover of gravels and on which red-brown hardpan frequently outcrops	702.76	3.65
Bryah System	Stony plains and restricted internal drainage flats with sparse tall acacia shrublands and low chenopod shrublands	21.18	0.11
Collier System	Undulating stony uplands, low hills, ridges, stony plains and drainage floors supporting mulga shrublands and some spinifex	117.93	0.61
Frederick System	Hardpan wash plains with broad, reticulate mulga groves and wanderrie banks supporting acacia tall shrublands with grassy understorey	78.55	0.41
Jamindie System	Stony hardpan plains and rises supporting groved mulga shrublands, occasionally with spinifex understorey	222.67	1.16
Oc49	Partially dissected pediments with some low stony hills on fine-grained sedimentary rocks and basic dykes, frequently flanking areas of unit Fa8	3282.66	17.03
SV5	Saline soils associated with salt lakes; sand and kopi gypsum dunes, and intervening plains	7209.52	37.40
Total		19276.31	100

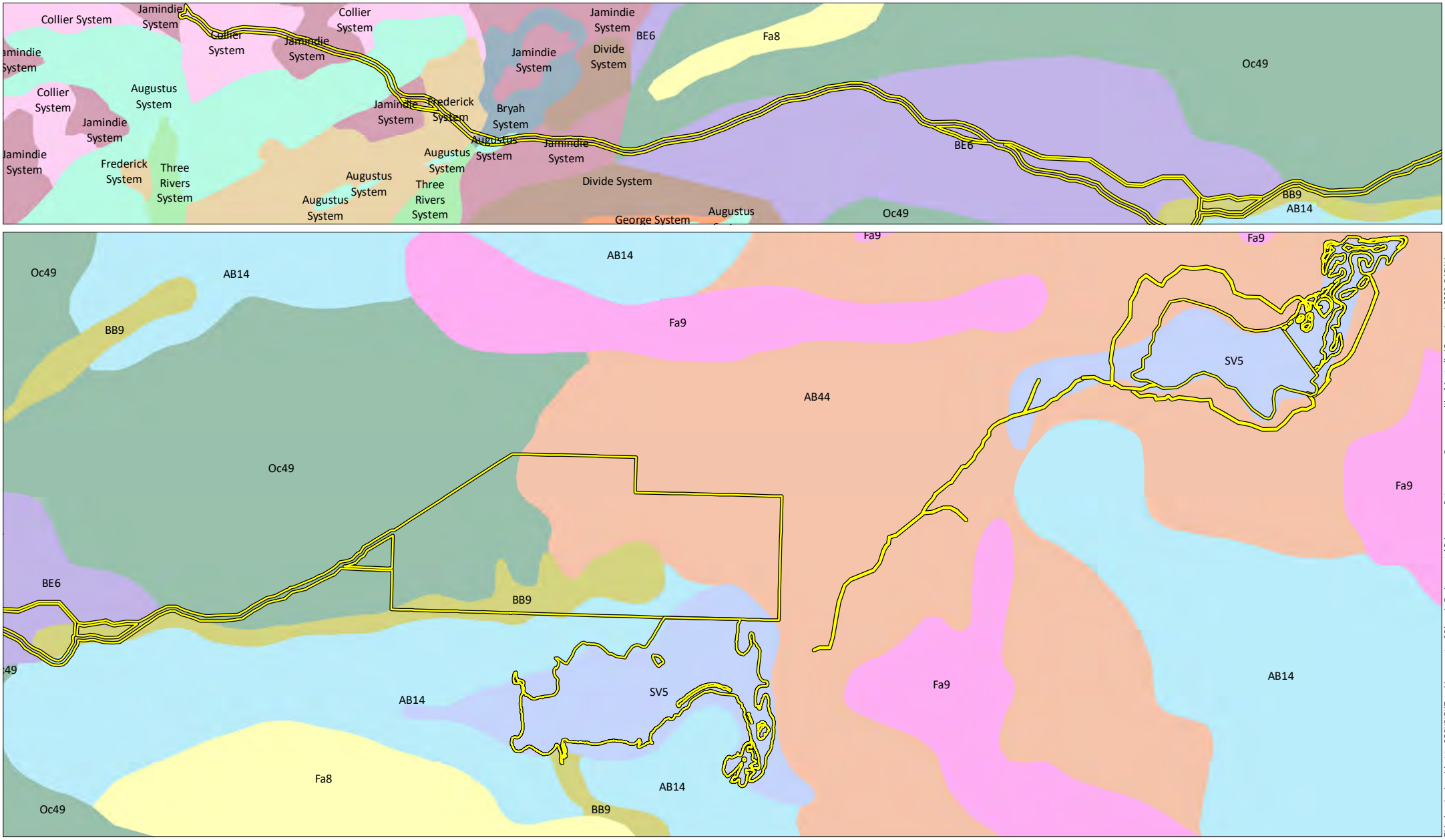


Figure 3–2
Land systems of the study area

Client: Kalium Lakes Ltd
Project: Beyondie Sulphate of Potash Project

Author: KW
Date: 5/11/2018

Coordinate System: GDA 1994 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA 1994

0 1.75 3.5 7 Kilometres
1:225,000

Study area

Land systems

- AB14
- AB44
- Augustus System
- BB9
- BE6
- Bryah System
- Collier System
- Divide System
- Fa8
- Fa9
- Frederick System
- George System
- Jamindie System
- Oc49
- SV5
- Three Rivers System

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PHOENIX ENVIRONMENTAL SCIENCES

3.3 NATIVE VEGETATION EXTENT AND STATUS

Regional vegetation mapping by Shepherd *et al.* (2002) identifies seven vegetation associations in the study area (Table 3-2; Figure 3-3).

The vegetation associations mapped by Shepherd *et al.* (2002) in the study area all have in excess of 90% or pre-European extent remaining (Table 3-2) and therefore have the status of Least Concern.

Table 3-2 Regional vegetation association, extent and status

Code	Vegetation association description	Area in study area (ha)	Pre-European extent (ha)	Current extent (ha)	% remaining	% in reserve[1]
18	Low woodland; mulga (*Acacia aneura*)	657.86	19,892,305	19,843,727	99.8	2.1
29	Sparse low woodland; mulga, discontinuous in scattered groups	4591.47	7,903,991	7,900,200	100.0	0.3
39	Shrublands; mulga scrub	87.83	6,613,569	6,602,580	99.8	7.3
111	Hummock grasslands, shrub-steppe; *Eucalyptus gamophylla* over hard spinifex	128.08	762,964	762,326	99.9	5.5
125	Bare areas; salt lakes	7831.73	3,485,787	3,146,496	90.3	6.0
134	Mosaic: Hummock grasslands, open low tree steppe; desert bloodwood and feathertop spinifex (on) sandhills / Hummock grasslands, shrub-steppe; mixed shrubs over spinifex between sandhills	5751.97	26,026,865	26,022,995	100.0	3.3
178	Hummock grasslands, grass steppe; hard spinifex *Triodi a basedowii*	227.38	578,161	578,161	100.0	0.3

[1]Percentage in pre-European extent in IUCN class I-IV reserves.

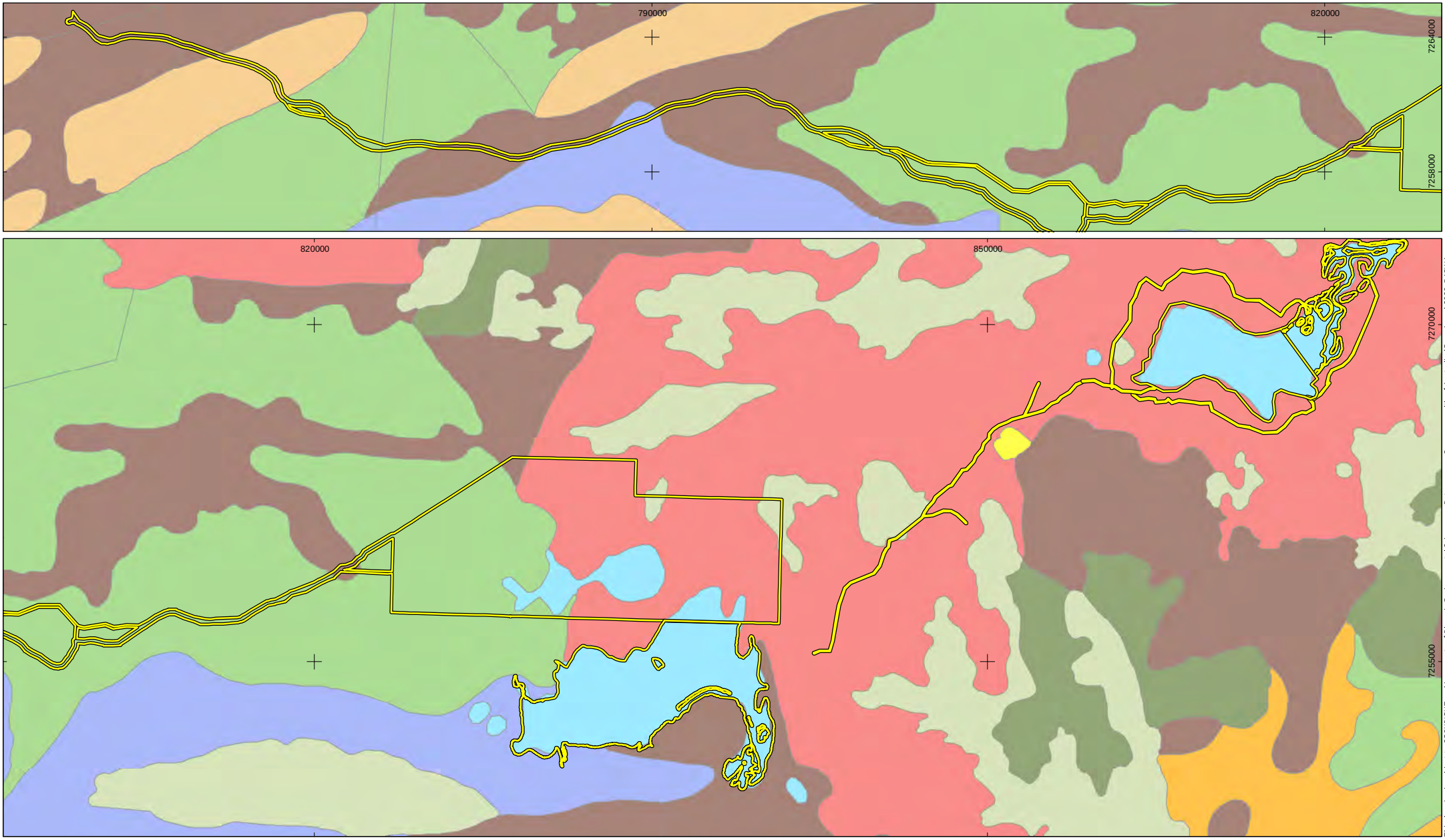

Figure 3–3
Shepherd *et al.* (2002) vegetation types of the study area

PHOENIX ENVIRONMENTAL SCIENCES

Client: Kalium Lakes Ltd
Project: Beyondie Sulphate of Potash Project

Author: KW
Date: 5/11/2018

Coordinate System: GDA 1994 MGA Zone 50
Projection: Transverse Mercator
Datum: GDA 1994

0 1.75 3.5 7 Kilometres
1:225,000

Study area

Vegetation associataion

- 18: Low woodland; mulga (*Acacia aneura*)
- 29: Sparse low woodland; mulga, discontinuous in scattered groups
- 39: Shrublands ; mulga scrub
- 96: Hummock grasslands, shrub steppe; *Acacia* sp. (+*grevillea*) over *Triodia basedowii* often between sand ridges
- 111: Hummock grasslands, shrub steppe; *Eucalyptus gamophylla* over hard spinifex
- 125: Bare areas; salt lakes
- 134: Mosaic: Hummock grasslands, open low tree steppe; desert bloodwood and feathertop spinifex (on) sandhills
- 178: Hummock grasslands, grass steppe; hard spinifex *Triodia basedowii*
- 228: Shrublands ; *Acacia quadrimarginea* scrub
- 676: Succulent steppe; samphire
- 1195: Mosaic: Low woodland; mulga in valleys/Hummock grasslands, shrub steppe; *acacia* species over *Triodia*

This drawing is subject to COPYRIGHT and is property of Phoenix Environmental Sciences — Data sources: Commonwealth of Australia (Geoscience) 2006, DAFWA

3.4 CLIMATE AND WEATHER

The Gascoyne bioregion has an arid climate with and summer rainfall in the east. Spatially averaged median (1890–2005) rainfall is 202 mm (DEWHA 2008a). The climate of the Little Sandy Desert bioregion is also arid with summer-dominant rainfall. Spatially averaged median (1890–2005) rainfall is 178 mm (DEWHA 2008b). The climate of south-western Little Sandy Desert has also been described as desert tropical with predominant summer rainfall (van Leeuwen 2002).

The nearest Bureau of Meteorology (BoM) weather station with long-term data averages is Three Rivers (No. 7080, Latitude: 25.13°S Longitude: 119.15°E), approximately 120 km to the south-west of the study area. Three Rivers records the highest maximum mean monthly temperature (39.3°C) in January and the lowest maximum mean annual temperature (22.9°C) in June. The lowest mean minimum temperature is recorded in July (6.2°C) and the highest in January (24.9°C). Average annual rainfall is 238.4 mm with January, February and March recording the highest monthly averages (34.9, 43.5, and 36.1 mm respectively) (Figure 3-4).

The nearest BoM weather station with current daily observations is Newman Airport (No. 7176, Latitude: 24.42°S Longitude: 119.80°E), approximately 150 km north-northwest of the study area. Newman records the highest maximum mean monthly temperature (39.2°C) in January and the lowest maximum mean annual temperature (22.9°C) in July. The lowest mean minimum temperature is recorded in July (6.2°C) and the highest in January (24.9°C). Average annual rainfall is 317.1 mm with January, February and March recording the highest monthly averages (65.3, 73.7, and 42.5 mm respectively) (Figure 3-5).

Pan evaporation for the south-western Little Sandy Desert bioregion ranges from 16.1 mm/day in January to 4.5 mm/day in June at an annual daily average of 10.2 mm (van Leeuwen 2002).

During the 2015 field survey minimum temperatures recorded at Newman Airport ranged from 9.3°C to 20.4°C and maximum temperatures ranged from 14.7°C to 32.5°C. Mean temperatures recorded during the field survey were below averages recorded for previous years (Figure 3-5). A total of 68.6 mm of rainfall was recorded during the field survey from 20–23 April, with the highest of 50.2 mm recorded on the 22 April. Above average rainfall was recorded during early March with over 140 mm recorded at Newman Airport which resulted in abundant water present in the lakes within the study area.

A total of 68.6 mm of rainfall was recorded during the first 2015 field survey in April (rain fell from 20–23 April, with the highest of 50.2 mm recorded on the 22 April). Well above average rainfall was recorded during early March with over 170 mm recorded at Newman Airport which resulted in abundant water present in the lakes within the study area (Figure 3-5). Above average rainfall was recorded in May, two months prior to a second field survey in July. Monthly rainfall in the months prior to and during two subsequent field trips in October and November was consistently below average (Figure 3-5).

In the 2015 field surveys mean maximum and minimum temperatures at Newman Airport were equal or above average leading up to and during thepril survey, equal or below average leading up to and during the July survey and equal in the months leading up to and during the November survey (Figure 3-5).

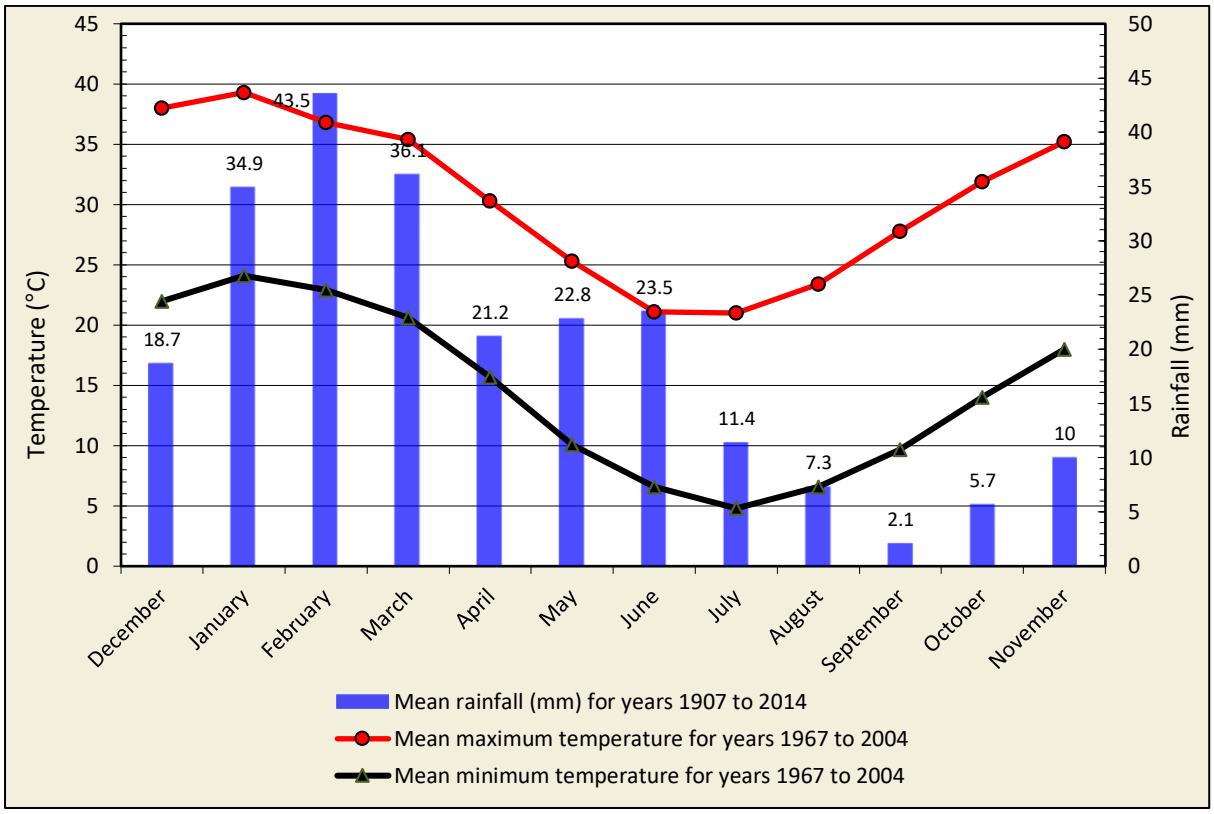

Figure 3-4 **Average monthly temperatures and rainfall records for Three Rivers (BoM 2016)**

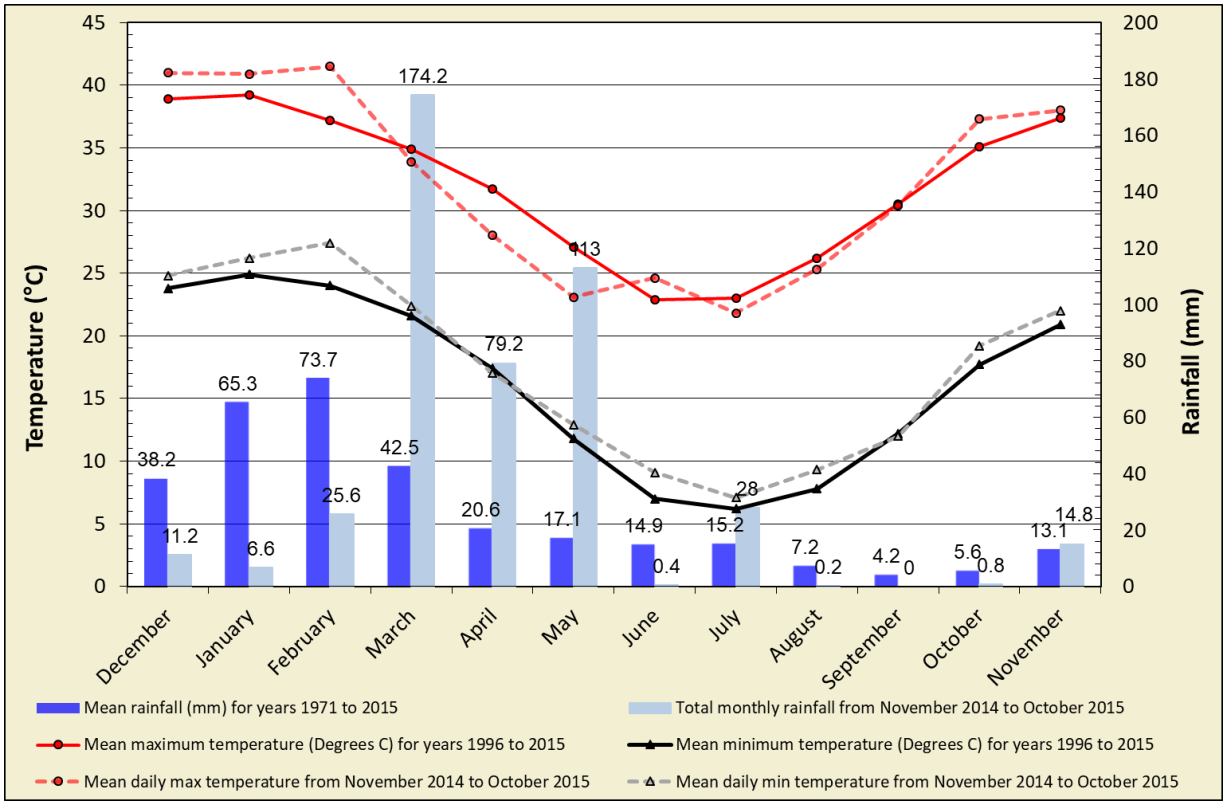

Figure 3-5 **Annual climate and weather data for Newman Aero (no. 007176) (BoM 2016) and mean monthly data for the 12 months preceding the 2015 field survey**

3.5 LAND USE

Overall, only 2% of the Little Sandy Desert bioregion is grazed (DEWHA 2008b). In contrast, approximately 80% of the Gascoyne bioregion was grazed between 1992 and 2001 (DEWHA 2008a). However, the study area only partly falls into the western-most area of the Gascoyne bioregion and is therefore much less representative for the Beyondie, Ten Mile and Lake Sunshine.

At a more local scale, little information is available in relation to land use near the study area. It was covered by a biological study of the south-western Little Sandy Desert (van Leeuwen 2002). This area was principally Unallocated Crown Land with one unvested Crown Reserve (No. 1 Vermin Proof Fence). Three pastoral leases abut the south-western Little Sandy Desert, of which the north-eastern part of Marymia intersects the study area (van Leeuwen 2002). Apart from camel harvesting operations and little four-wheel-drive tourism, the area has been described as 'economically inconsequential' (van Leeuwen 2002).

3.5.1 Threatening processes

Several threatening processes affect the Gascoyne and Little Sandy Desert bioregions (Cowan & Kendrick 2001; Desmond *et al.* 2001):

- wildfire and alteration of fire regimes
- habitat alteration from grazing pressure
- spread of introduced fauna
- spread of weeds
- habitat destruction through mining and associated developments.

3.5.2 Reserves

Collier Range National Park 60 km to the west was established in 1978. The park is little managed with annual wild dog baiting, but otherwise only occasional visits by Karratha staff (Desmond *et al.* 2001). Giles Nature Reserve covering the south-western parts of the Little Sandy Desert was proposed in 2002 (van Leeuwen 2002). This proposed A-class reserve does not cover the study area; however, is likely to provide refugial habitats for local and regional fauna and flora. The Birriliburu Indigenous Protected Area includes the Lake Sunshine section and the sandstone Carnarvon Ranges (Anonymous 2013).

3.6 BIOLOGICAL CONTEXT

A comprehensive biological survey conducted in the south-western Little Sandy Desert by the Department of Conservation and Land Management (now DBCA) between 1995 and 1999 aimed to describe the floral and faunal diversity within the region (van Leeuwen 2002) and provided a benchmark for environmental assessment studies within a small portion of the bioregion.

It was considered that the biology of the Little Sandy Desert was poorly known and with just 5% of the biogeographical region in conservation estate reservation is inadequate and does not provide adequate representation of the biota (van Leeuwen 2002). The flora was largely unknown due to a paucity of survey effort and documentation of surveys in the area.

The flora of the Little Sandy Desert is comparatively diverse with 522 taxa recorded more than a decade ago (van Leeuwen 2002). Many taxa are of biological and conservation significance and are

at the limits of their distributional range or disjunct outliers of northern and southern ranges. Several species collected have not been described previously and represent new species to science. The flora was dominated by central arid zone species but as the area is transitional between major phytogeographical elements in the Australian flora southern and tropical arid zone groups are also present (van Leeuwen 2002).

4 METHODS

4.1 DESKTOP REVIEW

Database searches and literature reviews of relevant publications were undertaken in March 2015 to compile a list of conservation significant flora species and ecological communities that may occur within the study area based on the proximity of previous records.

The following database searches were undertaken for a quadrat of approximate 100 km length with the diagonal coordinates of -24.31222°S, 119.78444°E (NW point) and -25.23472°S, 120.7808°E (SE point):

- EPBC Act Protected Matters Search Tool (Department of the Environment 2015)
- DPaW (now DBCA)/WA Museum NatureMap (DPaW 2015b)
- DPaW (now DBCA) Threatened Flora, Fauna and Ecological Communities database searches (DPaW 2015c)
- Department of Agriculture and Food, Western Australia Organism List search for Declared Plants under the *Biosecurity and Agriculture Management Act 2007*
- Department of Environment and Energy weeds database.

A literature search was conducted for accessible reports of flora and vegetation surveys conducted within the vicinity of the Project to build on the potential species lists developed from the database searches. Two flora and vegetation surveys have been conducted near the study area or within the desktop review search area and were accessed for the desktop review (Table 4-1). Other than these surveys and the regional biodiversity survey undertaken by DPaW (van Leeuwen 2002), there was a paucity of previous survey effort and information within close proximity to the study area.

Table 4-1 Flora and vegetation surveys examined as part of the desktop review

Author	Survey	Project	Client
Van Leeuwen (2002)	Terrestrial flora and fauna survey	Little Sandy Desert Biodiversity Survey	Department of Parks and Wildlife
Enviroworks (EnviroWorks 2010a, b)	Terrestrial flora and fauna survey	Beyondie Magnetite Project	Emergent Resources Ltd

4.2 FIELD SURVEY

The first phase of a two phase Level 2 flora and vegetation field survey for Beyondie and Ten Mile Lakes was undertaken from 13–23 April 2015 and complemented from 22–23 July 2015 in response to changes in the proposed Project layout. A single-phase Level 2 flora and vegetation field survey of the Lake Sunshine section was undertaken between 02–09 November 2015. Field assessment methodology involved a combination of sampling within vegetation quadrats, and relevés, focused searches for conservation significant flora species, as well as recording additional flora taxa (including introduced flora) encountered whilst traversing the study area. *Tecticornia* spp. were surveyed in specific transects in the riparian zone of the salt playas and pans. The location of all quadrats, relevés, transects and Threatened or Priority listed flora was recorded using a hand-held Global Positioning System (GPS) or personal data assistant (PDA) device.

The survey methods included a description of the flora species present, dominant vegetation types and their height and vegetation condition. Prior to the commencement of the field survey, all known data (including aerial photography and pre-selected vegetation quadrats) were loaded onto either a PDA unit or GPS device to allow points of interest and vegetation boundaries electronically captured in the field.

The second phase of Level 2 flora and vegetation field survey for Beyondie and Ten Mile Lakes was undertaken from 07 to 14 October 2015 and included additional areas not surveyed previously. Survey methods from April 2015 survey were repeated in the new areas. Further groundtruthing of boundaries of vegetation associations and vegetation condition classified in the first season survey was also conducted. In the focused searches for conservation significant flora more detailed survey effort was employed in vegetation associations that had records from the first season survey.

During the second season survey it was noted that there were inaccuracies in the mapping of the boundaries of *Tecticornia* vegetation on the lakes playas as a result of limitations of the aerial imagery available. Subsequently, a further field survey was conducted on 16 August 2017. The boundaries of the *Tecticornia* shrublands at Ten Mile Lake and Lake Sunshine were accurately mapped by tracking on a hand-held GPS as the boundaries were flown by a helicopter at low altitude.

4.2.1 Quadrat, transect and relevé selection

A total of 130 sites comprising 86 quadrats, 20 relevés and 24 *Tecticornia* transects were sampled across the study area (Table 4-2; Figure 4-1).

Survey effort in the first phase survey in the Northern section comprised 45 quadrats, 11 relevés and 14 *Tecticornia* transects. All quadrats were resampled in the second phase survey and an additional 17 quadrats and three relevés were surveyed providing a total of 62 quadrats, 14 relevés and 17 transects for the Northern section (Table 4-2; Figure 4-1).

In the southern section survey effort was limited to three transects in the riparian vegetation on the lake boundary which were surveyed in both the first and second phases.

Survey effort at the Lake Sunshine section comprised 24 quadrats, six relevés and seven *Tecticornia* transects which were surveyed once during the phase two survey.

Quadrats were typically 50 m x 50 m but were occasionally different dimensions to fit different vegetation habitats (e.g. riparian vegetation, sand dunes) with an overall area of 2,500 m^2 maintained. Relevés were unbounded survey areas (Table 4-2).

Table 4-2 Geographic coordinates (GDA94) and type of survey for each survey site

Site	Latitude	Longitude	Survey type[1]	Survey location	Phase
PTSH001	-24.7481	120.279	Relevé (unbounded)	Northern section	First & second season L2
PTSH002	-24.7288	120.2852	Quadrat	Northern section	First & second season L2
PTSH004	-24.7212	120.3292	Quadrat	Northern section	First & second season L2
PTSH006	-24.7325	120.2363	Quadrat	Northern section	First & second season L2
PTSH007	-24.7399	120.2562	Quadrat	Northern section	First & second season L2
PTSH009	-24.7517	120.2512	Quadrat	Northern section	First & second season L2
PTSH010	-24.7181	120.2798	Relevé (unbounded)	Northern section	First & second season L2
PTSH011	-24.7228	120.2981	Quadrat (25 m x 100 m)	Northern section	First & second season L2
PTSH012	-24.7287	120.2706	Quadrat	Northern section	First & second season L2
PTSH014	-24.7336	120.2249	Quadrat	Northern section	First & second season L2
PTSH016	-24.7411	120.298	Quadrat	Northern section	First & second season L2
PTSH017	-24.764	120.2819	Quadrat	Northern section	First & second season L2
PTSH018	-24.762	120.2875	Quadrat	Northern section	First & second season L2
PTSH019	-24.7438	120.3169	Relevé (unbounded)	Northern section	First & second season L2
PTSH020	-24.7322	120.3129	Quadrat	Northern section	First & second season L2
PTSH021	-24.7222	120.3132	Quadrat (25 m x 100 m)	Northern section	First & second season L2
PTSH023	-24.7405	120.2177	Quadrat	Northern section	First & second season L2
PTSH024	-24.763	120.2623	Quadrat (42 m x 58 m)	Northern section	First & second season L2
PTSH025	-24.763	120.3211	Quadrat	Northern section	First & second season L2
PTSH026	-24.755	120.3183	Quadrat	Northern section	First & second season L2
PTSH027	-24.7642	120.3054	Quadrat	Northern section	First & second season L2
PTSH028	-24.7536	120.3283	Relevé (unbounded)	Northern section	First & second season L2
PTSH029	-24.7597	120.3464	Quadrat	Northern section	First & second season L2
PTSH030	-24.7517	120.3481	Quadrat	Northern section	First & second season L2
PTSH033	-24.7386	120.3578	Relevé (unbounded)	Northern section	First & second season L2
PTSH034	-24.7304	120.3681	Quadrat	Northern section	First & second season L2
PTSH036	-24.7282	120.3242	Quadrat	Northern section	First & second season L2
PTSH038	-24.7314	120.2473	Quadrat	Northern section	First & second season L2
PTSH039	-24.7184	120.251	Quadrat	Northern section	First & second season L2
PTSH040	-24.7255	120.2613	Relevé (unbounded)	Northern section	First & second season L2
PTSH041	-24.7521	120.2218	Quadrat	Northern section	First & second season L2
PTSH042	-24.7107	120.2747	Quadrat	Northern section	First & second season L2
PTSH045	-24.7711	120.1254	Quadrat	Northern section	First & second season L2
PTSH046	-24.7764	120.0848	Quadrat	Northern section	First & second season L2
PTSH047	-24.7841	120.0377	Quadrat	Northern section	First & second season L2
PTSH048	-24.7319	119.9056	Quadrat	Northern section	First & second season L2
PTSH049	-24.741	119.8697	Quadrat	Northern section	First & second season L2

Site	Latitude	Longitude	Survey type[1]	Survey location	Phase
PTSH050	-24.7534	119.8403	Quadrat	Northern section	First & second season L2
PTSH051	-24.7576	119.794	Quadrat	Northern section	First & second season L2
PTSH054	-24.7412	119.7149	Quadrat	Northern section	First & second season L2
PTSH055	-24.7351	119.7013	Quadrat	Northern section	First & second season L2
PTSH056	-24.7162	119.6495	Quadrat	Northern section	First & second season L2
PTSH057	-24.7163	119.6284	Relevé (unbounded)	Northern section	First & second season L2
PTSH058	-24.7119	119.6167	Quadrat	Northern section	First & second season L2
PTSH059	-24.7733	120.0168	Quadrat	Northern section	First & second season L2
PTSH100	-24.7452	120.2189	Quadrat	Northern section	First & second season L2
PTSH103	-24.7624	120.2316	Relevé (unbounded)	Northern section	First & second season L2
PTSH104	-24.7076	120.2587	Relevé (unbounded)	Northern section	First & second season L2
PTSH201	-24.7062	120.2828	Quadrat	Northern section	First & second season L2
PTSH202	-24.729	120.2967	Relevé (unbounded)	Northern section	First & second season L2
PTSH203	-24.7415	120.2261	Relevé (unbounded)	Northern section	First & second season L2
PTSH204	-24.7477	120.3199	Relevé (unbounded)	Northern section	First & second season L2
PTSH205	-24.7617	120.2319	Quadrat	Northern section	First & second season L2
TPQ001	-24.7491	120.3518	Quadrat	Northern section	First & second season L2
TPQ002	-24.7495	120.3568	Quadrat	Northern section	First & second season L2
TPQ003	-24.7436	120.3509	Quadrat	Northern section	First & second season L2
TPQ004	-24.7489	120.3641	Quadrat	Northern section	First & second season L2
TEC001	-24.7431	120.2676	Transect (1 section, 1 Relevé-unbounded)	Northern section	First & second season L2
TEC002	-24.7642	120.2694	Transect (2 sections, 2 Relevés-unbounded)	Northern section	First & second season L2
TEC003	-24.7531	120.2638	Transect (1 section, 1 Relevé-unbounded)	Northern section	First & second season L2
TEC004	-24.7376	120.3046	Transect (2 sections, 2 Relevés-unbounded)	Northern section	First & second season L2
TEC005	-24.7598	120.3051	Transect (2 sections, 2 Relevés-unbounded)	Northern section	First & second season L2
TEC006	-24.7489	120.3153	Transect (3 sections, 3 Relevés-unbounded)	Northern section	First & second season L2
TEC007	-24.7555	120.2801	Transect (3 sections, 3 Relevés-unbounded)	Northern section	First & second season L2
TEC008	-24.7461	120.2891	Transect (3 sections, 3 Relevés-unbounded)	Northern section	First & second season L2
TEC009	-24.7597	120.2536	Transect (2 sections, 2 Relevés-unbounded)	Northern section	First & second season L2
TEC010	-24.7619	120.2463	Transect (1 section, 1 Relevé-unbounded)	Northern section	First & second season L2
TEC011	-24.7627	120.2255	Transect (4 sections, 4 Relevés-unbounded)	Northern section	First & second season L2
TEC012	-24.7608	120.2122	Transect (1 section, 1	Northern section	First & second season L2

Site	Latitude	Longitude	Survey type[1]	Survey location	Phase
			Relevé-unbounded)		
TEC013	-24.7773	120.3125	Transect (2 sections, 2 Relevés-unbounded)	Southern section	First & second season L2
TEC016	-24.7661	120.351	Transect (3 sections, 3 Relevés-unbounded)	Northern section	First & second season L2
TEC020	-24.7534	120.3382	Transect (3 sections, 3 Relevés-unbounded)	Northern section	First & second season L2
TEC025	-24.7957	120.3582	Transect (4 sections, 4 Relevés-unbounded)	Southern section	First & second season L2
TEC026	-24.8196	120.2598	Transect (2 sections, 2 Relevés-unbounded)	Southern section	First & second season L2
LS001R	-24.6623	120.599	Relevé (unbounded)	Lake Sunshine section	First season L2
LS006R	-24.6629	120.5542	Relevé (unbounded)	Lake Sunshine section	First season L2
LS007R	-24.667	120.5324	Relevé (unbounded)	Lake Sunshine section	First season L2
LS009	-24.6528	120.5291	Quadrat	Lake Sunshine section	First season L2
LS012	-24.64	120.5624	Quadrat	Lake Sunshine section	First season L2
LS013	-24.6487	120.5894	Quadrat	Lake Sunshine section	First season L2
LS1444R	-24.6624	120.554	Relevé (unbounded)	Lake Sunshine section	First season L2
LSA001	-24.7432	120.4114	Quadrat	Lake Sunshine section	First season L2
LSA003	-24.7227	120.448	Quadrat	Lake Sunshine section	First season L2
LSA004	-24.6907	120.4579	Quadrat	Lake Sunshine section	First season L2
LSA005	-24.6681	120.4814	Quadrat	Lake Sunshine section	First season L2
LSA006	-24.6712	120.4926	Quadrat	Lake Sunshine section	First season L2
LSA007	-24.6682	120.52	Quadrat	Lake Sunshine section	First season L2
LSA008	-24.6733	120.5518	Quadrat	Lake Sunshine section	First season L2
LSA009	-24.6815	120.5667	Quadrat	Lake Sunshine section	First season L2
LSA010	-24.6812	120.5891	Quadrat	Lake Sunshine section	First season L2
LSA011	-24.6421	120.623	Quadrat	Lake Sunshine section	First season L2
LSA012	-24.622	120.6245	Quadrat	Lake Sunshine section	First season L2
LSA013	-24.6153	120.6192	Quadrat	Lake Sunshine section	First season L2
LSA014	-24.658	120.5118	Quadrat	Lake Sunshine section	First season L2
LSA015	-24.6492	120.5143	Quadrat	Lake Sunshine section	First season L2
LSA016	-24.6295	120.5226	Quadrat	Lake Sunshine section	First season L2
LSA017	-24.6229	120.5392	Quadrat	Lake Sunshine section	First season L2
LSA018R	-24.6227	120.5591	Relevé (unbounded)	Lake Sunshine section	First season L2
LSA019	-24.6256	120.5638	Quadrat	Lake Sunshine section	First season L2
LSA020	-24.6309	120.5685	Quadrat	Lake Sunshine section	First season L2
LSA021	-24.6339	120.5784	Quadrat	Lake Sunshine section	First season L2
LSA022	-24.6343	120.5888	Quadrat	Lake Sunshine section	First season L2
LSA023	-24.6331	120.5961	Quadrat	Lake Sunshine section	First season L2
LS002R	-24.6674	120.6012	Tecticornia Transect (2	Lake Sunshine section	First season L2

Site	Latitude	Longitude	Survey type[1]	Survey location	Phase
			sections of 2 Relevés-unbounded)		
LS003R	-24.6686	120.5944	Tecticornia Relevé (unbounded)	Lake Sunshine section	First season L2
LS004R	-24.6695	120.5825	Tecticornia Relevé (unbounded)	Lake Sunshine section	First season L2
LS005R	-24.6696	120.5711	Tecticornia Transect (3 sections of 3 Relevés-unbounded)	Lake Sunshine section	First season L2
LS008	-24.6643	120.523	Tecticornia Quadrat	Lake Sunshine section	First season L2
LS010R	-24.64	120.5362	Tecticornia Transect (2 sections of 2 Relevés-unbounded)	Lake Sunshine section	First season L2
LS011R	-24.635	120.5438	Tecticornia Relevé (unbounded)	Lake Sunshine section	First season L2
PTSH_P2141	-24.7434	120.3304	Quadrat	Northern section	Second season L2
PTSH_P2001	-24.7633	120.0158	Quadrat	Northern section	Second season L2
PTSH_P2003	-24.7743	120.0749	Quadrat	Northern section	Second season L2
PTSH_P2004R	-24.7503	120.1919	Relevé (unbounded)	Northern section	Second season L2
PTSH_P2005	-24.755	120.1991	Quadrat	Northern section	Second season L2
PTSH_P2006	-24.7567	120.221	Quadrat	Northern section	Second season L2
PTSH_P2007	-24.7586	120.2284	Quadrat	Northern section	Second season L2
PTSH_P2009	-24.7509	120.2601	Quadrat	Northern section	Second season L2
PTSH_P2010	-24.742	120.2759	Quadrat	Northern section	Second season L2
PTSH_P2011R	-24.7648	120.2965	Relevé (unbounded)	Northern section	Second season L2
PTSH_P2012	-24.7648	120.2567	Quadrat	Northern section	Second season L2
PTSH_P2013	-24.7561	120.3611	Quadrat	Northern section	Second season L2
PTSH_P2014	-24.7601	120.3612	Quadrat	Northern section	Second season L2
PTSH_P2015	-24.7362	120.263	Quadrat	Northern section	Second season L2
PTSH_P2017	-24.7153	120.239	Quadrat	Northern section	Second season L2
PTSH_P2018	-24.7502	120.1872	Quadrat	Northern section	Second season L2
PTSH_P2019	-24.7501	120.1794	Quadrat	Northern section	Second season L2
PTSH_P2020	-24.7533	119.9555	Quadrat	Northern section	Second season L2
PTSH_P2101	-24.7449	119.7139	Quadrat	Northern section	Second season L2
PTSH_P2118R	-24.7627	120.2874	Relevé (unbounded)	Northern section	Second season L2

[1]Quadrats are 50 m x 50 m unless otherwise stated.

175000

245000

7260000

7245000

PTSH058
PTSH056
PTSH057
PTSH055
PTSH054
PTSH_P2101
PTSH051
PTSH050
PTSH049
PTSH048
PTSH_P2020
PTSH_P2001
PTSH_P2003
PTSH059
PTSH047
PTSH046
PTSH045

LSA005
LSA006
LSA004
LSA002
LSA003
LSA001

TEC013
TEC025
TEC026

Figure 4–1
Location of survey sites in the study area

Client: Kalium Lakes Ltd
Project: Beyondie Sulphate of Potash Project

Author: KW
Date: 07-Feb-18

Coordinate System: GDA 1994 MGA Zone 51
Projection: Transverse Mercator
Datum: GDA 1994

0 2 4 8 Kilometres
1:265,000

PHOENIX ENVIRONMENTAL SCIENCES

Study area
- Lake Sunshine
- Northern Section
- Southern Section
- Lake

- Road
- Minor road
- Major creeks and rivers

Site Type
- Quadrat
- Relevé
- Transect

NEWMAN
PERTH

This drawing is subject to COPYRIGHT and is property of Phoenix Environmental Sciences — Data sources: NASA, USGS, Commonwealth of Australia (Geoscience) 2006

Tecticornia shrubland communities that inhabit the lake playas and beaches were defined from 24 transects. Transects were of varying length, with each transect either commencing at the water's edge (Beyondie Lakes) or where vegetation started from within the dry lake (Ten Mile Lake, Lake Sunshine) and terminated where the communities ceased in the riparian zone. Transects were divided into sections where changes in vegetation types were observed (Table 4-2). Cover and density data for all species present was collected in sequential 1 m x 1 m quadrats in each section. The number of sections at each transect varied depending on the number of different vegetation types present (Table 4-2).

Survey locations were selected to ensure that an adequate representation of the major vegetation types and flora present within the Northern section of the study area was sampled. This was achieved by pre-selecting locations of sampling quadrats based on apparent changes in the vegetation visible in aerial images for ground-truthing on foot, selecting additional quadrats in different vegetation types and targeting different landforms during field surveys. Relevés were selected during the field survey where the vegetation type present was matched to a previous quadrat location to facilitate mapping of vegetation type boundaries.

The following information was recorded for each quadrat and relevé:

- location – the coordinates of the quadrat/relevé were recorded in GDA 94 projection utilising a hand-held Garmin GPS

description of vegetation – in accordance with EPA and DPaW (2015) a description at Level V – Association utilising the structural formation and height classes based on NVIS (2003) (

- Appendix 2)
- habitat – a brief description of landform and habitat
- soil – a broad description of surface soil type and rocks
- disturbance history – a brief description of any observed disturbance including an estimate of time since last fire, weed invasions, soil disturbance and animal grazing
- vegetation condition – the condition of the vegetation was recorded utilising the condition scale of Trudgen (1991) (Table 4-3)
- height and foliage cover – a visual estimate of the canopy cover of each species present was recorded as was the total vegetation cover, cover of shrubs and trees >2m tall, cover of shrubs <2m, total grass cover and total herb cover
- photograph – a colour photograph of the vegetation within each quadrat
- species list (quadrats only) – the name of every species present in the quadrat; where species were located that were unknown to the botanist conducting the survey, a specimen was collected and pressed for later identification.

Table 4-3 Vegetation condition rating scale (Trudgen 1991)

Code	Rating	Description
E	Excellent	Pristine or nearly so; no obvious signs of damage caused by activities of European man.
VG	Very Good	Some relatively slight signs of damage caused by activities of European man. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively nonaggressive weeds.
G	Good	More obvious signs of damage caused by activities of European man, including some obvious signs of impact on the vegetation structure such as that caused by low levels of grazing or by selective logging. Weeds as above, possibly some more aggressive species.
P	Poor	Still retains basic vegetation structure or ability to regenerate to it after very obvious activities of European man, such as grazing, partial clearing (chaining) or frequent fires. Weeds as above, probably plus some aggressive species.
VP	Very Poor	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 including very aggressive species.

4.2.2 Focused flora searches

Searches for conservation significant flora and declared plants were undertaken simultaneously with the flora and vegetation survey to determine whether any of the conservation significant species or declared plants identified from the desktop review occur in the study area.

Prior to the survey field, guides for conservation significant flora and declared plants that may occur in each the study area were compiled from photos available on FloraBase and photographs of specimens at the WA Herbarium.

For each population of conservation significant flora encountered, the following information was documented:

- location (as points for individual plants or as polygons for populations)
- description of the floristic community in which the species was located and population size estimate
- voucher collection for lodgement at the WA Herbarium.

For each population of declared plant recorded, the following information was documented:

- location (as points for individual plants or as polygons for populations)
- population size estimate.

4.3 VEGETATION MAPPING

The vegetation descriptions from quadrats and relevés from the current survey were grouped according to similarity of floristic composition (i.e. canopy levels), species composition and and the prevalent community structure (i.e. woodland, shrubland, etc.).

To support delineation of vegetation types, a cluster analysis was conducted based on species presence/absence in each quadrat. The fusion strategy for the site classification was flexible UPGMA with a beta value of -0.1 and Bray Curtis association measure in the software package PATN (Belbin 2003). In accordance with the technical guide (EPA & DPaW 2015) floristically similar vegetation were classified into 'super groups' for a broad scale classification and 'floristic groups' at a finer scale from the clusters of quadrats on a dendrogram that confirmed field observations. The floristic groups were then defined at the local scale as vegetation types.

The vegetation boundaries were mapped utilising ESRI world imagery (year of capture: 2015 and 2016) and from vegetation boundaries recorded on GPS during the field survey.

4.4 TAXONOMY AND NOMENCLATURE

Species that were well known to the survey botanists were identified in the field, while species that were unknown were collected and assigned a unique number to facilitate tracking. All plant species collected during the field program were dried and frozen in accordance with the requirements of the WA Herbarium. Plant species were identified using local and regional flora keys and comparisons with named species held at the WA Herbarium. Plant taxonomists who are considered to be an authority on a particular plant group were consulted, when necessary (see section 4.5).

The conservation status of all recorded flora was checked entries on FloraBase(DBCA 2018a) and the EPBC Act Protected Matters database (Department of the Environment 2015). Nomenclature for flora and vegetation follows FloraBase (DBCA 2018a) and the WA Herbarium.

4.5 PROJECT PERSONNEL

The personnel involved in the survey are presented in Table 4-4.

Table 4-4 Project team

Name	Qualifications	Role/s
Dr Grant Wells[1]	Ph.D. (Botany)	Project manager, field survey, taxonomy, reporting
Dr Grace Wells[1]	Ph.D. (Botany)	Field survey, reporting, GIS
Ms Emily Ager[1]	BSc Zoology	Field survey
Ms Sophie Fox[1]	BSc Zoology	Field survey
Ms Anna Leung[1]	BSc. (Env. Sci.) (Hons)	GIS
Kathryn Wyatt	B. IT, Grad. Cert. GIS	GIS & data analyses
Dr Kelly Shepherd[3]	Ph. D. (Botany)	Taxonomy (*Tecticornia*)
Dr Volker Framenau[1, 2]	M.Sc. (Cons. Biol.), Ph.D. (Zool.)	Report review

[1]Phoenix Environmental Sciences; [2]Research Associate WA Museum; [3]DBCA.

5 RESULTS

5.1 DESKTOP REVIEW

5.1.1 Flora

The combined literature reviews and database searches identified 636 species that may occur in the study area, including 631 native species and five introduced species (Appendix 3).

5.1.1.1 Conservation significant flora

A total of 44 conservation significant flora species were identified within the area of the desktop review, including one Threatened species (*Thryptomene wittweri*; EPBC – VU, WA Act VU) (Table 5-1).

None of these species were recorded in the Northern or southern sections of the study area, with closest records of Priority Flora located at least 8 km from either section (Figure 5-1). One species of Threatened Flora, *Thryptomene wittweri* (VU) was recorded approximately 25 km south-east of Ten Mile lakes (Southern section).

Two Priority species, *Tecticornia sp.* Lake Sunshine, P1 (K.A. Shepherd *et al.* KS 867) and *Stackhousia clementii* (P3), were recorded within the Lake Sunshine section of the study area, with other closest records of Priority Flora located approximately 1.5 km from this section.

Table 5-1 Conservation significant flora species identified within the area of the desktop review

Family and species	Conservation status[1]			Habitat
	EPBC Act	WC Act	DPaW list	
Aizoaceae				
Gunniopsis sp. Lake Kerrylyn (N. Gibson *et al.* NG 7028)			P1	On edge of salt lake in red loam or brown clayey sand with *Tecticornia* spp. sparse shrubland (DBCA 2018a).
Amaranthaceae				
Ptilotus chrysocomus			P1	Brown sand clays at base of breakaways or rocky scree slopes in very open shrubland over scattered grasses (DBCA 2018a).
Ptilotus daphne			P1	In *Tecticornia* low open shrubland over scattered grasses on small quartzite ridge below breakaway (DBCA 2018a).
Ptilotus tetrandrus			P1	Dense low heath over low scrub over open hummock grass of *Triodia schinzii* in red sand on extensive swale between parallel dunes on flat terrain and low in landscape (DBCA 2018a).
Asparagaceae				

Family and species	Conservation status[1]			Habitat
	EPBC Act	WC Act	DPaW list	
Thysanotus sp. Desert East of Newman (R.P. Hart 964)			P2	On red-brown loamy sand on sand plain, pisolitic buckshot plain in Spinifex grassland (DBCA 2018a).
Asteraceae				
Minuria sp. Little Sandy Desert (SVL 4919)			P1	Dense low heath of *Scaevola collaris* over scattered shrubs over dense *Goodenia* sp. herbland on small saline clay playa in damp red yellow-brown soil (DBCA 2018a).
Celastraceae				
Stackhousia clementii			P3	Low *Eucalyptus*, *Corymbia* or *Hakea* woodland over open scrub of *Acacia* spp. over tussock grassland in skeletal soils on sandstone hills or red clay loam plains, between calcrete plains (DBCA 2018a).
Chenopodiaceae				
Maireana prosthecochaeta			P3	Open Mulga scrub over mixed open dwarf scrub on laterite hills, stony plain in saline areas in sandy soil or Ironstone scree with brown-red stony sandy clay loamy soil with ironstone pebbles (DBCA 2018a).
Tecticornia bibenda			P1	In low shrubland over grassland on red-brown saline sand with some clay over calcrete and gypsum near the edges of gypsiferous playas and salt lakes on flat terrain (DBCA 2018a).
Tecticornia mellarium			P1	Samphire flats on lake bed with sandy clay loam soil (DBCA 2018a).
Tecticornia sp. Christmas Creek (K.A. Shepherd & T. Colmer *et al.* KS 1063)			P1	Low open heath on edge of salt lake in brown sandy clay (DBCA 2018a).
Tecticornia willisii			P1	*Melaleuca* high shrubland over *Tecticornia* spp. open heath over open tussock grassland in middle of saline flat with sandy clay loam soil (DBCA 2018a).
Tecticornia sp. Sunshine Lake (K.A. Shepherd *et al.* KS 867)			P1	In samphire shrubland on shoreline of salt flats with red-brown sandy clay over sandstone (DBCA 2018a).
Cyperaceae				
Fimbristylis sieberiana			P3	In woodland over mixed open sedgeland or grassland in mud, skeletal red-brown sand soil pockets on ironstone on pool edges and

Family and species	Conservation status[1]			Habitat
	EPBC Act	WC Act	DPaW list	
				sandstone cliffs (DBCA 2018a).
Elaeocarpaceae				
Tetratheca chapmanii			P1	In crevices of vertical cliffs of sandstone massif (DBCA 2018a).
Euphorbiaceae				
Euphorbia sarcostemmoides			P1	Open mulga scrub over open *Eremophila* dwarf shrubland in red stony sandy clay loam on sandstone ridges or granite boulders on quartzite hills (DBCA 2018a).
Euphorbia stevenii			P3	Grassland over herbland in clay sandy soils over bedrock (DBCA 2018a).
Fabaceae				
Daviesia arthropoda			P3	Grassland In yellow-brown sandy soil on dunes (DBCA 2018a).
Frankeniaceae				
Frankenia glomerata			P4	Low shrubland in grey-brown sandy loam or white sand (DBCA 2018a).
Goodeniaceae				
Dampiera atriplicina			P3	*Triodia* hummock grassland with low open shrubs in red sand on sand ridges or lateritic hills (DBCA 2018a).
Goodenia modesta			P3	Open *Eucalyptus* woodland over low shrubland over *Triodia* grassland in red loam sand on plains between clay pans (DBCA 2018a).
Goodenia sp. Beyondie (L.W. Sage & S. van Leeuwen LWS 2518)			P1	Chenopod low open heath in dry bare grey clayey sand near salt lake (DBCA 2018a).
Haloragaceae				
Gonocarpus pycnostachyus			P3	Low shrubland in sand or clay soils in wet depressions on granite rocks near salt lake (DBCA 2018a).
Lamiaceae				
Hemigenia tysonii			P3	Isolated tall *Acacia* shrubs over sparse heathland or grassland in red sand, sandy clay, lateritic sand on flats, sand dunes and hills (DBCA 2018a).

Family and species	Conservation status[1]			Habitat
	EPBC Act	WC Act	DPaW list	
Malvaceae				
Hibiscus sp. Carnarvon (S. van Leeuwen 5110)			P1	Isolated *Eucalyptus* sp. over *Acacia* shrubland over *Triodia* hummock grassland in rocky creekline at mouth of gorge in deep loamy sand on sandstone outcrop (DBCA 2018a).
Meliaceae				
Owenia acidula			P3	Low woodland over tall *Acacia* shrubland over *Triodia* open hummock grassland on black of drainage line in red-brown sandy clay or silty loam (DBCA 2018a).
Myrtaceae				
Thryptomene wittweri	VU	S3		Low open woodland over open mallee shrub over open *Triodia* hummock grass in skeletal red stony soils on breakaways in stony creek beds (DBCA 2018a).
Eucalyptus semota			P1	Open woodland over dense shrubland in clay on quartz outcrops or sandstone breakaway or orange loamy clay in drainage channel (DBCA 2018a).
Micromyrtus mucronulata			P1	In low heath or low woodland with low scrub on granite hill slopes in rocky brown loam (DBCA 2018a).
Calytrix praecipua			P3	*Acacia* spp. woodland or shrubland in skeletal sandy soils over granite or laterite on breakaways, outcrops or creeklines (DBCA 2018a).
Poaceae				
Aristida jerichoensis var. *subspinulifera*			P3	Mulga woodland in orange sandy clay or loamy clay on lemma groove muricate. Hardpan plains near creek (DBCA 2018a).
Triodia birriliburu			P3	Spinifex grassland, *Acacia* shrubland or low heathland on red sandplain or saline clay playa (DBCA 2018a).
Polygalaceae				
Comesperma pallidum			P3	Low shrubland over open *Triodia* hummock grassland in red sand on sandplains and dunes over red sandy laterite over sandstone (DBCA 2018a).
Comesperma viscidulum			P4	Sparse *Eucalyptus* mallee trees over sparse shrubland over *Triodia* hummock grassland in

Family and species	Conservation status[1]			Habitat
	EPBC Act	WC Act	DPaW list	
				red sand loam or yellow sand on sandplain (DBCA 2018a).
Primulaceae				
Samolus sp. Fortescue Marsh (A. Markey & R. Coppen FM 9702)			P1	Low chenopod shrubland over open tussock grassland in red-brown, deep, heavy clay soils on calcrete salt pan or flood plain (DBCA 2018a).
Scrophulariaceae				
Eremophila anomala			P1	In open mulga woodland in stony red-brown clay loams on basalt outcrop (DBCA 2018a).
Eremophila appressa			P1	*Acacia* scrub over ver open low grassland in red ironstone gravel on ridge slopes (DBCA 2018a).
Eremophila arachnoides subsp. *arachnoides*			P3	*Eucalyptus* woodland or open shrubland in shallow brown loam over limestone or calcrete (DBCA 2018a).
Eremophila fasciata			P3	Tall *Acacia* shrubland in brown-red ironstone gravel on flats and sides of breakways (DBCA 2018a).
Eremophila laccata			P1	*Acacia aneura* over mixed grasses in brown-red loam on plain (DBCA 2018a).
Eremophila lanata			P3	In open scrub in stony red clayey sand (DBCA 2018a).
Eremophila rigida			P3	Open *Acacia* shrubland in red sand alluvium or clay on hardpan plains, stony clay depressions (DBCA 2018a).
Eremophila sp. Katjarra South (N. Gibson *et al.* NG 7149)			P1	*Eucalyptus camaldulensis* open woodland over open shrubland over *Triodia* hummock grassland in gravelly red sandy loam in creekline (DBCA 2018a).
Eremophila sp. Ostrina (M. Officer 164)			P1	In rock gully on top of range (DBCA 2018a).

[1] VU – Vulnerable; S3 – Schedule 3; P1 – Priority 1; P3 – Priority 3; P4 – Priority 4.

5.1.1.2 Introduced flora

A total of four introduced flora species were identified in the desktop review as potentially occurring in the study area (Table 5-2). None of these are declared pests and/or a WoNS.

Table 5-2 Introduced flora species identified through the desktop review

Genus and species	Reference
**Aerva javanica*	Van Leeuwen (2002)
**Bidens bipinnata*	Van Leeuwen (2002)
**Malvastrum americanum*	EnviroWorks (2010b)
**Portulaca pilosa*	DBCA (2018b)
**Setaria verticillata*	Van Leeuwen (2002)

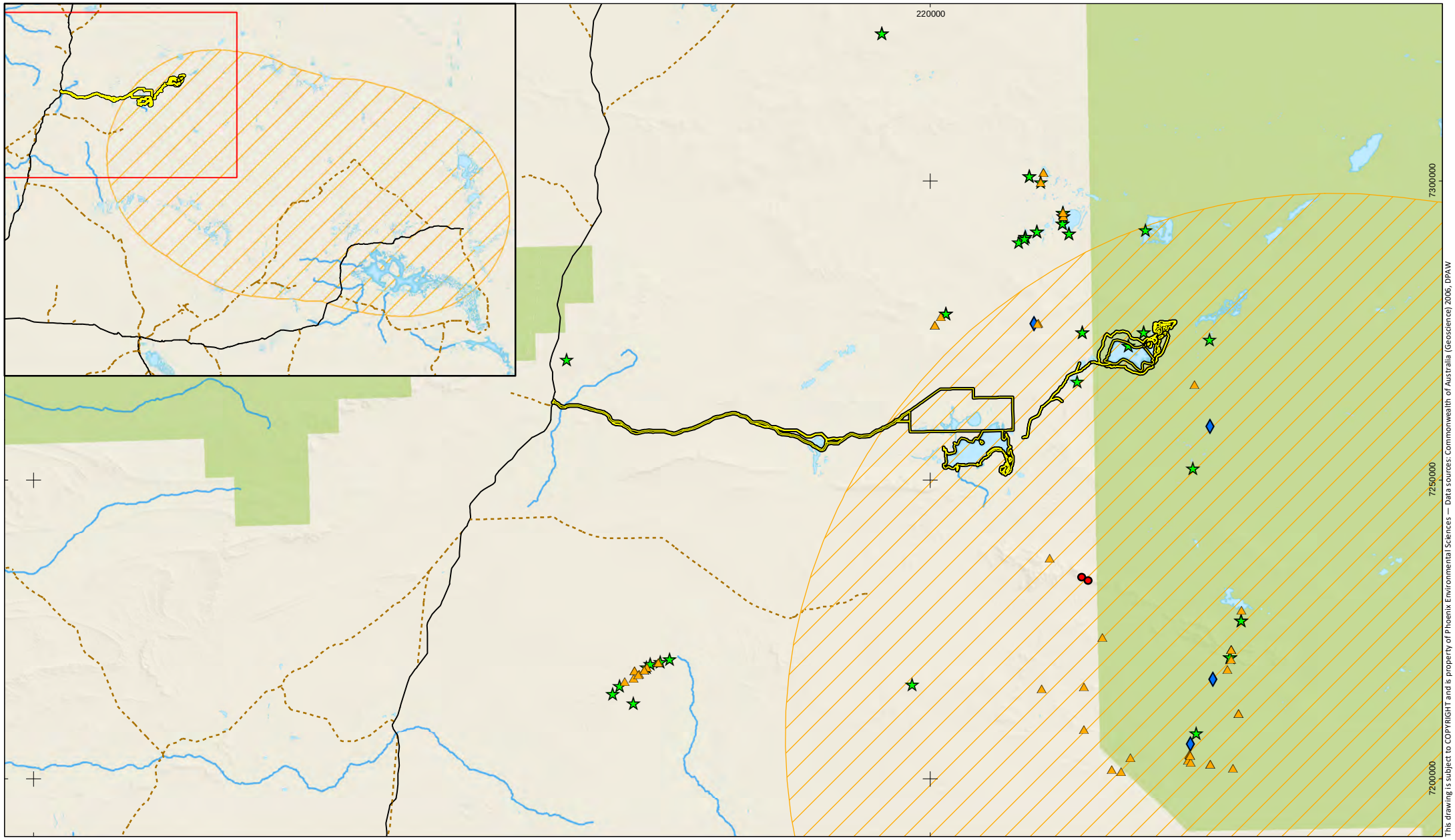

Figure 5–1
Location of conservation significant flora and vegetation from the desktop review

Client: Kalium Lakes Ltd
Project: Beyondie Sulphate of Potash Project

Author: KW
Date: 5/11/2018

Coordinate System: GDA 1994 MGA Zone 51
Projection: Transverse Mercator
Datum: GDA 1994

PHOENIX ENVIRONMENTAL SCIENCES

5.1.2 Vegetation

A single State listed PEC (Priority 1) was identified in the desktop review, Lee Steere Range vegetation complexes (banded ironstone formation). The 90 km buffer zone of this PEC passes through the study area (Figure 5-1); however, no banded ironstone formations occur within the study area.

No TECs or ESAs were located within close proximity to the study area.

Van Leeuwen (van Leeuwen 2002) defined seven broad species assemblages, but did not define distinct vegetation groups for a survey in the south-western Little Sandy Desert. No discussion regarding the conservation significance of the species assemblages in terms of regional or local significance was provided.

In two different studies, EnviroWorks (2010a, b) defined nine and seven vegetation types respectively in proximity to the study area (Table 5-3; Table 5-4); however, EnviroWorks (2010a, b) did not discuss the conservation significance of these vegetation groups/communities.

Table 5-3 Vegetation communities recorded near the study area by EnviroWorks (2010a)

Vegetation communities	Characterisation
Open *Acacia—Corymbia s*hrubland—low woodland, *Triodia* grassland	Grasslands of *Triodia basedowii* and *Triodia schinzii* with very occasional trees (e.g. *Corymbia terminalis*), open shrubland (e.g. *Hakea lorea, Corymbia deserticola Codonocarpus cotinifolius)* and low shrubs (*Alyogyne pinoniana, Kennedia prorepens, Keraudrenia velutina, Leptosema chambersii*).
Open *Acacia—Corymbia* Shrubland—low woodland, *Triodia* grassland	Sparse low scrub (to 4m) of *Acacia rhodophloia, Acacia pyrifolia var. pyrifolia, Hakea lorea* and *Psydrax latifolia* over a sparse low mixed species shrub layer (to 1.5m) over *Triodia* spp.
Open *Acacia* Shrubland—low woodland, *Triodia* grassland	Low scrub (to 4 m) of *Acacia ayersiana Hakea lorea* and *Psydrax latifolia* over a sparse low mixed shrub species layer (to 1.5 m) over *Triodia* spp.
Open *Acacia aneura—A. pruinocarpa* shrubland—low woodland	Open low scrub (to 4 m) of *Acacia aneura* var. *aneura, Acacia pruinocarpa, Acacia aneura* var. *argentea* and *Psydrax latifolia* over an open low mixed species shrub layer (to 1.5 m) over sparse *Triodia* spp.
Open *Acacia aneura* shrubland—low woodland	Open mixed species shrubland and low *Acacia aneura* var. *aneura* woodland over sparse low shrubs and sparse grasses.
Open *Acacia aneura, A. craspedocarpa, Eremophila spp.* shrubland—low woodland	Low, open woodland of *Acacia aneura* over mixed shrubs to 1.5 m which include *Acacia craspedocarpa, Acacia tetragonophylla* and *Eremophila galeata.*
Open *Acacia aneura, Grevillea stenobotrya, Eremophila* spp. shrubland—low woodland	Very open low woodland/shrubland of *Acacia aneura*, *Grevillea stenobotrya*, *Eremophila galeata* over mostly bare gravelly loam with occasional low shrubs (e.g. *Acacia tetragonophylla*, *Lawrencia squamata*, *Grevillea deflexa*, *Ptilotus rotundifolius*) and grasses (*Aristida contorta, Enneapogon avenaceus).*

Table 5-4 Vegetation types recorded near the study area by EnviroWorks (2010b)

Vegetation type	Characterisation
Triodia grassland	Grassland of *Triodia basedowii* and *Triodia schinzii* with very occasional trees (e.g. *Corymbia terminalis*), shrubs (e.g. *Acacia rhodophloia*, *Alyogyne pinoniana*, *Codonocarpus cotinifolius*) and forbs (e.g. *Podolepis kendallii*, *Waitzia acuminata).*
Sparse shrubs over *Triodia*	Sparse low scrub (to 4 m) of *Acacia aneura, Acacia pyrifolia* var. *pyrifolia, Acacia rhodophloia, Hakea lorea* and *Psydrax latifolia* over a sparse low mixed species shrub layer (to 1.5 m) over *Triodia* spp.
Shrubs over *Triodia*	Low scrub (to 4 m) of *Acacia aneura, Acacia pyrifolia* var. *pyrifolia, Acacia rhodophloia, Acacia tetragonophylla, Hakea lorea* and *Psydrax latifolia* over a sparse low mixed shrub species layer (to 1.5 m) over *Triodia* spp.
Shrubs over sparse grasses	Open low scrub (to 4 m) of *Acacia pyrifolia* var. *pyrifolia, Acacia rhodophloia, Acacia tetragonophylla, Eremophila fraseri* subsp. *galeata* and *Psydrax latifolia* over an open low mixed species shrub layer (to 1.5 m) over sparse *Triodia* spp.
Tall eucalypts	Large (to 15 m tall) trees of (for example) *Eucalyptus victrix*, *Corymbia terminalis* over an understorey which includes components of adjacent communities.
Drainage lines	Drainage lines within the shrub/grassland mosaic may exhibit a distinctive shrub flora comprised of (for example) *Eucalyptus lucasii* and *Eucalyptus pachyphylla;* within the narrow channels small ephemeral species occur amongst the rocks, though the understorey is similar to that in the surrounding community types.
Breakaways	Distinctive flora generally dominated by small to medium-sized shrubs (to 2 m); shrub species found in the breakaways include *Calytrix carinata, Dodonaea microzyga* var. *acrolobata a*nd *Micromyrtus flaviflora.*
Floodplains	Community consists of shrubs, many of which occur elsewhere (e.g. *Acacia tetragonophylla*), over sparse low grasses (e.g. *Aristida contorta, Enneapogon* spp.) or bare ground.
Riparian woodland	Large trees of *Eucalyptus camaldulensis* var. *obtusa* and tall shrubs *(e.g. Acacia aneura)* over a degraded shrub understorey (e.g. *Sarcostemma australe, Stemodia linophylla).*

5.2 FIELD SURVEY

5.2.1 Flora

A total of 487 flora species and subspecies (478 native and nine introduced) representing 57 families and 184 genera were recorded during the field survey (Appendix 4). These included 354 perennial species and 133 annual/short-lived species.

The most prominent families recorded in the study area included the Chenopodiaceae, Fabaceae, Poaceae, Malvaceae, Scrophulariaceae, Goodeniaceae, Amaranthaceae, Asteraceae, Myrtaceae and Lamiaceae (Table 5-5).

Table 5-5 Dominant floristic families recorded during the field survey in the study area

Family	No of recorded species
Fabaceae	73
Chenopodiaceae	71
Poaceae	60
Malvaceae	36
Asteraceae	29
Goodeniaceae	21
Amaranthaceae	21
Scrophulariaceae	16
Myrtaceae	16
Lamiaceae	12

5.2.1.1 Conservation significant species recorded in the study area

No Federal or State listed Threatened Flora were recorded in the survey.

Four Priority 1 flora species, all *Tecticornia* spp., were recorded in the study area (Table 5-6; Figure 5-2). *Tecticornia* sp. Christmas Creek was recorded at one location on the sand dune adjacent Lake Beyondie. All remaining records for this species and the three other Priority Flora were located on the lakes (Beyondie, Ten Mile and Sunshine) playa. Further details on records for each species are provided below.

Table 5-6 Conservation significant flora species recorded during the field survey

Genus and species	Conservation status
Tecticornia globulifera	P1
Tecticornia sp. Christmas Creek (K.A. Shepherd & T. Colmer *et. al.* KS 1063)	P1
Tecticornia willisii	P1
Tecticornia sp. Lake Sunshine (K.A. Shepherd *et al.* KS 867)	P1

220000
235000
250000
7270000
7260000
7250000

Tecticornia sp. Sunshine Lake

Tecticornia sp. Christmas Creek
Tecticornia globulifera

Tecticornia sp. Christmas Creek
Tecticornia globulifera

Tecticornia willisii

Tecticornia willisii

Tecticornia sp. Christmas Creek
Tecticornia globulifera

Tecticornia globulifera

Tecticornia willisii

Tecticornia sp. Christmas Creek
Tecticornia globulifera

Tecticornia willisii
Tecticornia sp. Christmas Creek

Tecticornia willisii

Tecticornia sp. Christmas Creek
Tecticornia sp. Sunshine Lake
Tecticornia willisii

This drawing is subject to COPYRIGHT and is property of Phoenix Environmental Sciences — Data sources: NASA, USGS, Commonwealth of Australia (Geoscience) 2006

Figure 5-2
Location of conservation significant flora recorded during the field survey

Client: Kalium Lakes Ltd
Project: Beyondie Potash Project

Author: KW
Date: 1/10/2018

Coordinate System: GDA 1994 MGA Zone 51
Projection: Transverse Mercator
Datum: GDA 1994

0 1 2 4 Kilometres
1:125,000

- Lake Sunshine
- Northern Section
- Southern Section
- Lake
- Priority flora (P1)

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5.2.1.1.1 *Tecticornia globulifera*

Status: Priority 1 (DBCA)

Distribution and ecology: Previously recorded in the Augustus subregion of the Gascoyne bioregion and the Fortescue subregion of the Pilbara bioregion (DPaW 2015a). The species is known from 14 records (DBCA 2018b), with habitat descriptions including:

- flat floodway, approximately 900 m from man-made channel; red clayey sand; samphire flats with low *Acacia* shrubs, *Typha* spp. around the edge of the channel
- variable-drained, red, saline clay loam; extensive salt flat
- northern edge of large salt lake
- undulating saline flat on northern edge of large salt lake
- approximately 1.5 km from the shoreline; flat floodplain; red clayey sand
- on the lake bed a few 100 m from the shoreline; red clayey sand.

Records and distribution in the study area: The specimens were collected from five locations at Beyondie Lakes (Figure 5-2), representing almost half of the sites surveyed and as such it is highly likely that further populations of the species are present within the study area. The species was recorded on salt lake playa and on the salt lake beach in red-orange clay, brown sandy loam and red-orange sand in *Tecticornia* spp. dominated shrubland.

The species was not identified in the field and therefore the size and distribution of the populations was not able to be recorded. Cover values recorded for the species ranged from 0.3–13% with cover values exceeding 5% recorded at two locations indicating potentially large populations of the species. It is highly likely that further populations are present in the study area.

The five locations in the current study area bring the total number of records for the species to 19 and represent 26.3% of all records.

It is not possible to determine what proportion of total indiivduals of the species occur at the Beyondie Sulphate of Potash Project as population numbers were not recorded during the surveys and are not provided for all records from the desktop review.

5.2.1.1.2 *Tecticornia* **sp. Christmas Creek**

Status: Priority 1 (DBCA)

Distribution and ecology: Previously recorded in the Trainor subregion of the Little Sandy Desert bioregion and the Fortescue subregion of the Pilbara bioregion (DPaW 2015a). The species is known from 23 records (DBCA 2018b) with habitat descriptions including:

- open depression; moist brown/grey clay; seasonally inundated
- hill; dry brown loam; well drained
- flat floodway near river; red clayey sand; exposed shale
- salt flats near lake shoreline; red-brown sandy clay
- brown rocky sand on a plain within 100 m of the edge of 14 mile pool
- samphire covered claypan, low in landscape, swale, clay playa comprising moist gypsiferous light brown-grey soil

- saline flat, northern apron to Fortescue Marsh, flat terrain very gentle southern slope, saline stony clay soil
- red sandy clay
- 1 km from the shoreline; flat floodplain; red clayey sand.

The species was also recorded at seven locations in subsequent surveys conducted for the Beyondie Sulphate of Potash Project (Phoenix 2018) providing a total of 30 records of the species outside of the current survey area.

Records and distribution in the study area: *Tecticornia* sp. Christmas Creek was recorded at six locations in the study area, five locations at Beyondie Lakes and one location on Ten Mile Lake (Figure 5-2). The species was recorded in red-brown sandy clay to red-brown sandy loam on salt lake playa and in the riparian zone in *Tecticornia* spp. dominated shrubland.

The species was not identified in the field and therefore the size and distribution of the populations was not able to be recorded. Cover values recorded for the species ranged from 0.1–12% with cover values exceeding 5% recorded at two locations, one location at Beyondie Lakes and one location at Ten Mile Lake indicating potentially large populations of the species. It is highly likely that further populations are present in the study area.

The six locations in the current study area bring the total number of records for the species to 36 and represent 16.7% of all records. A total of 13 records of the species have been recorded at the Beyondie Sulphate of Potash Project representing 36.1% of all known records.

It is not possible to determine what proportion of total indiivduals of the species occur at the Beyondie Sulphate of Potash Project as population numbers were not recorded during the surveys and are not provided for all records from the desktop review.

5.2.1.1.3 ***Tecticornia willisii***

Status: Priority 1 (DBCA)

Distribution and ecology: Previously recorded at just four locations from WA only in the Trainor subregion of the Little Sandy Desert bioregion (DPaW 2015a) on the NW edge of Yanneri Lake and at Willie soak (ALA 2015). The recorded habitats comprised:

- on edge of bare salt flats, red sandy clay over sandstone, salt crystals on exposed soil surface
- shoreline of samphire flats, red-brown sandy clay
- claypan, low in landscape, swale, clay playa comprising moist gypsiferous light brown-grey soil.

The species was also recorded at 24 locations in subsequent surveys conducted for the Beyondie Sulphate of Potash Project (Phoenix 2018) providing a total of 28 records of the species outside of the current survey area.

Records and distribution in the study area: The specimens were collected from six locations on the beach and fringes of the lake playa on lakes Beyondie and Ten Mile. The species was recorded in *Tecticornia* spp. dominated shrublands in red-orange/red-brown/whitish sandy loam to sandy clay soils.

The species was not identified in the field and as such the size and distribution of the populations was not able to be recorded. Cover values for the species ranged from 0.1% (scattered individuals)

to 18%, with the species dominant in the community. It is highly likely that further populations are present in the study area.

The six locations in the current study area bring the total number of records for the species to 34 and represent 17.6% of all records. A total of 30 records of the species have been recorded at the Beyondie Sulphate of Potash Project representing 88.2% of all known records.

It is not possible to determine what proportion of total indiivduals of the species occur at the Beyondie Sulphate of Potash Project as population numbers were not recorded during the surveys and are not provided for all records from the desktop review.

5.2.1.1.4 *Tecticornia* sp. Lake Sunshine

Status: Priority 1 (DBCA)

Distribution and ecology: Previously recorded in the Eastern Murchison subregion of the Murchison bioregion and Trainor subregion of the Little Sandy Desert bioregion (DPaW 2015a). The species is known from 13 records (DBCA 2018b) with habitat descriptions including:

- salt lake shoreline with salt crust and red-brown clay loam soil
- margin of salt lake, salt encrusted surface, brown clay
- lake bed, level that would occasionally be inundated, grey loamy clay sand
- island in the middle of Lake Sunshine, Little Sandy Desert.

The species was also recorded at six locations in subsequent surveys conducted for the Beyondie Sulphate of Potash Project (Phoenix 2018) providing a total of 19 records of the species outside of the current survey area.

Records and distribution in the study area: The species was recorded at two locations, one on the playa of Ten Mile Lake in red-orange sand to sandy clay in *Tecticornia* spp. dominated shrubland, and the other on the playa of Lake Sunshine, confirming a previous desktop record for the species (Figure 5-2).

The species was not identified in the field and as such the size and distribution of the populations was not able to be recorded. Cover values of 9% and 10% recorded for the species at Ten Mile Lake, and 14% at Lake Sunshine, indicate potentially large populations. It is possible that the species may occur elsewhere on the lake playa.

Notably, the species co-occurred with *Tecticornia* sp. Christmas Creek both of which were recorded at the same location at Willie Soak approximately 25 km to the north.

The two locations in the current study area bring the total number of records for the species to 21 and represent 9.5% of all records. A total of eight records of the species have been recorded at the Beyondie Sulphate of Potash Project representing 38.1% of all known records.

It is not possible to determine what proportion of total indiivduals of the species occur at the Beyondie Sulphate of Potash Project as population numbers were not recorded during the surveys and are not provided for all records from the desktop review.

5.2.1.1.5 *Stackhousia clementii*

The record of *Stackhousia clementii* (P3) on Sunshine lake could not be relocated during the current survey however the presence of the species somewhere on the lake can not be discounted. The species is known from 37 records (DBCA 2018b) with the single record in the surrent study area representing just 2.7% of all records.

5.2.1.2 Introduced flora

Most of the vegetation in the study area was free of introduced flora; however, nine introduced species were recorded in the study area (Table 5-7). These species all have wide distributions in WA and there were no apparent range extensions (Table 5-8). None of the introduced species recorded are declared pests.

**Bidens bipinnata* was the most widespread species recorded at 11 sites and at times with cover values high enough to downgrade the vegetation condition of the site from excellent to good or very good. This species was most prevalent in mulga woodlands.

Table 5-7 Introduced flora species recorded during the field survey

Genus and species	No. of survey locations
**Bidens bipinnata*	11
**Cenchrus ciliaris*	1
**Chloris virgata*	1
**Citrullus colocynthis*	1
**Citrullus lanatus*	1
**Digitaria ciliaris*	1
**Malvastrum americanum*	3
**Setaria verticillata*	2
**Sigesbeckia orientalis*	1

5.2.1.3 Range extensions

The survey records represented range extensions for 29 species, of which nine exceeded 100 km (Table 5-8).

5.2.1.4 Unidentified flora

A total of 31 taxa could not be identified to species level, in most instances due to insufficient taxonomic characters as plants were sterile (lacking reproductive structures); notably this includes a large number of *Tecticornia* species (Table 5-9). Two of the unidentified *Tecticornia*, *Tecticornia* sp. nov. 1 (aff. pruinosa/ laevigata) and *Tecticornia* sp. nov. 2 (aff. pruinosa/undulata), potentially represent undescribed taxa.

None of the unnamed taxa closely resemble any of the Priority Flora identified by the desktop review.

Table 5-8 Apparent range extensions for species recorded in the study area

Species	Approximate distance of range extension (km)	Direction
Acacia coriacea	< 50	South-west
Acacia tenuissima	< 100	South-west
Bergia pedicellaris	< 100	South-east
Cephalipterum drummondii	150	North-east
Corymbia hamersleyana	50	South
Cynodon convergens	150	South
Dodonaea coriacea	25	South
Eremophila spectabilis	100	North
Fimbristylis simulans	200	South
Gomphrena affinis	50	South
Goodenia pascua	< 100	South
Iseilema vaginiflorum	100	South
Maytenus sp. Mt Windell (S. van Leeuwin 846)	< 50	South
Thyridia repens	< 50	North
Olearia subspicata	200	North
Portulaca filifolia	200	South
Portulaca intraterranea	200	South
Ptilotus aphyllus	< 50	South
Ptilotus carinatus	50	South
Rhagodia drummondii	150	North
Scaevola basedowii	< 100	North-west
Sida trichopoda	250	South-east
Sida sp. sand dunes (A.A. Mitchall PRP1208)	50	South-west
Synaptantha tillaeacea var. *hispidula*	< 50	South-west
Tecticornia calyptrata	150	North-west
Tecticornia globulifera	100	South
Tecticornia sp. Christmas Creek (K.A. Shepherd & T. Colmer *et. al.* KS 1063)	< 20	South
Tecticornia willisii	25	South
Tecticornia sp. Lake Sunshine (K.A. Shepherd *et al.* KS 867)	25	West

Table 5-9 Unidentified flora taxa recorded during the field survey

Unidentified taxon	Comments
Acacia sp.	Sterile shrub
Atriplex sp.	Sterile herb
Calandrinia sp.	Sterile prostrate herb
Eremophila ?*clarkei*	Sterile shrub
Eremophila sp.	Sterile shrub
Eucalyptus ?*victrix*	Sterile tree
Eucalyptus sp.	Sterile mallee
Goodeniaceae sp.	Sterile leafless woody herb
Grevillea sp.	Sterile shrub
Haloragis sp.	Sterile seedling
Hibiscus sp.	Sterile shrub insufficient material to distinguish between closely related species
Poaceae sp. (seedling)	Sterile seedling
Poaceae sp. (seedling)	Sterile seedling
Sclerolaena sp.	Specimen dried insufficient material for definitive identification
Sida sp.	Sterile shrub insufficient material to distinguish between closely related species
Sida sp.	Sterile shrub insufficient material to distinguish between closely related species
Solanum sp.	Sterile shrub insufficient material to distinguish between closely related species
Solonaceae sp.	Sterile shrub
Tecticornia aff sp. Dennys Crossing (KS 5521)	Insufficient material
Tecticornia sp.	Sterile shrub
Tecticornia sp. (Group 3 0r 5)	Sterile shrub
Tecticornia sp. (sterile) ? [group 6]	Sterile shrub
Tecticornia sp. (sterile) [group 1]	Sterile shrub
Tecticornia sp. (sterile) [group 2]	Sterile shrub
Tecticornia sp. (sterile) [group 3]	Sterile shrub
Tecticornia sp. (sterile) [group 4]	Sterile shrub
Tecticornia sp. (sterile) [group 5]	Sterile shrub
Tecticornia sp. nov. 1 (aff. pruinosa/ laevigata)	Insufficient material
Tecticornia sp. nov. 2 (aff. pruinosa/undulata)	Insufficient material
Trachymene sp.	Specimen dried insufficient material for definitive identification
Triodia sp.	Sterile tussock

5.2.2 Vegetation

5.2.2.1 Vegetation types

A total of 53 vegetation types were defined for the study area (Figure 5-3; Figure 5-4;Table 5-10). The *Tecticornia* shrublands were mapped as a single mosaic (Figure 5-4) as it was not possible to discern community type boundaries from aerial imagery.

Grasslands accounted for just over one third of the vegetation in the study area (33.73%) (Table 5-11) *Tecticornia* shrublands just over a quarter (26.37%) and other shrublands and woodlands approximately 20% (20.35% and 19.54% respectively). A high number of vegetation types (20) represented below 1% of the vegetation recorded in the study area.

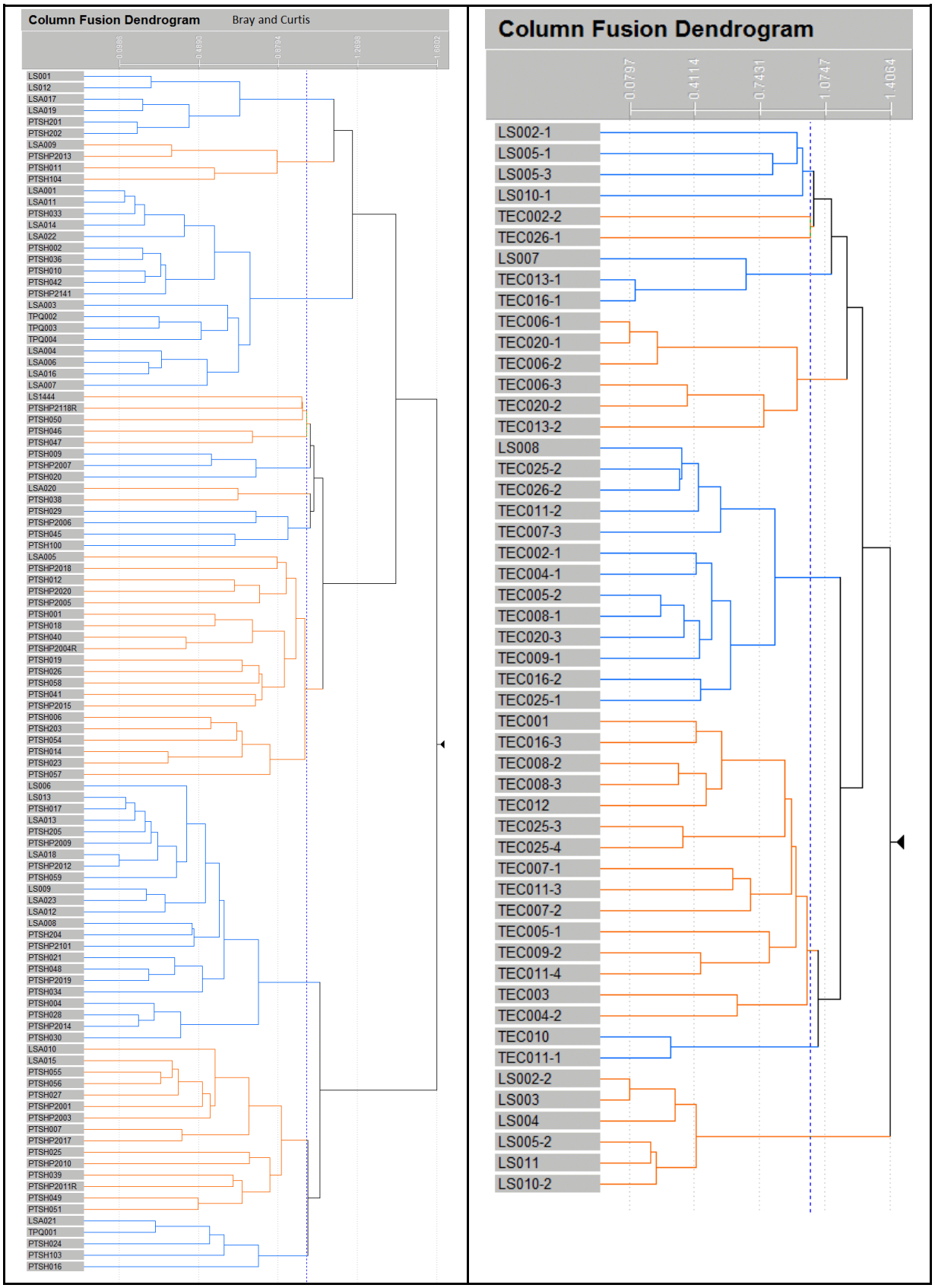


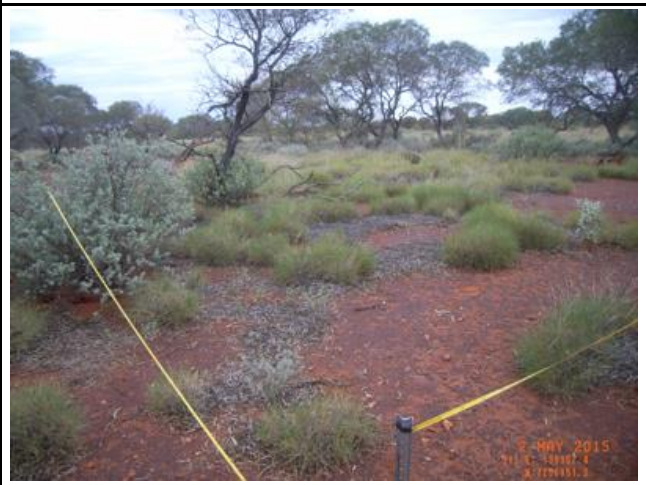
Figure 5-3 **Dendrogram of hierarchical cluster analysis (UPGMA) based on species composition of survey sites, top, terrestrial vegetation, bottom, *Tecticornia* spp. shrublands**

Table 5-10 Vegetation types in the study area

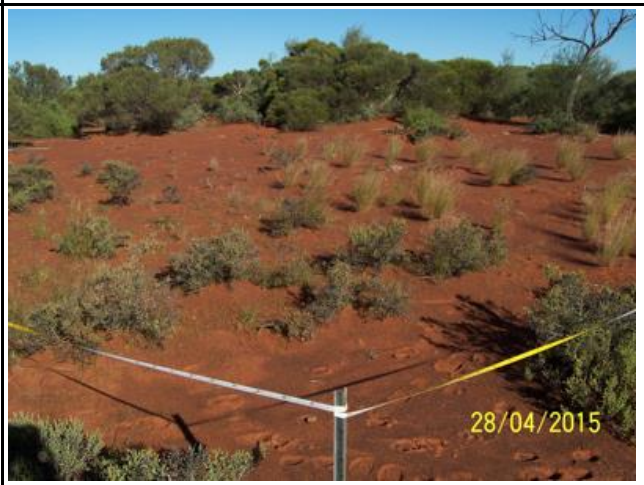
Vegetation type	Vegetation description	Vegetation type photos	Site
Woodland 1	Low *Acacia* spp. (Mulga) woodland over low to mid *Eremophila* and *Senna* spp. shrubland over isolated low grasses to open low mixed tussock grassland and isolated low mixed forbs.	 	PTSH001, PTSH018, PTSH040, PTSH012, PTSH019, PTSH026, PTSH058, PTSH041, PTSHP2018, PTSHP2020, PTSHP2005, PTSHP2004R, PTSHP2015
Woodland 2	Low *Acacia* spp. (Mulga) woodland occasionally with *Corymbia hamersleyana* trees over low to mid *Eremophila* spp., frequently *E. galeata* and *Senna* spp. shrubland over low mixed tussock grassland and low **Bidens bipinnata* forbland.	 	PTSH006, PTSH014, PTSH203, PTSH023, PTSH054

Vegetation type	Vegetation description	Vegetation type photos	Site
Woodland 3	Mid *Eucalyptus camaldulensis* woodland over open low *Acacia aneura* and *A. pteraneura* forest over sparse mid *Acacia* spp. shrubland over open low **Bidens bipinnata* and **Malvastrum americanum* forbland and isolated low mixed tussock grasses.		PTSH057R
Woodland 4	Low *Acacia* spp. (Mulga) woodland over low to mid *Eremophila* spp. shrubland over low *Triodia basedowii* hummock grassland.	 	PTSHP2001, PTSHP2003, PTSHP2017, PTSH007

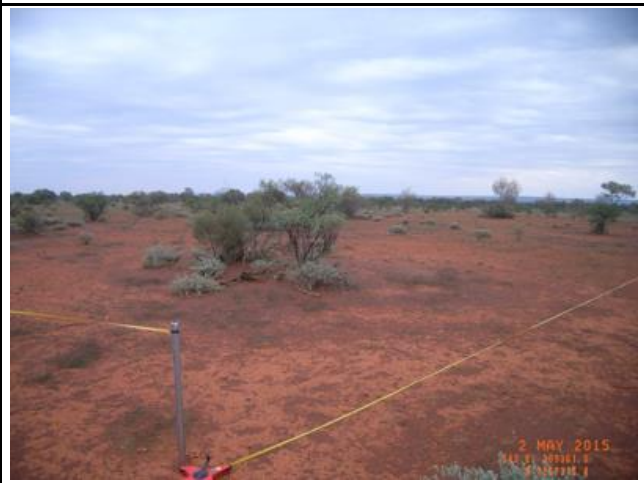
Vegetation type	Vegetation description	Vegetation type photos	Site
Woodland 5	Low *Acacia mulganeura*, *A. incurvaneura* and *Grevillea berryana* woodland over open low *Eremophila margarethae* shrubland over open low *Triodia melvillei* tussock grassland.		LSA020
Woodland 6	Low *Acacia* spp. (Mulga) and *A. subcontorta* woodland over sparse to open mid *Acacia* spp. and *Eremophila* spp. shrubland over sparse to open low *Triodia basedowii* hummock grassland.	 	PTSH039, PTSH049, PTSH051, PTSHP2011R

Vegetation type	Vegetation description	Vegetation type photos	Site
Woodland 7	Low *Acacia aneura* and *A. macraneura* woodland over open mid *Eremophila forrestii* subsp. *forrestii* and *Senna artemisioides* subsp. *helmsii* shrubland over mid *Triodia basedowii* hummock grassland.		PTSH204
Woodland 8	Low *Acacia pruinocarpa* woodland over isolated tall *Acacia aptaneura* shrubs over open mid *Eremophila forrestii* subsp. *forrestii*, *E. margarethae* and *Senna artemisioides* subsp. x *sturtii* shrubland over low *Triodia basedowii* hummock grassland and isolated low mixed forbs.		PTSH059

Vegetation type	Vegetation description	Vegetation type photos	Site
Shrubland 1	Low *Tecticornia indica* subsp. *bidens* shrubland over low mixed tussock grassland, mixed *Cyperus* spp. sedgeland and isolated low mixed forbs.	 	PTSH009, PTSH020, PTSHP2007
Shrubland 2	Mid *Acacia ligulata* shrubland over isolated low *Aluta maisonneuvei* subsp. *maisonneuvei* , *Eremophila forrestii* and *Seringia elliptica* shrubs over mid *Triodia basedowii*, *T. schinzii* and *Eragrostis eriopoda* hummock/tussock grassland over isolated clumps of low *Euphorbia boophthona* and *Goodenia triodiophila* forbs.		PTSH004

Vegetation type	Vegetation description	Vegetation type photos	Site
Shrubland 3	Low isolated trees to open woodland of *Acacia* spp. or occasionally *Eucalyptus gamophylla* mallee over *Eremophila forrestii, Eremophila* spp. and *Senna* spp. shrubland over low *Triodia basedowii* hummock grassland.	 	PTSH048, PTSH021, PTSH034, PTSHP2101, PTSHP2019
Shrubland 4	Mid to tall *Melaleuca interioris* shrubland over isolated low mixed shrubs over isolated mixed grasses to sparse low mixed grassland and isolated low mixed forbs.	 	LSA024, PTSH024, TPQ001, PTSH103, PTSH016

Vegetation type	Vegetation description	Vegetation type photos	Site
Shrubland 5	Tall open *Acacia balsamea*, *A. ligulata* and *A. tetragonophylla* shrubland over open mid *Senna artemisioides* subsp. *petiolaris* shrubland over open *Triodia basedowii* and *Eragrostis eriopoda* hummock tussock grassland and isolated clumps of low mixed forbs.		PTSH025
Shrubland 6	Sparse tall to tall *Acacia burkittii* shrubland over sparse mid *Acacia tetragonophylla* and *Senna artemisioides* subsp. *petiolaris* shrubland over isolated low *Eragrostis* spp. and *Enneapogon caerulescens* tussock grasses and isolated low mixed forbs.	 	PTSH029, PTSHP2006

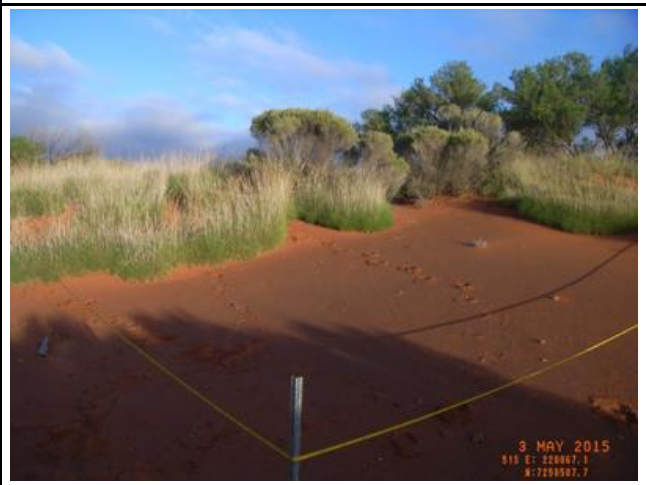
Vegetation type	Vegetation description	Vegetation type photos	Site
Shrubland 7	Low to mid *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over low open *Triodia schinzii* tussock grassland.	 	LSA017, PTSH201, PTSH202
Shrubland 8	Isolated low *Acacia* spp. trees over *Eremophila* spp. shrubland over low *Eriachne pulchella*, *Tripogonella loliiformis* and *Perotis rara* tussock grasses and isolated low mixed forbs.	 	PTSH045, PTSH100

Vegetation type	Vegetation description	Vegetation type photos	Site
Shrubland 9	Isolated low trees to low open *Corymbia chippendalei* and *Eucalyptus gamophylla* woodland over low mixed shrubland over isolated low grasses to low open *Triodia schinzii* and *Aristida* spp. tussock grassland.	 	LSA009, PTSH011, PTSH104, PTSHP2013
Shrubland 10	Isolated mid *Eucalyptus* spp. mallee and isolated mid to tall mixed shrubs over open low to low *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over sparse to open low *Triodia basedowii* hummock grassland.	 	LS001, LS012, LSA019

Vegetation type	Vegetation description	Vegetation type photos	Site
Shrubland 11	Isolated tall *Callitris columellaris* shrubs over isolated low mixed shrubs and forbs.		LS1444
Shrubland 12	Mid *Corynotheca pungens* shrubland over isolated low *Eragrostis pegracilis* and *E. dielsii* tussock grasses and isolated low *Marsilea hirsuta* and *Bergia pedicellaris* forbs.		PTSHP2118R

Vegetation type	Vegetation description	Vegetation type photos	Site
Shrubland 13	Isolated tall *Acacia aneura* and *A. tetragonophylla* shrubs over low *Eremophila margarethae* and *E. galeata* shrubland over low *Eriachne pulchella* and *Tripogonella loliiformis*tussock grassland and isolated low mixed forbs.		PTSH038
Shrubland 14	Isolated low *Eucalyptus* spp. mallee over mid open *Acacia ligulata* shrubland over low *Triodia basedowii* hummock grassland.	 	LS009, LSA023, LSA012

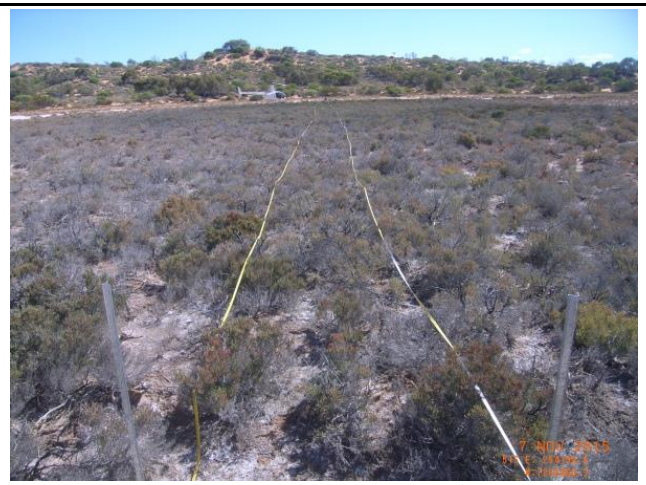
Vegetation type	Vegetation description	Vegetation type photos	Site
Shrubland 15	Open tall *Acacia rhodophloia* and *A. kempeana* shrubland over isolated low *Eucalyptus* sp. Little Sandy Desert mallee over isolated mixed shrubs over low *Triodia basedowii* hummock grassland.		LSA008
Shrubland 16	Isolated tall *Acacia kempeana* shrubs over open mid *Acacia doreta*, *Eremophila galeata* and *E. margarethae* shrubland over sparse low *Seringia elliptica* and *Halgania glabra* shrubland over sparse mid *Triodia basedowii* and *T. schinzii* hummock/tussock grassland.		PTSHP2010

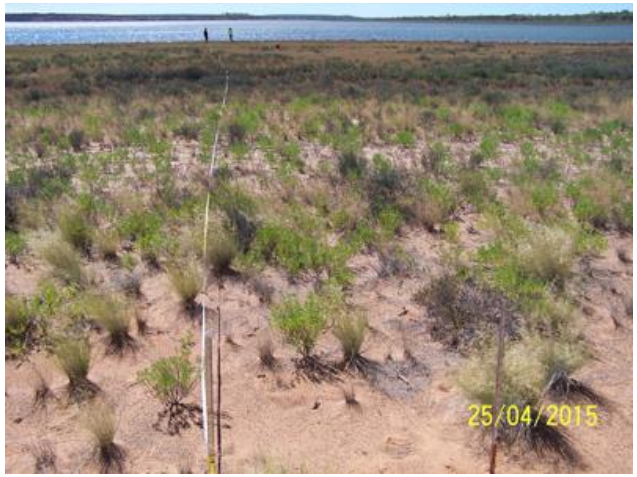
Vegetation type	Vegetation description	Vegetation type photos	Site
Grassland 1	Isolated mixed trees and shrubs over closed low *Eragrostis* spp., *Eriachne flaccida* and *Enteropogon ramosus* tussock grassland.	 	PTSH046, PTSH047
Grassland 2	Isolated trees and shrubs over mid *Triodia basedowii* and *T. shinzii* hummock/tussock grassland.	 	LS006, LS013, PTSH017, LSA013, PTSH205, PTSHP2009, LSA018, PTSHP2012

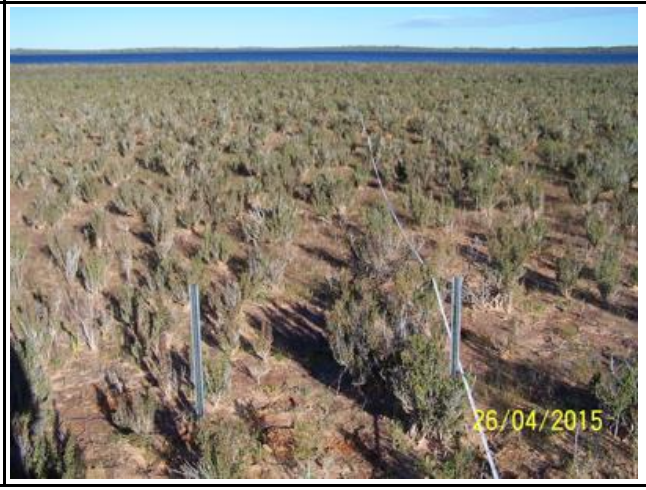
Vegetation type	Vegetation description	Vegetation type photos	Site
Grassland 3	Isolated trees and shrubs over low open *Triodia basedowii* hummock grassland.	 	PTSH028, PTSH030, PTSHP2014, LSA010, LSA015
Grassland 4	Isolated mixed shrubs over emergent *Triodia basedowii* hummock grassland.		PTSH050

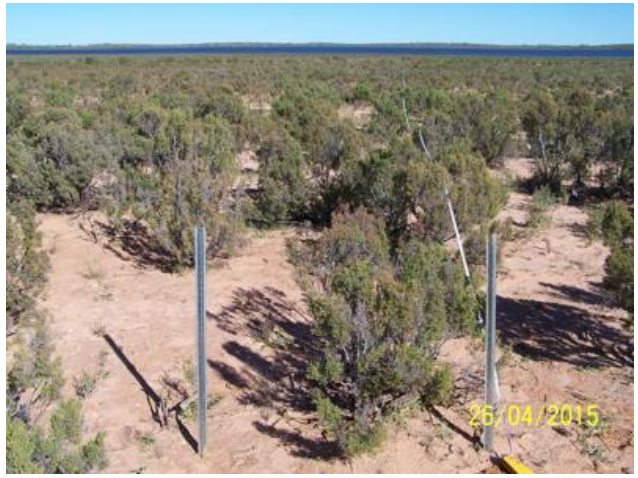
Vegetation type	Vegetation description	Vegetation type photos	Site
Grassland 5	Isolated mixed shrubs to open shrubland over low *Triodia schinzii*, *Aristida holathera* and *Eragrostis* spp. tussock grassland.	 	LSA001, LSA003, LSA004, LSA006, LSA007, LSA011, LSA014, LSA016, LSA022, PTSH036, PTSH010R, PTSH033, PTSH042, PTSH002, PTSHP2141, TPQ002, TPQ003, TPQ004

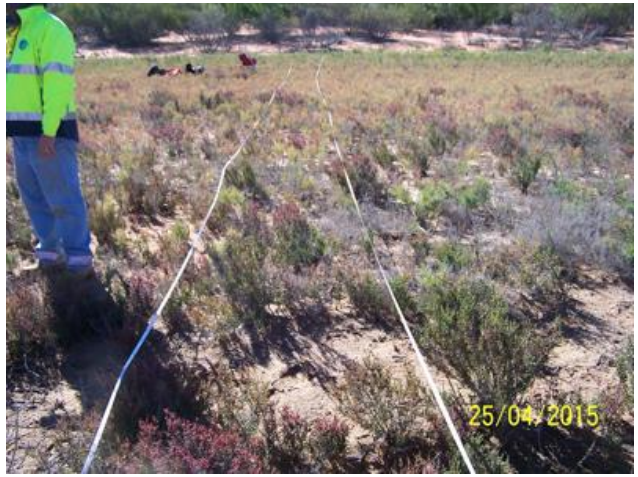
Vegetation type	Vegetation description	Vegetation type photos	Site
Grassland 6	Isolated low *Casuarina pauper* trees over sparse low *Tecticornia* spp. chenopod shrubland over open low *Eragrostis* spp. tussock grassland.		LSA005
Grassland 7	Sparse mid *Acacia* spp. and *Eremophila galeata* shrubland over isolated low mixed shrubs over open low *Triodia basedowii* hummock grassland.	 	PTSH055, PTSH056

Vegetation type	Vegetation description	Vegetation type photos	Site
Grassland 8	Sparse mid *Acacia ligulata, Grevillea* spp. and *Senna artemisioides* subsp. *helmsii* shrubland over open mid *Triodia basedowii* hummock grassland.		PTSH027
Tecticornia shrubland 1	Open to closed low *Tecticornia calyptrata*, *T laevigata* and *T.* sp. Dennys Crossing chenopod shrubland occasionally with isolated low forbs.	 	LS002-1, LS005-1, LS005-3, LS010-1

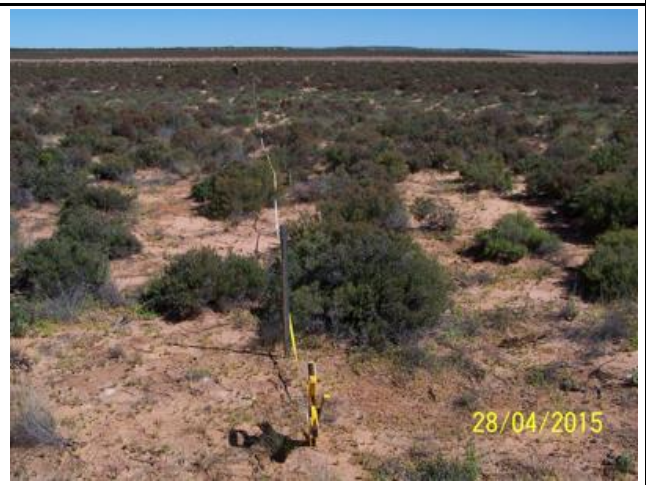
Vegetation type	Vegetation description	Vegetation type photos	Site
Tecticornia shrubland 2	Open low *Tecticornia globulifera*, *Muellerolimon salicorniaceum* and *Scaevola collaris* shrubland over isolated low *Eragrostis kennedyae* tussock grasses and isolated low *Goodenia pascua* forbs.		TEC002-2
Tecticornia shrubland 3	Sparse low *Tecticornia pruinosa* chenopod shrubland over isolated clumps of *Eragrostis pergracilis* tussock grasses.		TEC026-1

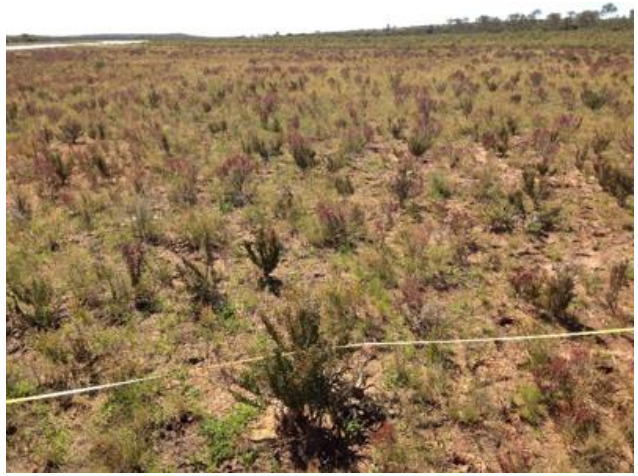
Vegetation type	Vegetation description	Vegetation type photos	Site
Tecticornia shrubland 4	Open low *Tecticornia* spp. chenopod shrubland with *Tecticornia* sp. (sterile) [group 3] dominant over isolated low *Eragrostis pergacilis* tussock grasses and isolated low mixed forbs.	 	LS007, TEC013-1, TEC016-1
Tecticornia shrubland 5	Open low *Tecticornia peltata* chenopod shrubland over isolated low *Eragrostis pergracilis* tussock grasses and *Dysphania kalpari* forbs.	 	TEC006-1, TEC020-1, TEC006-2

Vegetation type	Vegetation description	Vegetation type photos	Site
Tecticornia shrubland 6	Open low to mid *Tecticornia willisii*, *T. peltata* and *T. undulata* chenopod shrubland over isolated low *Eragrostis pergacilis* tussock grasses and *Dysphania kalpari* forbs.	 	TEC006-3, TEC020-2
Tecticornia shrubland 7	Sparse low *Tecticornia willisii*, *T.* sp. (sterile) [group 3] and *Scaevola collaris* shrubland over isolated low *Eragrostis kennedyae* and *E. pergracilis* tussock grasses and isolated low *Dysphania kalpari* and *Lawrencia densiflora* forbs.		TEC013-2

Vegetation type	Vegetation description	Vegetation type photos	Site
Tecticornia shrubland 8	Open low to mid *Tecticornia* sp. Dennys Crossing chenopod shrubland over isolated low *Eragrsotis kennedeyae* tussock grasses to low open tussock grassland over isolated low *Dysphania kalpari* and *Swainsona laciniata* forbs.	 	LS008, TEC025-2, TEC026-2, TEC011-2, TEC007-3
Tecticornia shrubland 9	Open low *Tecticornia peltata*, *T. undulata* and *T.* sp. Dennys Crossing chenopod shrubland over isolated low *Eragrsotis kennedeyae* tussock grasses and *Dysphania kalpari* forbs.	 	TEC002-1, TEC004-1

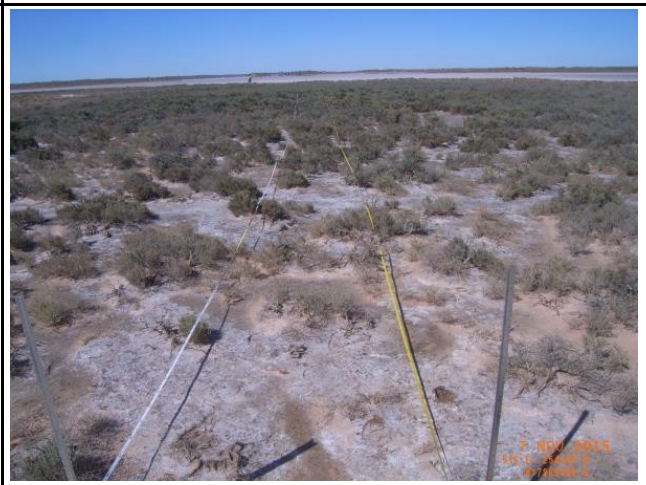
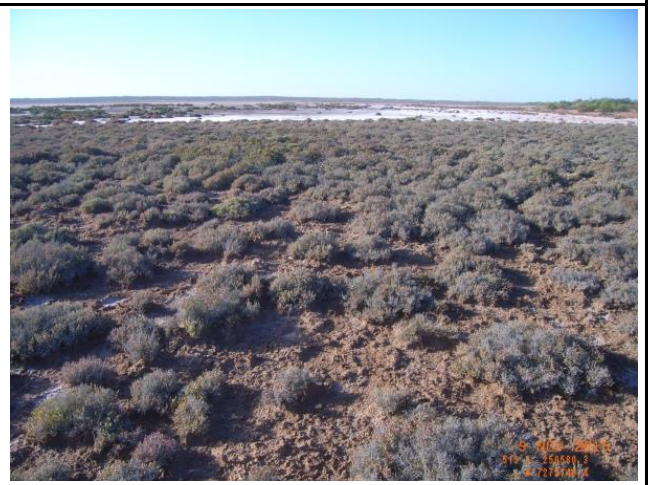
Vegetation type	Vegetation description	Vegetation type photos	Site
Tecticornia shrubland 10	Open low *Tecticornia indica* subsp. *bidens*, *T. undulata* and *T.* sp. Dennys Crossing chenopod shrubland over isolated low *Eragrostis kennedeyae* and *E. pergracilis* tussock grasses over isolated low *Dysphania kalpari* and *Swainsona laciniata* forbs.	 	TEC005-2, TEC008-1, TEC020-3, TEC009-1
Tecticornia shrubland 11	Sparse to open low *Tecticornia* spp. chenopod shrubland with *T.* sp. Dennys Crossing dominant over isolated low *Eragrostis pergracilis* tussock grasses and *Dysphania kalpari* forbs.	 	TEC016-2, TEC025-1

Vegetation type	Vegetation description	Vegetation type photos	Site
Tecticornia shrubland 12	Sparse to open low *Tecticornia indica* subsp. *bidens* and *T.* sp. Dennys Crossing chenopod shrubland, frequently with *Frankenia laxiflora* shrubs, over isolated low mixed tussock grasses and Cyperaceae spp. sedges and isolated low mixed forbs.	 	TEC001, TEC016-3, TEC008-2, TEC008-3, TEC012
Tecticornia shrubland 13	Sparse to open mid *Tecticornia* sp. Lake Sunshine chenopod shrubland over sparse to open *T. indica* subsp. *bidens* and *T.* sp. Christmas creek chenopod shrubland over isolated low *Eragrostis* spp. tussock grasses and *Dysphania kalpari* and *Swainsona laciniata* forbs.	 	TEC025-4

Vegetation type	Vegetation description	Vegetation type photos	Site
Tecticornia shrubland 14	Sparse to open low *Tecticornia globulifera*, *T. indica* subsp. *bidens* and *T.* sp. Dennys Crossing chenopod shrubland over isolated low mixed forbs.	 	TEC007-1, TEC011-3, TEC007-2
Tecticornia shrubland 15	Sparse low *Tecticornia undulata*, *T.* sp. Dennys Crossing and *T. willisii* chenopod grassland over isolated low *Eragrostis kennedeyae* and *E. pergracilis* tussock grasses and *Dysphania kalpari* and *Swainsona laciniata* forbs.		TEC005-1

Vegetation type	Vegetation description	Vegetation type photos	Site
Tecticornia shrubland 16	Low *Tecticornia* spp. chenopod shrubland with *T. indica* subsp. *bidens* dominant over isolated low mixed tussock grasses and forbs.	 	TEC009-2, TEC011-4
Tecticornia shrubland 17	Sparse low *Frankenia laxiflora*, *Tecticornia indica* subsp. *bidens* and *T.* sp. Dennys crossing shrubland over isolated low *Aristida holathera* tussock grasses and *Cyperus iria* sedges over open low *Goodenia pascua* and *Dysphania kalpari* forbland.		TEC003

Vegetation type	Vegetation description	Vegetation type photos	Site
Tecticornia shrubland 18	Low *Tecticornia* sp. sterile [group 3], *T.* sp. Cristmas creek and *Frankenia laxiflora* shrubland over isolated low *Goodenia pascua* forbs.		TEC004-2
Tecticornia shrubland 19	Sparse low *Tecticornia* spp. and *Frankenia laxiflora* shrubland, with *T. pergranulata* subsp. *pergranulata* dominant, over isolated low *Eragrostis kennedeyae* tussock grasses and mixed forbs.	 	TEC010, TEC011-1

Vegetation type	Vegetation description	Vegetation type photos	Site
Tecticornia shrubland 20	Low *Tecticornia laevigata* chenopod shrubland over isolated low *Eragrostis pergracilis* tussock grasses and *Surreya diandra* forbs.	 	LS002-2, LS003, LS004
Tecticornia shrubland 21	Low *Tecticornia laevigata* and *T.* sp. Dennys Crossing chenopod shrubland over isolated low *Lawrencia glomerata* and *Surreya diandra* forbs.	 	LS005-2, LS011, LS010-2

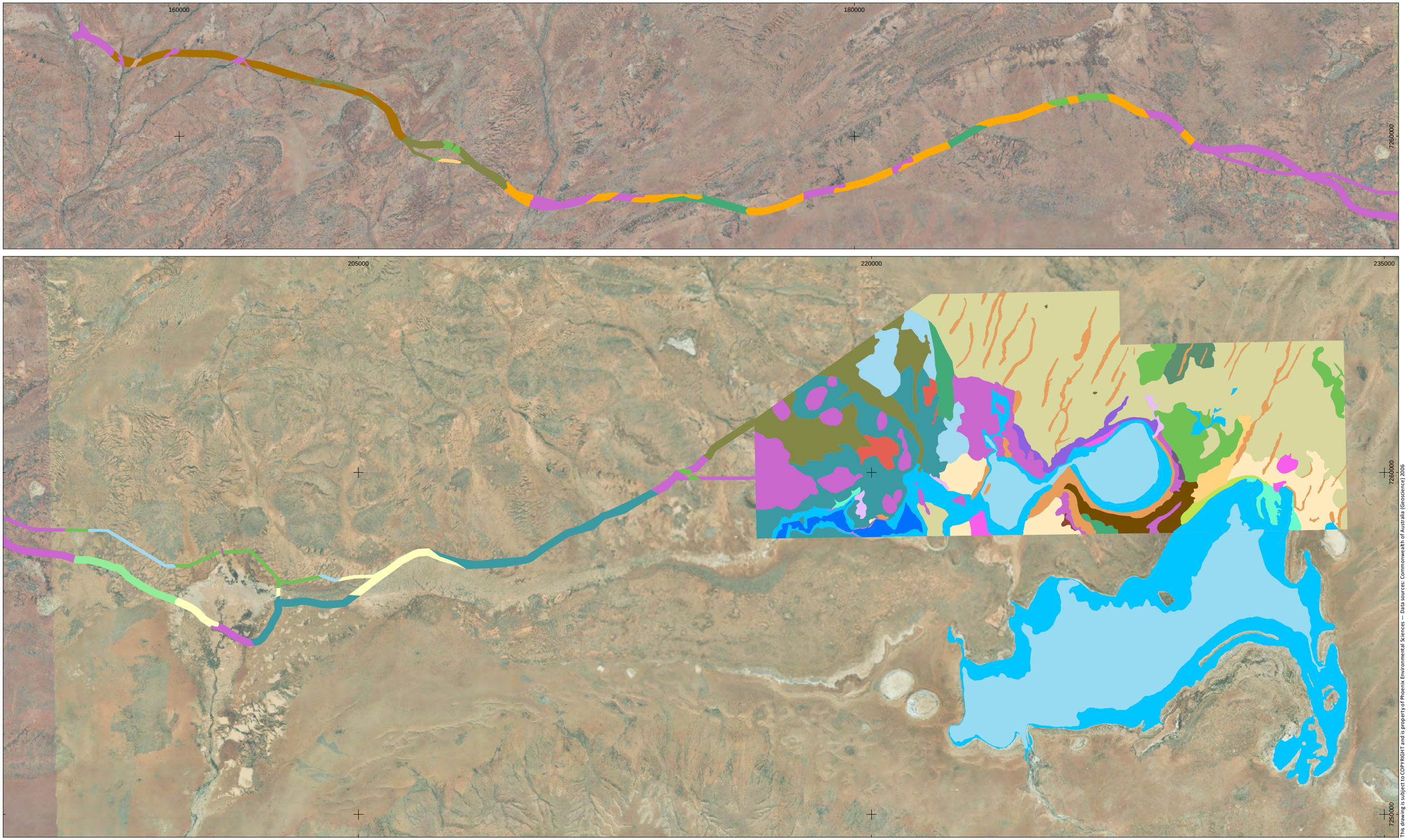


Figure 5–4a
Vegetation types of the study area

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Client: Kalium Lakes Ltd
Project: Beyondie Sulphate of Potash Project

Author: KW
Date: 17/05/2018

Coordinate System: GDA 1994 MGA Zone 51
Projection: Transverse Mercator
Datum: GDA 1994

0 0.75 1.5 3 Kilometres
1:100,000

Vegetation type

- Fresh water Lake
- Grassland 1
- Grassland 2
- Grassland 3
- Grassland 4
- Grassland 5
- Grassland 6
- Grassland 7
- Grassland 8
- Salt Lake
- Shrubland 1
- Shrubland 10
- Shrubland 11
- Shrubland 12
- Shrubland 13
- Shrubland 14
- Shrubland 15
- Shrubland 16
- Shrubland 2
- Shrubland 3
- Shrubland 4
- Shrubland 5
- Shrubland 6
- Shrubland 7
- Shrubland 8
- Shrubland 9
- Tecticornia shrublands
- Woodland 1
- Woodland 2
- Woodland 3
- Woodland 4
- Woodland 5
- Woodland 6
- Woodland 7
- Woodland 8

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240000

250000

260000

7270000

7260000

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Figure 5–4b
Vegetation types of the study area

PHOENIX ENVIRONMENTAL SCIENCES

0 0.75 1.5 3
Kilometres
1:85,000

Client: Kalium Lakes Ltd
Project: Beyondie Sulphate of Potash Project

Author: KW
Date: 17/05/2018

Coordinate System: GDA 1994 MGA Zone 51
Projection: Transverse Mercator
Datum: GDA 1994

Vegetation type

- Fresh water Lake
- Grassland 1
- Grassland 2
- Grassland 3
- Grassland 4
- Grassland 5
- Grassland 6
- Grassland 7
- Grassland 8
- Salt Lake
- Shrubland 1
- Shrubland 10
- Shrubland 11
- Shrubland 12
- Shrubland 13
- Shrubland 14
- Shrubland 15
- Shrubland 16
- Shrubland 2
- Shrubland 3
- Shrubland 4
- Shrubland 5
- Shrubland 6
- Shrubland 7
- Shrubland 8
- Shrubland 9
- *Tecticornia* shrublands
- Woodland 1
- Woodland 2
- Woodland 3
- Woodland 4
- Woodland 5
- Woodland 6
- Woodland 7
- Woodland 8

Table 5-11 Extent of vegetation types in the study area

Vegetation type	Area (Ha)	Proportion of vegetation in study area
Grassland 1	113.2	0.780%
Grassland 2	538.9	3.711%
Grassland 3	129.3	0.890%
Grassland 4	268.9	1.851%
Grassland 5	3482.7	23.982%
Grassland 6	1.9	0.013%
Grassland 7	171.0	1.178%
Grassland 8	193.9	1.335%
Shrubland 1	41.0	0.283%
Shrubland 2	96.3	0.663%
Shrubland 3	539.9	3.718%
Shrubland 4	82.8	0.570%
Shrubland 5	45.1	0.310%
Shrubland 6	77.9	0.536%
Shrubland 7	11.8	0.081%
Shrubland 8	1179.1	8.120%
Shrubland 9	524.2	3.610%
Shrubland 10	115.2	0.793%
Shrubland 11	7.3	0.050%
Shrubland 12	5.8	0.040%
Shrubland 13	95.5	0.658%
Shrubland 14	16.3	0.112%
Shrubland 15	1.6	0.011%
Shrubland 16	114.9	0.791%
Tecticornia shrublands	3830.0	26.373%
Woodland 1	1390.8	9.577%
Woodland 2	792.1	5.455%
Woodland 3	4.1	0.028%
Woodland 4	359.3	2.474%
Woodland 5	0.3	0.002%
Woodland 6	207.6	1.430%
Woodland 7	11.2	0.077%
Woodland 8	72.1	0.497%
Grassland 1	113.2	0.780%

5.2.2.2 Vegetation condition

Vegetation condition in the study area was recorded as excellent to good with 67% of the area recorded as excellent (Figure 5-5, Table 5-12). There was no evident disturbance in most areas. Animal tracks from domestic stock and feral animals were observed occasionally.

Vegetation where condition was recorded as very good (0.6% including patches within Woodland 2 and Grassland 1) had weed infestation, evidence of light grazing and occasional vehicle tracks. Vegetation in good condition (1.7% patches within Woodland 2 and Woodland 3) had large weed infestations with multiple weed species, greater soil disturbance from domestic stock, a greater level of grazing and the presence of vehicle tracks.

The condition of areas occupied by the lakes was not assessed.

Table 5-12 Vegetation condition – extent of each condition rating in the study area

Condition	Area (ha)	Percentage
Excellent	14077.95	96.94258
Very Good	113.2344	0.779747
Good	330.7631	2.277678
Total	14521.95	100

5.2.2.3 Threatened and Priority Ecological Communities

None of the vegetation defined for the study area resembles any of the listed TECs or PECs.

170000
190000
205000
220000
235000
7260000
7260000
7260000

Figure 5–5a
Vegetation condition of the study area

Client: Kalium Lakes Ltd
Project: Beyondie Sulphate of Potash Project

Author: KW
Date: 11/05/2018

Coordinate System: GDA 1994 MGA Zone 51
Projection: Transverse Mercator
Datum: GDA 1994

0 0.75 1.5 3 Kilometres
1:95,000

Vegetation condition

- excellent
- Very Good
- Good
- N/A

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240000

250000

260000

7270000

7260000

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Figure 5–5b
Vegetation condition in the study area

Client: Kalium Lakes Ltd

Project: Beyondie Sulphate of Potash Project

Author: KW
Date: 11/05/2018

Coordinate System: GDA 1994 MGA Zone 51
Projection: Transverse Mercator
Datum: GDA 1994

0 0.5 1 2 Kilometres
1:85,000

Vegetation condition

- excellent
- N/A

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5.2.2.1 Local and regional significance of vegetation

The paucity of regional information and lack of discussion of conservation significance of vegetation in the flora surveys reviewed for this assessment (EnviroWorks 2010a, b; Shepherd *et al.* 2002) precludes detailed assessment of the regional conservation significance of the vegetation types defined for the current survey. Notably, with the exception of the *Tecticornia* shrublands associated with the lake playas and immediate surrounds, each of the remaining vegetation types defined for the study area align with one or more broad vegetation associations mapped by Shepherd *et al.* (2002) (Table 5-13).

The *Tecticornia* shrublands of the lake playa and beaches are considered locally significant as they represent habitat for the Priority 1 species *Tecticornia globulifera*, *Tecticornia* sp. Christmas Creek, *Tecticornia* sp. Lake Sunshine and *Tecticornia willisii*.

Table 5-13 Comparison of vegetation types from the study area with the regional vegetation associations mapped by Shepherd *et al.* (2002)

Shepherd *et al.* (2002) vegetation association	Vegetation types identified in the study area
18—Low woodland; mulga (*Acacia aneura*)	**Grassland 4**—Isolated mixed shrubs over emergent *Triodia basedowii* hummock grassland. **Grassland 7**— Sparse mid *Acacia* spp. and *Eremophila galeata* shrubland over isolated low mixed shrubs over open low *Triodia basedowii* hummock grassland **Shrubland 3**—Low isolated trees to open woodland of *Acacia* spp. or occasionally *Eucalyptus gamophylla* mallee over *Eremophila forrestii*, *Eremophila* spp. and *Senna* spp. shrubland over *Triodia basedowii* hummock grassland **Shrubland 9**—Isolated low trees to low open *Corymbia chippendalei* and *Eucalyptus gamophylla* woodland over low mixed shrubland over isolated low grasses to low open *Triodia schinzii* and *Aristida* spp. tussock grassland **Woodland 1**—Low *Acacia* spp. (Mulga) woodland over *Eremophila* and *Senna* spp. low to mid shrubland over isolated low grasses to open low mixed tussock grassland and isolated low mixed forbs **Woodland 3**—Mid *Eucalyptus camaldulensis* woodland over low open *Acacia aneura* and *A. pteraneura* forest over sparse mid *Acacia* spp. shrubland over low open **Bidens bipinnata* and **Malvastrum americanum* forbland and isolated low mixed tussock grasses **Woodland 6**—Low *Acacia* spp. (Mulga) and *A. subcontorta* woodland over sparse to open mid *Acacia* spp. and *Eremophila* spp. shrubland over sparse to open low *Triodia basedowii* hummock grassland
29—Sparse low woodland; mulga, discontinuous in scattered groups	**Grassland 1**— Isolated mixed trees and shrubs over closed low *Eragrostis* spp., *Eriachne flaccida* and *Enteropogon ramosus* tussock grassland **Grassland 2**—Isolated trees and shrubs over mid *Triodia basedowii* and T. shinzii hummock/tussock grassland **Grassland 3**—Isolated trees and shrubs over low open *Triodia basedowii* hummock grassland **Grassland 4**—Isolated mixed shrubs over emergent *Triodia basedowii* hummock grassland **Grassland 5**—Isolated mixed shrubs to open shrubland over *Triodia schinzii*, *Aristida holathera* and *Eragrostis* spp. tussock grassland **Shrubland 1**—Low *Tecticornia indica* subsp. *bidens* shrubland over low mixed tussock grassland, mixed *Cyperus* spp. sedgeland and isolated low mixed forbs

Shepherd *et al.* (2002) vegetation association	Vegetation types identified in the study area
	Shrubland 3—Low isolated trees to open woodland of *Acacia* spp. or occasionally *Eucalyptus gamophylla* mallee over *Eremophila forrestii, Eremophila* spp. and *Senna* spp. shrubland over low *Triodia basedowii* hummock grassland **Shrubland 4**—*Melaleuca interioris* shrubland over isolated low mixed shrubs over isolated mixed grasses to sparse low mixed grassland and isolated low mixed forbs **Shrubland 6**—Sparse tall to tall *Acacia burkittii* shrubland over sparse mid *Acacia tetragonophylla* and *Senna artemisioides* subsp. *petiolaris* shrubland over isolated low *Eragrostis* spp. and *Enneapogon caerulescens* tussock grasses and isolated low mixed forbs **Shrubland 8**—Isolated low *Acacia* spp. trees over *Eremophila* spp. shrubland over low *Eriachne pulchella*, *Tripogonella loliiformis* and *Perotis rara* tussock grasses and isolated low mixed forbs **Shrubland 9**—Isolated low trees to low open *Corymbia chippendalei* and *Eucalyptus gamophylla* woodland over low mixed shrubland over isolated low grasses to low open *Triodia schinzii* and *Aristida* spp. tussock grassland **Shrubland 13**—Isolated tall *Acacia aneura* and *A. tetragonophylla* shrubs over low *Eremophila margarethae* and *E. galeata* shrubland over low *Eriachne pulchella* and *Tripogonella loliiformis* tussock grassland and isolated low mixed forbs **Woodland 1**—Low *Acacia* spp. (Mulga) woodland over *Eremophila* and *Senna* spp. low to mid shrubland over isolated low grasses to open low mixed tussock grassland and isolated low mixed forbs **Woodland 2**—Low *Acacia* spp. (Mulga) woodland occasionally with *Corymbia hamersleyana* trees over *Eremophila* spp., frequently *E. galeata* and *Senna* spp. over low mixed tussock grassland and low **Bidens bipinnata* forbland **Woodland 4**— Low *Acacia* spp. (Mulga) woodland over low to mid *Eremophila* spp. shrubland over low *Triodia basedowii* hummock grassland **Woodland 6**—Low *Acacia* spp. (Mulga) woodland over low to mid *Eremophila* spp. shrubland over low *Triodia basedowii* hummock grassland **Woodland 8**—Low *Acacia pruinocarpa* woodland over isolated tall *Acacia aptaneura* shrubs over open mid *Eremophila forrestii* subsp. *forrestii*, *E. margarethae* and *Senna artemisioides* subsp. x *sturtii* shrubland over low *Triodia basedowii* hummock grassland and isolated low mixed forbs
39—Shrublands; mulga scrub	**Grassland 7**— Sparse mid *Acacia* spp. and *Eremophila galeata* shrubland over isolated low mixed shrubs over open low *Triodia basedowii* hummock grassland **Woodland 2**—Low *Acacia* spp. (Mulga) woodland occasionally with *Corymbia hamersleyana* trees over *Eremophila* spp., frequently *E. galeata* and *Senna* spp. over low mixed tussock grassland and low **Bidens bipinnata* forbland
111—Hummock grasslands, shrub-steppe; Eucalyptus gamophylla over hard spinifex	**Grassland 4**—Isolated mixed shrubs over emergent *Triodia basedowii* hummock grassland **Shrubland 5**—Tall open *Acacia balsamea*, *A. ligulata* and *A. tetragonophylla* shrubland over open mid *Senna artemisioides* subsp. *petiolaris* shrubland over open *Triodia basedowii* and *Eragrostis eriopoda* hummock tussock grassland **Shrubland 15**—Open tall *Acacia rhodophloia* and *A. kempeana* shrubland over isolated low *Eucalyptus* sp. Little Sandy Desert mallee over isolated

Shepherd *et al.* (2002) vegetation association	Vegetation types identified in the study area
	mixed shrubs over low *Triodia basedowii* hummock grassland **Shrubland 16**—Isolated tall *Acacia kempeana* shrubs over open mid *Acacia doreta*, *Eremophila galeata* and *E. margarethae* shrubland over sparse low *Seringia elliptica* and *Halgania glabra* shrubland over sparse mid *Triodia basedowii* and *T. schinzii* hummock/tussock grassland. **Woodland 1**—Low *Acacia* spp. (Mulga) woodland over *Eremophila* and *Senna* spp. low to mid shrubland over isolated low grasses to open low mixed tussock grassland and isolated low mixed forbs **Woodland 6**—Low *Acacia* spp. (Mulga) woodland over low to mid *Eremophila* spp. shrubland over low *Triodia basedowii* hummock grassland
125— Small islands within bare areas; salt lakes	**Grassland 2**—Isolated trees and shrubs over mid *Triodia basedowii* and T. shinzii hummock/tussock grassland **Grassland 3—**Isolated trees and shrubs over low open *Triodia basedowii* hummock grassland **Shrubland 10**—Isolated mid *Eucalyptus* spp. mallee and isolated mid to tall mixed shrubs over open low to low *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over sparse to open low *Triodia basedowii* hummock grassland **Shrubland 11**—Isolated tall *Callitris columellaris* shrubs over isolated low mixed shrubs and forbs **Shrubland 14**—Isolated low *Eucalyptus* spp. mallee over mid open *Acacia ligulata* shrubland over low *Triodia basedowii* hummock grassland
134—Mosaic: Hummock grasslands, open low tree steppe; desert bloodwood and feathertop spinifex (on) sandhills / Hummock grasslands, shrub-steppe; mixed shrubs over spinifex between sandhills	**Grassland 2**—Isolated trees and shrubs over mid *Triodia basedowii* and T. shinzii hummock/tussock grassland **Grassland 3—**Isolated trees and shrubs over low open *Triodia basedowii* hummock grassland **Grassland 4**—Isolated mixed shrubs over emergent *Triodia basedowii* hummock grassland **Grassland 5**—Isolated mixed shrubs to open shrubland over *Triodia schinzii*, *Aristida holathera* and *Eragrostis* spp. tussock grassland **Grassland 6**— Isolated low *Casuarina pauper* trees over sparse low *Tecticornia* spp. chenopod shrubland over open low *Eragrostis* spp. tussock grassland **Grassland 8**— Sparse mid *Acacia ligulata, Grevillea* spp. and *Senna artemisioides* subsp. *helmsii* shrubland over open mid *Triodia basedowii* hummock grassland **Shrubland 1**—Low *Tecticornia indica* subsp. *bidens* shrubland over low mixed tussock grassland, mixed *Cyperus* spp. sedgeland and isolated low mixed forbs **Shrubland 2**—A mid *Acacia ligulata* shrubland over isolated low *Aluta maisonneuvei* subsp. *maisonneuvei*, *Eremophila forrestii* and *Seringia elliptica* shrubs over a mid *Triodia basedowii*, *T. schinzii* and *Eragrostis eriopoda* hummock/tussock grassland over isolated clumps of low *Euphorbia boophthona* and *Goodenia triodiophila* forbs **Shrubland 3**—Low isolated trees to open woodland of *Acacia* spp. or occasionally *Eucalyptus gamophylla* mallee over *Eremophila forrestii, Eremophila* spp. and *Senna* spp. shrubland over low *Triodia basedowii* hummock grassland **Shrubland 4**—*Melaleuca interioris* shrubland over isolated low mixed shrubs over isolated mixed grasses to sparse low mixed grassland and

Shepherd *et al.* (2002) vegetation association	Vegetation types identified in the study area
	isolated low mixed forbs **Shrubland 6**—Sparse tall to tall *Acacia burkittii* shrubland over sparse mid *Acacia tetragonophylla* and *Senna artemisioides* subsp. *petiolaris* shrubland over isolated low *Eragrostis* spp. and *Enneapogon caerulescens* tussock grasses and isolated low mixed forbs **Shrubland 7**—Low to mid *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over low open *Triodia schinzii* tussock grassland **Shrubland 9**—Isolated low trees to low open *Corymbia chippendalei* and *Eucalyptus gamophylla* woodland over low mixed shrubland over isolated low grasses to low open *Triodia schinzii* and *Aristida* spp. tussock grassland ***Tecticornia* Shrublands**—Mosaic of *Tecticornia* species **Shrubland 10**—Isolated mid *Eucalyptus* spp. mallee and isolated mid to tall mixed shrubs over open low to low *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over sparse to open low *Triodia basedowii* hummock grassland **Shrubland 11**— Isolated tall *Callitris columellaris* shrubs over isolated low mixed shrubs and forbs **Shrubland 12**— Mid *Corynotheca pungens* shrubland over isolated low *Eragrostis pegracilis* and *E. dielsii* tussock grasses and isolated low *Marsilea 85irsute* and *Bergia pedicellaris* forbs **Shrubland 14**— Isolated low *Eucalyptus* spp. mallee over mid open *Acacia ligulata* shrubland over low *Triodia basedowii* hummock grassland **Woodland 1**—Low *Acacia* spp. (Mulga) woodland over *Eremophila* and *Senna* spp. low to mid shrubland over isolated low grasses to open low mixed tussock grassland and isolated low mixed forbs **Woodland 5**—Low *Acacia mulganeura*, *A. incurvaneura* and *Grevillea berryana* woodland over open low *Eremophila margarethae* shrubland over open low *Triodia melvillei* tussock grassland **Woodland 6**— Low *Acacia* spp. (Mulga) and *A. subcontorta* woodland over sparse to open mid *Acacia* spp. and *Eremophila* spp. shrubland over sparse to open low *Triodia basedowii* hummock grassland **Woodland 7**— Low *Acacia aneura* and *A. macraneura* woodland over open mid *Eremophila forrestii* subsp. *forrestii* and *Senna artemisioides* subsp. *helmsii* shrubland over mid *Triodia basedowii* hummock grassland
178—Hummock grasslands, grass steppe; hard spinifex *Triodi a basedowii*	**Grassland 3**—Isolated trees and shrubs over low open *Triodia basedowii* hummock grassland

5.3 SURVEY LIMITATIONS

Comprehensive flora and vegetation surveys generally require multiple surveys, at different times of year and over a period of a number of years to enable observation of all species present. Some flora species, such as annuals, are only available for collection at certain times of the year when they are flowering. Furthermore, climatic and stochastic events such as fire may affect the presence of certain plant species or the timing of flowering. Species with low abundance in an area are more difficult to locate.

The limitations of the current flora and vegetation survey have been considered in accordance with the potential survey limitations listed in Guidance Statement 51 (EPA 2004) (Table 5-14) which was current at the time of the field surveys.

This report documents the results of survey work undertaken for the Project in 2015, including associated database search results returned at the time of initial desktop review. Desktop review results therefore comprise species returned in initial 2015 database searches and literature review and may not reflect the results of current searches. Where applicable, species nomenclature and conservation status under the EPBC Act and WC Act has been updated to reflect their current status.

Table 5-14 Survey limitations from EPA Guidance Statement 51 (EPA 2004)

Limitations	Limitation for this survey?	Comments
Sources of information and availability of contextual information	Yes	There is a paucity of comparative data in this area regarding flora and vegetation.
Scope — i.e. what life forms were collected	Yes	The surveys were restricted to flowering plants; fungi and non-vascular plants (e.g. alga, mosses and liverworts) were not systematically searched for.
Proportion of flora collected and identified	Yes	A large number of plant taxa were recorded and identified. The numbers of species, family and genera compare favourably with that recorded previously in the area. Approximately 6% of taxa recorded could not be identified to species level including a number (11) of *Tecticornia* species, despite submission to the State herbarium, as plants were sterile at the time of the surveys.
Completeness — was the study area fully surveyed	Yes	Following the first phase autumn field survey of the Northern section it was noted that further quadrat surveys and relevés were required to define vegetation units along the proposed haul road and immediately surrounding the lakes. These surveys were conducted during the second phase spring survey completing a comprehensive survey. Survey of the southern section was limited to three transects in the riparian vegetation which were surveyed during both phases. Survey of the Lake Sunshine section was limited to a single phase.
Mapping reliability	Yes	The currency of aerial imagery available for mapping is dated and does not identify recent fire scars. Difficulty in defining boundaries within the *Tecticornia* spp. shrubland vegetation types from aerial imagery precluded mapping of each of the vegetation types defined and these vegetation types were subsequently mapped as a single mosaic. The boundaries of the *Tecticornia* mosaic were accurately mapped by tracking boundaries

Limitations	Limitation for this survey?	Comments
		on a GPS as they were flown along by helicopter at low altitude Due to complex and often mosaic floristic composition of the vegetation, grouping of quadrats within the dendrogram did not precisely concur with field observations as to the vegetation types present in the study area.
Timing, weather, season, cycle	Yes	For the Northern and southern sections, substantial rainfall events prior to the first phase autumn survey ensured that a high number of annual and short-lived plant species were present and that the majority of plant species were flowering and or fruiting facilitating identification. Site revisits in the second phase spring survey facilitated the identification of numerous taxa to species level that previously were indentified only to genus level. The survey of Lake Sunshine section was limited to a single-phase with the survey conducted in spring following a dry period and the number of annual species present was subsequently limited.
Disturbances which affected the results of the survey – fire, flood, human intervention	No	No disturbances occurring during the period of the field survey are considered to have impacted the results.
Intensity - in retrospect, was the intensity adequate	No	The survey intensity was appropriate for the areas that were surveyed.
Resources	No	The survey was sufficiently resourced.
Access problems	No	The use of a helicopter facilitated access to undertake survey work in all areas.
Competency/experience of survey team	No	The field and laboratory teams and report authors have extensive experience, including taxonomic experience, in survey of flora and vegetation in WA.; some taxonomic groups (i.e. *Tecticornia*) were outsourced to experts at the WA Herbarium.

6 DISCUSSION

In assessing development proposals, the EPA's broad objective for flora and vegetation surveys is to protect flora and vegetation so that biological diversity and ecological integrity are maintained (EPA 2016a). Considerations for flora and vegetation in Envrionmental Impact Assesment (EIA) include the significance of the flora and vegetation (see section 2), current state of knowledge of the flora and vegetation present, the potential impacts to flora and vegetation and the scale at which the impacts are considered.

The aim of this assessment was to determine the identify the flora species and vegetation communities present within the study area, with emphasis on significant flora and vegetation, to inform Project design and an EIA for the Project in relation to the environmental factor flora and vegetation.

The study area is situated in a poorly surveyed area where the eastern Gascoyne and south-western Little Sandy Desert bioregions intercept and where limited contextual information, particularly for conservation significant species, exists (van Leeuwen 2002). This was evident in the poor return from the desktop review.

The paucity of regional context and the limitation of a single-phase survey at Lake Sunshine, and limited survey effort for the southern section (restricted to three transects in the riparian vegetation) must be considered when interpreting the results of this survey. Further, weather conditions leading up to the survey of the Lake Sunshine section were sub-optimal, with below average rainfall, and this may have impacted survey results/completeness for this section as conditions were not optimal for recording annual species.

6.1 FLORA

The number of plant taxa recorded from the study area compares favourably with other studies conducted in the region (Table 6-1). Although the study area represented only 3.2% of that of the regional survey by Van Leeuwen (2002), 93% of the number of species were recorded in the study area at Beyondie Lakes, Ten Mile Lake and Lake Sunshine. The number of recorded species was also considerably larger than that reported by EnviroWorks (2010a, b). The survey also recorded large range extensions for several species. These records could be considered locally significant as they represent the range limit for these species.

Table 6-1 Comparison of floristic data from the current survey with previous flora surveys conducted within close proximity of the study area

Survey	Area	No. survey sites	No. of vegetation types	No. of identified species	No. of families	No. of genera	No. of weeds
EnviroWorks (2010a)	-[1]	191	7	67	25	41	0
EnviroWorks (2010b)	-[1]	-[1]	6	79	26	48	1
Van Leeuwen (2002)	9,119 km^2	53	18	522	67	206	3
This survey	295.9 km^2	130	53	487	57	184	9

[1] Information not supplied in document.

The survey recorded four conservation significant species all of which are State listed Priority 1 species:

- *Tecticornia globulifera*
- *Tecticornia* sp. Christmas Creek

- *Tecticornia willisii*
- *Tecticornia* sp. Lake Sunshine.

Difficulties in identifying these flora in the field due to their cryptic habits and similarity to other species makes ascertaining population numbers problematic. This difficulty is underlined by the requirement by EPA Services for all *Tecticornia* identifications to be conducted by Dr Kelly Shepherd at the WA Herbarium.

Tecticornia willsii was recorded at each of the three lakes of the current survey and all four lakes surveyed for the Beyondie Sulphate of Potash Project (Phoenix 2018). The prevalence of the species indicatesd a high probability that it may be found on other salt lakes in the area. *Tecticornia* sp. Christmas creek was also prevalent, recorded at four of seven lakes in the combined surveys as was *Tecticornia* sp. Sunshine Lake recorded on three lakes. It is also likely that these species may occur on other lakes in the area. *Tecticornia globulifera* was only recorded at Beondie lake in the current survey which was a large range extension for the species which indicates a broader range for the species than that previously recorded.

Two unidentified taxa collected in the survey, *Tecticornia* sp. nov. 1 (aff. pruinosa/ laevigata) and *Tecticornia* sp. nov. 2 (aff. pruinosa/undulata), potentially represent undescribed taxa. These may be considered locally significant as they exhibit anomalous features. Further specimens are required to provide sufficient taxonomic characters for definitive identification.

At the family level, the Fabaceae were the most commonly collected group in the study area based on the number of species (Table 6-2). The Fabaceae were also the most commonly recorded family in all other surveys conducted in the region (Table 6-2). Overall, the ten most common plant families based on the number of species collected, represented almost three quarters of the number of species collected in the survey of the study area, which was over 5% higher than for the other regional surveys considered (Table 6-2).

Table 6-2 Species numbers of the most dominant plant families recorded in the study area in comparison with other regional studies

Family	This study	EnviroWorks (2010b)	EnviroWorks (2010a)	Van Leeuwen (2002)
Chenopodiaceae	71	3	2	34
Poaceae	60	9	7	52
Fabaceae	73	15	15	86
Malvaceae	36	3	2	25
Scrophulariaceae	16	6	4	21
Goodeniaceae	21	2	0	35
Amaranthaceae	21	3	3	22
Asteraceae	29	2	1	46
Myrtaceae	16	8	8	29
Lamiaceae	12	2	2	14
Total number of species	**355**	**53**	**44**	**364**
% species of all species recorded	**72.9**	**67.1**	**65.7**	**65.9**

Overall, results replicated the findings of van Leeuwin (2002), thereby underlining the poor floristic of knowledge of the region, that apparently supports a high plant diversity with some conservation significant species.

6.2 VEGETATION

The majority of the vegetation types defined for the study area are representative of the broad vegetation types mapped by Shepherd *et al.* (2002). Each of the vegetation types, with the exception of *Tecticornia* spp. shrubland, are classed as Least Concern as in excess 90% of pre-European extent remain (Government of Western Australia 2015). Consequently, the majority of the vegetation in the study area represents widespread communities and is well represented at a regional level. The paucity of information for the region precludes more detailed assessment of the regional significance of the vegetation.

The *Tecticornia* spp. shrublands in the study area may be considered locally significant as they represent habitat for conservation significant species.

Based on the results of the current survey, *Tecticornia* spp. shrublands on the lake playa and beaches may hold the highest conservation value of the vegetation types defined, as they represent habitat for conservation significant species and the potentially previously undescribed species. The WA *Tecticornia* include many undescribed species and many species that are currently listed as conservation significant (DBCA 2018a). Regionally, new species of *Tecticornia* have been described from the Little Sandy Desert fairly recently (Shepherd & Van Leeuwen 2007).

Effects of hydrological changes on *Tecticornia* are poorly studied. A physiological greenhouse study on three *Tecticornia* from the Fortescue Marsh in the Pilbara region found varying levels of survival to drought conditions (Marchesini *et al.* 2014). This confirms the notion that different species of halophytes exhibit differences in salinity tolerance, water use and ability to survive periods of inundation (Shepherd & van Leeuwen 2011). The diverse mosaic of *Tecticornia* in the study area therefore requires specific consideration in relation to potential hydrological changes in the future.

6.3 CONCLUSION

In summary, the study area features a comparatively diverse flora in a floristically poorly known region as evidenced by a number of range extensions. The *Tecticornia* spp. shrublands on the lake playa and beaches appear to hold the highest conservation value of the vegetation types defined as they represent habitat for conservation significant species and the potentially undescribed species and have restricted distributions.

Difficulties in identifying species in the field prohibits conducting population counts and mapping of population boundaries of signficant *Tecticornia* species. Accurate mapping of the boundary of the *Tecticornia* spp. shrublands was therefore undertaken to facilitate determination of the total area and proportion of the shrublands that will be impacted by the Project.

The detailed survey of the Lake Sunshine section was restricted to a single-phase in sub-optimal survey conditions and as such further survey effort may be warranted in areas to be impacted by the Project.

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Appendix 1 Survey site descriptions

Site:	LS001	**Type:**	Relevé (unbounded)
Date(s):	07 November 2015	**Position:**	-24.66228, 120.599038
Total vegetation cover (%):	30	**Topography:**	sand dune
Tree/shrub cover >2 m (%):	0.1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	20	**Soil:**	sand
Grass cover (%):	12	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Gyrostemon ramulosus* shrubs over open low *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over open mid *Triodia basedowii* hummock grassland and isolated low *Lawrencia glomerata*, *Podolpeis capillaris* and *Rutidosis helichrysoides* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aluta maisonneuvei subsp. *maisonneuvei*	18.00	0.90		
Triodia basedowii	12.00	0.60		
Eremophila cuneifolia	01.00	1.00		
Quoya loxocarpa	00.50	1.00		
Grevillea striata	00.20	1.50		
Gyrostemon ramulosus	00.10	2.20		
Acacia ligulata	00.10	1.20		
Corynotheca pungens	00.10	0.50		
Podolepis capillaris	00.10	0.30		
Rutidosis helichrysoides	00.10	0.30		
Scaevola parvifolia subsp. *pilbarae*	00.10	0.20		
Eragrostis falcata	00.10	0.15		
Aristida holathera	00.10	0.15		
Lawrencia glomerata	00.10	0.10		
Angianthus tomentosus	00.10	0.10		

Site:	LS002-1	**Type:**	Relevé (unbounded)
Date(s):	07 November 2015	**Position:**	-24.667429, 120.601443
Total vegetation cover (%):	15	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown
Shrub cover <2 m (%):	15	**Soil:**	clay loam
Grass cover (%):	0.1	**Rock type:**	none
Herb cover (%):	0.2	**Fire age:**	not evident
Disturbance details:	evidence of feral animals, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia calyptrata* chenopod shrubland over isolated low *Eragrostis pergracilis* grasses and *Dysphania kalpari* and *Maireana luehmannii* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia calyptrata	15.00	0.20		
Dysphania kalpari	00.10	0.10		
Eragrostis pergracilis	00.10	0.10		
Maireana luehmannii	00.10	0.10		

Site:	LS002-2	**Type:**	Relevé (unbounded)
Date(s):	07 November 2015	**Position:**	-24.667429, 120.601443
Total vegetation cover (%):	75	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown
Shrub cover <2 m (%):	75	**Soil:**	clay loam
Grass cover (%):	0.1	**Rock type:**	none
Herb cover (%):	0.4	**Fire age:**	not evident
Disturbance details:	evidence of feral animals, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Closed low *Tecticornia laevigata* chenopod shrubland over isolated low *Eragrostis pergracilis* grasses and *Lawrencia glomerata*, *Dysphania simulans* and *Sclerolaena alata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia laevigata	75.00	0.30		
Sclerolaena alata	00.10	0.30		
Surreya diandra	00.10	0.30		
Lawrencia glomerata	00.10	0.20		
Eragrostis pergracilis	00.10	0.10		
Dysphania simulans	00.10	0.05		

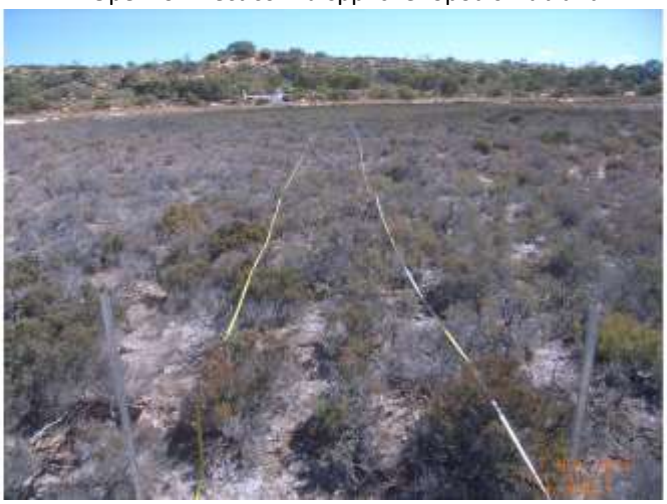
Site:	LS003	**Type:**	Relevé (unbounded)
Date(s):	07 November 2015	**Position:**	-24.668649, 120.59436
Total vegetation cover (%):	65	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	65	**Soil:**	clay loam
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	evidence of feral animals, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Tecticornia laevigata* chenopod shrubland over isolated low *Lawrencia glomerata*, *Maireana luehmannii* and *Surreya diandra* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia laevigata	65.00	0.30		
Surreya diandra	01.00	0.30		
Maireana luehmannii	00.10	0.40		
Lawrencia glomerata	00.10	0.15		

Site:	LS004	**Type:**	Relevé (unbounded)
Date(s):	07 November 2015	**Position:**	-24.669484, 120.58252
Total vegetation cover (%):	55	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	55	**Soil:**	clay loam
Grass cover (%):	0.2	**Rock type:**	none
Herb cover (%):	1.5	**Fire age:**	not evident
Disturbance details:	evidence of feral animals, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Tecticornia laevigata* and *Tecticornia* sp. (Group 3 or 5) chenopod shrubland over isolated low mixed forbs with *Angianthus tomentosus* prominent.		

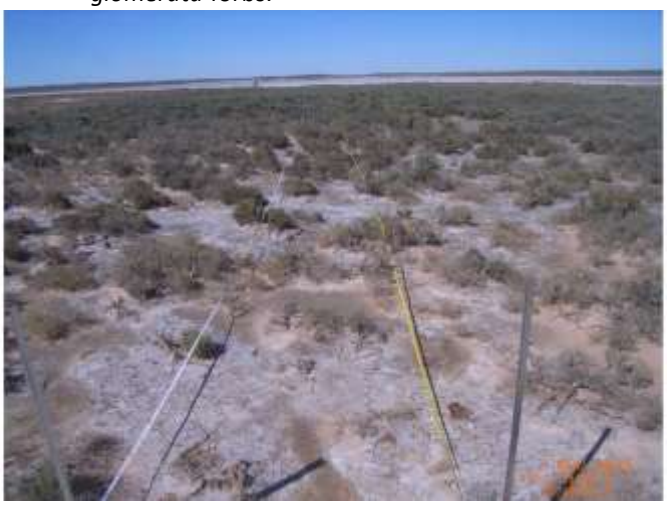
Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia laevigata	45.00	0.30		
Tecticornia sp. (Group 3 0r 5)	10.00	0.40		
Angianthus tomentosus	01.00	0.05		
Surreya diandra	00.10	0.30		
Atriplex sp.	00.10	0.20		
Podolepis capillaris	00.10	0.20		
Eragrostis pergracilis	00.10	0.15		
Lepidium phlebopetalum	00.10	0.15		
Enneapogon caerulescens	00.10	0.15		
Lawrencia glomerata	00.10	0.10		
Goodenia quasilibera	00.10	0.05		

Site:	LS005-1	**Type:**	Relevé (unbounded)
Date(s):	07 November 2015	**Position:**	-24.669568, 120.571048
Total vegetation cover (%):	25	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	25	**Soil:**	clay loam
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* spp. chenopod shrubland.		



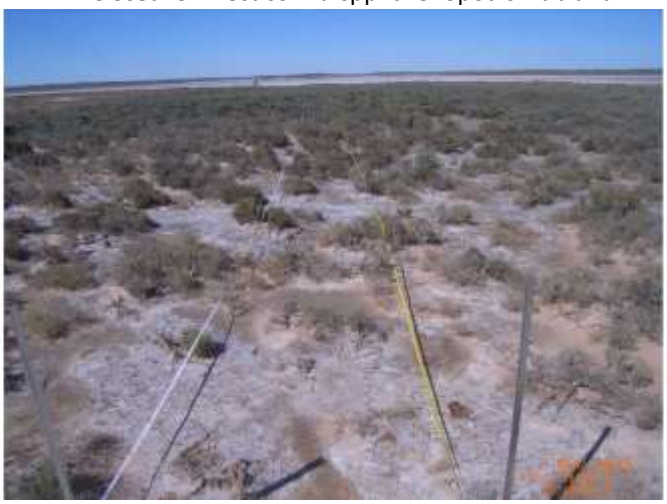
Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. (sterile) [group 2]	10.00	0.40		
Tecticornia pterygosperma subsp. *denticulata*	07.00	0.40		
Tecticornia laevigata	05.00	0.30		
Tecticornia calyptrata	03.00	0.20		

Site:	LS005-2	**Type:**	Relevé (unbounded)
Date(s):	07 November 2015	**Position:**	-24.669568, 120.571048
Total vegetation cover (%):	50	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	50	**Soil:**	clay loam
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	3	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Tecticornia* spp. chenopod shrubland over isolated low *Lawrencia glomerata* forbs.		



Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia laevigata	33.00	0.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	15.00	0.30		
Tecticornia sp. (sterile) [group 1]	05.00	0.20		
Lawrencia glomerata	03.00	0.10		
Tecticornia sp. nov. 1 (aff. pruinosa/ laevigata)	01.00	0.30		

Site:	LS005-3	**Type:**	Relevé (unbounded)
Date(s):	07 November 2015	**Position:**	-24.669957, 120.571043
Total vegetation cover (%):	75	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	75	**Soil:**	clay loam
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Closed low *Tecticornia* spp. chenopod shrubland.		



Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia auriculata	65.00	0.60		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	05.00	0.40		
Tecticornia sp. (sterile) [group 2]	05.00	0.30		
Tecticornia laevigata	05.00	0.30		

Site:	LS006	**Type:**	Relevé (unbounded)
Date(s):	08 November 2015	**Position:**	-24.663037, 120.554098
Total vegetation cover (%):	55	**Topography:**	sand dune
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-orange
Shrub cover <2 m (%):	15	**Soil:**	sand
Grass cover (%):	40	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Mid *Eucalyptus mannensis* subsp. *mannensis* mallee woodland over open mid *Acacia ligulata*, *Grevillea striata* and *Gyrostemon ramulosus* shrubland over sparse low *Aluta maissonneuvei* subsp. *maisonneuvei* shrubland over low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	40.00	0.40		
Eucalyptus mannensis subsp. *mannensis*	15.00	4.00		
Aluta maisonneuvei subsp. *maisonneuvei*	07.00	1.00		
Acacia ligulata	05.00	1.40		
Gyrostemon ramulosus	03.00	2.00		
Grevillea striata	02.00	1.30		
Scaevola sericophylla	01.00	1.00		
Solanaceae sp.	01.00	0.15		
Brachychiton gregorii	00.10	5.00		
Callitris columellaris	00.10	4.00		
Templetonia egena	00.10	1.20		
Scaevola spinescens	00.10	1.00		
Eremophila cuneifolia	00.10	1.00		
Acacia tetragonophylla	00.10	1.00		
Scaevola basedowii	00.10	0.30		
Leiocarpa semicalva	00.10	0.20		
Trichodesma zeylanicum var. *grandiflorum*	00.10	0.10		

Site:	LS007	**Type:**	Relevé (unbounded)
Date(s):	08 November 2015	**Position:**	-24.662423, 120.553919
Total vegetation cover (%):	35	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	30	**Soil:**	clay loam
Grass cover (%):	5	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	evidence of feral animals, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* spp. chenopod shrubland over sparse low *Eragrostis pergracilis* grassland over isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. (sterile) [group 3]	10.00	0.60		
Tecticornia sp. (sterile) [group 5]	10.00	0.30		
Tecticornia pruinosa	07.00	0.50		
Eragrostis pergracilis	05.00	0.05		
Tecticornia indica subsp. *bidens*	02.00	0.30		
Surreya diandra	01.00	0.30		
Tecticornia calyptrata	01.00	0.30		
Frankenia cinerea	00.10	0.30		
Tecticornia sp.	00.10	0.30		
Lawrencia glomerata	00.10	0.20		
Lawrencia densiflora	00.10	0.20		
Angianthus tomentosus	00.10	0.05		

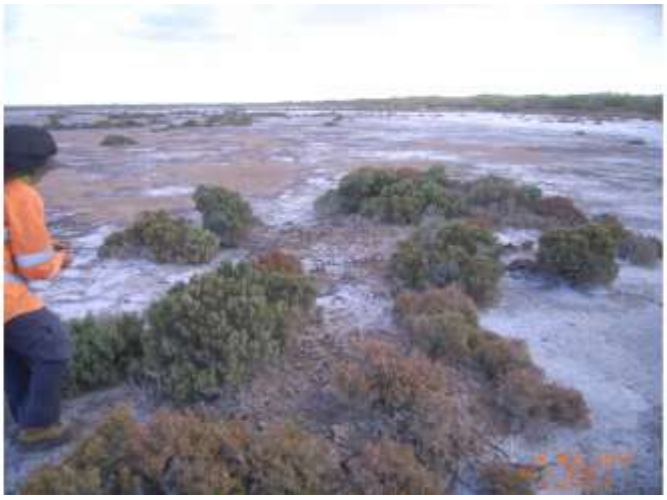
Site:	LS008	**Type:**	Quadrat (50 m x 50 m)
Date(s):	08 November 2015	**Position:**	-24.664566, 120.522713
Total vegetation cover (%):	30	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	30	**Soil:**	sandy clay, clay loam
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	evidence of feral animals, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Tecticornia* spp. chenopod shrubland over isolated low *Lawrencia densiflora* and *Surreya diandra* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	20.00	0.30		
Tecticornia sp. (sterile) [group 4]	09.00	0.50		
Tecticornia laevigata	01.00	0.30		
Tecticornia sp. (sterile) [group 1]	00.10	0.15		
Surreya diandra	00.10	0.10		
Lawrencia densiflora	00.10	0.10		

Site:	LS009	**Type:**	Quadrat (50 m x 50 m)
Date(s):	08 November 2015	**Position:**	-24.664421, 120.521983
Total vegetation cover (%):	45	**Topography:**	sand dune
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	15	**Soil:**	sand
Grass cover (%):	35	**Rock type:**	gypsum
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Eucalyptus trivalva* mallee over open mid *Acacia ligulata* shrubland over low *Triodia basedowii* hummock grassland.		

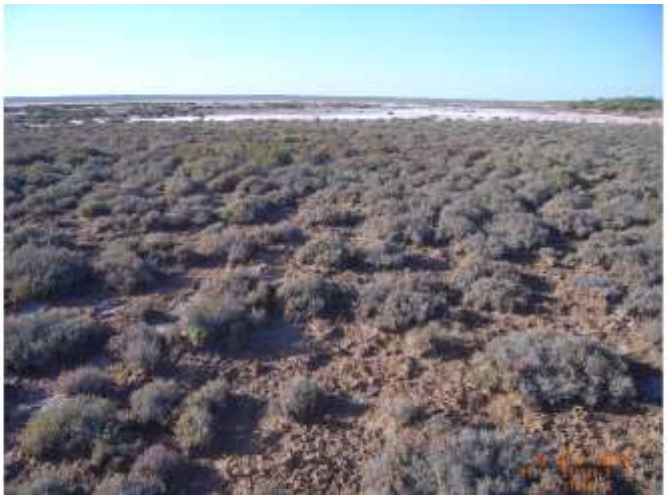
Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	35.00	0.40		
Acacia ligulata	15.00	1.80		
Eucalyptus trivalva	01.00	4.00		
Stylobasium spathulatum	00.50	1.40		
Gyrostemon ramulosus	00.10	2.00		
Grevillea eriostachya	00.10	1.50		
Hakea lorea	00.10	1.40		
Grevillea striata	00.10	1.40		
Eremophila glabra subsp. *glabra*	00.10	1.00		
Scaevola spinescens	00.10	1.00		
Senna artemisioides subsp. x *artemisioides*	00.10	1.00		
Zygophyllum aurantiacum	00.10	0.60		
Aluta maisonneuvei subsp. *maisonneuvei*	00.10	0.60		
Alyogyne pinoniana	00.10	0.50		
Stackhousia sp. swollen gynophore (W.R. Barker 204	00.10	0.30		

Site:	LS010-1	**Type:**	Relevé (unbounded)
Date(s):	08 November 2015	**Position:**	-24.639965, 120.536203
Total vegetation cover (%):	5	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown, brown, grey, whitish
Shrub cover <2 m (%):	5	**Soil:**	clay loam
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low sparse *Tecticornia* spp. chenopod shrubland over isolated low *Surreya diandra* forbs.		



Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia auriculata	03.50	0.50		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	01.00	0.30		
Tecticornia laevigata	00.30	0.30		
Surreya diandra	00.10	0.30		
Tecticornia calyptrata	00.10	0.30		

Site:	LS010-2	**Type:**	Relevé (unbounded)
Date(s):	09 November 2015	**Position:**	-24.638881, 120.535543
Total vegetation cover (%):	40	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	40	**Soil:**	sandy clay, clay loam
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	evidence of feral animals, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Tecticornia laevigata* and *T.* sp. Dennys Crossing chenopod shrubland over isolated low *Lawrencia densiflora* and *Surreya diandra* forbs.		



Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia laevigata	35.00	0.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	05.00	0.30		
Surreya diandra	01.00	0.30		
Lawrencia densiflora	00.10	0.10		

Site:	LS011	**Type:**	Relevé (unbounded)
Date(s):	09 November 2015	**Position:**	-24.639037, 120.535638
Total vegetation cover (%):	60	**Topography:**	salt lake (playa)
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	60	**Soil:**	sandy clay, clay loam
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	0.2	**Fire age:**	not evident
Disturbance details:	evidence of feral animals, grazing – low, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Tecticornia laevigata* and *T.* sp. Dennys Crossing chenopod shrubland over isolated low *Goodenia quasilibera*, *Lawrencia glomerata* and *Surreya diandra* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia laevigata	45.00	0.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	15.00	0.40		
Surreya diandra	01.00	0.30		
Frankenia cinerea	00.10	0.30		
Lawrencia glomerata	00.10	0.30		
Goodenia quasilibera	00.10	0.05		
Acacia coriacea				

Site:	LS012	**Type:**	Quadrat (50 m x 50 m)
Date(s):	09 November 2015	**Position:**	-24.640012, 120.562388
Total vegetation cover (%):	40	**Topography:**	sand dune
Tree/shrub cover >2 m (%):	2	**Soil colour:**	red-orange
Shrub cover <2 m (%):	30	**Soil:**	sand
Grass cover (%):	10	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Eucalyptus gamophylla*, *E. trivalva* and *Corymbia chippendalei* mallee over isolated tall *Grevillea striata* shrubs over sparse mid *Acacia ligulata*, *Quoya loxocarpa* and *Scaevola sericophylla* shrubland over open low *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over sparse low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aluta maisonneuvei subsp. *maisonneuvei*	20.00	0.60		
Triodia basedowii	09.00	0.30		
Acacia ligulata	04.00	1.30		
Scaevola sericophylla	03.00	1.20		
Quoya loxocarpa	02.00	1.10		
Grevillea striata	01.00	2.20		
Aristida nitidula	01.00	0.20		
Corymbia chippendalei	00.90	4.00		
Eucalyptus trivalva	00.10	4.00		
Eucalyptus gamophylla	00.10	4.00		
Senna artemisioides subsp. x *artemisioides*	00.10	1.20		
Daviesia eremaea	00.10	1.20		
Sida sp. sand dunes (A.A. Mitchell PRP1208)	00.10	1.10		
Olearia incana	00.10	1.00		
Alyogyne pinoniana	00.10	1.00		
Dicrastylis doranii	00.10	0.60		
Corynotheca pungens	00.10	0.50		
Eremophila cuneifolia	00.10	0.50		

Newcastelia spodiotricha	00.10	0.50
Leiocarpa semicalva	00.10	0.50
Stackhousia megaloptera	00.10	0.40
Scaevola parvifolia subsp. *pilbarae*	00.10	0.30
Goodenia triodiophila	00.10	0.25
Calandrinia sp.	00.10	0.15
Solanaceae sp.	00.10	0.10
Lobelia heterophylla	00.10	0.10

Site:	LS013	**Type:**	Quadrat (50 m x 50 m)
Date(s):	07 November 2015	**Position:**	-24.648869, 120.589246
Total vegetation cover (%):	45	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	1.5	**Soil colour:**	red-orange
Shrub cover <2 m (%):	2	**Soil:**	sand
Grass cover (%):	45	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Eucalyptus mannensis* subsp. *mannensis* mallee over isolated mid mixed shrubs over low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	45.00	0.40		
Aluta maisonneuvei subsp. *maisonneuvei*	02.00	1.20		
Eucalyptus mannensis subsp. *mannensis*	01.00	5.00		
Dodonaea viscosa	00.20	2.20		
Acacia ligulata	00.20	1.80		
Acacia nyssophylla	00.10	1.60		
Grevillea eriostachya	00.10	1.00		
Grevillea striata	00.10	1.00		
Senna artemisioides subsp. *petiolaris*	00.10	0.60		
Sida sp. Golden calyces pubescent (G.J. Leach 1966	00.10	0.50		
Leiocarpa semicalva	00.10	0.50		
Eremophila cuneifolia	00.10	0.50		
Paraneurachne muelleri	00.10	0.50		
Alyogyne pinoniana	00.10	0.50		
Corynotheca pungens	00.10	0.40		
Lobelia heterophylla	00.10	0.40		
Ptilotus polystachyus	00.10	0.30		
Eragrostis eriopoda	00.10	0.15		
Aristida contorta	00.10	0.10		

Site:	LS1444	**Type:**	Relevé (unbounded)
Date(s):	08 November 2015	**Position:**	-24.662451, 120.554009
Total vegetation cover (%):	5	**Topography:**	breakaway
Tree/shrub cover >2 m (%):	2	**Soil colour:**	red-orange, whitish
Shrub cover <2 m (%):	2	**Soil:**	sandy clay, rocks
Grass cover (%):	0.1	**Rock type:**	gypsum
Herb cover (%):	2	**Fire age:**	not evident
Disturbance details:	evidence of feral animals		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Callitris columellaris* shrubs over isolated low mixed shrubs and forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Callitris columellaris	02.00	5.00		
Goodenia gypsicola	01.50	0.10		
Kippistia suaedifolia	00.50	0.15		
Eremophila glabra subsp. *glabra*	00.10	1.00		
Lawrencia helmsii	00.10	0.60		
Scaevola collaris	00.10	0.40		
Maireana luehmannii	00.10	0.15		
Lawrencia densiflora	00.10	0.15		
Zygophyllum compressum	00.10	0.15		
Sclerolaena fimbriolata	00.10	0.10		
Eragrostis pergracilis	00.10	0.01		

Site:	LSA001	**Type:**	Quadrat (50 m x 50 m)
Date(s):	05 November 2015	**Position:**	-24.743202, 120.411413
Total vegetation cover (%):	40	**Topography:**	plain
Tree/shrub cover >2 m (%):	0.1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	4	**Soil:**	sand
Grass cover (%):	40	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Grevillea eriostachya* shrubs over isolated mixed low shrubs over low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	40.00	0.30		
Leptosema chambersii	02.00	0.40		
Quoya loxocarpa	01.00	0.40		
Amphipogon caricinus	00.50	0.50		
Dicrastylis kumarinensis	00.50	0.40		
Grevillea eriostachya	00.30	2.20		
Acacia maitlandii	00.10	1.20		
Aluta maisonneuvei subsp. *maisonneuvei*	00.10	1.00		
Grevillea sp.	00.10	1.00		
Eremophila forrestii subsp. *forrestii*	00.10	0.80		
Prostanthera wilkieana	00.10	0.50		
Eriachne helmsii	00.10	0.50		
Kennedia prorepens	00.10	0.50		
Leiocarpa semicalva	00.10	0.50		
Calytrix carinata	00.10	0.50		
Acacia dictyophleba	00.10	0.50		
Dodonaea coriacea	00.10	0.40		
Dicrastylis cordifolia	00.10	0.40		
Paraneurachne muelleri	00.10	0.40		
Dampiera cinerea	00.10	0.30		

Eragrostis eriopoda	00.10	0.30

Site:	LSA003	**Type:**	Quadrat (50 m x 50 m)
Date(s):	05 November 2015	**Position:**	-24.722651, 120.448011
Total vegetation cover (%):	50	**Topography:**	plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	30	**Soil:**	sand
Grass cover (%):	25	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Grevillea stenobotrya* and *Leptosema chambersii* shrubland over open low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Grevillea stenobotrya	25.00	1.00		
Triodia schinzii	25.00	0.30		
Leptosema chambersii	10.00	0.40		
Eragrostis eriopoda	05.00	0.30		
Newcastelia spodiotricha	00.50	0.50		
Amphipogon caricinus	00.20	0.50		
Bonamia erecta	00.20	0.30		
Xanthorrhoea thorntonii	00.10	1.50		
Calytrix carinata	00.10	0.50		
Acacia dictyophleba	00.10	0.50		
Pityrodia loricata	00.10	0.50		
Phyllota luehmannii	00.10	0.40		
Dampiera cinerea	00.10	0.30		
Scaevola parvifolia subsp. *pilbarae*	00.10	0.20		
Aristida holathera	00.10	0.20		
Stylidium humphreysii	00.10	0.10		

Site:	LSA004	**Type:**	Quadrat (50 m x 50 m)
Date(s):	05 November 2015	**Position:**	-24.722794, 120.448325
Total vegetation cover (%):	60	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	0.1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	30	**Soil:**	sand
Grass cover (%):	30	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Corymbia chippendalei* mallee over isolated tall *Acacia dictyophleba*, *Grevillea berryana* and *G. stenobotrya* shrubs over low *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aluta maisonneuvei subsp. *maisonneuvei*	30.00	0.90		
Triodia schinzii	30.00	0.40		
Grevillea berryana	00.80	2.50		
Grevillea stenobotrya	00.50	2.00		
Phyllota luehmannii	00.10	5.00		
Acacia dictyophleba	00.10	4.00		
Corymbia chippendalei	00.10	4.00		
Stylidium humphreysii	00.10	1.00		
Paraneurachne muelleri	00.10	0.40		
Pityrodia loricata	00.10	0.30		
Dampiera cinerea	00.10	0.30		
Scaevola parvifolia subsp. *pilbarae*	00.10	0.20		

Site:	LSA005	**Type:**	Quadrat (50 m x 50 m)
Date(s):	10 November 2015	**Position:**	-24.668145, 120.481486
Total vegetation cover (%):	30	**Topography:**	plain
Tree/shrub cover >2 m (%):	2	**Soil colour:**	red-orange, whitish
Shrub cover <2 m (%):	10	**Soil:**	sand, clay loam
Grass cover (%):	20	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	not evident
Disturbance details:	evidence of feral animals, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Casuarina pauper* trees over sparse low *Tecticornia* spp. chenopod shrubland over open low *Eragrostis* spp. tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eragrostis falcata	10.00	0.30		
Eragrostis pergracilis	07.00	0.10		
Casuarina pauper	02.00	6.00		
Tecticornia indica subsp. *bidens*	02.00	0.40		
Tecticornia indica subsp. *leiostachya*	02.00	0.40		
Tecticornia calyptrata	02.00	0.40		
Tecticornia pterygosperma subsp. *denticulata*	02.00	0.40		
Tecticornia sp. nov. 1 (aff. pruinosa/ laevigata)	02.00	0.40		
Aristida contorta	02.00	0.15		
Eragrostis eriopoda	01.00	0.30		
Melaleuca interioris	00.10	1.50		
Eremophila glabra subsp. *glabra*	00.10	1.40		
Acacia tetragonophylla	00.10	1.30		
Senna artemisioides subsp. x *artemisioides*	00.10	0.70		
Solanum lasiophyllum	00.10	0.30		
Lawrencia glomerata	00.10	0.20		
Lepidium phlebopetalum	00.10	0.20		
Vittadinia eremaea	00.10	0.15		
Zygophyllum compressum	00.10	0.15		
Streptoglossa liatroides	00.10	0.15		

Maireana luehmannii	00.10	0.15
Angianthus tomentosus	00.10	0.05

Site:	LSA006	**Type:**	Quadrat (50 m x 50 m)
Date(s):	09 November 2015	**Position:**	-24.668126, 120.520097
Total vegetation cover (%):	45	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	30	**Soil:**	sand
Grass cover (%):	20	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Grevillea stenobotrya* shrubs over open low *Aluta maisonneuvei* subsp. *maisonneuvei* and *Seringia elliptica* shrubland over open low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aluta maisonneuvei subsp. *maisonneuvei*	20.00	0.50		
Triodia schinzii	20.00	0.40		
Seringia elliptica	10.00	0.50		
Micromyrtus flaviflora	00.50	0.60		
Grevillea stenobotrya	00.20	1.50		
Acacia maitlandii	00.10	1.00		
Microcorys macredieana	00.10	0.60		
Pityrodia loricata	00.10	0.50		
Acacia steedmanii subsp. *borealis*	00.10	0.50		
Acacia tenuissima	00.10	0.50		
Calytrix carinata	00.10	0.50		
Phyllota luehmannii	00.10	0.40		
Stylidium humphreysii	00.10	0.05		

Site:	LSA007	**Type:**	Quadrat (50 m x 50 m)
Date(s):	09 November 2015	**Position:**	-24.65795, 120.511797
Total vegetation cover (%):	35	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	15	**Soil:**	sand
Grass cover (%):	20	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Grevillea eriostachya* shrubs over open low *Phyllota luehmannii* shrubland over open low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	20.00	0.40		
Phyllota luehmannii	15.00	0.50		
Grevillea eriostachya	00.20	1.80		
Acacia dictyophleba	00.10	1.80		
Corymbia chippendalei	00.10	0.50		
Aluta maisonneuvei subsp. *maisonneuvei*	00.10	0.50		
Amphipogon caricinus	00.10	0.40		
Aristida holathera	00.10	0.20		
Scaevola amblyanthera	00.10	0.15		
Goodenia mueckeana	00.10	0.10		
Stylidium humphreysii	00.10	0.05		

Site:	LSA008	**Type:**	Quadrat (50 m x 50 m)
Date(s):	08 November 2015	**Position:**	-24.681451, 120.566655
Total vegetation cover (%):	40	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-orange
Shrub cover <2 m (%):	5	**Soil:**	loam, clay loam, rocks
Grass cover (%):	35	**Rock type:**	ferrous – ironstone
Herb cover (%):	0.4	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Acacia rhodophloia* and *A. kempeana* woodland over isolated low *Eucalyptus* sp. Little Sandy Desert mallee over isolated mixed shrubs over low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	35.00	0.40		
Acacia rhodophloia	12.00	4.00		
Eucalyptus sp. Little Sandy Desert (D. Nicolle & M	04.00	2.80		
Seringia elliptica	03.00	0.50		
Acacia kempeana	02.00	3.00		
Eremophila latrobei subsp. *latrobei*	01.00	1.40		
Petalostylis cassioides	01.00	1.20		
Eriachne mucronata	00.20	0.50		
Sida calyxhymenia	00.20	0.20		
Acacia pruinocarpa	00.10	6.00		
Acacia adsurgens	00.10	1.80		
Codonocarpus cotinifolius	00.10	1.50		
Hakea lorea	00.10	1.50		
Grevillea stenobotrya	00.10	1.30		
Senna glutinosa	00.10	1.00		
Calytrix carinata	00.10	1.00		
Anthobolus leptomerioides	00.10	0.70		
Aluta maisonneuvei subsp. *maisonneuvei*	00.10	0.60		
Dodonaea coriacea	00.10	0.50		

Amphipogon caricinus	00.10	0.50
Goodenia ramelii	00.10	0.30
Goodenia triodiophila	00.10	0.30
Ptilotus schwartzii	00.10	0.20
Eragrostis eriopoda	00.10	0.20
Brunonia australis	00.10	0.10

Site:	LSA009	**Type:**	Quadrat (50 m x 50 m)
Date(s):	08 November 2015	**Position:**	-24.681754, 120.566552
Total vegetation cover (%):	30	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	0.1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	4	**Soil:**	sand
Grass cover (%):	30	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Corymbia chippendalei* mallee over isolated low mixed shrubs over low *Aristida holathera*, *Triodia basedowii* and *T. schinzii* grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aristida holathera	20.00	0.30		
Triodia schinzii	05.00	0.30		
Triodia basedowii	05.00	0.30		
Newcastelia spodiotricha	02.00	0.50		
Phyllota luehmannii	00.50	0.50		
Acacia tenuissima	00.30	1.20		
Dampiera cinerea	00.20	0.40		
Corymbia chippendalei	00.10	2.00		
Amphipogon caricinus	00.10	1.00		
Grevillea stenobotrya	00.10	1.00		
Goodenia ramelii	00.10	0.60		
Gyrostemon ramulosus	00.10	0.60		
Aluta maisonneuvei subsp. *maisonneuvei*	00.10	0.50		
Dicrastylis doranii	00.10	0.40		
Scaevola parvifolia subsp. *pilbarae*	00.10	0.40		
Calytrix carinata	00.10	0.30		
Solanaceae sp.	00.10	0.25		
Eragrostis eriopoda	00.10	0.25		
Goodenia mueckeana	00.10	0.15		

Site:	LSA010	**Type:**	Quadrat (50 m x 50 m)
Date(s):	08 November 2015	**Position:**	-24.681155, 120.589017
Total vegetation cover (%):	35	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	4	**Soil colour:**	red-orange
Shrub cover <2 m (%):	15	**Soil:**	sand
Grass cover (%):	25	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Eucalyptus gamophylla* mallee over open mid *Grevillea stenobotrya*, *Templetonia egena* and *Acacia ligulata* shrubland over open low *Halgania erecta* shrubland over open low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	25.00	0.40		
Halgania erecta	15.00	0.50		
Grevillea stenobotrya	08.00	1.30		
Eucalyptus gamophylla	04.00	4.00		
Templetonia egena	02.00	1.20		
Acacia tetragonophylla	00.50	2.50		
Acacia ligulata	00.50	1.20		
Acacia adsurgens	00.40	2.00		
Hakea lorea	00.30	1.50		
Acacia maitlandii	00.20	1.40		
Stylobasium spathulatum	00.10	1.50		
Acacia steedmanii subsp. *borealis*	00.10	1.50		
Eremophila glabra subsp. *glabra*	00.10	1.40		
Grevillea striata	00.10	1.30		
Aluta maisonneuvei subsp. *maisonneuvei*	00.10	1.00		
Senna artemisioides subsp. x *artemisioides*	00.10	1.00		
Anthobolus leptomerioides	00.10	0.80		
Alyogyne pinoniana	00.10	0.80		

Seringia elliptica	00.10	0.50
Digitaria brownii	00.10	0.50
Goodenia triodiophila	00.10	0.30
Eragrostis eriopoda	00.10	0.20
Senna pleurocarpa	00.10	0.20

Site:	LSA011	**Type:**	Quadrat (50 m x 50 m)
Date(s):	06 November 2015	**Position:**	-24.62207, 120.624397
Total vegetation cover (%):	40	**Topography:**	plain
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	5	**Soil:**	sand
Grass cover (%):	40	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Eucalyptus gamophylla* mallee over isolated low *Grevillea stenobotrya* and *Seringia elliptica* shrubland over low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	40.00	0.30		
Seringia elliptica	03.00	0.50		
Eucalyptus gamophylla	01.00	2.50		
Grevillea stenobotrya	01.00	1.00		
Amphipogon caricinus	01.00	0.50		
Hakea lorea	00.10	3.00		
Acacia dictyophleba	00.10	2.00		
Acacia steedmanii subsp. *borealis*	00.10	1.60		
Codonocarpus cotinifolius	00.10	1.50		
Acacia sp.	00.10	1.00		
Alyogyne pinoniana	00.10	0.80		
Androcalva loxophylla	00.10	0.70		
Calytrix carinata	00.10	0.50		
Psydrax latifolia	00.10	0.50		
Eragrostis eriopoda	00.10	0.40		
Sida sp.	00.10	0.40		
Dampiera cinerea	00.10	0.40		
Sigesbeckia orientalis	00.10	0.30	*	
Goodenia triodiophila	00.10	0.20		

Aristida holathera	00.10	0.20
Scaevola parvifolia subsp. *pilbarae*	00.10	0.15
Brunonia australis	00.10	0.10
Polygala isingii	00.10	0.05

Site:	LSA012	**Type:**	Quadrat (50 m x 50 m)
Date(s):	06 November 2015	**Position:**	-24.622037, 120.624378
Total vegetation cover (%):	45	**Topography:**	sand dune
Tree/shrub cover >2 m (%):	0.5	**Soil colour:**	red-orange, whitish
Shrub cover <2 m (%):	30	**Soil:**	sandy loam
Grass cover (%):	20	**Rock type:**	gypsum
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	evidence of feral animals		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Eucalyptus gamophylla* mallee over open mid *Acacia ligulata* shrubland over sparse low *Halgania erecta* shrubland over open low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia ligulata	25.00	1.80		
Triodia basedowii	20.00	0.40		
Halgania erecta	05.00	0.50		
Grevillea eriostachya	01.00	1.50		
Eucalyptus gamophylla	00.50	2.50		
Eremophila glabra subsp. *glabra*	00.20	1.00		
Aristida contorta	00.20	0.15		
Eremophila cuneifolia	00.10	1.50		
Grevillea stenobotrya	00.10	1.40		
Sida sp. sand dunes (A.A. Mitchell PRP1208)	00.10	1.30		
Dodonaea viscosa	00.10	1.20		
Scaevola spinescens	00.10	1.00		
Acacia tetragonophylla	00.10	1.00		
Senna artemisioides subsp. *petiolaris*	00.10	0.80		
Ptilotus obovatus	00.10	0.50		
Codonocarpus cotinifolius	00.10	0.50		
Alyogyne pinoniana	00.10	0.50		
Leiocarpa semicalva	00.10	0.50		
Stenopetalum decipiens	00.10	0.30		

Ptilotus aphyllus	00.10	0.20
Goodenia gypsicola	00.10	0.10
Eragrostis falcata	00.10	0.10

Site:	LSA013	**Type:**	Quadrat (50 m x 50 m)
Date(s):	06 November 2015	**Position:**	-24.615369, 120.619232
Total vegetation cover (%):	55	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange, whitish
Shrub cover <2 m (%):	7	**Soil:**	sandy loam
Grass cover (%):	50	**Rock type:**	gypsum
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Eucalyptus gamophylla* mallee over sparse mid *Acacia ligulata* and *Templetonia egena* shrubland over low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	50.00	0.40		
Acacia ligulata	05.00	1.20		
Halgania cyanea var. Allambi Stn (B.W. Strong 676)	01.50	0.20		
Eucalyptus gamophylla	01.00	4.00		
Templetonia egena	01.00	1.50		
Goodenia gypsicola	01.00	0.10		
Grevillea juncifolia subsp. *juncifolia*	00.20	3.00		
Hakea lorea	00.10	1.20		
Goodenia triodiophila	00.10	0.30		
Ptilotus stipitatus	00.10	0.30		

Site:	LSA014	**Type:**	Quadrat (50 m x 50 m)
Date(s):	09 November 2015	**Position:**	-24.657885, 120.51207
Total vegetation cover (%):	35	**Topography:**	plain
Tree/shrub cover >2 m (%):	0.2	**Soil colour:**	red-orange
Shrub cover <2 m (%):	2	**Soil:**	sand
Grass cover (%):	34	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Acacia dictyophleba* and *Xanthorrhoea thorntonii* shrubs over isolated low mixed shrubs over low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	34.00	0.40		
Microcorys macredieana	01.50	0.80		
Grevillea eriostachya	01.00	2.00		
Grevillea stenobotrya	00.50	1.00		
Xanthorrhoea thorntonii	00.10	3.00		
Acacia dictyophleba	00.10	2.00		
Hakea rhombales	00.10	1.20		
Micromyrtus flaviflora	00.10	0.50		
Aluta maisonneuvei subsp. *maisonneuvei*	00.10	0.50		
Calytrix carinata	00.10	0.50		
Bonamia erecta	00.10	0.20		
Scaevola amblyanthera	00.10	0.15		
Goodenia mueckeana	00.10	0.10		

Site:	LSA015	**Type:**	Quadrat (50 m x 50 m)
Date(s):	09 November 2015	**Position:**	-24.649236, 120.514293
Total vegetation cover (%):	30	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	5	**Soil:**	sandy loam, rocks
Grass cover (%):	25	**Rock type:**	ferrous – ironstone
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Acacia ramulosa* var. *linophylla* and *Petalostylis cassioides* shrubland over open low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	25.00	0.30		
Acacia ramulosa var. *linophylla*	04.00	1.00		
Petalostylis cassioides	01.00	0.60		
Hakea rhombales	00.10	1.00		
Corymbia deserticola	00.10	1.00		
Acacia subcontorta	00.10	0.80		
Eremophila latrobei subsp. *latrobei*	00.10	0.60		
Seringia elliptica	00.10	0.50		
Eriachne mucronata	00.10	0.40		
Solanum lasiophyllum	00.10	0.40		
Triodia pungens	00.10	0.30		
Eragrostis eriopoda	00.10	0.20		
Bonamia erecta	00.10	0.20		
Ptilotus aphyllus	00.10	0.10		

Site:	LSA016	**Type:**	Quadrat (50 m x 50 m)
Date(s):	09 November 2015	**Position:**	-24.622872, 120.539369
Total vegetation cover (%):	40	**Topography:**	plain
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	20	**Soil:**	sand
Grass cover (%):	20	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Grevillea striata* and *Xanthorrhoea thorntonii* shrubs over open low *Aluta maisonneuvei* subsp. *maisonneuvei*, *Grevillea stenobotrya* and *Phyllota luehmannii* shrubland over open low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	20.00	0.40		
Aluta maisonneuvei subsp. *maisonneuvei*	15.00	0.90		
Phyllota luehmannii	04.00	0.50		
Grevillea stenobotrya	02.00	1.30		
Grevillea striata	00.50	3.00		
Stylidium humphreysii	00.20	0.05		
Xanthorrhoea thorntonii	00.10	3.00		
Hakea rhombales	00.10	1.80		
Acacia dictyophleba	00.10	1.50		
Acacia tenuissima	00.10	1.00		
Acacia ligulata	00.10	0.80		
Pityrodia loricata	00.10	0.8		
Quoya loxocarpa	00.10	0.40		
Amphipogon caricinus	00.10	0.30		
Seringia elliptica	00.10	0.20		
Bonamia erecta	00.10	0.20		
Lobelia heterophylla	00.10	0.20		
Scaevola amblyanthera	00.10	0.20		

Goodenia mueckeana	00.10	0.10

Site:	LSA017	**Type:**	Quadrat (50 m x 50 m)
Date(s):	09 November 2015	**Position:**	-24.622911, 120.539278
Total vegetation cover (%):	35	**Topography:**	plain
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	33	**Soil:**	sand
Grass cover (%):	2	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Acacia minyura* and *A. dictyophleba* shrubs over mid *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over isolated low *Triodia schinzii* tussock grasses.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aluta maisonneuvei subsp. *maisonneuvei*	33.00	1.20		
Acacia minyura	03.00	2.20		
Grevillea stenobotrya	02.00	1.00		
Triodia schinzii	02.00	0.20		
Acacia ligulata	00.50	1.50		
Acacia dictyophleba	00.10	2.00		
Acacia pachyacra	00.10	1.50		
Phyllota luehmannii	00.10	0.50		
Bonamia erecta	00.10	0.30		
Calytrix carinata	00.10	0.20		
Leptosema chambersii	00.10	0.20		
Seringia elliptica	00.10	0.20		
Stylidium humphreysii	00.10	0.05		

Site:	LSA018	**Type:**	Relevé (unbounded)
Date(s):	06 November 2015	**Position:**	-24.625627, 120.563853
Total vegetation cover (%):	60	**Topography:**	sand dune
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	2	**Soil:**	sand
Grass cover (%):	60	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Corymbia chippendalei* mallee over isolated mixed shrubs over low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	60.00	0.40		
Corymbia chippendalei	01.00	4.00		
Scaevola sericophylla	01.00	1.50		
Aluta maisonneuvei subsp. *maisonneuvei*	00.50	1.50		
Acacia ligulata	00.20	2.20		
Crotalaria cunninghamii	00.10	2.00		
Grevillea striata	00.10	1.80		
Grevillea stenobotrya	00.10	0.80		
Sida sp. Golden calyces glabrous (H.N. Foote 32)	00.10	0.50		
Aristida holathera	00.10	0.50		
Paraneurachne muelleri	00.10	0.50		
Amphipogon caricinus	00.10	0.50		
Senna pleurocarpa	00.10	0.50		
Dicrastylis doranii	00.10	0.50		
Leiocarpa semicalva	00.10	0.50		
Stackhousia megaloptera	00.10	0.40		
Alyogyne pinoniana	00.10	0.40		
Triodia schinzii	00.10	0.40		
Duperreya commixta	00.10	0.30		
Bonamia erecta	00.10	0.30		

Goodenia triodiophila	00.10	0.20
Scaevola amblyanthera	00.10	0.20

Site:	LSA019	**Type:**	Quadrat (50 m x 50 m)
Date(s):	06 November 2015	**Position:**	-24.625627, 120.563853
Total vegetation cover (%):	40	**Topography:**	plain
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	40	**Soil:**	sandy loam
Grass cover (%):	4	**Rock type:**	none
Herb cover (%):	1	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Hakea rhombales* shrubs over low *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over isolated low *Triodia basedowii* hummock grasses.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aluta maisonneuvei subsp. *maisonneuvei*	40.00	0.70		
Triodia basedowii	02.00	0.30		
Hakea rhombales	01.00	2.20		
Acacia minyura	00.10	1.80		
Acacia tenuissima	00.10	0.40		
Calytrix carinata	00.10	0.30		

Site:	LSA020	**Type:**	Quadrat (50 m x 50 m)
Date(s):	06 November 2015	**Position:**	-24.630998, 120.568439
Total vegetation cover (%):	35	**Topography:**	hill slope
Tree/shrub cover >2 m (%):	12	**Soil colour:**	red-orange
Shrub cover <2 m (%):	27	**Soil:**	clay loam, rocks
Grass cover (%):	15	**Rock type:**	ferrous – ironstone
Herb cover (%):	0	**Fire age:**	not evident
Disturbance details:	historic operations		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia mulganeura*, *A. irhodophloia* and *Grevillea berryana* woodland over open low *Eremophila margarethae* shrubland over open low *Triodia melvillei* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eremophila margarethae	25.00	1.00		
Triodia melvillei	15.00	0.40		
Acacia mulganeura	11.00	4.00		
Acacia rhodophloia	05.00	3.00		
Grevillea berryana	00.50	5.00		
Acacia incurvaneura	00.50	4.00		
Acacia brachystachya	00.10	3.00		
Santalum acuminatum	00.10	1.50		
Anthobolus leptomerioides	00.10	1.40		
Petalostylis cassioides	00.10	1.00		
Aluta maisonneuvei subsp. *maisonneuvei*	00.10	0.50		
Eragrostis xerophila	00.10	0.30		
Solanum lasiophyllum	00.10	0.20		

Site:	LSA021	**Type:**	Quadrat (50 m x 50 m)
Date(s):	06 November 2015	**Position:**	-24.634337, 120.578331
Total vegetation cover (%):	50	**Topography:**	plain
Tree/shrub cover >2 m (%):	8	**Soil colour:**	red-brown
Shrub cover <2 m (%):	21	**Soil:**	sandy loam
Grass cover (%):	30	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Acacia fuscaneura* woodland over open low *Melaleuca interioris* shrubland over low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	30.00	0.40		
Melaleuca interioris	20.00	0.60		
Acacia fuscaneura	08.00	8.00		
Eremophila glabra subsp. *glabra*	00.20	1.50		
Eremophila forrestii subsp. *forrestii*	00.10	1.30		
Anthobolus leptomerioides	00.10	1.20		
Acacia kempeana	00.10	1.00		
Scaevola spinescens	00.10	1.00		
Paraneurachne muelleri	00.10	0.50		
Eragrostis eriopoda	00.10	0.40		
Triodia schinzii	00.10	0.40		

Site:	LSA022	**Type:**	Quadrat (50 m x 50 m)
Date(s):	06 November 2015	**Position:**	-24.634261, 120.588734
Total vegetation cover (%):	50	**Topography:**	plain
Tree/shrub cover >2 m (%):	10	**Soil colour:**	red-orange
Shrub cover <2 m (%):	13	**Soil:**	sand
Grass cover (%):	30	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	evidence of feral animals, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Mid *Eucalyptus gamophylla* mallee woodland over isolated tall *Grevillea eriostachya* shrubs over sparse low *Aluta maisonneuvei* subsp. *maisonneuvei* and *Olearia subspicata* shrubland over low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	30.00	0.40		
Eucalyptus gamophylla	10.00	4.00		
Aluta maisonneuvei subsp. *maisonneuvei*	08.00	0.60		
Grevillea eriostachya	03.00	2.00		
Olearia subspicata	01.00	0.60		
Stylobasium spathulatum	00.20	1.50		
Acacia ligulata	00.20	1.50		
Senna pleurocarpa	00.20	1.30		
Acacia dictyophleba	00.10	1.50		
Acacia tenuissima	00.10	1.20		
Acacia abrupta	00.10	1.00		
Seringia elliptica	00.10	0.50		
Triodia basedowii	00.10	0.40		
Amphipogon caricinus	00.10	0.30		
Goodenia triodiophila	00.10	0.20		

Site:	LSA023	**Type:**	Quadrat (50 m x 50 m)
Date(s):	06 November 2015	**Position:**	-24.633149, 120.596188
Total vegetation cover (%):	60	**Topography:**	sand dune
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	27	**Soil:**	sand
Grass cover (%):	50	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Grevillea eriostachya* shrubs over open mid *Acacia ligulata* shrubland over low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	50.00	0.40		
Acacia ligulata	25.00	1.80		
Aluta maisonneuvei subsp. *maisonneuvei*	01.50	0.60		
Grevillea eriostachya	01.00	3.00		
Templetonia egena	00.50	1.30		
Paraneurachne muelleri	00.20	0.40		
Grevillea striata	00.10	2.00		
Acacia tetragonophylla	00.10	2.00		
Grevillea stenobotrya	00.10	1.20		
Alyogyne pinoniana	00.10	0.60		
Leiocarpa semicalva	00.10	0.50		
Eremophila sp.	00.10	0.50		
Ptilotus aphyllus	00.10	0.20		

Site:	PTSH001	**Type:**	Relevé (unbounded)
Date(s):	30 April 2015	**Position:**	-24.748112, 120.278991
Total vegetation cover (%):	30	**Topography:**	other
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-brown
Shrub cover <2 m (%):	15	**Soil:**	clay
Grass cover (%):	5	**Rock type:**	basalt
Herb cover (%):	5	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia aneura* and *A. aptaneura* woodland over open mid *Acacia* spp., *Eremophila latrobei* subsp. *latrobei* and *Senna artemisioides* subsp. *helmsii* shrubland over isolated low *Aristida contorta*, *Eragrostis eriopoda* and *Triodia basedowii* tussock/hummock grasses and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia aptaneura	05.0	10.00		
Acacia aneura	05.0	08.00		
Eremophila latrobei subsp. *latrobei*	05.0	02.00		
Senna artemisioides subsp. *helmsii*	05.0	01.50		
Acacia pachyacra	01.0	02.00		
Acacia sibirica	01.0	01.80		
Eremophila galeata	01.0	01.80		
Acacia pteraneura	01.0	01.50		
Cleome viscosa	01.0	00.50		
Ptilotus obovatus	01.0	00.50		
Triodia basedowii	01.0	00.50		
Solanum phlomoides	01.0	00.50		
Aristida contorta	01.0	00.30		
Eragrostis eriopoda	01.0	00.30		
Enneapogon caerulescens	01.0	00.30		
Calandrinia polyandra	01.0	00.05		
Dysphania rhadinostachya	01.0	00.02		
Eremophila latrobei subsp. *glabra*	00.5	02.00		

Solanum lasiophyllum	00.5	00.50
Portulaca oleracea	00.5	<00.01
Ptilotus aervoides	00.5	<00.01
Paraneurachne muelleri	00.2	00.40
Hibiscus burtonii	00.2	00.30
Aristida nitidula	00.2	00.30
Haloragis gossei	00.2	00.05
Grevillea berryana	00.1	05.00
Grevillea stenobotrya	00.1	02.00
Scaevola spinescens	00.1	01.00
Tribulus suberosus	00.1	01.00
Senna glaucifolia	00.1	01.00
Psydrax rigidula	00.1	01.00
Ptilotus helipteroides	00.1	00.50
Euphorbia boophthona	00.1	00.50
Abutilon oxycarpum	00.1	00.50
Sclerolaena cornishiana	00.1	00.40
Maireana triptera	00.1	00.30
Sida sp. dark green fruits (S. van Leeuwen 2260)	00.1	00.30
Amphipogon sericeus	00.1	00.30
Maireana planifolia	00.1	00.30
Maireana melanocoma	00.1	00.30
Cymbopogon obtectus	00.1	00.30
Maireana suaedifolia	00.1	00.30
Enneapogon polyphyllus	00.1	00.25
Eremophea spinosa	00.1	00.20
Ptilotus nobilis	00.1	00.20
Goodenia wilunensis	00.1	00.20
Sclerolaena lanicuspis	00.1	00.20
Evolvulus alsinoides var. *villosicalyx*	00.1	00.20
Sida platycalyx	00.1	00.20
Swainsona laciniata	00.1	00.10
Lepidium oxytrichum	00.1	00.02
Euphorbia australis	00.1	<00.01
Lysiana murrayi	00.1	<00.01
Boerhavia coccinea	00.1	<00.01
Tribulus astrocarpus	00.1	<00.01
Cleome oxalidea	00.1	<00.01
Tribulus occidentalis	00.1	<00.01

Site:	PTSH002	**Type:**	Quadrat (50 m x 50 m)
Date(s):	26 April 2015	**Position:**	-24.728785, 120.285173
Total vegetation cover (%):	75	**Topography:**	plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	12	**Soil:**	sandy loam
Grass cover (%):	70	**Rock type:**	none
Herb cover (%):	0.4	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Acacia pachyacra*, *Grevillea eriostachya* and *G. stenobotrya* shrubs over sparse low *Dicrastylis cordifolia*, *Seringia elliptica* and *Dampiera cinerea* shrubland over low *Triodia schinzii*, *Aristida holathera* and *Paraneurachne muelleri* tussock grassland and isolated clumps of low *Goodenia triodiophila*, *Ptilotus schwartzii* and *Salsola australis* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	60.0	00.30		
Aristida holathera	07.0	00.40		
Dicrastylis cordifolia	05.0	00.40		
Paraneurachne muelleri	03.0	00.40		
Grevillea eriostachya	01.0	01.50		
Acacia pachyacra	01.0	01.50		
Grevillea stenobotrya	01.0	01.50		
Kennedia prorepens	01.0	00.50		
Eragrostis eriopoda	01.0	00.20		
Dampiera cinerea	01.0	00.20		
Sida cardiophylla	00.5	00.30		
Seringia elliptica	00.5	00.30		
Acacia dictyophleba	00.3	01.20		
Dicrastylis kumarinensis	00.2	00.30		
Salsola australis	00.1	00.60		
Gyrostemon ramulosus	00.1	00.60		
Amphipogon sericeus	00.1	00.50		
Goodenia mueckeana	00.1	00.40		

Ptilotus schwartzii	00.1	00.40
Goodenia triodiophila	00.1	00.30
Phyllota luehmannii	00.1	00.30
Scaevola parvifolia subsp. *pilbarae*	00.1	00.15

Site:	PTSH004	**Type:**	Quadrat (50 m x 50 m)
Date(s):	26 April 2015	**Position:**	-24.721211, 120.329227
Total vegetation cover (%):	80	**Topography:**	plain
Tree/shrub cover >2 m (%):	20	**Soil colour:**	red-orange
Shrub cover <2 m (%):	10	**Soil:**	sandy loam
Grass cover (%):	70	**Rock type:**	none
Herb cover (%):	0.2	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Mid *Acacia ligulata* shrubland over isolated low *Aluta maisonneuvei* subsp. *maisonneuvei* , *Eremophila forrestii* subsp. *forrestii* and *Seringia elliptica* shrubs over mid *Triodia basedowii*, *T. schinzii* and *Eragrostis eriopoda* hummock/tussock grassland over isolated clumps of low *Euphorbia boophthona* and *Goodenia triodiophila* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	40.0	00.50		
Acacia ligulata	30.0	02.00		
Triodia basedowii	25.0	00.50		
Eragrostis eriopoda	02.0	00.50		
Aluta maisonneuvei subsp. *maisonneuvei*	01.0	00.80		
Eremophila forrestii subsp. *forrestii*	00.5	01.00		
Paraneurachne muelleri	00.2	00.60		
Seringia elliptica	00.2	00.40		
Acacia fuscaneura	00.1	01.50		
Grevillea stenobotrya	00.1	01.20		
Acacia aptaneura	00.1	01.00		
Acacia maitlandii	00.1	00.50		
Sida cardiophylla	00.1	00.50		
Enchylaena tomentosa	00.1	00.50		
Solanum lasiophyllum	00.1	00.50		
Solanum centrale	00.1	00.40		
Senna artemisioides subsp. *oligophylla*	00.1	00.40		
Dicrastylis cordifolia	00.1	00.40		

Alyogyne pinoniana	00.1	00.40
Abutilon cryptopetalum	00.1	00.40
Euphorbia boophthona	00.1	00.30
Goodenia triodiophila	00.1	00.30
Cymbopogon obtectus	00.1	00.10

Site:	PTSH006	**Type:**	Quadrat (50 m x 50 m)
Date(s):	28 April 2015	**Position:**	-24.732548, 120.236298
Total vegetation cover (%):	70	**Topography:**	floodplain
Tree/shrub cover >2 m (%):	20	**Soil colour:**	red-brown
Shrub cover <2 m (%):	20	**Soil:**	sandy clay
Grass cover (%):	35	**Rock type:**	none
Herb cover (%):	30	**Fire age:**	>5 years
Disturbance details:	weed infestation		
Vegetation condition:	Very Good, Trudgen (1991)		
Vegetation description:	Low *Acacia aptaneura* and *A. aneura* woodland over sparse mid *Acacia pteraneura*, *A. tetragonophylla* and *Eremophila galeata* shrubland over open low *Senna artemisioides* subsp. *helmsii* and *Ptilotus obovatus* shrubland over low *Aristida contorta*, *Eriachne pulchella* and *Tripogonella loliiformis* tussock grassland with isolated low *Cyperus iria* sedges and low **Bidens bipinnata*, *Calandrinia ptychosperma* and *Goodenia prostrata* forbland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia aptaneura	20.0	07.00		
Bidens bipinnata	20.0	00.30	*	
Eriachne pulchella	20.0	00.10		
Senna artemisioides subsp. *helmsii*	10.0	00.90		
Tripogonella loliiformis	10.0	00.15		
Acacia tetragonophylla	05.0	01.50		
Aristida contorta	05.0	00.20		
Goodenia prostrata	04.0	<00.01		
Acacia pteraneura	02.0	01.60		
Cyperus iria	02.0	00.15		
Calandrinia ptychosperma	02.0	<00.01		
Eremophila galeata	01.0	01.50		
Rhagodia drummondii	01.0	01.30		
Chrysopogon fallax	01.0	01.00		
Ptilotus obovatus	01.0	00.40		
Sclerolaena glabra	01.0	00.20		

Sclerolaena cornishiana	01.0	00.20
Dactyloctenium radulans	01.0	00.10
Perotis rara	01.0	00.10
Euphorbia drummondii	00.5	<00.01
Boerhavia coccinea	00.5	<00.01
Digitaria brownii	00.2	00.60
Solanum lasiophyllum	00.2	00.40
Enteropogon ramosus	00.2	00.30
Ptilotus aervoides	00.2	<00.01
Acacia aneura	00.1	06.00
Psydrax rigidula	00.1	01.00
Eremophila forrestii subsp. *forrestii*	00.1	01.00
Abutilon fraseri	00.1	00.50
Sida sp. verrucose glands (F.H. Mollemans 2423)	00.1	00.50
Maireana tomentosa subsp. *tomentosa*	00.1	00.40
Maireana planifolia	00.1	00.40
Wahlenbergia tumidifructa	00.1	00.40
Goodenia triodiophila	00.1	00.40
Cleome viscosa	00.1	00.30
Dysphania melanocarpa	00.1	00.30
Pluchea dentex	00.1	00.30
Goodenia pascua	00.1	00.30
Nicotiana rosulata	00.1	00.30
Abutilon cryptopetalum	00.1	00.30
Eragrostis kennedyae	00.1	00.20
Euphorbia boophthona	00.1	00.20
Alternanthera nodiflora	00.1	00.20
Indigofera colutea	00.1	00.20
Gomphrena affinis	00.1	00.20
Brachyscome ciliaris	00.1	00.20
Evolvulus alsinoides var. *villosicalyx*	00.1	00.20
Portulaca filifolia	00.1	00.20
Podolepis capillaris	00.1	00.15
Centipeda thespidioides	00.1	00.10
Rhodanthe propinqua	00.1	00.05
Tribulus occidentalis	00.1	<00.01
Duperreya commixta	00.1	<00.01
Cleome oxalidea	00.1	<00.01

Site:	PTSH007	**Type:**	Quadrat (50 m x 50 m)
Date(s):	25 April 2015	**Position:**	-24.739864, 120.256243
Total vegetation cover (%):	50	**Topography:**	plain
Tree/shrub cover >2 m (%):	30	**Soil colour:**	red-orange
Shrub cover <2 m (%):	20	**Soil:**	loam
Grass cover (%):	35	**Rock type:**	granite-sheets exfoliated
Herb cover (%):	5	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia incurvaneura*, *A. macraneura* and *A. pruinocarpa* woodland over open mid *Eremophila forrestii* subsp. *forrestii*, *E. margarethae* and *E. maculata* shrubland over low *Triodia basedowii* and *Eragrostis eriopoda* hummock/tussock grassland and isolated low *Calandrinia polyandra* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eremophila forrestii subsp. *forrestii*	20.0	01.80		
Triodia basedowii	20.0	00.50		
Acacia incurvaneura	15.0	08.00		
Eragrostis eriopoda	15.0	00.30		
Acacia pruinocarpa	10.0	10.00		
Acacia macraneura	05.0	03.00		
Eriachne pulchella	05.0	00.05		
Calandrinia polyandra	05.0	<00.01		
Eremophila margarethae	01.0	01.60		
Ptilotus schwartzii	00.5	00.30		
Anthobolus leptomerioides	00.2	01.70		
Senna artemisioides subsp. *oligophylla*	00.1	02.00		
Eremophila galeata	00.1	02.00		
Acacia tetragonophylla	00.1	01.50		
Eremophila maculata	00.1	01.20		
Psydrax latifolia	00.1	01.00		
Eremophila latrobei subsp. *latrobei*	00.1	01.00		
Senna artemisioides subsp. *filifolia*	00.1	00.80		

Solanum lasiophyllum	00.1	00.50
Dysphania kalpari	00.1	00.50
Sida platycalyx	00.1	00.40
Monachather paradoxus	00.1	00.30
Ptilotus obovatus	00.1	00.30
Eriachne helmsii	00.1	00.20
Euphorbia boophthona	00.1	00.15
Cleome oxalidea	00.1	00.10
Sida sp.	00.1	00.10
Perotis rara	00.1	00.05
Bulbostylis barbata	00.1	00.05
Dysphania sphaerosperma	00.1	<00.01
Tribulus macrocarpus	00.1	<00.01
Portulaca oleracea	00.1	<00.01
Sida sp. Golden calyces glabrous (H.N. Foote 32)		
Eremophila latrobei subsp. *filiformis*		
Grevillea berryana		

Site:	PTSH009	**Type:**	Quadrat (50 m x 50 m)
Date(s):	25 April 2015	**Position:**	-24.751737, 120.251181
Total vegetation cover (%):	80	**Topography:**	floodplain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown, brown
Shrub cover <2 m (%):	30	**Soil:**	clay
Grass cover (%):	40	**Rock type:**	none
Herb cover (%):	15	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated clumps of mid *Acacia citrinoviridis*, *A. subcontorta* and *A. tetragonophylla* shrubs over low *Tecticornia indica* subsp. *bidens* chenopod shrubland over low *Eragrostis dielsii*, *Aristida holathera* and *Eriachne aristidea* tussock grassland and mixed open forbland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia indica subsp. *bidens*	30.0	00.50		
Eragrostis dielsii	20.0	<00.01		
Aristida holathera	10.0	00.30		
Eriachne aristidea	07.0	00.15		
Dactyloctenium radulans	05.0	00.20		
Boerhavia coccinea	05.0	00.10		
Cleome oxalidea	05.0	<00.01		
Acacia tetragonophylla	01.0	01.30		
Perotis rara	00.8	00.10		
Hypertelis cerviana	00.8	00.01		
Solanum lasiophyllum	00.5	00.50		
Eragrostis falcata	00.5	00.30		
Bulbostylis barbata	00.5	00.02		
Cyperus squarrosus	00.5	00.02		
Calandrinia polyandra	00.5	00.01		
Acacia pteraneura	00.3	02.50		
Scaevola spinescens	00.3	00.50		
Aristida contorta	00.3	00.30		

Dysphania plantaginella	00.3	00.10
Enchylaena tomentosa	00.2	00.60
Eremophila forrestii subsp. *forrestii*	00.2	00.50
Maireana triptera	00.2	00.30
Eremophila margarethae	00.2	00.30
Cyperus bulbosus	00.2	00.05
Acacia subcontorta	00.1	01.60
Acacia citrinoviridis	00.1	01.20
Tecticornia indica subsp. *leiostachya*	00.1	00.70
Paspalidium rarum	00.1	00.70
Senna artemisioides subsp. x *sturtii*	00.1	00.50
Senna sericea	00.1	00.50
Ptilotus obovatus	00.1	00.50
Enteropogon ramosus	00.1	00.40
Cleome viscosa	00.1	00.40
Maireana tomentosa	00.1	00.30
Sclerolaena glabra	00.1	00.20
Maireana amoena	00.1	00.20
Podolepis capillaris	00.1	00.20
Abutilon cryptopetalum	00.1	00.20
Solanum cleistogamum	00.1	00.20
Portulaca filifolia	00.1	00.20
Lepidium phlebopetalum	00.1	00.1
Lawrencia densiflora	00.1	00.1
Streptoglossa cylindriceps	00.1	00.1
Euphorbia drummondii	00.1	<00.01
Tribulus occidentalis	00.1	<00.01
Tribulus astrocarpus	00.1	<00.01

Site:	PTSH010	**Type:**	Relevé (unbounded)
Date(s):	29 April 2015	**Position:**	-24.718109, 120.279821
Total vegetation cover (%):	75	**Topography:**	plain
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	6	**Soil:**	sand
Grass cover (%):	70	**Rock type:**	none
Herb cover (%):	0.4	**Fire age:**	<1 Year
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Hakea lorea* shrubs over isolated low mixed shrubs in closed low *Triodia schinzii* tussock grassland and isolated clumps of *Goodenia triodiophila* and *Stylidium humphreysii* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	70.0	00.30		
Hakea lorea	03.0	02.00		
Eriachne mucronata	01.0	00.50		
Kennedia prorepens	01.0	00.40		
Eragrostis eriopoda	01.0	00.30		
Bonamia erecta	01.0	00.30		
Dicrastylis kumarinensis	00.5	00.50		
Seringia elliptica	00.5	00.40		
Aristida contorta	00.5	00.30		
Dampiera cinerea	00.5	00.30		
Leptosema chambersii	00.5	00.30		
Aluta maisonneuvei subsp. *maisonneuvei*	00.2	00.50		
Amphipogon sericeus	00.2	00.50		
Scaevola parvifolia subsp. *pilbarae*	00.2	00.20		
Stylidium humphreysii	00.2	00.05		
Grevillea stenobotrya	00.1	01.80		
Eucalyptus gamophylla	00.1	01.80		
Acacia dictyophleba	00.1	01.00		
Acacia ligulata	00.1	01.00		

Gyrostemon ramulosus	00.1	01.00
Grevillea eriostachya	00.1	00.50
Calytrix carinata	00.1	00.40
Sida ectogama	00.1	00.30
Goodenia mueckeana	00.1	00.30
Phyllota luehmannii	00.1	00.30
Goodenia triodiophila	00.1	00.10

Site:	PTSH011	**Type:**	Quadrat (25 m x100 m)
Date(s):	26 April 2015	**Position:**	-24.72281, 120.298127
Total vegetation cover (%):	45	**Topography:**	plain
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-orange
Shrub cover <2 m (%):	20	**Soil:**	sand
Grass cover (%):	10	**Rock type:**	none
Herb cover (%):	1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open mid *Corymbia chippendalei* woodland over isolated low *Eucalyptus gamophylla* mallee woodland over low *Quoya loxocarpa*, *Crotalaria cunninghamii* and *Eremophila cuneifolia* shrubland over open low *Aristida holathera* and *Triodia schinzii* tussock grassland and isolated low *Euphorbia boophthona* and *Salsola australis* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Corymbia chippendalei	10.0	10.00		
Quoya loxocarpa	08.0	01.00		
Aristida holathera	08.0	00.50		
Eucalyptus gamophylla	05.0	03.00		
Triodia schinzii	03.0	00.30		
Crotalaria cunninghamii	01.0	01.00		
Eremophila cuneifolia	01.0	00.70		
Sida sp. sand dunes (A.A. Mitchell PRP1208)	01.0	00.60		
Euphorbia boophthona	01.0	00.50		
Scaevola parvifolia subsp. *pilbarae*	00.3	00.30		
Leiocarpa semicalva	00.2	00.20		
Jasminum didymum subsp. *lineare*	00.1	01.20		
Clerodendrum tomentosum var. *lanceolatum*	00.1	01.20		
Acacia dictyophleba	00.1	01.00		
Acacia ampliceps	00.1	01.00		
Calotis sp. Carnarvon Range (D.J. Edinger & K.F. K	00.1	01.00		
Senna glaucifolia	00.1	01.00		
Newcastelia spodiotricha	00.1	00.80		

Eriachne helmsii	00.1	00.80
Paractaenum refractum	00.1	00.60
Solanum sp.	00.1	00.50
Eriachne aristidea	00.1	00.50
Phyllota luehmannii	00.1	00.50
Angianthus cyathifer	00.1	00.30
Salsola australis	00.1	00.30
Ptilotus latifolius	00.1	00.30
Zygophyllum eremaeum	00.1	00.30
Pomax sp. desert (A.S. George 11968)	00.1	00.20
Dicrastylis doranii	0.1	00.50
Corynotheca micrantha var. *divaricata*	0.1	0.2

Site:	PTSH012	**Type:**	Quadrat (50 m x 50 m)
Date(s):	25 April 2015	**Position:**	-24.728707, 120.270562
Total vegetation cover (%):	25	**Topography:**	hill slope
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-orange
Shrub cover <2 m (%):	12	**Soil:**	rocks
Grass cover (%):	2	**Rock type:**	ferrous – other, granite-sheets exfoliated
Herb cover (%):	1	**Fire age:**	>5 years

Disturbance details: none

Vegetation condition: Excellent, Trudgen (1991)

Vegetation description: Open low *Acacia incurvaneura* and *A. aneura* woodland over sparse low *Eremophila margarethae*, *E. latrobei* and *Senna sericea* shrubland over isolated clumps of low *Triodia basedowii*, *Aristida contorta* and *Eriachne mucronata* grasses and isolated clumps of low *Calandrinia polyandra*, *Ptilotus aervoides* and *P. carinatus* forbs.

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia incurvaneura	10.0	06.00		
Acacia aneura	05.0	03.00		
Eremophila margarethae	05.0	00.80		
Senna sericea	05.0	00.60		
Eremophila latrobei subsp. *latrobei*	01.5	01.30		
Aristida contorta	01.0	00.30		
Ptilotus aervoides	00.5	00.10		
Templetonia egena	00.3	01.00		
Triodia basedowii	00.2	00.50		
Enneapogon polyphyllus	00.2	00.20		
Eriachne pulchella	00.2	00.10		
Calandrinia polyandra	00.2	00.10		
Acacia tetragonophylla	00.1	02.50		
Eremophila oppositifolia	00.1	01.20		
Exocarpos sparteus	00.1	01.20		
Scaevola spinescens	00.1	00.80		
Eriachne mucronata	00.1	00.80		

Psydrax rigidula	00.1	00.80
Eremophila ? *clarkei*	00.1	00.70
Senna artemisioides subsp. *helmsii*	00.1	00.60
Senna artemisioides subsp. *petiolaris*	00.1	00.60
Ptilotus obovatus	00.1	00.50
Enchylaena tomentosa	00.1	00.50
Solanum lasiophyllum	00.1	00.50
Ptilotus carinatus	00.1	00.40
Maireana trichoptera	00.1	00.30
Stackhousia intermedia	00.1	00.20
Maireana georgei	00.1	00.20
Ptilotus albidus	00.1	00.20
Eremophila galeata	00.1	00.20
Ptilotus nobilis	00.1	00.20
Maireana melanocoma	00.1	00.20
Leiocarpa semicalva	00.1	00.20
Enneapogon caerulescens	00.1	00.15
Sclerolaena lanicuspis	00.1	00.10
Eragrostis eriopoda	00.1	00.10
Iseilema membranaceum	00.1	00.10
Fimbristylis dichotoma	00.1	00.10
Goodenia prostrata	00.1	<00.01
Euphorbia drummondii	00.1	<00.01

Site:	PTSH014	**Type:**	Quadrat (50 m x 50 m)
Date(s):	29 April 2015	**Position:**	-24.733583, 120.224931
Total vegetation cover (%):	80	**Topography:**	plain
Tree/shrub cover >2 m (%):	40	**Soil colour:**	red-brown
Shrub cover <2 m (%):	5	**Soil:**	clay loam
Grass cover (%):	40	**Rock type:**	none
Herb cover (%):	30	**Fire age:**	>5 years
Disturbance details:	weed infestation, vehicle tracks, livestock tracks, grazing - medium		
Vegetation condition:	Good, Trudgen (1991)		
Vegetation description:	Mid *Acacia pruinocarpa* and *Corymbia hamersleyana* woodland over low *Acacia aptaneura* woodland over sparse tall *Acacia tetragonophylla* and *Eremophila galeata* shrubland over isolated low mixed shrubs over low *Eragrostis pergracilis* tussock grassland and low **Bidens bipinnata* forbland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eragrostis pergracilis	40.0	00.10		
Bidens bipinnata	30.0	00.20	*	
Acacia aptaneura	20.0	08.00		
Acacia pruinocarpa	05.0	12.00		
Corymbia hamersleyana	05.0	12.00		
Acacia tetragonophylla	05.0	04.00		
Eremophila galeata	05.0	02.50		
Ptilotus obovatus	02.0	00.80		
Grevillea striata	00.1	06.00		
Rhyncharrhena linearis	00.1	04.00		
Psydrax latifolia	00.1	04.00		
Duperreya commixta	00.1	03.00		
Senna artemisioides subsp. x *artemisioides*	00.1	03.00		
Senna artemisioides subsp. *filifolia*	00.1	02.00		
Senna artemisioides subsp. *helmsii*	00.1	01.00		
Solanum lasiophyllum	00.1	00.60		
Eremophila forrestii subsp. *forrestii*	00.1	00.50		
Eragrostis eriopoda	00.1	00.50		

Maireana planifolia	00.1	00.50
Chrysopogon fallax	00.1	00.50
Enchylaena tomentosa	00.1	00.40
Hibiscus burtonii	00.1	00.40
Eremophila margarethae	00.1	00.40
Ptilotus macrocephalus	00.1	00.40
Cleome viscosa	00.1	00.20
Aristida contorta	00.1	00.20
Iseilema membranaceum	00.1	00.20
Abutilon otocarpum	00.1	00.20
Abutilon macrum	00.1	00.20
Euphorbia boophthona	00.1	00.20
Eragrostis leptocarpa	00.1	00.20
Portulaca filifolia	00.1	00.15
Dactyloctenium radulans	00.1	00.10
Vittadinia eremaea	00.1	00.10
Ptilotus aervoides	00.1	00.10
Pterocaulon sphacelatum	00.1	00.10
Calandrinia polyandra	00.1	00.10
Nicotiana occidentalis	00.1	00.10
Sida sp. verrucose glands (F.H. Mollemans 2423)	00.1	00.10
Perotis rara	00.1	00.10
Tragus australianus	00.1	00.10
Cleome oxalidea	00.1	00.10
Brachyscome ciliaris	00.1	00.10
Enneapogon polyphyllus	00.1	00.10
Paraneurachne muelleri	00.1	00.10
Abutilon fraseri	00.1	00.10
Digitaria ctenantha	00.1	00.10
Tripogonella loliiformis	00.1	00.10
Evolvulus alsinoides var. *villosicalyx*	00.1	00.10
Dysphania rhadinostachya	00.1	00.05
Boerhavia coccinea	00.1	00.05
Portulaca oleracea	00.1	00.05
Tribulus astrocarpus	00.1	00.05
Goodenia prostrata	00.1	00.05

Site:	PTSH016	**Type:**	Quadrat (50 m x 50 m)
Date(s):	30 April 2015	**Position:**	-24.741118, 120.297969
Total vegetation cover (%):	30	**Topography:**	other
Tree/shrub cover >2 m (%):	5	**Soil colour:**	red-brown
Shrub cover <2 m (%):	15	**Soil:**	sand
Grass cover (%):	10	**Rock type:**	none
Herb cover (%):	0.2	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse tall *Acacia ligulata* and *Dodonaea viscosa* shrubland over open mid *Melaleuca interioris*, *Senna artemisioides* subsp. *helmsii* and *S. artemisioides* subsp. *petiolaris* shrubland over isolated low mixed shrubs in open low *Triodia schinzii* tussock grassland and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Melaleuca interioris	10.0	01.80		
Triodia schinzii	10.0	00.50		
Dodonaea viscosa	05.0	03.00		
Acacia ligulata	02.0	03.00		
Stylobasium spathulatum	01.0	02.00		
Senna artemisioides subsp. *helmsii*	01.0	01.60		
Senna artemisioides subsp. *petiolaris*	01.0	01.60		
Chenopodium gaudichaudianum	01.0	01.00		
Eragrostis eriopoda	01.0	00.30		
Aluta maisonneuvei subsp. *maisonneuvei*	00.5	01.50		
Acacia ampliceps	00.2	02.00		
Ptilotus obovatus	00.2	00.50		
Aristida contorta	00.2	00.30		
Frankenia laxiflora	00.2	00.30		
Paraneurachne muelleri	00.2	00.30		
Hakea lorea	00.1	02.00		
Senna glaucifolia	00.1	01.50		
Grevillea eriostachya	00.1	01.50		

Grevillea stenobotrya	00.1	01.50	
Olearia subspicata	00.1	01.20	
Euphorbia boophthona	00.1	01.00	
Scaevola spinescens	00.1	01.00	
Tecticornia sp. Christmas Creek (K.A. Shepherd & T	00.1	01.00	P1 (WC Act)
Eremophila glabra subsp. *glabra*	00.1	00.60	
Enchylaena tomentosa	00.1	00.50	
Eremophila longifolia	00.1	00.50	
Tecticornia indica subsp. *bidens*	00.1	00.50	
Digitaria brownii	00.1	00.40	
Alyogyne pinoniana	00.1	00.40	
Paspalidium rarum	00.1	00.40	
Eriachne aristidea	00.1	00.30	
Abutilon otocarpum	00.1	00.30	
Rhagodia eremaea	00.1	00.20	
Sclerolaena costata	00.1	00.20	
Sida intricata	00.1	00.10	
Solanum cleistogamum	00.1	<00.01	
Trianthema triquetrum	00.1	<00.01	
Rhyncharrhena linearis	00.1	<00.01	
Hibiscus burtonii			

Site:	PTSH017	**Type:**	Quadrat (50 m x 50 m)
Date(s):	29 April 2015	**Position:**	-24.763976, 120.281927
Total vegetation cover (%):	50	**Topography:**	plain
Tree/shrub cover >2 m (%):	0.2	**Soil colour:**	red-brown
Shrub cover <2 m (%):	10	**Soil:**	sand
Grass cover (%):	45	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Keighery (1994)		
Vegetation description:	Sparse mid *Acacia ligulata* and *Daviesia eremaea* shrubland over isolated low mixed shrubs over low *Triodia basedowii* hummock grassland and isolated clumps of low *Goodenia triodiophila* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	45.0	00.40		
Daviesia eremaea	06.0	01.30		
Acacia ligulata	03.0	01.60		
Hakea lorea	00.1	03.00		
Acacia tetragonophylla	00.1	03.00		
Grevillea striata	00.1	02.00		
Grevillea stenobotrya	00.1	02.00		
Stylobasium spathulatum	00.1	01.50		
Senna artemisioides subsp. *petiolaris*	00.1	01.50		
Eucalyptus gamophylla	00.1	01.30		
Alyogyne pinoniana	00.1	01.10		
Grevillea eriostachya	00.1	01.00		
Acacia kempeana	00.1	00.80		
Dodonaea viscosa	00.1	00.60		
Eremophila forrestii subsp. *forrestii*	00.1	00.50		
Solanum lasiophyllum	00.1	00.40		
Paraneurachne muelleri	00.1	00.40		
Eragrostis eriopoda	00.1	00.40		
Scaevola parvifolia subsp. *pilbarae*	00.1	00.40		

Solanum centrale	00.1	00.30
Goodenia triodiophila	00.1	00.20

Site:	PTSH018	**Type:**	Quadrat (50 m x 50 m)
Date(s):	29 April 2015	**Position:**	-24.761984, 120.287515
Total vegetation cover (%):	25	**Topography:**	hill slope
Tree/shrub cover >2 m (%):	7	**Soil colour:**	red-brown
Shrub cover <2 m (%):	15	**Soil:**	sandy loam
Grass cover (%):	10	**Rock type:**	basalt
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open mid *Acacia aptaneura* and *A. pteraneura* woodland over open mid *Eremophila latrobei* subsp. *latrobei*, *E. latrobei* subsp. *glabra* and *E. galeata* shrubland over isolated low mixed shrubs over open low *Triodia basedowii* hummock grassland and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eremophila latrobei subsp. *latrobei*	10.0	01.60		
Triodia basedowii	10.0	00.40		
Acacia aptaneura	05.0	10.00		
Acacia pteraneura	02.0	14.00		
Eremophila galeata	02.0	02.00		
Eremophila latrobei subsp. *glabra*	01.0	01.50		
Senna artemisioides subsp. x *sturtii*	01.0	01.00		
Eragrostis eriopoda	00.5	00.40		
Psydrax suaveolens	00.1	02.50		
Senna artemisioides subsp. *helmsii*	00.1	02.00		
Acacia tetragonophylla	00.1	01.50		
Eremophila margarethae	00.1	01.20		
Scaevola spinescens	00.1	01.00		
Cymbopogon obtectus	00.1	00.50		
Solanum lasiophyllum	00.1	00.50		
Sclerolaena eriacantha	00.1	00.50		
Hibiscus burtonii	00.1	00.50		
Maireana triptera	00.1	00.30		

Ptilotus obovatus	00.1	00.30
Streptoglossa cylindriceps	00.1	00.30
Maireana melanocoma	00.1	00.30
Maireana georgei	00.1	00.30
Aristida contorta	00.1	00.20
Cheilanthes sieberi subsp. *sieberi*	00.1	00.20
Sida sp. dark green fruits (S. van Leeuwen 2260)	00.1	00.20
Euphorbia boophthona	00.1	00.20
Ptilotus nobilis	00.1	00.10
Portulaca filifolia	00.1	00.10
Tripogonella loliiformis	00.1	00.10
Enneapogon caerulescens	00.1	00.10
Paspalidium rarum	00.1	00.10
Ptilotus helipteroides	00.1	00.10
Portulaca oleracea	00.1	00.10
Dysphania rhadinostachya	00.1	00.10
Fimbristylis dichotoma	00.1	00.10
Rhodanthe humboldtiana	00.1	00.10
Tribulus astrocarpus	00.1	00.10
Calandrinia polyandra	00.1	00.05
Lepidium phlebopetalum	00.1	00.05
Ptilotus aervoides	00.1	<00.01
Trianthema triquetrum	00.1	<00.01

Site:	PTSH019	**Type:**	Relevé (unbounded)
Date(s):	30 April 2015	**Position:**	-24.743777, 120.316896
Total vegetation cover (%):	40	**Topography:**	other
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-brown
Shrub cover <2 m (%):	30	**Soil:**	sand
Grass cover (%):	12	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia aneura* and *A. pteraneura* woodland over mid *Eremophila forrestii* subsp. *forrestii* and *Senna artemisioides* subsp. *helmsii* shrubland over open low *Aristida contorta*, *Eragrostis eriopoda* and *Paraneurachne muelleri* tussock grassland and isolated clumps of low *Boerhavia schomburgkiana*, *Cleome viscosa* and *Ptilotus macrocephalus* herbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eremophila forrestii subsp. *forrestii*	20.0	02.00		
Acacia pteraneura	10.0	09.00		
Senna artemisioides subsp. *helmsii*	10.0	01.50		
Aristida contorta	10.0	00.25		
Acacia aneura	07.0	09.00		
Paraneurachne muelleri	02.0	00.40		
Eragrostis eriopoda	00.8	00.30		
Bulbostylis barbata	00.2	00.10		
Perotis rara	00.2	00.10		
Acacia ligulata	00.1	02.00		
Solanum phlomoides	00.1	00.50		
Cleome viscosa	00.1	00.40		
Triodia schinzii	00.1	00.40		
Sida sp. verrucose glands (F.H. Mollemans 2423)	00.1	00.30		
Ptilotus macrocephalus	00.1	00.30		
Abutilon leucopetalum	00.1	00.30		
Maireana tomentosa	00.1	00.30		
Eriachne aristidea	00.1	00.20		

Haloragis gossei	00.1	00.20
Lepidium phlebopetalum	00.1	00.15
Cynodon convergens	00.1	00.10
Eriachne pulchella	00.1	<00.01
Boerhavia schomburgkiana	00.1	<00.01

Site:	PTSH020	**Type:**	Quadrat (50 m x 50 m)
Date(s):	27 April 2015	**Position:**	-24.732154, 120.312866
Total vegetation cover (%):	55	**Topography:**	floodplain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	22	**Soil:**	sand
Grass cover (%):	34	**Rock type:**	none
Herb cover (%):	3	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia indica* subsp. *bidens*, *T. pruinosa* and *T.* sp. Denny's Crossing chenopod shrubland over low *Eragrostis leptocarpa* tussock grassland with isolated low *Bulbostylis barbata* and *Cyperus* spp. sedges and isolated low *Dysphania plantaginella* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eragrostis leptocarpa	30.0	00.30		
Tecticornia indica subsp. *bidens*	20.0	00.60		
Bulbostylis barbata	03.0	00.15		
Dysphania plantaginella	02.0	00.10		
Dactyloctenium radulans	01.0	00.10		
Goodenia prostrata	01.0	<00.01		
Tecticornia pruinosa	00.5	00.60		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	00.5	00.60		
Eriachne aristidea	00.2	00.30		
Cyperus bulbosus	00.2	00.15		
Cyperus squarrosus	00.2	00.05		
Eragrostis dielsii	00.2	<00.01		
Scaevola spinescens	00.1	00.60		
Atriplex amnicola	00.1	00.60		
Tecticornia indica subsp. *leiostachya*	00.1	00.50		
Frankenia setosa	00.1	00.50		
Lawrencia densiflora	00.1	00.20		
Podolepis capillaris	00.1	00.10		

Perotis rara	00.1	00.10
Boerhavia coccinea	00.1	<00.01

Site:	PTSH021	**Type:**	Quadrat (25 m x 100 m)
Date(s):	26 April 2015	**Position:**	-24.722169, 120.313183
Total vegetation cover (%):	75	**Topography:**	plateau
Tree/shrub cover >2 m (%):	30	**Soil colour:**	red-orange
Shrub cover <2 m (%):	16	**Soil:**	clay
Grass cover (%):	70	**Rock type:**	granite bolders
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia incurvaneura* woodland over isolated mid *Acacia rhodophloia* and *A. sibirica* shrubs over open low *Eremophila forrestii* subsp. *forrestii* shrubland over closed low *Triodia basedowii* hummock grassland and isolated clumps of *Goodenia triodiophila* forbs.		

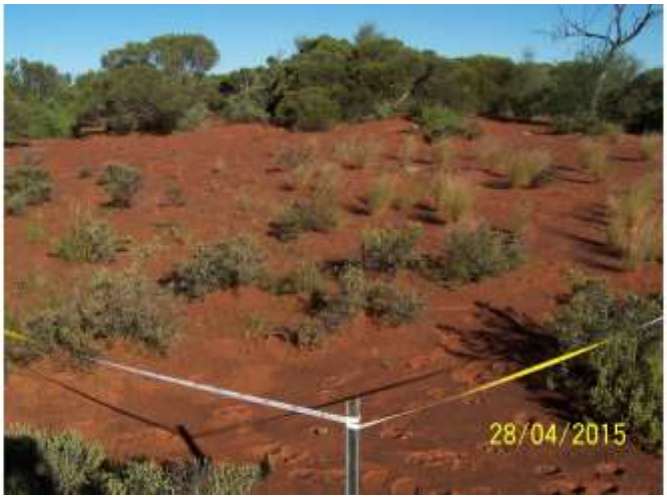
Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	70.0	00.40		
Acacia incurvaneura	35.0	06.00		
Eremophila forrestii subsp. *forrestii*	10.0	01.00		
Acacia rhodophloia	01.0	01.60		
Santalum acuminatum	00.1	02.20		
Acacia sibirica	00.1	02.00		
Eremophila latrobei subsp. *latrobei*	00.1	01.30		
Eremophila longifolia	00.1	01.30		
Seringia elliptica	00.1	00.80		
Solanum phlomoides	00.1	00.50		
Goodenia triodiophila	00.1	00.30		
Eragrostis eriopoda	00.1	00.20		

Site:	PTSH023	**Type:**	Quadrat (50 m x 50 m)
Date(s):	27 April 2015	**Position:**	-24.740496, 120.217653
Total vegetation cover (%):	90	**Topography:**	drainage line
Tree/shrub cover >2 m (%):	22	**Soil colour:**	red-brown
Shrub cover <2 m (%):	10	**Soil:**	clay
Grass cover (%):	45	**Rock type:**	none
Herb cover (%):	25	**Fire age:**	>5 years
Disturbance details:	weed infestation		
Vegetation condition:	Very Good, Trudgen (1991)		
Vegetation description:	Low *Acacia fuscaneura*, *A. pruinocarpa* and *Corymbia hamersleyana* woodland over open mid *Acacia* spp. and *Eremophila* spp. shrubland over low *Eragrostis pergracilis* grassland and open low **Bidens bipinnata* forbland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eragrostis pergracilis	40.0	00.15		
Bidens bipinnata	20.0	00.20	*	
Acacia fuscaneura	15.0	08.00		
Acacia pruinocarpa	05.0	10.00		
Eremophila forrestii subsp. *forrestii*	03.0	01.20		
Eremophila galeata	02.0	02.00		
Acacia aptaneura	02.0	01.60		
Acacia aneura	02.0	01.50		
Eragrostis eriopoda	02.0	00.30		
Perotis rara	02.0	00.10		
Alternanthera angustifolia	02.0	00.01		
Corymbia hamersleyana	01.0	10.00		
Psydrax latifolia	01.0	03.00		
Eremophila sp.	01.0	01.60		
Ptilotus obovatus	01.0	00.50		
Ptilotus aervoides	01.0	<00.01		
Goodenia prostrata	00.5	<00.01		
Calandrinia ptychosperma	00.5	<00.01		

Portulaca oleracea	00.5	<00.01
Enchylaena tomentosa	00.2	00.60
Solanum lasiophyllum	00.2	00.50
Cleome oxalidea	00.2	<00.01
Senna artemisioides subsp. *helmsii*	00.1	01.50
Anthobolus leptomerioides	00.1	00.80
Senna symonii	00.1	00.80
Eriachne mucronata	00.1	00.60
Maireana planifolia	00.1	00.50
Monachather paradoxus	00.1	00.50
Ptilotus schwartzii	00.1	00.40
Androcalva loxophylla	00.1	00.40
Goodenia stellata	00.1	00.40
Sida calyxhymenia	00.1	00.40
Cleome viscosa	00.1	00.30
Brachyscome ciliaris	00.1	00.30
Hibiscus burtonii	00.1	00.30
Abutilon cryptopetalum	00.1	00.30
Evolvulus alsinoides var. *villosicalyx*	00.1	00.20
Portulaca filifolia	00.1	00.15
Boerhavia coccinea	00.1	<00.01
Euphorbia drummondii	00.1	<00.01

Site:	PTSH024	**Type:**	Quadrat (42 m x 58 m)
Date(s):	28 April 2015	**Position:**	-24.762996, 120.2623
Total vegetation cover (%):	25	**Topography:**	other
Tree/shrub cover >2 m (%):	10	**Soil colour:**	red-brown
Shrub cover <2 m (%):	9	**Soil:**	sand
Grass cover (%):	7	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Tall *Melaleuca interioris* and *M. xerophila* shrubland over isolated mid and low mixed shrubs over sparse low *Aristida holathera* and *Triodia basedowii* tussock/hummock grassland and isolated clumps of low mixed forbs.		



Species	Cover (%)	Height (m)	Weeds	Conservation status
Melaleuca interioris	15.0	03.00		
Triodia basedowii	05.0	00.40		
Acacia pachyacra	01.0	03.00		
Melaleuca xerophila	01.0	02.50		
Scaevola spinescens	01.0	01.50		
Tecticornia indica subsp. *bidens*	01.0	00.50		
Aristida holathera	01.0	00.30		
Eragrostis eriopoda	01.0	00.30		
Acacia ramulosa var. *linophylla*	00.3	02.50		
Acacia pteraneura	00.1	04.00		
Chenopodium gaudichaudianum	00.1	03.00		
Acacia sp.	00.1	03.00		
Acacia sibirica	00.1	03.00		
Rhagodia drummondii	00.1	01.50		
Eremophila maculata	00.1	01.20		
Atriplex bunburyana	00.1	01.00		
Enchylaena tomentosa	00.1	00.50		
Triodia schinzii	00.1	00.50		
Maireana amoena	00.1	00.50		

Sclerolaena costata	00.1	00.50
Acacia burkittii	00.1	00.50
Maireana thesioides	00.1	00.40
Eriachne aristidea	00.1	00.40
Sclerolaena cornishiana	00.1	00.40
Solanum lasiophyllum	00.1	00.40
Paspalidium reflexum	00.1	00.40
Enneapogon polyphyllus	00.1	00.30
Digitaria brownii	00.1	00.30
Ptilotus nobilis	00.1	00.30
Heliotropium tanythrix	00.1	00.30
Solanum cleistogamum	00.1	00.20
Frankenia setosa	00.1	00.10
Abutilon leucopetalum	00.1	00.10
Brachyscome ciliaris	00.1	00.10
Bulbostylis barbata	00.1	00.10
Sida intricata	00.1	00.10
Rhyncharrhena linearis	00.1	<00.01

Site:	PTSH025	**Type:**	Quadrat (50 m x 50 m)
Date(s):	28 April 2015	**Position:**	-24.763037, 120.321097
Total vegetation cover (%):	30	**Topography:**	breakaway
Tree/shrub cover >2 m (%):	10	**Soil colour:**	red-orange
Shrub cover <2 m (%):	7	**Soil:**	sand
Grass cover (%):	13	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open tall *Acacia balsamea*, *A. ligulata* and *A. tetragonophylla* shrubland over open mid *Senna artemisioides* subsp. *petiolaris* shrubland over open low *Triodia basedowii* and *Eragrostis eriopoda* hummock/tussock grassland and isolated clumps of low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	10.0	00.70		
Acacia balsamea	05.0	05.00		
Acacia ligulata	05.0	02.50		
Senna artemisioides subsp. *petiolaris*	05.0	01.80		
Eragrostis eriopoda	03.0	00.30		
Acacia tetragonophylla	01.0	04.00		
Scaevola collaris	01.0	00.30		
Hakea lorea	00.1	06.00		
Pimelea microcephala subsp. microcephala	00.1	02.00		
Maytenus sp. Mt Windell (S. van Leeuwen 846)	00.1	02.00		
Eremophila longifolia	00.1	02.00		
Senna artemisioides subsp. x *sturtii*	00.1	02.00		
Eremophila cuneifolia	00.1	01.50		
Rhagodia drummondii	00.1	01.20		
Eremophila maculata	00.1	01.20		
Ptilotus obovatus	00.1	00.80		
Scaevola spinescens	00.1	00.50		
Triodia schinzii	00.1	00.50		

Chenopodium gaudichaudianum	00.1	00.40
Solanum lasiophyllum	00.1	00.40
Alyogyne pinoniana	00.1	00.30
Ptilotus nobilis	00.1	00.30
Eriachne mucronata	00.1	00.30
Enchylaena tomentosa	00.1	00.30
Zygophyllum aurantiacum	00.1	00.30
Aristida contorta	00.1	00.20
Haloragis sp.	00.1	00.10
Minuria multiseta	00.1	00.10
Zygophyllum compressum	00.1	00.10
Enneapogon caerulescens	00.1	00.10
Haloragis gossei	00.1	00.10
Dysphania kalpari	00.1	<00.01

Site:	PTSH026	**Type:**	Quadrat (50 m x 50 m)
Date(s):	30 April 2015	**Position:**	-24.754967, 120.318315
Total vegetation cover (%):	30	**Topography:**	plain
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-brown
Shrub cover <2 m (%):	25	**Soil:**	sand
Grass cover (%):	10	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open mid *Eremophila forrestii* subsp. *forrestii*, *Maireana pyramidata* and *Senna* spp. shrubland over open low *Eragrostis eriopoda*, *Eriachne helmsii* and *Triodia schinzii* tussock grassland and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eremophila forrestii subsp. *forrestii*	10.0	01.50		
Senna artemisioides subsp. *petiolaris*	05.0	01.50		
Maireana pyramidata	05.0	01.00		
Eragrostis eriopoda	05.0	00.30		
Eriachne helmsii	05.0	00.30		
Senna artemisioides subsp. *helmsii*	03.0	01.00		
Acacia tetragonophylla	01.0	02.50		
Eremophila latrobei subsp. *latrobei*	01.0	01.60		
Atriplex amnicola	01.0	00.50		
Triodia basedowii	01.0	00.40		
Triraphis mollis	00.5	00.20		
Aristida contorta	00.3	00.15		
Aristida holathera	00.2	00.20		
Perotis rara	00.2	00.10		
Bulbostylis barbata	00.2	00.05		
Acacia ligulata	00.1	03.00		
Acacia macraneura	00.1	02.50		
Dodonaea viscosa	00.1	02.00		
Acacia fuscaneura	00.1	02.00		

Acacia aneura	00.1	02.00
Rhagodia eremaea	00.1	01.20
Solanum phlomoides	00.1	00.50
Triodia schinzii	00.1	00.40
Solanum lasiophyllum	00.1	00.40
Enchylaena tomentosa	00.1	00.30
Portulaca filifolia	00.1	00.30
Ptilotus obovatus	00.1	00.30
Digitaria brownii	00.1	00.30
Maireana georgei	00.1	00.30
Euphorbia boophthona	00.1	00.30
Sclerolaena deserticola	00.1	00.20
Heliotropium cunninghamii	00.1	00.20
Eriachne aristidea	00.1	00.15
Boerhavia coccinea	00.1	00.10
Tragus australianus	00.1	00.10
Sida sp. verrucose glands (F.H. Mollemans 2423)	00.1	00.10
Angianthus cyathifer	00.1	00.10
Hypertelis cerviana		

Site:	PTSH027	**Type:**	Quadrat (50 m x 50 m)
Date(s):	29 April 2015	**Position:**	-24.764229, 120.305386
Total vegetation cover (%):	20	**Topography:**	other
Tree/shrub cover >2 m (%):	2	**Soil colour:**	red-brown
Shrub cover <2 m (%):	6	**Soil:**	sand
Grass cover (%):	18	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Eucalyptus gamophylla* mallee over sparse mid *Acacia ligulata*, *Grevillea eriostachya* and *G. berryana* shrubland over isolated low mixed shrubs over open mid *Triodia basedowii* hummock grassland and isolated clumps of low *Euphorbia boophthona* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	18.0	00.60		
Grevillea eriostachya	02.0	02.00		
Grevillea berryana	02.0	02.00		
Acacia ligulata	02.0	01.50		
Eucalyptus gamophylla	01.0	02.50		
Dicrastylis doranii	01.0	00.50		
Codonocarpus cotinifolius	00.1	02.50		
Acacia dictyophleba	00.1	02.20		
Gyrostemon ramulosus	00.1	02.00		
Senna artemisioides subsp. *helmsii*	00.1	01.00		
Alyogyne pinoniana	00.1	01.00		
Hakea lorea	00.1	00.60		
Aristida contorta	00.1	00.50		
Eremophila forrestii subsp. *forrestii*	00.1	00.50		
Scaevola parvifolia subsp. *pilbarae*	00.1	00.50		
Eremophila maculata	00.1	00.50		
Leiocarpa semicalva	00.1	00.50		
Eremophila cuneifolia	00.1	00.50		

Eragrostis eriopoda	00.1	00.50
Scaevola basedowii	00.1	00.40
Aluta maisonneuvei subsp. *maisonneuvei*	00.1	00.40
Solanum lasiophyllum	00.1	00.40
Solanum centrale	00.1	00.40
Eriachne mucronata	00.1	00.40
Senna artemisioides subsp. *petiolaris*	00.1	00.30
Calytrix carinata	00.1	00.30
Euphorbia boophthona	00.1	00.20

Site:	PTSH028	**Type:**	Relevé (unbounded)
Date(s):	29 April 2015	**Position:**	-24.753648, 120.328345
Total vegetation cover (%):	70	**Topography:**	plain
Tree/shrub cover >2 m (%):	5	**Soil colour:**	red-orange
Shrub cover <2 m (%):	9	**Soil:**	sand
Grass cover (%):	60	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	not evident
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Acacia ligulata* and *Grevillea stenobotrya* shrubs over mid *Triodia basedowii* hummock grassland and isolated clumps of low *Goodenia triodiophila* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	30.0	00.60		
Triodia basedowii	30.0	00.60		
Acacia ligulata	08.0	02.20		
Grevillea stenobotrya	04.0	04.00		
Seringia elliptica	01.0	00.50		
Grevillea eriostachya	00.5	01.80		
Aluta maisonneuvei subsp. *maisonneuvei*	00.1	01.60		
Acacia ayersiana	00.1	01.50		
Dodonaea viscosa	00.1	01.30		
Acacia tetragonophylla	00.1	01.00		
Alyogyne pinoniana	00.1	00.50		
Calytrix carinata	00.1	00.40		
Paraneurachne muelleri	00.1	00.30		
Scaevola amblyanthera	00.1	00.30		
Goodenia triodiophila	00.1	00.20		
Solanum centrale	00.1	00.10		

Site:	PTSH029	**Type:**	Quadrat (50 m x 50 m)
Date(s):	30 April 2015	**Position:**	-24.759664, 120.346383
Total vegetation cover (%):	10	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	5	**Soil colour:**	red-orange, whitish
Shrub cover <2 m (%):	5	**Soil:**	clay loam
Grass cover (%):	1	**Rock type:**	calcrete
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse tall *Acacia burkittii* shrubland over isolated low *Scaevola collaris* and *Lawrencia helmsii* shrubs over isolated low *Eragrostis desertorum* tussock grasses and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia burkittii	07.0	04.00		
Scaevola collaris	02.0	00.30		
Eragrostis desertorum	01.0	00.30		
Senna artemisioides subsp. *petiolaris*	00.2	01.30		
Lawrencia squamata	00.2	00.40		
Aristida contorta	00.2	00.30		
Goodenia gypsicola	00.2	00.25		
Enneapogon caerulescens	00.2	00.25		
Dysphania kalpari	00.2	00.10		
Boerhavia coccinea	00.2	<00.01		
Ptilotus aervoides	00.2	<00.01		
Acacia tetragonophylla	00.1	04.00		
Codonocarpus cotinifolius	00.1	01.50		
Ptilotus nobilis	00.1	00.30		
Eremophila forrestii subsp. *forrestii*	00.1	00.30		
Enchylaena tomentosa	00.1	00.30		
Frankenia laxiflora	00.1	00.30		
Ptilotus obovatus	00.1	00.30		
Maireana luehmannii	00.1	00.20		

Zygophyllum compressum	00.1	00.15
Portulaca oleracea	00.1	00.10
Minuria multiseta	00.1	00.10
Paspalidium rarum	00.1	00.10
Haloragis gossei	00.1	00.10
Dysphania plantaginella	00.1	<00.01

Site:	PTSH030	**Type:**	Quadrat (50 m x 50 m)
Date(s):	30 April 2015	**Position:**	-24.751744, 120.348132
Total vegetation cover (%):	65	**Topography:**	plain
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-brown
Shrub cover <2 m (%):	15	**Soil:**	sand
Grass cover (%):	60	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open tall *Acacia kempeana* and *Acacia ligulata* shrubland over sparse mid *Eremophila forrestii* subsp. *forrestii* and *Senna artemisioides* subsp. *petiolaris* shrubland over mid *Triodia basedowii* and *T. schinzii* hummock/tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	40.0	00.60		
Acacia kempeana	20.0	03.00		
Triodia schinzii	20.0	00.60		
Acacia ligulata	10.0	02.20		
Senna artemisioides subsp. *petiolaris*	01.0	01.50		
Eremophila forrestii subsp. *forrestii*	01.0	01.20		
Acacia fuscaneura	00.5	01.60		
Solanum centrale	00.2	00.40		
Paraneurachne muelleri	00.2	00.40		
Acacia prainii	00.1	02.20		
Acacia minyura	00.1	02.00		
Eremophila longifolia	00.1	01.60		
Acacia tetragonophylla	00.1	01.20		
Anthobolus leptomerioides	00.1	00.80		
Eriachne helmsii	00.1	00.50		
Solanum lasiophyllum	00.1	00.40		
Hibiscus burtonii	00.1	00.40		
Alyogyne pinoniana	00.1	00.40		

Eragrostis eriopoda	00.1	00.30
Sida sp. dark green fruits (S. van Leeuwen 2260)	00.1	00.30

Site:	PTSH033	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.738603, 120.357839
Total vegetation cover (%):	45	**Topography:**	plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	15	**Soil:**	sand
Grass cover (%):	40	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	<1 Year
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Grevillea berryana* and *G. eriostachya* shrubs over sparse low *Calytrix carinata*, *Seringia elliptica* and *Leptosema chambersii* shrubland over low *Triodia schinzii* tussock grassland and isolated low *Goodenia triodiophila* and *Stylidium humphreysii* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	40.0	00.40		
Grevillea eriostachya	05.0	01.00		
Seringia elliptica	03.0	00.40		
Leptosema chambersii	03.0	00.30		
Amphipogon caricinus	02.0	00.40		
Grevillea berryana	01.0	01.00		
Hakea lorea	01.0	00.60		
Calytrix carinata	01.0	00.40		
Sida cardiophylla	01.0	00.30		
Bonamia erecta	00.5	00.30		
Androcalva loxophylla	00.3	00.30		
Dicrastylis kumarinensis	00.3	00.20		
Eragrostis eriopoda	00.3	00.20		
Eriachne mucronata	00.2	00.50		
Kennedia prorepens	00.2	00.10		
Stylidium humphreysii	00.2	00.05		
Pimelea ammocharis	00.1	01.50		
Acacia maitlandii	00.1	01.00		

Acacia dictyophleba	00.1	00.70
Phyllota luehmannii	00.1	00.40
Dicrastylis cordifolia	00.1	00.30
Solanum centrale	00.1	00.30
Goodenia triodiophila	00.1	00.30
Goodenia mueckeana	00.1	00.20
Scaevola parvifolia subsp. *pilbarae*	00.1	00.20
Dampiera cinerea	00.1	00.20
Prostanthera wilkieana	00.1	00.20
Aristida contorta	00.1	00.15

Site:	PTSH034	**Type:**	Quadrat (50 m x 50 m)
Date(s):	27 April 2015	**Position:**	-24.730389, 120.368138
Total vegetation cover (%):	80	**Topography:**	plain
Tree/shrub cover >2 m (%):	40	**Soil colour:**	red-orange
Shrub cover <2 m (%):	30	**Soil:**	rocks
Grass cover (%):	60	**Rock type:**	granite-sheets exfoliated
Herb cover (%):	0.2	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Tall *Acacia citrinoviridus* and *A. rhodophloia* shrubland over open low *Eremophila margarethae* shrubland over mid *Triodia basedowii* hummock grassland with isolated mid *T. melvillei* tussock grasses and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	60.0	00.50		
Acacia citrinoviridis	30.0	02.30		
Eremophila margarethae	20.0	00.80		
Acacia rhodophloia	15.0	02.30		
Triodia melvillei	02.0	00.50		
Seringia elliptica	02.0	00.50		
Amphipogon caricinus	00.5	00.30		
Sida cardiophylla	00.2	00.40		
Eragrostis eriopoda	00.2	00.30		
Acacia incurvaneura	00.1	02.50		
Hakea rhombales	00.1	02.50		
Senna artemisioides subsp. x *sturtii*	00.1	01.80		
Acacia sibirica	00.1	01.30		
Senna glaucifolia	00.1	01.10		
Acacia daviesioides	00.1	00.50		
Goodenia ramelii	00.1	00.50		
Sida echinocarpa	00.1	00.40		
Goodenia triodiophila	00.1	00.30		

Stenopetalum lineare	00.1	00.25

Site:	PTSH036	**Type:**	Quadrat (50 m x 50 m)
Date(s):	27 April 2015	**Position:**	-24.728187, 120.324176
Total vegetation cover (%):	80	**Topography:**	plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	27	**Soil:**	sand
Grass cover (%):	60	**Rock type:**	none
Herb cover (%):	0.3	**Fire age:**	1 – 5 years
Disturbance details:	revegetation		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Grevillea stenobotrya*, *Seringia elliptica* and *Leptosema chambersii* shrubland over low *Triodia schinzii* tussock grassland and isolated low *Goodenia triodiophila* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	60.0	00.30		
Leptosema chambersii	15.0	00.50		
Dicrastylis cordifolia	05.0	00.60		
Grevillea stenobotrya	03.0	00.50		
Seringia elliptica	02.0	00.40		
Acacia ligulata	01.0	00.50		
Bonamia erecta	01.0	00.30		
Acacia maitlandii	00.5	00.50		
Prostanthera wilkieana	00.5	00.50		
Eragrostis eriopoda	00.5	00.30		
Paraneurachne muelleri	00.2	00.40		
Kennedia prorepens	00.2	00.05		
Grevillea eriostachya	00.1	02.00		
Hakea rhombales	00.1	00.50		
Aristida holathera	00.1	00.50		
Amphipogon sericeus	00.1	00.50		
Stylidium humphreysii	00.1	00.50		
Goodenia mueckeana	00.1	00.40		
Eriachne mucronata	00.1	00.40		

Goodenia triodiophila	00.1	00.30
Dampiera cinerea	00.1	00.20

Site:	PTSH038	**Type:**	Quadrat (50 m x 50 m)
Date(s):	27 April 2015	**Position:**	-24.731352, 120.247302
Total vegetation cover (%):	60	**Topography:**	plain
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange, brown
Shrub cover <2 m (%):	50	**Soil:**	clay
Grass cover (%):	25	**Rock type:**	granite-sheets exfoliated
Herb cover (%):	20	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Acacia aneura* and *A. tetragonophylla* shrubs over low *Eremophila margarethae* and *E. galeata* shrubland over low *Eriachne pulchella* and *Tripogonella loliiformis* tussock grassland and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eremophila margarethae	40.0	00.50		
Tripogonella loliiformis	20.0	00.10		
Calandrinia sp.	20.0	00.05		
Eremophila galeata	10.0	01.50		
Eriachne pulchella	05.0	00.10		
Acacia tetragonophylla	01.0	02.00		
Senna artemisioides subsp. *helmsii*	01.0	00.50		
Aristida contorta	01.0	00.15		
Cleome oxalidea	01.0	<00.01		
Sida ectogama	00.2	00.40		
Maireana trichoptera	00.2	00.30		
Tribulus astrocarpus	00.2	<00.01		
Ptilotus aervoides	00.2	<00.01		
Eragrostis pergracilis	00.2	<00.01		
Acacia aneura	00.1	02.00		
Senna artemisioides subsp. *petiolaris*	00.1	01.60		
Ptilotus obovatus	00.1	00.60		
Solanum lasiophyllum	00.1	00.40		

Eriachne mucronata	00.1	00.30
Rhagodia eremaea	00.1	00.10
Perotis rara	00.1	00.10

Site:	PTSH039	**Type:**	Quadrat (50 m x 50 m)
Date(s):	25 April 2015	**Position:**	-24.718434, 120.251007
Total vegetation cover (%):	50	**Topography:**	plain
Tree/shrub cover >2 m (%):	18	**Soil colour:**	red-orange
Shrub cover <2 m (%):	27	**Soil:**	sandy loam
Grass cover (%):	10	**Rock type:**	none
Herb cover (%):	2.5	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Acacia aneura* woodland over sparse tall *Acacia ramulosa* var. *linophylla* shrubland over open mid *Eremophila forrestii* subsp. *forrestii*, *Acacia kempeana* and *A. incurvaneura* shrubland over sparse low *Triodia basedowii* hummock grassland and isolated low *Calandrinia polyandra*, *Goodenia triodiophila* and *Ptilotus schwartzii* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia aneura	10.0	06.00		
Eremophila forrestii subsp. *forrestii*	10.0	01.50		
Acacia ramulosa var. *linophylla*	05.0	05.00		
Acacia incurvaneura	05.0	01.30		
Eremophila latrobei subsp. *filiformis*	05.0	01.00		
Triodia basedowii	05.0	00.50		
Acacia kempeana	03.0	02.00		
Acacia aptaneura	02.0	01.50		
Monachather paradoxus	02.0	00.50		
Eragrostis pergracilis	02.0	00.10		
Enchylaena tomentosa	01.0	00.70		
Eriachne pulchella	01.0	00.50		
Seringia elliptica	01.0	00.50		
Eragrostis eriopoda	01.0	00.50		
Goodenia triodiophila	01.0	00.30		
Calandrinia polyandra	01.0	00.20		
Ptilotus schwartzii	00.5	00.50		
Triodia schinzii	00.2	00.50		

Corymbia hamersleyana	00.1	08.00
Acacia pruinocarpa	00.1	01.50
Hakea lorea	00.1	01.50
Rhyncharrhena linearis	00.1	01.50
Psydrax rigidula	00.1	01.50
Psydrax latifolia	00.1	01.50
Senna glaucifolia	00.1	01.50
Senna artemisioides subsp. *helmsii*	00.1	01.00
Abutilon leucopetalum	00.1	00.50
Solanum lasiophyllum	00.1	00.40
Eriachne mucronata	00.1	00.40
Hibiscus burtonii	00.1	00.40
Eremophila lanceolata	00.1	00.40
Paraneurachne muelleri	00.1	00.40
Digitaria brownii	00.1	00.20
Sida sp. Golden calyces glabrous (H.N. Foote 32)	00.1	00.20
Euphorbia boophthona	00.1	00.15
Muelleranthus trifoliolatus	00.1	00.10
Haloragis gossei	00.1	00.10
Tribulus astrocarpus	00.1	00.10
Cleome oxalidea	00.1	00.10
Dysphania rhadinostachya	00.1	00.10
Bulbostylis barbata	00.1	00.10

Site:	PTSH040	**Type:**	Relevé (unbounded)
Date(s):	29 April 2015	**Position:**	-24.725526, 120.261299
Total vegetation cover (%):	30	**Topography:**	floodplain
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-brown
Shrub cover <2 m (%):	13	**Soil:**	clay
Grass cover (%):	8	**Rock type:**	none
Herb cover (%):	3	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia aptaneura* woodland over open *Eremophila galeata* and *Senna* spp. shrubland over isolated low mixed grasses and forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia aptaneura	15.0	08.00		
Eremophila galeata	08.0	01.60		
Aristida contorta	03.0	00.15		
Goodenia prostrata	03.0	<00.01		
Triodia basedowii	02.0	00.50		
Euphorbia drummondii	02.0	<00.01		
Acacia aneura	01.0	02.00		
Acacia pteraneura	01.0	01.60		
Solanum lasiophyllum	01.0	00.50		
Ptilotus obovatus	01.0	00.50		
Paraneurachne muelleri	01.0	00.40		
Bulbostylis barbata	01.0	00.10		
Tripogonella loliiformis	01.0	00.10		
Eriachne pulchella	01.0	00.10		
Ptilotus aervoides	01.0	<00.01		
Cleome oxalidea	01.0	<00.01		
Senna artemisioides subsp. *helmsii*	00.5	01.00		
Eremophila margarethae	00.5	00.50		
Paspalidium rarum	00.5	00.40		
Eragrostis eriopoda	00.5	00.30		

Sida cardiophylla	00.5	00.01
Boerhavia coccinea	00.3	<00.01
Acacia tetragonophylla	00.2	01.60
Eremophila latrobei subsp. *latrobei*	00.2	01.20
Monachather paradoxus	00.2	00.40
Maireana tomentosa	00.2	00.30
Sclerolaena cornishiana	00.2	00.20
Tribulus astrocarpus	00.2	<00.01
Acacia kempeana	00.1	02.00
Psydrax latifolia	00.1	02.00
Acacia pruinocarpa	00.1	01.60
Senna glaucifolia	00.1	01.50
Eremophila forrestii subsp. *forrestii*	00.1	01.30
Senna artemisioides subsp. x *sturtii*	00.1	01.00
Senna artemisioides subsp. x *artemisioides*	00.1	01.00
Hakea lorea	00.1	01.00
Anthobolus leptomerioides	00.1	01.00
Clerodendrum tomentosum var. *lanceolatum*	00.1	01.00
Cymbopogon obtectus	00.1	00.60
Triodia schinzii	00.1	00.50
Santalum acuminatum	00.1	00.50
Maireana planifolia	00.1	00.50
Abutilon fraseri	00.1	00.50
Hibiscus burtonii	00.1	00.40
Sida platycalyx	00.1	00.30
Sida sp. Golden calyces glabrous (H.N. Foote 32)	00.1	00.30
Sida sp. dark green fruits (S. van Leeuwen 2260)	00.1	00.30
Nicotiana occidentalis	00.1	00.30
Evolvulus alsinoides var. *villosicalyx*	00.1	00.20
Eriachne aristidea	00.1	00.20
Euphorbia boophthona	00.1	00.15
Portulaca filifolia	00.1	00.15
Dysphania kalpari	00.1	00.01
Perotis rara		

Site:	PTSH041	**Type:**	Quadrat (50 m x 50 m)
Date(s):	28 April 2015	**Position:**	-24.752107, 120.221832
Total vegetation cover (%):	45	**Topography:**	plain
Tree/shrub cover >2 m (%):	5	**Soil colour:**	red-brown
Shrub cover <2 m (%):	35	**Soil:**	rocks
Grass cover (%):	7	**Rock type:**	granite - bolders
Herb cover (%):	1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Acacia fuscaneura* woodland over open mid *Acacia sibirica*, *Eremophila galeata* and *Senna artemisioides* subsp. *helmsii* shrubland over open low *Corchorus crozophorifolius*, *Eremophila forrestii* subsp. *forrestii* and *Indigofera monophylla* shrubland over low sparse *Aristida contorta* and *Eragrostis falcata* tussock grassland and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Indigofera monophylla	15.0	00.50		
Acacia fuscaneura	06.0	06.00		
Senna artemisioides subsp. *helmsii*	05.0	01.30		
Corchorus crozophorifolius	05.0	00.80		
Eremophila forrestii subsp. *forrestii*	05.0	00.50		
Aristida contorta	05.0	00.20		
Acacia sibirica	03.0	01.60		
Eremophila galeata	03.0	01.50		
Calandrinia polyandra	02.0	00.05		
Acacia aptaneura	01.0	01.80		
Ptilotus obovatus	01.0	00.50		
Eragrostis falcata	01.0	00.40		
Paraneurachne muelleri	01.0	00.40		
Eremophila latrobei subsp. *latrobei*	00.5	01.20		
Enneapogon caerulescens	00.5	00.10		
Portulaca oleracea	00.5	<00.01		
Acacia ramulosa	00.1	01.20		
Themeda triandra	00.1	00.60		

Cleome viscosa	00.1	00.50
Hibiscus burtonii	00.1	00.50
Solanum lasiophyllum	00.1	00.50
Tribulus suberosus	00.1	00.50
Sida platycalyx	00.1	00.40
Ptilotus helipteroides	00.1	00.40
Sida sp. dark green fruits (S. van Leeuwen 2260)	00.1	00.30
Maireana planifolia	00.1	00.30
Eriachne mucronata	00.1	00.30
Maireana triptera	00.1	00.30
Evolvulus alsinoides var. *villosicalyx*	00.1	00.20
Podolepis capillaris	00.1	00.20
Portulaca filifolia	00.1	00.20
Euphorbia boophthona	00.1	00.20
Sclerolaena costata	00.1	00.15
Lepidium phlebopetalum	00.1	00.10
Ptilotus aervoides	00.1	<00.01
Tribulus occidentalis	00.1	<00.01
Boerhavia coccinea	00.1	<00.01

Site:	PTSH042	**Type:**	Quadrat (50 m x 50 m)
Date(s):	25 April 2015	**Position:**	-24.710744, 120.274746
Total vegetation cover (%):	45	**Topography:**	dune
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-brown
Shrub cover <2 m (%):	15	**Soil:**	sandy loam
Grass cover (%):	30	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated clumps of mid *Corymbia chippendalei* trees over isolated clumps of tall *Acacia ligulata* and *Acacia* sp. (sterile) shrubs over open low *Aluta maisonneuvei* subsp. *maisonneuvei*, *Dampiera cinerea* and *Senna pleurocarpa* shrubland over low *Triodia schinzii*, *Eragrostis eriopoda* and *Aristida holathera* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	15.0	00.50		
Eragrostis eriopoda	10.0	00.50		
Aluta maisonneuvei subsp. *maisonneuvei*	05.0	01.00		
Aristida holathera	05.0	00.50		
Senna pleurocarpa	03.0	00.60		
Eriachne mucronata	03.0	00.50		
Dampiera cinerea	02.0	00.30		
Acacia ligulata	01.0	02.50		
Acacia sp.	01.0	02.20		
Acacia dictyophleba	01.0	00.90		
Newcastelia spodiotricha	01.0	00.80		
Scaevola parvifolia subsp. *pilbarae*	01.0	00.50		
Phyllota luehmannii	01.0	00.50		
Bonamia erecta	01.0	00.20		
Corymbia chippendalei	00.1	12.00		
Grevillea stenobotrya	00.1	02.00		
Halgania sp. A Kimberley Flora (H.A. Johnson 5123)	00.1	00.60		
Crotalaria cunninghamii	00.1	00.60		

Quoya loxocarpa	00.1	00.5
Goodenia mueckeana	00.1	00.30
Calotis sp. Carnarvon Range (D.J. Edinger & K.F. K	00.1	00.20
Leiocarpa semicalva	00.1	00.20
Sida cardiophylla	00.1	00.20
Kennedia prorepens	00.1	00.10
Cymbopogon obtectus	00.1	00.10
Stylidium humphreysii	00.1	00.10

Site:	PTSH045	**Type:**	Quadrat (50 m x 50 m)
Date(s):	02 May 2015	**Position:**	-24.771069, 120.125379
Total vegetation cover (%):	8	**Topography:**	plain
Tree/shrub cover >2 m (%):	0.8	**Soil colour:**	red-orange
Shrub cover <2 m (%):	6	**Soil:**	clay
Grass cover (%):	4	**Rock type:**	none
Herb cover (%):	1	**Fire age:**	>5 years
Disturbance details:	vehicle tracks. livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Acacia incurvaneura* shrubs over isolated mid *Eremophila galeata* shrubs over sparse low *Eremophila lachnocalyx* shrubland over sparse low *Eriachne pulchella* and *Tripogonella loliiformis* tussock grassland and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eremophila lachnocalyx	05.0	00.40		
Eriachne pulchella	02.0	00.10		
Tripogonella loliiformis	02.0	00.10		
Acacia incurvaneura	00.6	04.00		
Eremophila galeata	00.5	01.80		
Aristida contorta	00.5	00.20		
Calandrinia polyandra	00.5	00.05		
Acacia pteraneura	00.2	02.50		
Acacia sibirica	00.2	02.00		
Maireana tomentosa subsp. *tomentosa*	00.2	00.40		
Dactyloctenium radulans	00.2	00.10		
Fimbristylis simulans	00.2	00.05		
Heliotropium heteranthum	00.2	<00.01		
Goodenia prostrata	00.2	<00.01		
Senna artemisioides subsp. *oligophylla*	00.1	01.20		
Ptilotus schwartzii	00.1	00.40		
Sida echinocarpa	00.1	00.40		
Solanum lasiophyllum	00.1	00.40		

Goodenia triodiophila	00.1	00.30
Cleome oxalidea	00.1	<00.01
Ptilotus roei	00.1	<00.01
Trianthema glossostigmum	00.1	<00.01
Acacia paraneura		

Site:	PTSH046	**Type:**	Quadrat (50 m x 50 m)
Date(s):	02 May 2015	**Position:**	-24.776428, 120.084772
Total vegetation cover (%):	90	**Topography:**	plain
Tree/shrub cover >2 m (%):	5	**Soil colour:**	brown
Shrub cover <2 m (%):	0.3	**Soil:**	clay
Grass cover (%):	90	**Rock type:**	none
Herb cover (%):	2	**Fire age:**	>5 years
Disturbance details:	vehicle tracks. livestock tracks, grazing - high		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Acacia aptaneura* trees over isolated tall *A. tetragonophylla* shrubs over a closed low *Eriachne flaccida* and *Enteropogon ramosus* tussock grassland with isolated low *Cyperus iria* sedges and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eriachne flaccida	80.0	00.20		
Enteropogon ramosus	10.0	00.20		
Cyperus iria	05.0	00.10		
Acacia aptaneura	03.0	06.00		
Acacia tetragonophylla	02.0	04.00		
Eragrostis kennedyae	01.0	00.30		
Eragrostis pergracilis	01.0	00.10		
Bidens bipinnata	00.5	00.30	*	
Brachyscome blackii	00.5	00.10		
Centipeda thespidioides	00.5	00.10		
Alternanthera nodiflora	00.2	00.50		
Eragrostis cumingii	00.2	00.30		
Eremophila longifolia	00.1	01.50		
Sesbania cannabina	00.1	00.80		
Chrysopogon fallax	00.1	00.50		
Abutilon cryptopetalum	00.1	00.40		
Rhodanthe propinqua	00.1	00.20		
Evolvulus alsinoides var. *villosicalyx*	00.1	00.10		

Phyllanthus maderaspatensis	00.1	00.10
Yakirra australiensis	00.1	00.10
Swainsona oroboides	00.1	00.10
Euphorbia australis	00.1	00.10
Perotis rara	00.1	00.10
Marsilea drummondii	00.1	00.10
Iseilema vaginiflorum	00.1	00.05
Goodenia prostrata	00.1	<00.01
Peplidium maritimum	00.1	<00.01
Dysphania plantaginella	00.1	<00.01
Nicotiana occidentalis		

Site:	PTSH047	**Type:**	Quadrat (50 m x 50 m)
Date(s):	02 May 2015	**Position:**	-24.784062, 120.037714
Total vegetation cover (%):	80	**Topography:**	floodplain
Tree/shrub cover >2 m (%):	1.5	**Soil colour:**	red-brown
Shrub cover <2 m (%):	0	**Soil:**	clay loam
Grass cover (%):	80	**Rock type:**	none
Herb cover (%):	2	**Fire age:**	>5 years

Disturbance details: evidence of feral animals, weed infestation, vehicle tracks, livestock tracks, grazing - medium

Vegetation condition: Very Good, Trudgen (1991)

Vegetation description: Isolated mid *Eucalyptus* ? *victrix* (sterile) trees over isolated mid *Acacia tetragonophylla* shrubs over closed low *Eragrostis eriopoda*, *E. leptocarpa, Eriachne flaccida* and *Enteropogon ramosus* grassland with isolated low *Cyperus iria* sedges and isolated low mixed forbs.

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eragrostis eriopoda	40.0	00.30		
Enteropogon ramosus	15.0	00.30		
Eragrostis leptocarpa	10.0	00.40		
Eriachne flaccida	10.0	00.30		
Aristida contorta	02.0	00.20		
Eucalyptus ? *victrix*	01.0	15.00		
Acacia tetragonophylla	01.0	02.00		
Chrysopogon fallax	01.0	00.40		
Cyperus iria	01.0	00.15		
Dactyloctenium radulans	00.5	00.20		
Bidens bipinnata	00.5	00.15	*	
Eragrostis pergracilis	00.5	00.10		
Eriachne pulchella	00.5	00.10		
Sida sp. verrucose glands (F.H. Mollemans 2423)	00.5	00.10		
Dysphania plantaginella	00.5	<00.01		
Peplidium muelleri	00.5	<00.01		
Malvastrum americanum	00.2	00.30	*	
Sclerolaena cornishiana	00.2	00.20		

Tribulus occidentalis	00.2	00.10	
Sida platycalyx	00.2	00.10	
Eremophila longifolia	00.1	01.00	
Rhagodia eremaea	00.1	01.00	
Chloris virgata	00.1	00.50	*
Acacia aptaneura	00.1	00.50	
Solanum lasiophyllum	00.1	00.40	
Setaria verticillata	00.1	00.30	*
Goodenia heterochila	00.1	00.20	
Sida sp. tiny glabrous fruit (A.A. Mitchell PRP115	00.1	00.20	
Alternanthera angustifolia	00.1	00.20	
Dysphania saxatilis	00.1	00.20	
Abutilon leucopetalum	00.1	00.20	
Goodenia triodiophila	00.1	00.20	
Digitaria ciliaris	00.1	00.10	*
Marsilea hirsuta	00.1	00.10	
Swainsona oroboides	00.1	00.10	
Evolvulus alsinoides var. *villosicalyx*	00.1	00.10	
Duperreya commixta	00.1	<00.01	
Nicotiana occidentalis	00.1	<00.01	
Indigofera linnaei	00.1	<00.01	

Site:	PTSH048	**Type:**	Quadrat (50 m x 50 m)
Date(s):	02 May 2015	**Position:**	-24.731948, 119.905554
Total vegetation cover (%):	85	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-orange
Shrub cover <2 m (%):	10	**Soil:**	clay loam
Grass cover (%):	80	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	1 – 5 years

Disturbance details: evidence of feral animals, livestock tracks

Vegetation condition: Excellent, Trudgen (1991)

Vegetation description: Isolated mid *Acacia aneura* trees over sparse low *Eucalyptus gamophylla* mallee woodland over open tall *Acacia kempeana* shrubland over sparse mid *A. rhodophloia* and *Eremophila forrestii* subsp. *forrestii* shrubland over closed low *Triodia basedowii* hummock grassland and isolated low mixed forbs.

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	80.0	00.40		
Acacia kempeana	10.0	02.50		
Eucalyptus gamophylla	07.0	05.00		
Acacia aneura	05.0	10.00		
Acacia rhodophloia	05.0	01.80		
Eremophila forrestii subsp. *forrestii*	01.0	01.60		
Eremophila margarethae	01.0	01.50		
Paraneurachne muelleri	01.0	00.30		
Rhagodia drummondii	00.5	01.50		
Ptilotus obovatus	00.5	01.20		
Seringia elliptica	00.5	01.20		
Enchylaena tomentosa	00.5	00.60		
Acacia pteraneura	00.2	04.00		
Psydrax latifolia	00.2	01.50		
Anthobolus leptomerioides	00.2	01.00		
Hibiscus burtonii	00.2	00.50		
Eriachne mucronata	00.2	00.30		
Eragrostis eriopoda	00.2	00.30		

Acacia pachyacra	00.1	03.00
Hakea lorea	00.1	02.50
Senna artemisioides subsp. x *artemisioides*	00.1	01.70
Senna artemisioides subsp. *helmsii*	00.1	01.50
Eremophila latrobei subsp. *latrobei*	00.1	01.50
Acacia marramamba	00.1	01.50
Acacia pruinocarpa	00.1	01.50
Senna glutinosa subsp. *pruinosa*	00.1	01.30
Senna artemisioides subsp. *petiolaris*	00.1	01.30
Acacia aptaneura	00.1	01.00
Solanum lasiophyllum	00.1	00.50
Dicrastylis cordifolia	00.1	00.50
Santalum acuminatum	00.1	00.50
Solanum centrale	00.1	00.40
Sida platycalyx	00.1	00.40
Hybanthus aurantiacus	00.1	00.40
Amphipogon sericeus	00.1	00.30
Goodenia triodiophila	00.1	00.30
Ptilotus macrocephalus	00.1	00.20
Eragrostis xerophila	00.1	00.20
Ptilotus nobilis	00.1	00.20
Rhyncharrhena linearis	00.1	<00.01

Site:	PTSH049	**Type:**	Quadrat (50 m x 50 m)
Date(s):	02 May 2015	**Position:**	-24.74104, 119.86973
Total vegetation cover (%):	40	**Topography:**	plain
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-orange
Shrub cover <2 m (%):	3	**Soil:**	clay loam
Grass cover (%):	20	**Rock type:**	none
Herb cover (%):	2	**Fire age:**	>5 years
Disturbance details:	weed infestation		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia aneura* and *A. subcontorta* woodland over isolated mid *A. kempeana* and *A. ramulosa* shrubs over isolated low mixed shrubs over open low *Thyridolepis xerophila* and *Triodia basedowii* tussock/hummock grassland and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia aneura	10.0	08.00		
Triodia basedowii	10.0	00.50		
Thyridolepis xerophila	08.0	00.40		
Acacia subcontorta	05.0	09.00		
Acacia ramulosa	02.0	02.00		
Acacia kempeana	01.0	02.50		
Ptilotus obovatus	01.0	00.50		
Maireana tomentosa subsp. *tomentosa*	01.0	00.30		
Cheilanthes sieberi subsp. *sieberi*	01.0	00.20		
Goodenia prostrata	01.0	<00.01		
Hibiscus burtonii	00.5	00.60		
Monachather paradoxus	00.5	00.40		
Aristida contorta	00.5	00.20		
Ptilotus macrocephalus	00.5	00.20		
Perotis rara	00.5	00.10		
Dysphania rhadinostachya	00.5	00.10		
Eremophila spectabilis	00.2	01.50		
Solanum lasiophyllum	00.2	00.40		

Eremophila lanceolata	00.2	00.30
Enneapogon polyphyllus	00.2	00.30
Grevillea berryana	00.1	01.80
Rhagodia eremaea	00.1	01.00
Psydrax suaveolens	00.1	01.00
Eremophila forrestii subsp. *forrestii*	00.1	01.00
Abutilon leucopetalum	00.1	00.30
Eragrostis eriopoda	00.1	00.10
Fimbristylis dichotoma	00.1	00.10
Sida sp. verrucose glands (F.H. Mollemans 2423)	00.1	<00.01
Ipomoea calobra	00.1	<00.01

Site:	PTSH050	**Type:**	Quadrat (50 m x 50 m)
Date(s):	02 May 2015	**Position:**	-24.753378, 119.840268
Total vegetation cover (%):	7	**Topography:**	plain
Tree/shrub cover >2 m (%):	0.1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	2	**Soil:**	sandy clay
Grass cover (%):	1	**Rock type:**	none
Herb cover (%):	6	**Fire age:**	1 – 5 years

Disturbance details: none

Vegetation condition: Excellent, Trudgen (1991)

Vegetation description: Isolated tall *Hakea lorea* shrubs over isolated low *Acacia pachyacra* seedlings and sparse low *Kennedia prorepens* and *Sida platycalyx* shrubland over isolated low *Aristida contorta, Eriachne aristidea* and *Triodia basedowii* seedlings and isolated low mixed forbs.

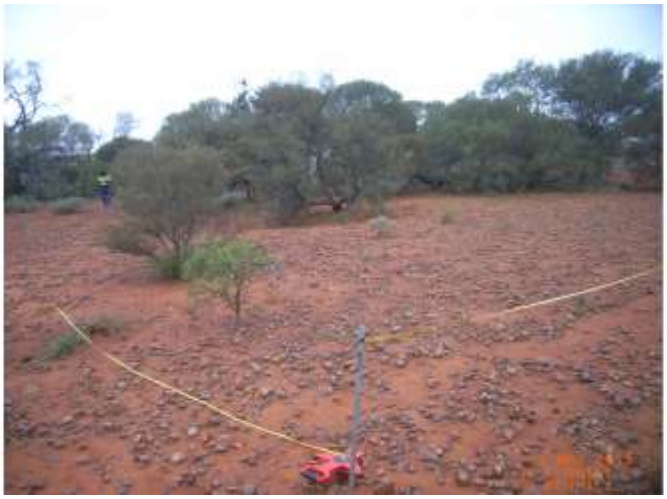
Species	Cover (%)	Height (m)	Weeds	Conservation status
Kennedia prorepens	04.0	<00.01		
Triodia basedowii	01.0	00.30		
Sida platycalyx	01.0	00.10		
Haloragis gossei	00.5	00.10		
Solanum centrale	00.2	00.30		
Solanum phlomoides	00.2	00.20		
Hakea lorea	00.1	04.50		
Scaevola parvifolia subsp. *pilbarae*	00.1	00.30		
Acacia pachyacra	00.1	00.30		
Goodenia triodiophila	00.1	00.30		
Sida echinocarpa	00.1	00.30		
Maireana scleroptera	00.1	00.20		
Senna notabilis	00.1	00.20		
Ptilotus nobilis	00.1	00.10		
Aristida contorta	00.1	00.10		
Eriachne aristidea	00.1	00.10		
Rhyncharrhena linearis	00.1	<00.01		
Euphorbia drummondii	00.1	<00.01		

Site:	PTSH051	**Type:**	Quadrat (50 m x 50 m)
Date(s):	01 May 2015	**Position:**	-24.75757, 119.793994
Total vegetation cover (%):	65	**Topography:**	plain
Tree/shrub cover >2 m (%):	35	**Soil colour:**	red-brown
Shrub cover <2 m (%):	20	**Soil:**	clay loam
Grass cover (%):	20	**Rock type:**	none
Herb cover (%):	1	**Fire age:**	>5 years
Disturbance details:	none evident		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Mid *Acacia aneura*, *A. incurvaneura* and *A. subcontorta* woodland over sparse mid *Eremophila forrestii* subsp. *forrestii*, *E. margarethae* and *E. spectabilis* shrubland over sparse low *Maireana tomentosa*, *Ptilotus obovatus* and *Sida* sp. Golden calyces glabrous shrubland over mid open *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	20.0	00.50		
Acacia kempeana	15.0	12.00		
Acacia aneura	10.0	10.00		
Acacia subcontorta	05.0	10.00		
Sida sp. Golden calyces glabrous (H.N. Foote 32)	05.0	00.60		
Eremophila sp.	02.0	02.20		
Eremophila forrestii subsp. *forrestii*	02.0	01.70		
Eremophila spectabilis	02.0	01.60		
Eremophila margarethae	02.0	01.50		
Ptilotus obovatus	01.5	00.50		
Grevillea berryana	01.0	08.00		
Sida calyxhymenia	01.0	00.80		
Maireana tomentosa subsp. *tomentosa*	01.0	00.50		
Cheilanthes sieberi subsp. *sieberi*	01.0	00.15		
Senna glaucifolia	00.5	01.50		
Senna artemisioides subsp. *helmsii*	00.5	01.00		
Thyridolepis mitchelliana	00.5	00.40		
Solanum lasiophyllum	00.5	00.30		

Sida sp. verrucose glands (F.H. Mollemans 2423)	00.5	00.10
Acacia minyura	00.2	04.00
Hibiscus burtonii	00.2	01.00
Sida ectogama	00.2	00.60
Enchylaena tomentosa	00.2	00.50
Tragus australianus	00.2	00.10
Psydrax suaveolens	00.1	03.00
Santalum acuminatum	00.1	02.00
Hibiscus sp.	00.1	01.80
Solanum centrale	00.1	00.40
Monachather paradoxus	00.1	00.30
Goodenia triodiophila	00.1	00.30
Paraneurachne muelleri	00.1	00.30
Ptilotus schwartzii	00.1	00.20

Site:	PTSH054	**Type:**	Quadrat (50 m x 50 m)
Date(s):	01 May 2015	**Position:**	-24.741193, 119.71485
Total vegetation cover (%):	40	**Topography:**	plain
Tree/shrub cover >2 m (%):	25	**Soil colour:**	red-orange
Shrub cover <2 m (%):	20	**Soil:**	clay
Grass cover (%):	3	**Rock type:**	quartz
Herb cover (%):	15	**Fire age:**	>5 years
Disturbance details:	weed infestation		
Vegetation condition:	Very Good, Trudgen (1991)		
Vegetation description:	Open low *Acacia incurvaneura* and *A. macraneura* woodland over isolated tall *A. tetragonophylla* shrubs over open mid *Eremophila forrestii* subsp. *forrestii* and *Sida ectogama* shrubland over isolated low mixed shrubs over isolated low mixed tussock grasses and forbs.		



Species	Cover (%)	Height (m)	Weeds	Conservation status
Bidens bipinnata	15.0	00.10	*	
Acacia incurvaneura	10.0	09.00		
Eremophila forrestii subsp. *forrestii*	10.0	01.80		
Acacia aptaneura	08.0	09.00		
Acacia pruinocarpa	05.0	10.00		
Sida ectogama	05.0	01.20		
Cheilanthes sieberi subsp. *sieberi*	03.0	00.10		
Acacia subcontorta	02.0	08.00		
Tripogonella loliiformis	02.0	00.10		
Ptilotus obovatus	01.5	01.00		
Acacia tetragonophylla	01.0	05.00		
Eremophila margarethae	01.0	00.50		
Maireana villosa	01.0	00.30		
Eragrostis eriopoda	01.0	00.30		
Aristida contorta	01.0	00.20		
Psydrax latifolia	00.5	03.00		
Senna artemisioides subsp. *helmsii*	00.5	01.00		
Digitaria brownii	00.5	00.30		

Paraneurachne muelleri	00.5	00.30
Tragus australianus	00.5	00.30
Calandrinia polyandra	00.5	00.10
Perotis rara	00.5	00.10
Eremophila galeata	00.2	02.50
Digitaria ctenantha	00.2	00.20
Senna glaucifolia	00.1	01.50
Rhagodia drummondii	00.1	01.50
Spartothamnella teucriiflora	00.1	01.00
Solanum phlomoides	00.1	00.50
Hibiscus burtonii	00.1	00.50
Sida fibulifera	00.1	00.40
Evolvulus alsinoides var. *villosicalyx*	00.1	00.20
Ptilotus schwartzii	00.1	00.10
Dysphania rhadinostachya	00.1	00.10
Ipomoea calobra	00.1	<00.01

Site:	PTSH055	**Type:**	Quadrat (50 m x 50 m)
Date(s):	01 May 2015	**Position:**	-24.735075, 119.701337
Total vegetation cover (%):	20	**Topography:**	breakaway
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	6	**Soil:**	clay
Grass cover (%):	20	**Rock type:**	quartz
Herb cover (%):	0.3	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Eremophila galeata* shrubs over isolated mid *Acacia macraneura* and *Ptilotus rotundifolius* shrubs over isolated low mixed shrubs in open low *Triodia basedowii* hummock grassland and isolated low *Fimbristylis simulans* sedges.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	20.0	00.30		
Fimbristylis simulans	03.0	00.10		
Acacia macraneura	01.5	01.30		
Eremophila galeata	01.0	03.00		
Ptilotus rotundifolius	01.0	01.20		
Solanum lasiophyllum	01.0	00.50		
Tripogonella loliiformis	01.0	00.10		
Senna glaucifolia	00.5	01.00		
Senna artemisioides subsp. *helmsii*	00.5	01.00		
Ptilotus obovatus	00.5	00.50		
Aristida contorta	00.5	00.20		
Eragrostis eriopoda	00.5	00.20		
Enneapogon polyphyllus	00.5	00.15		
Acacia tetragonophylla	00.2	01.70		
Acacia brachystachya	00.2	01.00		
Bidens bipinnata	00.2	00.10	*	
Corymbia deserticola	00.1	04.50		
Acacia hamersleyensis	00.1	01.50		

Acacia sibirica	00.1	01.50
Eremophila margarethae	00.1	01.20
Grevillea berryana	00.1	01.00
Acacia subcontorta	00.1	01.00
Rhagodia drummondii	00.1	01.00
Psydrax latifolia	00.1	01.00
Halgania sp. A Kimberley Flora (H.A. Johnson 5123)	00.1	00.60
Tribulus suberosus	00.1	00.50
Indigofera monophylla	00.1	00.30
Hibiscus burtonii	00.1	00.30
Cheilanthes sieberi subsp. *sieberi*	00.1	00.10

Site:	PTSH056	**Type:**	Quadrat (50 m x 50 m)
Date(s):	01 May 2015	**Position:**	-24.716195, 119.649492
Total vegetation cover (%):	20	**Topography:**	plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	6	**Soil:**	clay
Grass cover (%):	20	**Rock type:**	granite-sheets exfoliated
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	vehicle tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse mid *Acacia aneura*, *A. sibirica* and *Eremophila galeata* shrubland over isolated low mixed shrubs over open low *Triodia basedowii* hummock grassland and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	20.0	00.40		
Acacia sibirica	03.0	02.00		
Acacia aneura	01.0	02.00		
Eremophila galeata	01.0	02.00		
Eremophila margarethae	01.0	00.60		
Paraneurachne muelleri	00.5	00.30		
Bidens bipinnata	00.5	00.20	*	
Eriachne pulchella	00.5	00.10		
Aristida contorta	00.2	00.20		
Perotis rara	00.2	00.10		
Bulbostylis barbata	00.2	00.10		
Polycarpaea corymbosa	00.2	00.10		
Senna artemisioides subsp. *helmsii*	00.1	01.00		
Eremophila forrestii subsp. *forrestii*	00.1	01.00		
Ptilotus obovatus	00.1	00.50		
Solanum lasiophyllum	00.1	00.50		
Enchylaena tomentosa	00.1	00.50		
Hibiscus burtonii	00.1	00.50		
Cymbopogon obtectus	00.1	00.30		

Eragrostis eriopoda	00.1	00.30
Gomphrena kanisii	00.1	00.20
Ptilotus schwartzii	00.1	00.20
Maireana convexa	00.1	00.20
Sida platycalyx	00.1	00.20
Paspalidium rarum	00.1	00.10
Eragrostis cumingii	00.1	00.01
Sida intricata	00.1	<00.01
Dysphania kalpari	00.1	<00.01
Portulaca oleracea	00.1	<00.01
Tribulus macrocarpus	00.1	<00.01

Site:	PTSH057	**Type:**	Relevé (unbounded)
Date(s):	01 May 2015	**Position:**	-24.716259, 119.628353
Total vegetation cover (%):	80	**Topography:**	drainage line
Tree/shrub cover >2 m (%):	70	**Soil colour:**	red-brown
Shrub cover <2 m (%):	20	**Soil:**	clay loam
Grass cover (%):	3	**Rock type:**	none
Herb cover (%):	20	**Fire age:**	>5 years
Disturbance details:	evidence of feral animals, weed infestation, livestock tracks, grazing - medium		
Vegetation condition:	Good, Trudgen (1991)		
Vegetation description:	Mid *Eucalyptus camaldulensis* woodland over open low *Acacia aneura* and *A. pteraneura* forest over sparse mid *Acacia* spp. shrubland over open low **Bidens bipinnata* and **Malvastrum americanum* forbland and isolated low mixed tussock grasses.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia aneura	40.0	07.00		
Eucalyptus camaldulensis	30.0	15.00		
Bidens bipinnata	20.0	00.20	*	
Acacia pteraneura	10.0	05.00		
Malvastrum americanum	05.0	00.50	*	
Acacia fuscaneura	01.0	02.00		
Acacia brachystachya	01.0	02.00		
Acacia macraneura	01.0	01.60		
Senna artemisioides subsp. x *sturtii*	01.0	01.00		
Indigofera georgei	01.0	00.50		
Cleome viscosa	01.0	00.40		
Cymbopogon ambiguus	00.6	00.40		
Acacia pruinocarpa	00.5	04.00		
Eremophila galeata	00.5	01.30		
Ptilotus obovatus	00.5	00.50		
Abutilon fraseri	00.5	00.50		
Bothriochloa ewartiana	00.5	00.40		
Enneapogon robustissimus	00.5	00.40		

Eragrostis cumingii	00.5	00.40	
Eragrostis kennedyae	00.5	00.30	
Aristida contorta	00.5	00.30	
Enneapogon polyphyllus	00.5	00.30	
Tragus australianus	00.5	00.20	
Tripogonella loliiformis	00.5	00.15	
Portulaca intraterranea	00.5	<00.01	
Sida fibulifera	00.3	00.10	
Acacia tetragonophylla	00.2	01.30	
Sida echinocarpa	00.2	01.00	
Triodia longiceps	00.2	00.60	
Stemodia viscosa	00.2	00.50	
Abutilon macrum	00.2	00.40	
Cyperus iria	00.2	00.20	
Perotis rara	00.2	00.10	
Dactyloctenium radulans	00.2	00.10	
Boerhavia coccinea	00.2	<00.01	
Senna artemisioides subsp. *filifolia*	00.1	01.30	
Acacia pyrifolia	00.1	01.00	
Senna artemisioides subsp. x *artemisioides*	00.1	01.00	
Maireana planifolia	00.1	00.60	
Eleocharis pallens	00.1	00.50	
Alternanthera nodiflora	00.1	00.50	
Hibiscus coatesii	00.1	00.50	
Pterocaulon serrulatum	00.1	00.50	
Paspalidium constrictum	00.1	00.40	
Solanum phlomoides	00.1	00.40	
Solanum lasiophyllum	00.1	00.40	
Setaria verticillata	00.1	00.30	*
Sesbania cannabina	00.1	00.30	
Chrysopogon fallax	00.1	00.30	
Gomphrena kanisii	00.1	00.20	
Evolvulus alsinoides var. *villosicalyx*	00.1	00.20	
Heliotropium tanythrix	00.1	00.20	
Digitaria brownii	00.1	00.20	
Phyllanthus maderaspatensis	00.1	00.15	
Bulbostylis turbinata	00.1	00.10	
Eriachne pulchella	00.1	00.10	
Goodenia prostrata	00.1	00.10	
Lepidium oxytrichum	00.1	00.10	
Haloragis gossei	00.1	00.10	
Amyema hilliana	00.1	<00.01	
Sida sp. verrucose glands (F.H. Mollemans 2423)	00.1	<00.01	
Peplidium maritimum	00.1	<00.01	
Trianthema triquetrum	00.1	<00.01	
Citrullus lanatus	00.1	<00.01	*
Nicotiana occidentalis	00.1	<00.01	

Glycine canescens	00.1	<00.01
Abutilon oxycarpum	00.1	<00.01
Tribulus platypterus	00.1	<00.01
Euphorbia drummondii	00.1	<00.01
Calandrinia polyandra	00.1	<00.01
Boerhavia repleta	00.1	<00.01
Convolvulus clementii	00.1	<00.01
Duperreya commixta	00.1	<00.01

Site:	PTSH058	**Type:**	Quadrat (50 m x 50 m)
Date(s):	01 May 2015	**Position:**	-24.711858, 119.616659
Total vegetation cover (%):	20	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	12	**Soil colour:**	red-orange
Shrub cover <2 m (%):	10	**Soil:**	sand
Grass cover (%):	5	**Rock type:**	granite bolders
Herb cover (%):	2	**Fire age:**	>5 years
Disturbance details:	livestock tracks, grazing - low		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia macraneura* woodland over isolated tall *A. pruinocarpa* shrubs over sparse mid *A. pteraneura*, *Eremophila forrestii* subsp. *forrestii* and *Senna artemisioides* subsp. *helmsii* shrubland over isolated low mixed tussock grasses and forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia macraneura	12.0	07.00		
Senna artemisioides subsp. *helmsii*	03.0	01.80		
Eremophila forrestii subsp. *forrestii*	03.0	01.50		
Paraneurachne muelleri	02.0	00.20		
Acacia pruinocarpa	01.0	02.50		
Acacia pteraneura	01.0	02.00		
Acacia aptaneura	01.0	01.50		
Templetonia egena	01.0	01.00		
Indigofera georgei	01.0	00.60		
Ptilotus obovatus	01.0	00.50		
Sida platycalyx	01.0	00.30		
Eragrostis eriopoda	01.0	00.30		
Tribulus astrocarpus	01.0	00.20		
Bulbostylis barbata	01.0	00.10		
Triodia longiceps	00.5	00.60		
Cleome viscosa	00.5	00.40		
Enneapogon caerulescens	00.5	00.10		
Eremophea spinosa	00.3	00.20		

Sida fibulifera	00.3	00.20	
Enneapogon polyphyllus	00.2	00.20	
Aristida contorta	00.2	00.20	
Eriachne aristidea	00.2	00.20	
Perotis rara	00.2	00.10	
Portulaca oleracea	00.2	<00.01	
Acacia brachystachya	00.1	02.00	
Acacia tetragonophylla	00.1	01.30	
Eremophila margarethae	00.1	01.00	
Acacia fuscaneura	00.1	01.00	
Rhagodia drummondii	00.1	01.00	
Sida echinocarpa	00.1	01.00	
Hibiscus burtonii	00.1	00.60	
Enchylaena tomentosa	00.1	00.50	
Solanum phlomoides	00.1	00.40	
Maireana planifolia	00.1	00.30	
Maireana tomentosa	00.1	00.30	
Sclerolaena cornishiana	00.1	00.30	
Evolvulus alsinoides var. *villosicalyx*	00.1	00.25	
Eremophila lachnocalyx	00.1	00.20	
Cenchrus ciliaris	00.1	00.20	*
Euphorbia australis	00.1	00.15	
Goodenia muelleriana	00.1	00.10	
Indigofera linnaei	00.1	00.10	
Tribulus platypterus	00.1	<00.01	
Citrullus colocynthis	00.1	<00.01	*

Site:	PTSH059	**Type:**	Quadrat (50 m x 50 m)
Date(s):	02 May 2015	**Position:**	-24.773274, 120.01679
Total vegetation cover (%):	55	**Topography:**	plain
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-orange
Shrub cover <2 m (%):	15	**Soil:**	clay loam
Grass cover (%):	50	**Rock type:**	ferrous – other, quartz
Herb cover (%):	0.2	**Fire age:**	>5 years
Disturbance details:	vehicle tracks. livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia pruinocarpa* woodland over isolated tall *Acacia aptaneura* shrubs over open mid *Eremophila forrestii* subsp. *forrestii*, *E. margarethae* and *Senna artemisioides* subsp. x *sturtii* shrubland over low *Triodia basedowii* hummock grassland and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	50.0	00.40		
Acacia pruinocarpa	15.0	09.00		
Eremophila margarethae	10.0	01.00		
Eremophila forrestii subsp. *forrestii*	04.0	01.50		
Senna artemisioides subsp. x *sturtii*	01.0	01.00		
Eragrostis eriopoda	00.5	00.30		
Monachather paradoxus	00.5	00.30		
Acacia aptaneura	00.4	05.00		
Hakea lorea	00.1	01.50		
Acacia minyura	00.1	01.20		
Rhagodia eremaea	00.1	01.00		
Psydrax latifolia	00.1	01.00		
Maireana thesioides	00.1	01.00		
Spartothamnella teucriiflora	00.1	01.00		
Senna glutinosa subsp. *pruinosa*	00.1	01.00		
Psydrax rigidula	00.1	01.00		
Eremophila galeata	00.1	01.00		
Sida sp. dark green fruits (S. van Leeuwen 2260)	00.1	00.50		

Abutilon cryptopetalum	00.1	00.50
Hibiscus burtonii	00.1	00.50
Acacia tetragonophylla	00.1	00.40
Goodenia triodiophila	00.1	00.40
Solanum lasiophyllum	00.1	00.40
Maireana georgei	00.1	00.30
Enneapogon polyphyllus	00.1	00.10
Fimbristylis simulans	00.1	00.10
Eriachne pulchella	00.1	00.05
Duperreya commixta	00.1	<00.01
Dysphania kalpari	00.1	<00.01

Site:	PTSH100	**Type:**	Quadrat (50 m x 50 m)
Date(s):	29 April 2015	**Position:**	-24.745245, 120.218938
Total vegetation cover (%):	30	**Topography:**	plain
Tree/shrub cover >2 m (%):	2	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	25	**Soil:**	clay
Grass cover (%):	5	**Rock type:**	granite-sheets exfoliated
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Acacia pruinocarpa* and *A. pteraneura* trees over isolated tall *Eremophila longifolia* shrubs over open low *Eremophila lachnocalyx*, *Maireana georgei* and *Senna artemisioides* subsp. x *sturtii* shrubland over sparse low *Eriachne pulchella* and *Perotis rara* tussock grassland and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eremophila lachnocalyx	15.0	01.00		
Maireana georgei	05.0	00.40		
Senna artemisioides subsp. *helmsii*	03.0	00.80		
Eriachne pulchella	03.0	00.05		
Acacia pteraneura	01.0	06.00		
Acacia pruinocarpa	01.0	06.00		
Ptilotus obovatus	01.0	00.40		
Perotis rara	01.0	00.10		
Acacia tetragonophylla	00.5	01.00		
Eriachne mucronata	00.5	00.80		
Aristida contorta	00.5	00.20		
Sclerolaena glabra	00.5	00.10		
Cleome oxalidea	00.5	<00.01		
Sclerolaena eriacantha	00.3	00.20		
Maireana tomentosa	00.2	00.40		
Hibiscus burtonii	00.2	00.40		
Solanum lasiophyllum	00.2	00.40		
Eragrostis eriopoda	00.2	00.40		

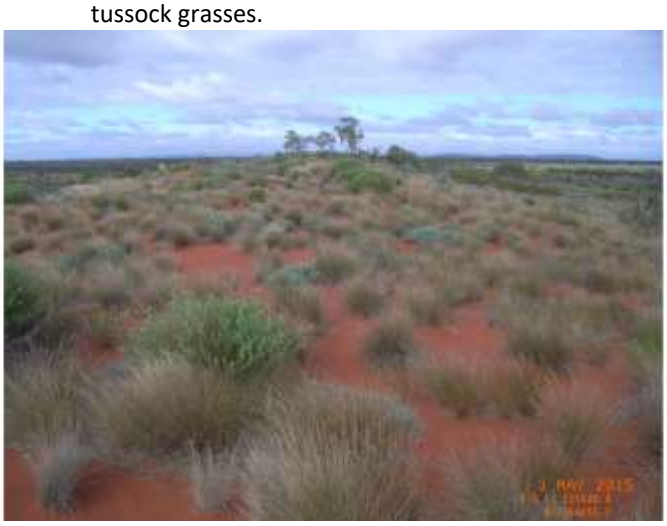
Maireana triptera	00.2	00.30
Dactyloctenium radulans	00.2	00.10
Glinus oppositifolius	00.2	<00.01
Sida sp. verrucose glands (F.H. Mollemans 2423)	00.2	<00.01
Eremophila longifolia	00.1	03.00
Rhagodia eremaea	00.1	01.00
Senna artemisioides subsp. x *sturtii*	00.1	01.00
Anthobolus leptomerioides	00.1	01.00
Senna sericea	00.1	00.80
Maireana planifolia	00.1	00.50
Marsdenia australis	00.1	00.50
Calandrinia sp.	00.1	00.50
Enchylaena tomentosa	00.1	00.30
Dysphania melanocarpa	00.1	00.10
Portulaca oleracea	00.1	<00.01

Site:	PTSH103	**Type:**	Relevé (unbounded)
Date(s):	03 May 2015	**Position:**	-24.762419, 120.231576
Total vegetation cover (%):	50	**Topography:**	other
Tree/shrub cover >2 m (%):	20	**Soil colour:**	red-orange
Shrub cover <2 m (%):	30	**Soil:**	sand
Grass cover (%):	2	**Rock type:**	none
Herb cover (%):	2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Tall *Melaleuca interioris* shrubland over isolated mid and low mixed shrubs over isolated low mixed tussock grasses and forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Melaleuca interioris	50.0	02.50		
Enchylaena tomentosa	01.0	00.50		
Triodia basedowii	01.0	00.40		
Chenopodium gaudichaudianum	00.5	01.00		
Samolus repens	00.5	01.00		
Dysphania kalpari	00.5	00.05		
Scaevola spinescens	00.2	01.60		
Ptilotus obovatus	00.2	00.50		
Calandrinia polyandra	00.2	00.05		
Pittosporum angustifolium	00.1	02.50		
Acacia tetragonophylla	00.1	01.60		
Acacia ligulata	00.1	01.50		
Stylobasium spathulatum	00.1	01.50		
Pluchea rubelliflora	00.1	01.50		
Maireana tomentosa	00.1	01.00		
Dodonaea viscosa	00.1	01.00		
Rhagodia eremaea	00.1	01.00		
Senna artemisioides subsp. *petiolaris*	00.1	01.00		
Euphorbia boophthona	00.1	01.00		
Olearia incana	00.1	01.00		

Spartothamnella teucriiflora	00.1	00.60
Solanum lasiophyllum	00.1	00.50
Sclerolaena costata	00.1	00.50
Scaevola collaris	00.1	00.50
Triodia schinzii	00.1	00.40
Paspalidium reflexum	00.1	00.40
Cleome viscosa	00.1	00.40
Tecticornia indica subsp. *bidens*	00.1	00.40
Abutilon otocarpum	00.1	00.40
Aristida holathera	00.1	00.30
Digitaria brownii	00.1	00.30
Eragrostis eriopoda	00.1	00.30
Salsola australis	00.1	00.30
Monachather paradoxus	00.1	00.30
Podolepis capillaris	00.1	00.20
Solanum cleistogamum	00.1	00.20
Eragrostis kennedyae	00.1	00.20
Frankenia laxiflora	00.1	00.20
Frankenia cinerea	00.1	00.20
Brachyscome blackii	00.1	00.15
Cyperus iria	00.1	00.15
Cephalipterum drummondii	00.1	00.15
Boerhavia coccinea	00.1	00.10
Angianthus cyathifer	00.1	00.10
Synaptantha tillaeacea var. *hispidula*	00.1	<00.01
Sida trichopoda	00.1	<00.01
Nicotiana occidentalis	00.1	<00.01
Sida fibulifera	00.1	<00.01
Duma florulenta		

Site:	PTSH104	**Type:**	Relevé (unbounded)
Date(s):	03 May 2015	**Position:**	-24.707622, 120.258684
Total vegetation cover (%):	20	**Topography:**	other
Tree/shrub cover >2 m (%):	0.5	**Soil colour:**	red-orange
Shrub cover <2 m (%):	15	**Soil:**	sand
Grass cover (%):	5	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Corymbia chippendalei* trees over isolated mid *Acacia* spp., *Aluta maisonneuvei* subsp. *maisonneuvei* and *Crotalaria cunninghamii* shrubs over open low *Dicrastylis cordifolia* and *Quoya loxocarpa* shrubland and isolated low *Aristida contorta*, *Eriachne helmsii* and *Triodia schinzii* tussock grasses.		



Species	Cover (%)	Height (m)	Weeds	Conservation status
Quoya loxocarpa	10.0	01.00		
Dicrastylis fulva	05.0	00.50		
Triodia schinzii	02.0	00.40		
Crotalaria cunninghamii	01.0	01.30		
Eriachne helmsii	01.0	00.30		
Aristida holathera	01.0	00.20		
Corymbia chippendalei	00.5	05.00		
Aluta maisonneuvei subsp. *maisonneuvei*	00.5	01.20		
Calotis sp. Carnarvon Range (D.J. Edinger & K.F. K	00.5	01.00		
Euphorbia boophthona	00.5	00.40		
Eriachne aristidea	00.5	00.40		
Leiocarpa semicalva	00.5	00.30		
Eremophila cuneifolia	00.2	01.00		
Eucalyptus gamophylla	00.1	03.00		
Gyrostemon ramulosus	00.1	02.50		
Acacia dictyophleba	00.1	02.00		
Sida echinocarpa	00.1	01.50		
Codonocarpus cotinifolius	00.1	01.50		

Acacia ampliceps	00.1	01.30
Senna artemisioides subsp. *oligophylla*	00.1	01.20
Clerodendrum tomentosum var. *tomentosum*	00.1	01.20
Senna artemisioides subsp. *petiolaris*	00.1	01.00
Trichodesma zeylanicum var. *grandiflorum*	00.1	00.60
Alyogyne pinoniana	00.1	00.50
Bonamia erecta	00.1	00.40
Eragrostis eriopoda	00.1	00.30

Site:	PTSH201	**Type:**	Quadrat (50 m x 50 m)
Date(s):	28 April 2015	**Position:**	-24.706156, 120.282751
Total vegetation cover (%):	85	**Topography:**	plain
Tree/shrub cover >2 m (%):	0.1	**Soil colour:**	red-orange
Shrub cover <2 m (%):	75	**Soil:**	sand
Grass cover (%):	15	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated clumps of *Hakea lorea* trees over closed *Aluta maisonneuvei* subsp. *maisonneuvei* , *Grevillea stenobotrya* and *Acacia dictyophleba* shrubland over open *Triodia schinzii* hummock grassland		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aluta maisonneuvei subsp. *maisonneuvei*	70.0	01.00		
Triodia schinzii	15.0	00.50		
Grevillea stenobotrya	03.0	01.20		
Acacia dictyophleba	01.0	01.00		
Kennedia prorepens	01.0	00.50		
Calytrix carinata	01.0	00.50		
Bonamia erecta	01.0	00.50		
Stylidium humphreysii	00.5	00.10		
Androcalva loxophylla	00.2	00.40		
Hakea lorea	00.1	03.00		
Acacia maitlandii	00.1	01.60		
Gyrostemon ramulosus	00.1	01.20		
Acacia sibirica	00.1	01.00		
Dicrastylis kumarinensis	00.1	00.50		
Glischrocaryon angustifolium	00.1	00.50		
Micromyrtus flaviflora	00.1	00.40		
Leptosema chambersii	00.1	00.30		
Eragrostis eriopoda	00.1	00.30		
Dampiera cinerea	00.1	00.30		

Phyllota luehmannii	00.1	00.30

Site:	PTSH202	**Type:**	Relevé (unbounded)
Date(s):	28 April 2015	**Position:**	-24.729035, 120.296656
Total vegetation cover (%):	70	**Topography:**	plain
Tree/shrub cover >2 m (%):	5	**Soil colour:**	red-orange
Shrub cover <2 m (%):	60	**Soil:**	sand
Grass cover (%):	7	**Rock type:**	none
Herb cover (%):	0.3	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse tall *Grevillea stenobotrya* shrubland over low *Aluta maisonneuvei* subsp. *maisonneuvei* shrubland over sparse low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aluta maisonneuvei subsp. *maisonneuvei*	60.0	00.70		
Triodia schinzii	07.0	00.50		
Grevillea juncifolia subsp. *juncifolia*	05.0	02.50		
Calytrix carinata	02.0	00.50		
Grevillea eriostachya	01.0	02.20		
Acacia dictyophleba	01.0	01.00		
Eriachne helmsii	00.5	00.60		
Acacia ligulata	00.2	01.60		
Eragrostis eriopoda	00.2	00.30		
Stylidium humphreysii	00.2	00.05		
Grevillea striata	00.1	03.00		
Micromyrtus flaviflora	00.1	00.50		
Amphipogon sericeus	00.1	00.50		
Newcastelia spodiotricha	00.1	00.50		
Androcalva loxophylla	00.1	00.40		
Scaevola parvifolia subsp. *pilbarae*	00.1	00.30		
Goodenia mueckeana	00.1	00.30		
Dampiera cinerea	00.1	00.30		
Kennedia prorepens	00.1			

Goodenia triodiophila

Site:	PTSH203	**Type:**	Relevé (unbounded)
Date(s):	29 April 2015	**Position:**	-24.741521, 120.226111
Total vegetation cover (%):	70	**Topography:**	drainage line
Tree/shrub cover >2 m (%):	30	**Soil colour:**	red-brown
Shrub cover <2 m (%):	30	**Soil:**	clay
Grass cover (%):	0.5	**Rock type:**	none
Herb cover (%):	15	**Fire age:**	>5 years
Disturbance details:	weed infestation		
Vegetation condition:	Very Good, Trudgen (1991)		
Vegetation description:	Low *Acacia aptaneura* woodland over sparse tall *Acacia pruinocarpa*, *A. pteraneura* and *A. tetragonophylla* shrubland over open low *Eremophila galeata* shrubland over sparse tall *Chrysopogon fallax* grassland and open low **Bidens bipinnata* forbland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia aptaneura	30.0	09.00		
Eremophila galeata	18.0	01.30		
Bidens bipinnata	15.0	00.20	*	
Chrysopogon fallax	05.0	01.00		
Acacia pteraneura	03.0	02.00		
Acacia tetragonophylla	03.0	02.00		
Acacia pruinocarpa	01.0	05.00		
Psydrax suaveolens	01.0	03.00		
Senna artemisioides subsp. x *sturtii*	01.0	01.00		
Ptilotus obovatus	01.0	00.50		
Solanum lasiophyllum	01.0	00.50		
Brachyscome ciliaris	01.0	00.12		
Eragrostis falcata	00.5	00.50		
Grevillea striata	00.1	01.30		
Rhagodia eremaea	00.1	01.20		
Seringia elliptica	00.1	01.00		
Enteropogon ramosus	00.1	00.80		
Hibiscus burtonii	00.1	00.60		

Sida ectogama	00.1	00.50
Maireana planifolia	00.1	00.40
Maireana trichoptera	00.1	00.30
Duperreya commixta	00.1	<00.01

Site:	PTSH204	**Type:**	Relevé (unbounded)
Date(s):	30 April 2015	**Position:**	-24.747695, 120.319897
Total vegetation cover (%):	40	**Topography:**	other
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-orange
Shrub cover <2 m (%):	15	**Soil:**	sand
Grass cover (%):	35	**Rock type:**	none
Herb cover (%):	0.4	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia aneura* and *A. macraneura* woodland over open mid *Eremophila forrestii* subsp. *forrestii* and *Senna artemisioides* subsp. *helmsii* shrubland over mid *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	35.0	00.60		
Acacia aneura	15.0	06.00		
Eremophila forrestii subsp. *forrestii*	15.0	01.80		
Senna artemisioides subsp. *helmsii*	02.0	01.60		
Acacia macraneura	01.0	04.00		
Triodia schinzii	00.5	00.40		
Santalum spicatum	00.1	02.50		
Hakea lorea	00.1	02.00		
Acacia tetragonophylla	00.1	01.80		
Podolepis capillaris	00.1	00.50		
Solanum phlomoides	00.1	00.40		
Ptilotus polystachyus	00.1	00.30		
Eragrostis eriopoda	00.1	00.30		
Ptilotus macrocephalus	00.1	00.30		
Eriachne aristidea	00.1	00.30		
Solanum centrale	00.1	00.30		
Euphorbia tannensis	00.1	00.20		

Site:	PTSH205	**Type:**	Quadrat (50 m x 50 m)
Date(s):	03 May 2015	**Position:**	-24.761697, 120.231914
Total vegetation cover (%):	55	**Topography:**	other
Tree/shrub cover >2 m (%):	10	**Soil colour:**	red-orange
Shrub cover <2 m (%):	5	**Soil:**	sand
Grass cover (%):	50	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Acacia aneura* trees over open tall *Dodonaea viscosa* and *Acacia ligulata* shrubland over sparse mid *Acacia aptaneura*, *Eremophila forrestii* subsp. *forrestii* and *Stylobasium spathulatum* shrubland over mid *Triodia basedowii* hummock grassland and isolated low *Calandrinia* sp. forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	50.0	00.60		
Dodonaea viscosa	07.0	04.00		
Acacia ligulata	03.0	03.50		
Stylobasium spathulatum	03.0	01.80		
Acacia aptaneura	01.0	01.80		
Melaleuca interioris	01.0	01.50		
Eremophila forrestii subsp. *forrestii*	01.0	01.20		
Senna artemisioides subsp. *petiolaris*	00.5	01.20		
Rhagodia eremaea	00.5	01.00		
Paspalidium reflexum	00.5	00.40		
Acacia aneura	00.2	06.00		
Ptilotus obovatus	00.2	00.50		
Calandrinia polyandra	00.2	00.05		
Senna glaucifolia	00.1	01.30		
Eremophila latrobei subsp. *glabra*	00.1	01.30		
Sclerolaena costata	00.1	01.00		
Goodenia triodiophila	00.1	00.50		
Acacia tetragonophylla	00.1	00.50		

Enchylaena tomentosa	00.1	00.50
Maireana georgei	00.1	00.50
Solanum lasiophyllum	00.1	00.40
Solanum cleistogamum	00.1	00.40
Chenopodium gaudichaudianum	00.1	00.30
Euphorbia boophthona	00.1	00.30
Aristida contorta	00.1	00.15
Dysphania melanocarpa	00.1	00.10
Yakirra australiensis	00.1	00.05
Rhyncharrhena linearis	00.1	<00.01
Sida intricata	00.1	<00.01

Site:	PTSHP2001	**Type:**	Quadrat (50 m x 50 m)
Date(s):	11 October 2015	**Position:**	-24.762976, 120.015935
Total vegetation cover (%):	50	**Topography:**	plain
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	5	**Soil:**	clay, laterite
Grass cover (%):	30	**Rock type:**	granite rocks
Herb cover (%):	0.5	**Fire age:**	>5 years

Disturbance details: grazing – low, livestock tracks

Vegetation condition: Excellent, Trudgen (1991)

Vegetation description: Low *Acacia pruinocarpa*, *A. aptaneura* and *A. caesaneura* woodland over sparse low *Eremophila forrestii* subsp. *forrestii*, *E. lachnocalyx* and *Ptilotus obovatus* shrubland over open low *Triodia basedowii* hummock grassland.

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	25.0	00.40		
Acacia pruinocarpa	10.0	08.00		
Eragrostis pergracilis	04.0	00.10		
Acacia pteraneura	02.0	08.00		
Acacia aptaneura	02.0	04.00		
Eremophila forrestii subsp. *forrestii*	02.0	01.50		
Eremophila lachnocalyx	02.0	00.50		
Acacia caesaneura	01.0	08.00		
Eriachne pulchella	01.0	00.10		
Ptilotus obovatus	00.5	00.50		
Grevillea berryana	00.1	05.00		
Psydrax latifolia	00.1	03.00		
Acacia tetragonophylla	00.1	02.00		
Senna artemisioides subsp. *petiolaris*	00.1	01.50		
Anthobolus leptomerioides	00.1	01.50		
Eremophila longifolia	00.1	01.50		
Eremophila glabra subsp. *glabra*	00.1	01.20		
Senna artemisioides subsp. x *artemisioides*	00.1	01.00		
Rhagodia eremaea	00.1	01.00		

Psydrax suaveolens	00.1	01.00	
Enchylaena tomentosa	00.1	01.00	
Ptilotus polystachyus	00.1	00.50	
Malvastrum americanum	00.1	00.50	*
Solanum lasiophyllum	00.1	00.50	
Hibiscus burtonii	00.1	00.30	
Ptilotus nobilis	00.1	00.30	
Ptilotus schwartzii	00.1	00.30	
Monachather paradoxus	00.1	00.20	
Eragrostis eriopoda	00.1	00.20	
Enneapogon caerulescens	00.1	00.15	
Euphorbia drummondii	00.1	00.15	
Haloragis gossei	00.1	00.15	
Dysphania rhadinostachya	00.1	00.10	
Sida fibulifera	00.1	00.10	
Brunonia australis	00.1	00.10	

Site:	PTSHP2003	**Type:**	Quadrat (50 m x 50 m)
Date(s):	11 October 2015	**Position:**	-24.774169, 120.074803
Total vegetation cover (%):	50	**Topography:**	plain
Tree/shrub cover >2 m (%):	10	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	2	**Soil:**	sandy clay, clay
Grass cover (%):	40	**Rock type:**	
Herb cover (%):	0.5	**Fire age:**	1 – 5 years
Disturbance details:	grazing – medium, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Acacia macraneura* and *A. incurvaneura* woodland over isoloated mid *Eremophila galeata* shrubs over isolated low *Eremophila lachnocalyx*, shrubs over low *Triodia basedowii* and *Aristida controta* hummock/tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	20.0	00.50		
Aristida contorta	15.0	00.10		
Acacia incurvaneura	05.0	06.00		
Acacia macraneura	05.0	05.00		
Eremophila lachnocalyx	03.0	00.50		
Iseilema vaginiflorum	02.0	00.10		
Eragrostis pergracilis	02.0	00.10		
Eremophila galeata	01.0	01.80		
Eriachne pulchella	01.0	00.10		
Acacia sibirica	00.1	03.00		
Acacia tetragonophylla	00.1	02.00		
Senna artemisioides subsp. *helmsii*	00.1	01.50		
Eremophila forrestii subsp. *forrestii*	00.1	01.20		
Psydrax latifolia	00.1	00.50		
Solanum lasiophyllum	00.1	00.40		
Eremophila lanceolata	00.1	00.40		
Lobelia heterophylla	00.1	00.30		
Hibiscus burtonii	00.1	00.30		

Enchylaena tomentosa	00.1	00.30
Rhodanthe propinqua	00.1	00.30
Ptilotus schwartzii	00.1	00.30
Dysphania sphaerosperma	00.1	00.20
Eriachne aristidea	00.1	00.20
Eragrostis leptocarpa	00.1	00.20
Eragrostis cumingii	00.1	00.15
Fimbristylis dichotoma	00.1	00.10
Thyridolepis xerophila	00.1	00.10
Myriocephalus rudallii	00.1	00.10
Calandrinia polyandra	00.1	00.10
Tripogonella loliiformis	00.1	00.10

Site:	PTSHP2004R	**Type:**	Relevé (unbounded)
Date(s):	12 October 2015	**Position:**	-24.750623, 120.192102
Total vegetation cover (%):	30	**Topography:**	drainage line
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	10	**Soil:**	sandy clay, clay
Grass cover (%):	6	**Rock type:**	granite rocks
Herb cover (%):	0	**Fire age:**	>5 years

Disturbance details: grazing – low, livestock tracks

Vegetation condition: Excellent, Trudgen (1991)

Vegetation description: Open tall *Acacia aptaneura* shrubland over sparse mid *Eremophila galeata* and *E. forrestii* subsp. *forrestii* shrubland over isolated low *Neurachne minor* and *Aristida controta* tussock grasses.

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia aptaneura	15.0	04.50		
Eremophila galeata	04.0	01.80		
Eremophila margarethae	04.0	00.50		
Neurachne minor	03.0	00.20		
Eremophila forrestii subsp. *forrestii*	02.0	01.00		
Senna artemisioides subsp. *helmsii*	01.0	01.50		
Triodia basedowii	01.0	00.50		
Eragrostis eriopoda	01.0	00.30		
Aristida contorta	01.0	00.10		
Eriachne pulchella	01.0	00.05		
Senna glutinosa subsp. *pruinosa*	00.1	01.20		
Ptilotus obovatus	00.1	00.50		

Site:	PTSHP2005	**Type:**	Quadrat (50 m x 50 m)
Date(s):	11 October 2015	**Position:**	-24.755003, 120.199091
Total vegetation cover (%):	20	**Topography:**	hill top
Tree/shrub cover >2 m (%):	8	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	15	**Soil:**	sandy clay, clay
Grass cover (%):	0.4	**Rock type:**	granite outcropping
Herb cover (%):	2	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Acacia aneura* woodland over isolated tall *Acacia subcontorta* shrubs over open low *Corchorus crozophorifolius* and *Ptilotus obovatus* shrubland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Corchorus crozophorifolius	10.0	00.60		
Acacia aneura	05.0	05.00		
Acacia subcontorta	03.0	02.50		
Ptilotus obovatus	02.0	00.80		
Cephalipterum drummondii	01.0	00.20		
Indigofera monophylla	01.0	00.20		
Ptilotus helipteroides	00.5	00.50		
Tribulus suberosus	00.2	01.00		
Senna glutinosa	00.1	01.50		
Senna artemisioides subsp. *helmsii*	00.1	01.50		
Eremophila latrobei subsp. *latrobei*	00.1	01.50		
Hibiscus sp.	00.1	00.60		
Solanum lasiophyllum	00.1	00.50		
Triodia basedowii	00.1	00.40		
Hibiscus burtonii	00.1	00.40		
Maireana georgei	00.1	00.30		
Sclerolaena costata	00.1	00.30		
Digitaria brownii	00.1	00.30		
Ptilotus nobilis	00.1	00.30		

Cymbopogon obtectus	00.1	00.30
Haloragis gossei	00.1	00.20
Sida fibulifera	00.1	00.20
Salsola australis	00.1	00.20
Enneapogon caerulescens	00.1	00.20
Portulaca filifolia	00.1	00.20
Evolvulus alsinoides var. *villosicalyx*	00.1	00.15
Lepidium phlebopetalum	00.1	00.15
Sclerolaena cornishiana	00.1	00.10
Euphorbia australis	00.1	00.05

Site:	PTSHP2006	**Type:**	Quadrat (50 m x 50 m)
Date(s):	11 October 2015	**Position:**	-24.756772, 120.220711
Total vegetation cover (%):	50	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	25	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	25	**Soil:**	sandy clay, loam
Grass cover (%):	0.3	**Rock type:**	granite rocks
Herb cover (%):	0.3	**Fire age:**	1 – 5 years
Disturbance details:	grazing – low, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Acacia kempeana* trees over tall *Acacia burkittii* shrubland over sparse mid *Senna artemisioides* subsp. *petiolaris*, *Acacia ligulata* and *Melaleuca interioris* shrubland over open low *Eremophila lachnocalyx* shrubland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia burkittii	35.0	02.50		
Eremophila lachnocalyx	10.0	00.80		
Senna artemisioides subsp. *petiolaris*	05.0	02.00		
Acacia kempeana	01.0	07.00		
Acacia ligulata	01.0	02.00		
Melaleuca interioris	00.5	02.00		
Senna artemisioides subsp. x *sturtii*	00.2	01.50		
Sclerolaena lanicuspis	00.2	00.40		
Acacia aptaneura	00.1	02.50		
Grevillea striata	00.1	02.00		
Stylobasium spathulatum	00.1	01.50		
Acacia tetragonophylla	00.1	01.50		
Acacia aneura	00.1	01.50		
Acacia synchronicia	00.1	01.20		
Senna artemisioides subsp. *helmsii*	00.1	01.00		
Rhagodia eremaea	00.1	01.00		
Scaevola spinescens	00.1	01.00		
Ptilotus obovatus	00.1	00.70		

Maireana suaedifolia	00.1	00.50
Enchylaena tomentosa	00.1	00.50
Eragrostis eriopoda	00.1	00.40
Solanum lasiophyllum	00.1	00.30
Sclerolaena sp.	00.1	00.20
Sida fibulifera	00.1	00.20
Sclerolaena diacantha	00.1	00.15
Aristida contorta	00.1	00.10
Enneapogon caerulescens	00.1	00.10

Site:	PTSHP2007	**Type:**	Quadrat (50 m x 50 m)
Date(s):	10 October 2015	**Position:**	-24.758694, 120.22869
Total vegetation cover (%):	40	**Topography:**	plain
Tree/shrub cover >2 m (%):	4	**Soil colour:**	red-orange
Shrub cover <2 m (%):	10	**Soil:**	clay loam, laterite
Grass cover (%):	30	**Rock type:**	
Herb cover (%):	1	**Fire age:**	1 – 5 years
Disturbance details:	grazing – medium, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Acacia tetragonophylla* and *Melaleuca interioris* shrubs over isolated mid *Corynotheca pungens* shrubs over open low *Tecticornia indica* subsp. *bidens* shrubland over low *Eragrostis dielsii*, *E. pergracilis* and *Aristida controta* grassland and isolated low *Streptoglossa cylindriceps* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eragrostis dielsii	30.0	00.01		
Tecticornia indica subsp. *bidens*	10.0	00.80		
Melaleuca interioris	03.0	03.00		
Aristida contorta	02.0	00.15		
Eragrostis pergracilis	02.0	00.10		
Acacia tetragonophylla	01.0	03.00		
Corynotheca pungens	01.0	01.50		
Streptoglossa cylindriceps	01.0	00.01		
Sida intricata	00.5	00.20		
Eremophila longifolia	00.1	02.00		
Senna artemisioides subsp. *helmsii*	00.1	01.20		
Samolus repens	00.1	01.00		
Scaevola spinescens	00.1	01.00		
Rhagodia eremaea	00.1	01.00		
Maireana pyramidata	00.1	01.00		
Ptilotus obovatus	00.1	00.60		
Enteropogon ramosus	00.1	00.50		
Tecticornia indica subsp. *leiostachya*	00.1	00.50		

Maireana tomentosa	00.1	00.50
Solanum lasiophyllum	00.1	00.50
Maireana convexa	00.1	00.40
Hibiscus burtonii	00.1	00.40
Eremophila maculata	00.1	00.40
Maireana triptera	00.1	00.30
Sclerolaena alata	00.1	00.20
Eremophea spinosa	00.1	00.20
Sclerolaena lanicuspis	00.1	00.20
Sclerolaena glabra	00.1	00.10
Perotis rara	00.1	00.10
Euphorbia drummondii	00.1	00.01
Trianthema triquetrum	00.1	00.01
Goodenia prostrata	00.1	00.01

Site:	PTSHP2009	**Type:**	Quadrat (50 m x 50 m)
Date(s):	10 October 2015	**Position:**	-24.750548, 120.260382
Total vegetation cover (%):	65	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	7	**Soil colour:**	red-orange
Shrub cover <2 m (%):	1	**Soil:**	sand, sandy loam,
Grass cover (%):	60	**Rock type:**	
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse tall *Acacia ligulata*, *A. tetragonpohylla* and *Hakea lorea* shrubland over mid *Triodia basedowii* and *T. schinzii* hummock/tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	45.0	00.50		
Triodia schinzii	15.0	00.50		
Acacia ligulata	05.0	03.00		
Acacia tetragonophylla	01.0	02.50		
Eucalyptus trivalva	01.0	02.00		
Hakea lorea	00.5	03.00		
Aluta maisonneuvei subsp. *maisonneuvei*	00.1	01.20		
Alyogyne pinoniana	00.1	01.00		
Stylobasium spathulatum	00.1	01.00		
Acacia dictyophleba	00.1	01.00		
Kennedia prorepens	00.1	00.50		
Seringia elliptica	00.1	00.50		
Bonamia erecta	00.1	00.30		
Solanum lasiophyllum	00.1	00.30		
Solanum centrale	00.1	00.30		
Ptilotus polystachyus	00.1	00.30		
Digitaria brownii	00.1	00.30		
Amphipogon caricinus	00.1	00.30		
Podolepis gardneri	00.1	00.20		
Vittadinia eremaea	00.1	00.20		

Goodenia triodiophila	00.1	00.20
Ptilotus gaudichaudii	00.1	00.15

Site:	PTSHP2010	**Type:**	Quadrat (50 m x 50 m)
Date(s):	10 October 2015	**Position:**	-24.742196, 120.27598
Total vegetation cover (%):	30	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	1	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	20	**Soil:**	sandy clay
Grass cover (%):	10	**Rock type:**	granite rocks
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Acacia kempeana* shrubs over open mid *Acacia doreta*, *Eremophila galeata* and *E. margarethae* shrubland over sparse low *Seringia elliptica* and *Halgania glabra* shrubland over sparse mid *Triodia basedowii* and *T. schinzii* hummock/tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	08.0	00.50		
Acacia doreta	05.0	01.60		
Seringia elliptica	05.0	00.70		
Halgania glabra	04.0	00.50		
Eremophila galeata	03.0	01.80		
Eremophila margarethae	02.0	01.50		
Acacia kempeana	01.0	03.00		
Triodia schinzii	01.0	00.50		
Acacia rhodophloia	00.1	02.00		
Acacia pruinocarpa	00.1	01.50		
Eremophila forrestii subsp. *forrestii*	00.1	01.20		
Senna artemisioides subsp. *oligophylla*	00.1	01.00		
Senna glutinosa	00.1	01.00		
Aluta maisonneuvei subsp. *maisonneuvei*	00.1	00.60		
Indigofera georgei	00.1	00.50		
Solanum lasiophyllum	00.1	00.30		
Paraneurachne muelleri	00.1	00.30		
Cymbopogon obtectus	00.1	00.30		

Ptilotus schwartzii	00.1	00.30
Goodenia triodiophila	00.1	00.20
Eragrostis xerophila	00.1	00.20
Amphipogon sericeus	00.1	00.10

Site:	PTSHP2011R	**Type:**	Relevé (unbounded)
Date(s):	09 October 2015	**Position:**	-24.765761, 120.296317
Total vegetation cover (%):	70	**Topography:**	drainage line
Tree/shrub cover >2 m (%):	45	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	30	**Soil:**	sandy clay
Grass cover (%):	10	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	grazing – low, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Mid *Acacia kempeana*, *A. aneura* and *A. pruinocarpa* woodland over mid *Eremophila latrobei* subsp. *latrobei*, *E. forrestii* subsp. *forrestii* and *E. margarethae* shrubland over sparse mid *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Acacia kempeana	30.0	12.00		
Eremophila latrobei subsp. *latrobei*	15.0	01.60		
Eremophila forrestii subsp. *forrestii*	10.0	01.50		
Triodia basedowii	08.0	00.60		
Acacia pruinocarpa	05.0	12.00		
Acacia aneura	05.0	10.00		
Acacia sibirica	05.0	10.00		
Eremophila margarethae	05.0	01.50		
Eragrostis eriopoda	02.0	00.30		
Eucalyptus sp.	01.0	05.00		
Eremophila latrobei subsp. *glabra*	01.0	01.60		
Maireana planifolia	01.0	00.50		
Senna glutinosa	00.5	01.50		
Psydrax latifolia	00.1	01.20		
Senna artemisioides subsp. *helmsii*	00.1	01.20		
Ptilotus obovatus	00.1	00.70		
Triodia schinzii	00.1	00.50		
Sida sp. Golden calyces glabrous (H.N. Foote 32)	00.1	00.50		

Solanum lasiophyllum	00.1	00.50
Euphorbia tannensis	00.1	00.40
Kennedia prorepens	00.1	00.40
Trachymene sp.	00.1	00.40
Enchylaena tomentosa	00.1	00.40
Eremophila maculata	00.1	00.40
Monachather paradoxus	00.1	00.30
Rhyncharrhena linearis	00.1	00.30
Paraneurachne muelleri	00.1	00.30
Hibiscus burtonii	00.1	00.30
Eriachne mucronata	00.1	00.30
Eriachne aristidea	00.1	00.20
Evolvulus alsinoides var. *villosicalyx*	00.1	00.15
Dysphania rhadinostachya	00.1	00.10
Sida intricata	00.1	00.05
Sida fibulifera	00.1	00.05

Site:	PTSHP2012	**Type:**	Quadrat (50 m x 50 m)
Date(s):	10 October 2015	**Position:**	-24.764628, 120.256498
Total vegetation cover (%):	65	**Topography:**	sand dune
Tree/shrub cover >2 m (%):	1	**Soil colour:**	
Shrub cover <2 m (%):	7	**Soil:**	sand
Grass cover (%):	60	**Rock type:**	
Herb cover (%):	0.3	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Corymbia opaca* trees over sparse mid *Grevillea striata* shrubland over mid *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	60.0	00.50		
Grevillea striata	06.0	02.00		
Corymbia opaca	01.0	15.00		
Aristida holathera	01.0	00.30		
Dicrastylis doranii	00.2	00.50		
Acacia dictyophleba	00.1	02.00		
Acacia ligulata	00.1	02.00		
Gyrostemon ramulosus	00.1	02.00		
Grevillea juncifolia subsp. *juncifolia*	00.1	01.50		
Senna artemisioides subsp. *helmsii*	00.1	01.50		
Eremophila cuneifolia	00.1	01.50		
Stylobasium spathulatum	00.1	01.20		
Quoya loxocarpa	00.1	01.20		
Rhagodia eremaea	00.1	01.00		
Acacia tetragonophylla	00.1	01.00		
Aluta maisonneuvei subsp. *maisonneuvei*	00.1	00.80		
Euphorbia boophthona	00.1	00.80		
Senna pleurocarpa	00.1	00.70		
Leiocarpa semicalva	00.1	00.50		
Cymbopogon obtectus	00.1	00.50		

Calytrix carinata	00.1	00.40
Scaevola parvifolia subsp. *pilbarae*	00.1	00.40
Monachather paradoxus	00.1	00.30
Goodenia triodiophila	00.1	00.30
Lobelia heterophylla	00.1	00.20
Eragrostis xerophila	00.1	00.20
Poaceae sp.	00.1	00.10
Euphorbia drummondii	00.1	00.05

Site:	PTSHP2013	**Type:**	Quadrat (50 m x 50 m)
Date(s):	08 October 2015	**Position:**	-24.756942, 120.360699
Total vegetation cover (%):	60	**Topography:**	sand dune
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	10	**Soil:**	sand
Grass cover (%):	50	**Rock type:**	
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Corymbia chippendalei* mallee over sparse mid *Acacia ligulata*, *Grevillea berryana* and *Clerodendrum tomentosum* var. *tomentosum* shrubland over mid *Aristida holathera*, *Triodia basedowii* and *T. schinzii* tussock/hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aristida holathera	40.0	00.50		
Triodia basedowii	05.0	01.00		
Triodia schinzii	05.0	00.60		
Acacia ligulata	04.0	02.00		
Leiocarpa semicalva	02.0	00.50		
Corymbia chippendalei	01.0	02.00		
Grevillea berryana	01.0	02.00		
Dicrastylis kumarinensis	01.0	00.50		
Clerodendrum tomentosum var. *tomentosum*	00.1	02.00		
Eremophila cuneifolia	00.1	01.50		
Sida sp. sand dunes (A.A. Mitchell PRP1208)	00.1	01.50		
Crotalaria cunninghamii	00.1	01.50		
Stylobasium spathulatum	00.1	01.50		
Alyogyne pinoniana	00.1	01.50		
Newcastelia spodiotricha	00.1	01.00		
Zygophyllum eremaeum	00.1	01.00		
Microcorys macredieana	00.1	00.70		
Aluta maisonneuvei subsp. *maisonneuvei*	00.1	00.70		

Calytrix carinata	00.1	00.50
Senna pleurocarpa	00.1	00.50
Salsola australis	00.1	00.40
Trichodesma zeylanicum var. *grandiflorum*	00.1	00.30
Eragrostis xerophila	00.1	00.30

Site:	PTSHP2014	**Type:**	Quadrat (50 m x 50 m)
Date(s):	08 October 2015	**Position:**	-24.760079, 120.361166
Total vegetation cover (%):	70	**Topography:**	plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	1	**Soil:**	sand
Grass cover (%):	70	**Rock type:**	
Herb cover (%):	0.1	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Grevillea juncifolia* subsp. *juncifolia* shrubs over isolated low *Newcastelia spodiotricha* shrubs over closed low *Triodia basedowii* and *T. schinzii* hummock/tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	40.0	00.50		
Triodia basedowii	30.0	00.40		
Paraneurachne muelleri	02.0	00.20		
Grevillea juncifolia subsp. *juncifolia*	00.5	02.00		
Newcastelia spodiotricha	00.5	00.60		
Hakea lorea	00.1	02.00		
Acacia pachyacra	00.1	01.80		
Stylobasium spathulatum	00.1	01.50		
Codonocarpus cotinifolius	00.1	01.00		
Kennedia prorepens	00.1	01.00		
Gyrostemon ramulosus	00.1	01.00		
Dicrastylis cordifolia	00.1	00.60		
Microcorys macredieana	00.1	00.50		
Acacia dictyophleba	00.1	00.50		
Phyllota luehmannii	00.1	00.50		
Amphipogon caricinus	00.1	00.50		
Dampiera cinerea	00.1	00.40		
Leptosema chambersii	00.1	00.40		
Eragrostis xerophila	00.1	00.30		

Scaevola parvifolia subsp. *pilbarae*	00.1	00.30
Calytrix carinata	00.1	00.10
Stylidium humphreysii	00.1	00.10

Site:	PTSHP2015	**Type:**	Quadrat (50 m x 50 m)
Date(s):	10 October 2015	**Position:**	-24.735998, 120.263023
Total vegetation cover (%):	55	**Topography:**	undulating plain
Tree/shrub cover >2 m (%):	5	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	30	**Soil:**	sandy clay
Grass cover (%):	20	**Rock type:**	granite rocks
Herb cover (%):	5	**Fire age:**	1 – 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Acacia aneura*, *A. macraneura* and *A. pteraneura* woodland over open mid *Eremophila galeata* shrubland over open low *Aristida contorta* and *Enneapogon caerulescens* tussock grassland and sparse low *Cephalipterum drummondii* forbland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eremophila galeata	20	1.5		
Enneapogon caerulescens	10.0	00.20		
Aristida contorta	10.0	00.20		
Cephalipterum drummondii	05.0	00.05		
Senna artemisioides subsp. *helmsii*	03.0	01.50		
Ptilotus obovatus	03.0	00.70		
Acacia macraneura	02.0	07.00		
Acacia aneura	02.0	06.00		
Acacia pteraneura	01.0	06.00		
Sida fibulifera	01.0	00.20		
Senna artemisioides subsp. *petiolaris*	00.1	01.50		
Acacia tetragonophylla	00.1	01.50		
Acacia ligulata	00.1	01.50		
Eremophila latrobei subsp. *latrobei*	00.1	01.20		
Eremophila latrobei subsp. *glabra*	00.1	01.20		
Rhagodia eremaea	00.1	01.00		
Enchylaena tomentosa	00.1	00.90		
Sida calyxhymenia	00.1	00.60		

Maireana planifolia	00.1	00.60
Hibiscus burtonii	00.1	00.50
Duma florulenta	00.1	00.50
Abutilon otocarpum	00.1	00.40
Sclerolaena cornishiana	00.1	00.40
Paraneurachne muelleri	00.1	00.30
Cleome viscosa	00.1	00.30
Solanum lasiophyllum	00.1	00.30
Triraphis mollis	00.1	00.30
Indigofera georgei	00.1	00.30
Salsola australis	00.1	00.30
Sclerolaena lanicuspis	00.1	00.30
Eragrostis eriopoda	00.1	00.25
Stenopetalum lineare	00.1	00.20
Swainsona decurrens	00.1	00.20
Ptilotus helipteroides	00.1	00.20
Heliotropium tanythrix	00.1	00.15
Ptilotus aervoides	00.1	00.10
Lepidium oxytrichum	00.1	00.10
Abutilon oxycarpum	00.1	00.10
Evolvulus alsinoides var. *villosicalyx*	00.1	00.10
Euphorbia australis	00.1	00.05
Streptoglossa cylindriceps	00.1	00.05

Site:	PTSHP2017	**Type:**	Quadrat (50 m x 50 m)
Date(s):	13 October 2015	**Position:**	-24.71513, 120.239463
Total vegetation cover (%):	70	**Topography:**	plain
Tree/shrub cover >2 m (%):	10	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	30	**Soil:**	sandy clay, clay, laterite
Grass cover (%):	30	**Rock type:**	
Herb cover (%):	0.2	**Fire age:**	>5 years
Disturbance details:	grazing – low, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Acacia aptaneura*, *A. pruinocarpa* and *A. subcontorta* woodland over mid *Eremophila forrestii* subsp. *forrestii* and *E. margarethae* shrubland over open low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eremophila forrestii subsp. *forrestii*	20.0	01.50		
Triodia basedowii	20.0	00.50		
Eremophila margarethae	10.0	01.20		
Acacia aptaneura	06.0	08.00		
Eriachne pulchella	05.0	0.05		
Eragrostis eriopoda	03.0	00.20		
Grevillea berryana	02.0	08.00		
Monachather paradoxus	02.0	00.30		
Acacia subcontorta	01.0	09.00		
Acacia pruinocarpa	01.0	08.00		
Tripogonella loliiformis	01.0	00.10		
Anthobolus leptomerioides	00.1	01.50		
Acacia tetragonophylla	00.1	01.00		
Psydrax suaveolens	00.1	01.00		
Enchylaena tomentosa	00.1	00.50		
Sida sp. Golden calyces glabrous (H.N. Foote 32)	00.1	00.50		
Solanum lasiophyllum	00.1	00.30		
Ptilotus schwartzii	00.1	00.30		
Cheilanthes sieberi subsp. *sieberi*	00.1	00.20		

Site:	PTSHP2018	**Type:**	Quadrat (50 m x 50 m)
Date(s):	12 October 2015	**Position:**	-24.74988, 120.18724
Total vegetation cover (%):	80	**Topography:**	plain
Tree/shrub cover >2 m (%):	10	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	5	**Soil:**	sandy clay, clay
Grass cover (%):	60	**Rock type:**	granite rocks
Herb cover (%):	40	**Fire age:**	>5 years

Disturbance details: grazing – medium, livestock tracks, weed infestation

Vegetation condition: Excellent, Trudgen (1991)

Vegetation description: Open low *Acacia aneura* and *A. pteraenura* woodland over sparse mid *Eremophila galeata* and *Acacia thoma* shrubland over low *Aristida contorta*, *Eragrostis pergarcilis* and *Tripogon loliiformis* tussock grassland and low *Myriocephalus rudallii* forbland.

Species	Cover (%)	Height (m)	Weeds	Conservation status
Myriocephalus rudallii	40.0	00.05		
Aristida contorta	20.0	00.10		
Tripogonella loliiformis	20.0	00.10		
Eragrostis pergracilis	20.0	00.10		
Acacia aneura	05.0	06.00		
Acacia pteraneura	05.0	05.00		
Eremophila galeata	03.0	02.00		
Acacia thoma	02.0	02.00		
Bidens bipinnata	00.5	00.10	*	
Hakea lorea	00.1	02.50		
Acacia burkittii	00.1	02.00		
Senna artemisioides subsp. *helmsii*	00.1	02.00		
Acacia tetragonophylla	00.1	01.00		
Sida calyxhymenia	00.1	01.00		
Abutilon oxycarpum	00.1	00.60		
Solanum lasiophyllum	00.1	00.50		
Spartothamnella teucriiflora	00.1	00.50		
Psydrax latifolia	00.1	00.50		

Eremophila lanceolata	00.1	00.40
Triodia basedowii	00.1	00.40
Eremophila glabra subsp. *glabra*	00.1	00.40
Nicotiana occidentalis	00.1	00.30
Eragrostis leptocarpa	00.1	00.20
Eragrostis kennedyae	00.1	00.20
Eriachne flaccida	00.1	00.20
Portulaca filifolia	00.1	00.20
Evolvulus alsinoides var. *villosicalyx*	00.1	00.20
Sida fibulifera	00.1	00.10
Cynodon convergens	00.1	00.10

Site:	PTSHP2019	**Type:**	Quadrat (50 m x 50 m)
Date(s):	12 October 2015	**Position:**	-24.749809, 120.179714
Total vegetation cover (%):	85	**Topography:**	plain
Tree/shrub cover >2 m (%):	10	**Soil colour:**	red-orange
Shrub cover <2 m (%):	10	**Soil:**	sand, sandy clay
Grass cover (%):	80	**Rock type:**	ferrous – ironstone
Herb cover (%):	0.4	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia* sp. woodland over isolated mid *Eremophila glabra* subsp. *glabra* and *E. forrestii* subsp. *forrestii* shrubs over closed low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	80.0	00.40		
Acacia sp.	15.0	09.00		
Eremophila glabra subsp. *glabra*	03.0	02.00		
Eremophila forrestii subsp. *forrestii*	01.0	01.50		
Hakea lorea	00.1	03.00		
Acacia kempeana	00.1	02.00		
Acacia tetragonophylla	00.1	02.00		
Eremophila latrobei subsp. *glabra*	00.1	01.50		
Spartothamnella teucriiflora	00.1	01.00		
Senna artemisioides subsp. *helmsii*	00.1	01.00		
Rhagodia eremaea	00.1	01.00		
Sida arenicola	00.1	01.00		
Eremophila margarethae	00.1	00.50		
Eremophila galeata	00.1	00.50		
Seringia elliptica	00.1	00.50		
Paraneurachne muelleri	00.1	00.50		
Solanum centrale	00.1	00.40		
Hibiscus burtonii	00.1	00.30		
Goodenia triodiophila	00.1	00.30		

Ptilotus schwartzii	00.1	00.30
Leptosema chambersii	00.1	00.20
Scaevola parvifolia subsp. *pilbarae*	00.1	00.20
Ptilotus nobilis	00.1	00.20
Eriachne aristidea	00.1	00.20
Euphorbia drummondii	00.1	00.10

Site:	PTSHP2020	**Type:**	Quadrat (50 m x 50 m)
Date(s):	11 October 2015	**Position:**	-24.753472, 119.955628
Total vegetation cover (%):	18	**Topography:**	plain
Tree/shrub cover >2 m (%):	5	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	3	**Soil:**	clay
Grass cover (%):	10	**Rock type:**	granite rocks
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	grazing – low, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Acacia aneura* trees over isolated low *Eremophila galeata* and *E. margarethae* shrubs over open low *Aristida contorta* and *E. pergacilis* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Aristida contorta	07.0	00.20		
Acacia aneura	05.0	06.00		
Eragrostis pergracilis	03.0	00.10		
Eremophila margarethae	02.0	00.60		
Eremophila galeata	01.0	01.50		
Psydrax suaveolens	00.1	03.00		
Acacia tetragonophylla	00.1	03.00		
Acacia subcontorta	00.1	02.50		
Santalum acuminatum	00.1	01.60		
Spartothamnella teucriiflora	00.1	01.00		
Rhagodia eremaea	00.1	01.00		
Ptilotus obovatus	00.1	00.80		
Abutilon cryptopetalum	00.1	00.60		
Maireana villosa	00.1	00.50		
Eremophila lanceolata	00.1	00.40		
Solanum lasiophyllum	00.1	00.40		
Ptilotus schwartzii	00.1	00.30		
Hibiscus burtonii	00.1	00.30		
Eragrostis eriopoda	00.1	00.20		

Dysphania rhadinostachya	00.1	00.15
Enneapogon polyphyllus	00.1	00.15
Triraphis mollis	00.1	00.10
Ptilotus roei	00.1	00.10
Calandrinia sp.	00.1	00.10
Calandrinia polyandra	00.1	00.01

Site:	PTSHP2101	**Type:**	Quadrat (50 m x 50 m)
Date(s):	12 October 2015	**Position:**	-24.744722, 119.713919
Total vegetation cover (%):	70	**Topography:**	plain
Tree/shrub cover >2 m (%):	35	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	10	**Soil:**	sandy clay, clay
Grass cover (%):	35	**Rock type:**	granite rocks
Herb cover (%):	0.4	**Fire age:**	>5 years
Disturbance details:	grazing – low, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Acacia incurvaneura*, *A. macraneura* and *A. subcontorta* woodland over isolated mid *Eremophila forrestii* subsp. *forrestii* and *Sida ectogama* shrubs over low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia basedowii	35.0	00.50		
Acacia incurvaneura	10.0	06.00		
Acacia macraneura	10.0	06.00		
Acacia subcontorta	10.0	06.00		
Acacia kempeana	05.0	06.00		
Eremophila forrestii subsp. *forrestii*	03.0	01.80		
Acacia pruinocarpa	01.0	06.00		
Acacia tetragonophylla	01.0	04.00		
Psydrax latifolia	01.0	03.00		
Sida ectogama	01.0	01.30		
Senna artemisioides subsp. *oligophylla*	00.1	01.50		
Anthobolus leptomerioides	00.1	01.50		
Eremophila spectabilis	00.1	01.20		
Senna glaucifolia	00.1	01.20		
Indigofera georgei	00.1	01.00		
Enchylaena tomentosa	00.1	01.00		
Ptilotus obovatus	00.1	01.00		
Eremophila margarethae	00.1	00.70		
Ptilotus polystachyus	00.1	00.50		

Sida sp. Golden calyces pubescent (G.J. Leach 1966	00.1	00.50
Solanum lasiophyllum	00.1	00.40
Monachather paradoxus	00.1	00.30
Eragrostis eriopoda	00.1	00.30
Ptilotus schwartzii	00.1	00.30
Hibiscus burtonii	00.1	00.30
Haloragis trigonocarpa	00.1	00.30
Lobelia heterophylla	00.1	00.30
Aristida inaequiglumis	00.1	00.30
Dysphania rhadinostachya	00.1	00.20
Aristida contorta	00.1	00.10

Site:	PTSHP2118R	**Type:**	Relevé (unbounded)
Date(s):	09 October 2015	**Position:**	-24.763228, 120.287478
Total vegetation cover (%):	40	**Topography:**	seasonally wet area
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown, red-orange
Shrub cover <2 m (%):	30	**Soil:**	clay loam
Grass cover (%):	3	**Rock type:**	granite rocks
Herb cover (%):	10	**Fire age:**	>5 years
Disturbance details:	grazing – medium, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Mid *Corynotheca pungens* shrubland over isolated low *Eragrostis pegracilis* and *E. dielsii* tussock grasses and isolated low *Marsilea hirsuta* and *Bergia pedicellaris* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Corynotheca pungens	30.0	01.50		
Marsilea hirsuta	05.0	00.05		
Eragrostis pergracilis	02.0	00.15		
Bergia pedicellaris	02.0	00.02		
Tecticornia indica subsp. *leiostachya*	01.0	00.40		
Pluchea rubelliflora	01.0	00.40		
Fimbristylis dichotoma	01.0	00.05		
Eragrostis dielsii	01.0	00.01		
Melaleuca interioris	00.5	01.50		
Wahlenbergia tumidifructa	00.1	01.00		
Senna sericea	00.1	01.00		
Frankenia laxiflora	00.1	00.50		
Alternanthera nodiflora	00.1	00.30		
Eragrostis cumingii	00.1	00.20		
Triglochin nana	00.1	00.10		
Myriocephalus rudallii	00.1	00.10		
Angianthus cyathifer	00.1	00.10		
Centipeda thespidioides	00.1	00.05		
Peplidium aithocheilum	00.1	00.01		

Site:	PTSHP2141	**Type:**	Quadrat (50 m x 50 m)
Date(s):	08 October 2015	**Position:**	-24.743659, 120.330019
Total vegetation cover (%):	80	**Topography:**	plain
Tree/shrub cover >2 m (%):	15	**Soil colour:**	red-orange
Shrub cover <2 m (%):	10	**Soil:**	sand, sandy loam,
Grass cover (%):	65	**Rock type:**	
Herb cover (%):	0.1	**Fire age:**	1 - 5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open tall *Acacia prainii*, *A. sibirica* and *A. tetragonophylla* shrubland over low *Triodia schinzii* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	65.0	00.50		
Acacia prainii	15.0	02.50		
Daviesia eremaea	10.0	01.60		
Acacia sibirica	01.0	04.00		
Acacia tetragonophylla	01.0	03.00		
Acacia ligulata	01.0	02.00		
Eriachne mucronata	01.0	00.50		
Grevillea striata	00.1	05.00		
Grevillea eriostachya	00.1	02.50		
Lysiana exocarpi	00.1	02.00		
Hakea lorea	00.1	02.00		
Templetonia egena	00.1	01.60		
Acacia dictyophleba	00.1	01.50		
Eremophila glabra subsp. *glabra*	00.1	01.20		
Rhagodia eremaea	00.1	01.00		
Alyogyne pinoniana	00.1	01.00		
Eremophila forrestii subsp. *forrestii*	00.1	00.50		
Prostanthera wilkieana	00.1	00.50		
Triodia basedowii	00.1	00.50		
Amphipogon caricinus	00.1	00.40		

Scaevola parvifolia subsp. *pilbarae*	00.1	00.30
Goodenia triodiophila	00.1	00.20

Site:	TEC001	**Type:**	Relevé (unbounded)
Date(s):	25 April 2015	**Position:**	-24.743097, 120.26762
Total vegetation cover (%):	10	**Topography:**	Lake beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	9	**Soil:**	sandy clay
Grass cover (%):	1.5	**Rock type:**	none
Herb cover (%):	3	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Tecticornia indica* subsp. *bidens*, *T. undulata* and *T.* sp. Dennys Crossing chenopod shrubland over isolated low *Eragrostis leptocarpa*, *Enneapogon caerulescens* and *Aristida holathera* tussock grasses, isolated clumps of low *Cyperus bulbosus* sedges and isolated clumps of low *Dysphania kalpari*, *Goodenia pascua* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia indica subsp. *bidens*	04.0	00.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	04.0	00.20		
Goodenia pascua	02.0	00.05		
Tecticornia undulata	01.0	00.30		
Eragrostis leptocarpa	01.0	00.10		
Dysphania kalpari	01.0	00.05		
Aristida holathera	00.5	00.20		
Frankenia laxiflora	00.3	00.20		
Cyperus bulbosus	00.3	00.10		
Triodia schinzii	00.1	00.40		
Tecticornia sp. (sterile) [group 5]	00.1	00.30		
Enneapogon caerulescens	00.1	00.10		
Swainsona laciniata	00.1	00.05		

Site:	TEC002-1	**Type:**	Relevé (unbounded)
Date(s):	25 April 2015	**Position:**	-24.764161, 120.269355
Total vegetation cover (%):	20	**Topography:**	Lake bed
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	20	**Soil:**	sandy clay
Grass cover (%):	0.5	**Rock type:**	none
Herb cover (%):	1	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia undulata, T. peltata* and *T.* sp. Dennys Crossing chenopod shrubland over isolated low *Eragrostis kennedyae* tussock grasses and isolated low *Dysphania kalpari*, *Goodenia pascua* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	09.0	00.30		
Muellerolimon salicorniaceum	05.0	00.30		
Tecticornia undulata	04.0	00.30		
Tecticornia peltata	02.0	00.40		
Frankenia laxiflora	01.0	00.20		
Swainsona laciniata	01.0	<00.01		
Eragrostis kennedyae	00.5	00.20		
Tecticornia globulifera	00.3	00.30		P1 (WC Act)
Tecticornia aff. sp. Dennys Crossing (KS 552)	00.1	00.30		
Tecticornia sp. nov. 2 (aff. pruinosa/undulata)	00.1	00.30		
Dysphania kalpari	00.1	00.05		
Goodenia pascua	00.1	<00.01		

Site:	TEC002-2	**Type:**	Relevé (unbounded)
Date(s):	25 April 2015	**Position:**	-24.764161, 120.269355
Total vegetation cover (%):	17	**Topography:**	Lake beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	17	**Soil:**	sand
Grass cover (%):	2	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	none		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia globulifera*, *Muellerolimon salicorniaceum* and *Scaevola collaris* shrubland over isolated low *Eragrostis kennedyae* tussock grasses and isolated low *Goodenia pascua* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Scaevola collaris	13.0	00.25		
Muellerolimon salicorniaceum	03.0	00.30		
Eragrostis kennedyae	02.0	00.20		
Tecticornia globulifera	01.0	00.30		P1 (WC Act)
Tecticornia undulata	00.5	00.25		
Tecticornia sp. (sterile) ? [group 6]	00.1	00.30		
Goodenia pascua	00.1	00.10		

Site:	TEC003	**Type:**	Relevé (unbounded)
Date(s):	24 April 2015	**Position:**	-24.75311, 120.263771
Total vegetation cover (%):	20	**Topography:**	Lake beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	9	**Soil:**	sand
Grass cover (%):	0.1	**Rock type:**	none
Herb cover (%):	12	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Frankenia laxiflora*, *Tecticornia indica* subsp. *bidens* and *T.* sp. Dennys crossing shrubland over isolated low *Aristida holathera* tussock grasses and *Cyperus iria* sedges over open low *Goodenia pascua* and *Dysphania kalpari* forbland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Goodenia pascua	13.0	<00.01		
Frankenia laxiflora	07.0	00.20		
Tecticornia indica subsp. *bidens*	02.0	00.20		
Dysphania kalpari	00.3	00.05		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	00.1	00.30		
Aristida holathera	00.1	00.20		
Cyperus iria	00.1	00.15		
Pluchea rubelliflora	00.1	00.10		
Angianthus cyathifer	0.1	0.05		

Site:	TEC004-1	**Type:**	Relevé (unbounded)
Date(s):	25 April 2015	**Position:**	-24.737639, 120.304583
Total vegetation cover (%):	15	**Topography:**	Salt lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown
Shrub cover <2 m (%):	15	**Soil:**	sandy loam
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	0.2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* spp. chenopod shrubland over isolated low *Dysphania kalpari* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	06.0	00.30		
Tecticornia globulifera	05.0	00.30		P1 (WC Act)
Tecticornia undulata	03.0	00.20		
Tecticornia peltata	02.0	00.50		
Dysphania kalpari	00.2	00.05		
Tecticornia sp. Yoothapina Station (A.A. Mitchell	00.1	00.25		

Site:	TEC004-2	**Type:**	Relevé (unbounded)
Date(s):	25 April 2015	**Position:**	-24.737639, 120.304583
Total vegetation cover (%):	25	**Topography:**	Salt lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown
Shrub cover <2 m (%):	24	**Soil:**	sandy loam
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Tecticornia* sp. sterile [group 3], *T.* sp. Cristmas creek and *Frankenia laxiflora* shrubland over isolated low *Goodenia pascua* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Frankenia laxiflora	10.0	00.30		
Tecticornia sp. Christmas Creek (K.A. Shepherd & T	10.0	00.20		P1 (WC Act)
Tecticornia sp. (sterile) [group 3]	04.0	00.30		
Goodenia pascua	02.0	00.05		

Site:	TEC005-1	**Type:**	Relevé (unbounded)
Date(s):	25 April 2015	**Position:**	-24.759757, 120.305066
Total vegetation cover (%):	10	**Topography:**	Salt lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	8	**Soil:**	sandy clay
Grass cover (%):	2	**Rock type:**	none
Herb cover (%):	1	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Tecticornia undulata*, *T.* sp. Dennys Crossing and *T.* sp. Little Sandy Desert chenopod shrubland over isolated low *Eragrostis kennedyae* and *E. pergracilis* tussock grasses and *Dysphania kalpari* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia undulata	08.0	00.30		
Eragrostis pergracilis	02.0	00.10		
Swainsona laciniata	01.0	00.05		
Dysphania kalpari	00.3	00.15		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	00.2	00.20		
Tecticornia willisii	00.1	00.30		P1 (WC Act)
Tecticornia sp. (sterile) [group 5]	00.1	00.20		
Eragrostis kennedyae	00.1	00.15		

Site:	TEC005-2	**Type:**	Relevé (unbounded)
Date(s):	25 April 2015	**Position:**	-24.759757, 120.305066
Total vegetation cover (%):	12	**Topography:**	Salt lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	9	**Soil:**	sandy clay
Grass cover (%):	3	**Rock type:**	none
Herb cover (%):	1	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* spp. chenopod shrubland over isolated low *Eragrostis kennedyae* tussock grasses and isolated low *Dysphania kalpari* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	06.0	00.60		
Eragrostis kennedyae	03.0	00.20		
Tecticornia undulata	02.0	00.40		
Tecticornia sp. Christmas Creek (K.A. Shepherd & T	01.5	00.20		P1 (WC Act)
Tecticornia indica subsp. *bidens*	01.0	00.20		
Swainsona laciniata	01.0	00.05		
Dysphania kalpari	00.1	00.15		

Site:	TEC006-1	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.74891, 120.315323
Total vegetation cover (%):	16	**Topography:**	Salt lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown
Shrub cover <2 m (%):	15	**Soil:**	sandy clay
Grass cover (%):	2	**Rock type:**	none
Herb cover (%):	0.3	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia peltata*, *T. verrucosa* and *T. pergranulata* subsp. *elongata* chenopod shrubland over isolated low *Eragrostis pergracilis* tussock grasses and isolated clumps of *Dysphania kalpari* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia peltata	15.0	00.50		
Eragrostis pergracilis	02.0	00.05		
Tecticornia pergranulata subsp. *elongata*	00.1	00.15		
Tecticornia verrucosa	00.1	00.10		
Dysphania kalpari	00.1	00.05		
Swainsona laciniata	00.1	<00.01		
Thyridia repens	0.1	0.1		

Site:	TEC006-2	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.74891, 120.315323
Total vegetation cover (%):	20	**Topography:**	Salt lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, brown
Shrub cover <2 m (%):	17	**Soil:**	sandy clay
Grass cover (%):	1	**Rock type:**	none
Herb cover (%):	5	**Fire age:**	>5 years
Disturbance details:	vehicle tracks, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia peltata* chenopod shrubland over isolated *Eragrostis pergracilis* tussock grasses and sparse low *Dysphania kalpari* and *Swainsona laciniata* forbland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia peltata	17.0	00.50		
Swainsona laciniata	05.0	<00.01		
Eragrostis pergracilis	01.0	00.05		
Dysphania kalpari	00.1	00.05		

Site:	TEC006-3	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.74891, 120.315323
Total vegetation cover (%):	20	**Topography:**	Salt lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	18	**Soil:**	sandy loam
Grass cover (%):	0.2	**Rock type:**	none
Herb cover (%):	5	**Fire age:**	>5 years
Disturbance details:	vehicle tracks, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open mid *Tecticornia willisii* chenopod shrubland over sparse low *T. indica* subsp. *bidens*, *T. peltata* and *T. undulata* chenopod shrubland over isolated low *Eragrostis kennedyae* and *E. pergracilis* tussock grasses and sparse low *Dysphania kalpari*, *Sclerolaena alata* and *Swainsona laciniata* forbland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia willisii	10.0	01.20		P1 (WC Act)
Tecticornia indica subsp. *bidens*	05.0	00.20		
Swainsona laciniata	05.0	<00.01		
Tecticornia peltata	03.0	00.50		
Tecticornia undulata	00.3	00.10		
Dysphania kalpari	00.2	00.05		
Sclerolaena alata	00.1	00.20		
Eragrostis kennedyae	00.1	00.20		
Eragrostis pergracilis	00.1	00.05		
Angianthus cyathifer	0.1	0.05		

Site:	TEC007-1	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.755541, 120.280057
Total vegetation cover (%):	8	**Topography:**	Salt lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, red-brown
Shrub cover <2 m (%):	8	**Soil:**	sandy clay
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Tecticornia* spp. chenopod shrubland over isolated low *Thyridia repens* herbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia globulifera	05.0	00.30		P1 (WC Act)
Tecticornia sp. (sterile) ? [group 6]	01.5	00.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	01.0	00.20		
Tecticornia sp. Christmas Creek (K.A. Shepherd & T	00.1	00.20		P1 (WC Act)
Tecticornia pergranulata subsp. *elongata*	00.1	00.15		
Tecticornia verrucosa	00.1	00.15		
Thyridia repens	0.1	0.1		

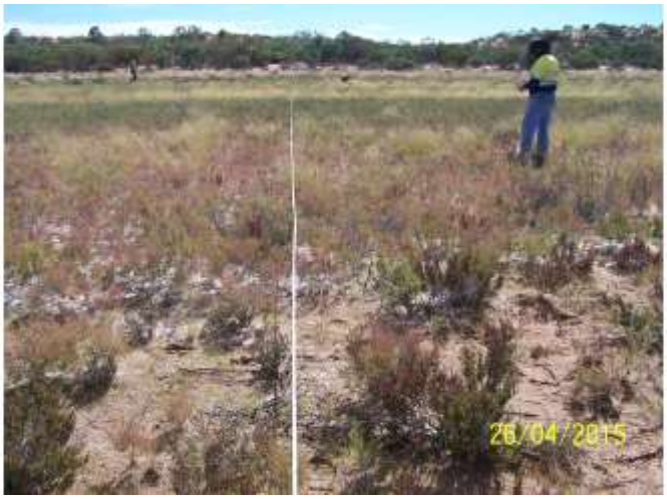
Site:	TEC007-2	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.755541, 120.280057
Total vegetation cover (%):	11	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown, whitish
Shrub cover <2 m (%):	10	**Soil:**	sandy clay
Grass cover (%):	3	**Rock type:**	none
Herb cover (%):	2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Tecticornia* spp. chenopod shrubland over isolated low *Eragrostis kennedyae* tussock grasses and isolated low *Dysphania kalpari* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Eragrostis kennedyae	03.0	00.30		
Tecticornia indica subsp. *bidens*	03.0	00.20		
Tecticornia undulata	02.0	00.40		
Tecticornia globulifera	02.0	00.30		P1 (WC Act)
Swainsona laciniata	02.0	<00.01		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	01.0	00.20		
Tecticornia sp. Christmas Creek (K.A. Shepherd & T	00.2	00.20		P1 (WC Act)
Dysphania kalpari	00.1	00.02		

Site:	TEC007-3	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.755541, 120.280057
Total vegetation cover (%):	30	**Topography:**	Lake playa/beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	17	**Soil:**	sandy loam
Grass cover (%):	15	**Rock type:**	none
Herb cover (%):	2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open mid *Tecticornia* sp. Dennys Crossing chenopod shrubland over isolated low *Frankenia cinerea* and *Tecticornia* spp. shrubs over open low *Eragrostis kennedyae* tussock grassland and isolated clumps of low *Cyperus bulbosus* sedges and isolated low *Dysphania kalpari*, *Goodenia pascua* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	15.0	01.20		
Eragrostis kennedyae	15.0	00.30		
Frankenia cinerea	02.0	00.25		
Goodenia pascua	01.0	00.05		
Swainsona laciniata	01.0	<00.01		
Tecticornia indica subsp. *bidens*	00.5	00.20		
Dysphania kalpari	00.5	00.05		
Tecticornia sp. (sterile) ? [group 6]	00.1	00.20		
Tecticornia sp. Christmas Creek (K.A. Shepherd & T	00.1	00.20		P1 (WC Act)
Cyperus bulbosus	00.1	00.10		
Rhagodia eremaea	00.1	00.10		
Dactyloctenium radulans	00.1	00.10		

Site:	TEC008-1	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.746133, 120.289085
Total vegetation cover (%):	18	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, brown
Shrub cover <2 m (%):	15	**Soil:**	sand
Grass cover (%):	2.5	**Rock type:**	none
Herb cover (%):	0.3	**Fire age:**	1 – 5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* spp. and *Frankenia laxiflora* shrubland over isolated low *Eragrostis kennedyae* and *E. pergracilis* tussock grasses and isolated low *Dysphania kalpari* and *Swainsona laciniata* forbs.		



Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	07.0	00.20		
Tecticornia undulata	04.0	00.30		
Eragrostis kennedyae	02.0	00.20		
Tecticornia indica subsp. *bidens*	02.0	00.20		
Tecticornia sp. Christmas Creek (K.A. Shepherd & T	01.0	00.20		P1 (WC Act)
Tecticornia globulifera	00.5	00.15		P1 (WC Act)
Eragrostis pergracilis	00.5	00.05		
Dysphania kalpari	00.2	00.05		
Frankenia laxiflora	00.1	00.20		
Mimulus gracilis	00.1	00.1		
Angianthus cyathifer	00.1	00.05		
Swainsona laciniata	00.1	<00.01		

Site:	TEC008-2	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.746133, 120.289085
Total vegetation cover (%):	10	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, brown
Shrub cover <2 m (%):	9	**Soil:**	sand
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	2.5	**Fire age:**	1 – 5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* spp. and *Frankenia laxiflora* shrubland over isolated low *Dysphania kalpari*, *Goodenia pascua* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia indica subsp. *bidens*	03.0	00.35		
Frankenia laxiflora	03.0	00.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	03.0	00.20		
Goodenia pascua	02.0	00.05		
Swainsona laciniata	00.5	<00.01		
Tecticornia sp. Christmas Creek (K.A. Shepherd & T	00.1	00.20		P1 (WC Act)
Dysphania kalpari	00.1	00.05		

Site:	TEC008-3	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.746133, 120.289085
Total vegetation cover (%):	6	**Topography:**	Lake playa/beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, brown
Shrub cover <2 m (%):	5	**Soil:**	sand
Grass cover (%):	0	**Rock type:**	none
Herb cover (%):	1	**Fire age:**	1 – 5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Frankenia laxiflora* and *Tecticornia indica* subsp. *bidens* shrubland over isolated low *Goodenia pascua* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia indica subsp. *bidens*	03.0	00.20		
Frankenia laxiflora	02.0	00.20		
Goodenia pascua	01.0	00.10		
Muellerolimon salicorniaceum	0.1	0.15		
Samolus repens	0.1	0.1		

Site:	TEC009-1	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.759681, 120.253611
Total vegetation cover (%):	13	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, brown
Shrub cover <2 m (%):	12	**Soil:**	sandy clay
Grass cover (%):	0.4	**Rock type:**	none
Herb cover (%):	1.2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia undulata*, *T.* sp. Dennys Crossing and *T. indica* subsp. *bidens* chenopod shrubland over isolated low *Eragrostis kennedyae* tussock grasses and isolated low *Dysphania kalpari* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia undulata	06.0	00.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	05.0	00.30		
Tecticornia indica subsp. *bidens*	01.0	00.30		
Dysphania kalpari	01.0	00.05		
Eragrostis kennedyae	00.2	00.20		
Eragrostis pergracilis	00.2	00.05		
Swainsona laciniata	00.1	<00.01		
Goodenia lamprosperma	0.1	0.05		

Site:	TEC009-2	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.759681, 120.253611
Total vegetation cover (%):	27	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	25	**Soil:**	sand
Grass cover (%):	2	**Rock type:**	none
Herb cover (%):	3	**Fire age:**	>5 years
Disturbance details:	vehicle tracks, livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* spp. chenopod shrubland over isolated low mixed tussock grasses, isolated low *Cyperus bulbosus* sedges and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia indica subsp. *bidens*	17.0	00.30		
Tecticornia undulata	10.0	00.30		
Swainsona laciniata	02.0	<00.01		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	01.0	00.20		
Cyperus bulbosus	01.0	00.10		
Eragrostis kennedyae	00.5	00.20		
Euphorbia tannensis	00.5	00.10		
Tribulus occidentalis	00.5	<00.01		
Tragus australianus	00.2	00.10		
Trianthema triquetrum	00.2	<00.01		
Tecticornia sp. (sterile) [group 3]	00.1	00.20		
Paspalidium rarum	00.1	00.10		
Perotis rara	00.1	00.10		
Solanum lasiophyllum	00.1	00.10		
Dysphania kalpari	00.1	00.05		
Boerhavia coccinea	00.1	<00.01		

Site:	TEC010	**Type:**	Relevé (unbounded)
Date(s):	26 April 2015	**Position:**	-24.761906, 120.246263
Total vegetation cover (%):	10	**Topography:**	Lake beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	9	**Soil:**	sand
Grass cover (%):	0.7	**Rock type:**	none
Herb cover (%):	0.3	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Tecticornia* spp. and *Frankenia laxiflora* shrubland over isolated low *Eragrostis kennedyae* and Poaceae sp. tussock grasses and isolated low *Dysphania kalpari* and *Goodenia pascua* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia pergranulata subsp. *pergranulata*	08.0	00.25		
Frankenia laxiflora	01.0	00.20		
Eragrostis kennedyae	00.5	00.20		
Poaceae sp.	00.2	00.20		
Angianthus cyathifer	00.1	00.5		
Tecticornia undulata	00.1	00.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	00.1	00.20		
Tecticornia indica subsp. *leiostachya*	00.1	00.20		
Goodenia pascua	00.1	00.05		
Dysphania kalpari	00.1	00.05		

Site:	TEC011-1	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.762717, 120.225491
Total vegetation cover (%):	9.5	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	8.5	**Soil:**	sandy clay
Grass cover (%):	1	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Tecticornia indica* subsp. *bidens*, *T. pergranulata* subsp. *pergranulata* and *Frankenia laxiflora* shrubland over isolated low *Eragrostis kennedyae* tussock grasses.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia pergranulata subsp. *pergranulata*	06.0	00.25		
Tecticornia indica subsp. *bidens*	02.0	00.25		
Eragrostis kennedyae	01.0	00.20		
Frankenia laxiflora	00.5	00.25		

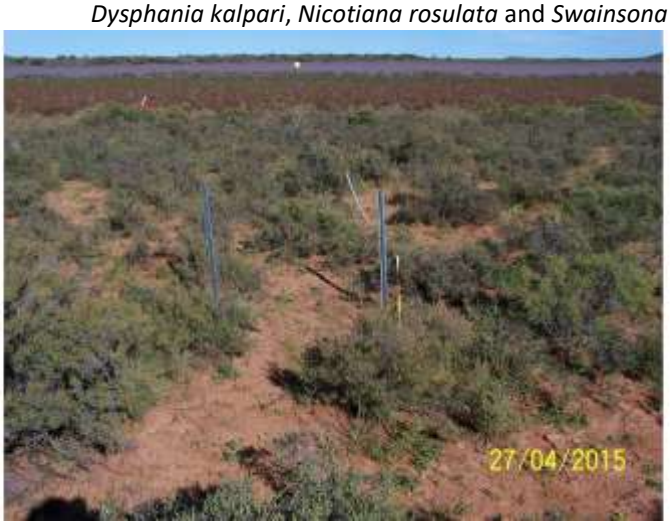
Site:	TEC011-2	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.762717, 120.225491
Total vegetation cover (%):	35	**Topography:**	Sandy rise on salt lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	35	**Soil:**	sand
Grass cover (%):	2	**Rock type:**	none
Herb cover (%):	0.4	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Tecticornia* sp. Dennys Crossing, *Muellerolimon salicorniaceum* and *Frankenia laxiflora* shrubland over isolated low *Eragrostis kennedyae* tussock grasses, isolated low *Cyperus iria* sedges and isolated low *Angianthus cyathifer*, *Goodenia pascua* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	20.0	01.00		
Muellerolimon salicorniaceum	15.0	00.40		
Eragrostis kennedyae	02.0	00.20		
Frankenia laxiflora	01.0	00.20		
Goodenia pascua	00.2	00.05		
Cyperus iria	00.1	00.10		
Angianthus cyathifer	00.1	00.05		
Swainsona laciniata	00.1	<00.01		

Site:	TEC011-3	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.762717, 120.225491
Total vegetation cover (%):	18	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	18	**Soil:**	sandy clay
Grass cover (%):	0.2	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Low *Tecticornia* spp. chenopod shrubland over isolated low *Cyperus iria* sedges and isolated clumps of *Dysphania kalpari* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia globulifera	13.0	00.30		P1 (WC Act)
Tecticornia indica subsp. *bidens*	05.0	00.30		
Cyperus iria	00.2	00.10		
Tecticornia sp. (sterile) [group 3]	00.1	00.20		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	00.1	00.20		
Tecticornia sp. Christmas Creek (K.A. Shepherd & T	00.1	00.20		P1 (WC Act)
Dysphania kalpari	00.1	00.05		

Site:	TEC011-4	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.762717, 120.225491
Total vegetation cover (%):	35	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, brown
Shrub cover <2 m (%):	33	**Soil:**	sandy clay
Grass cover (%):	0.2	**Rock type:**	none
Herb cover (%):	4.5	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated mid *Tecticornia* sp. Dennys Crossing shrubs over a low *Tecticornia indica* subsp. *bidens* and *T.* sp. nov. 2 (aff pruinosa/undulata) chenopod shrubland over isolated low *Eragrostis kennedyae* and *Enneapogon polyphyllus* tussock grasses, isolated low *Cyperus iria* sedges and sparse low *Dysphania kalpari*, *Nicotiana rosulata* and *Swainsona laciniata* forbland.		



Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia indica subsp. *bidens*	30.0	00.25		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	04.0	01.10		
Swainsona laciniata	02.0	<00.01		
Nicotiana rosulata	01.5	<00.01		
Dysphania kalpari	01.0	00.05		
Cyperus iria	00.5	00.10		
Tecticornia sp. nov. 2 (aff. pruinosa/undulata)	00.1	00.30		
Eragrostis kennedyae	00.1	00.20		
Enneapogon polyphyllus	00.1	00.15		

Site:	TEC012	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.760789, 120.212179
Total vegetation cover (%):	11	**Topography:**	Lake playa/beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	9	**Soil:**	sandy clay
Grass cover (%):	1.5	**Rock type:**	none
Herb cover (%):	1.4	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Tecticornia* spp. and *Frankenia laxiflora* shrubland over isolated low *Cyperus bulbosus, C. rigidellus* and *C. squarrosus* sedges, isolated low *Eragrostis kennedyae* and *Dactyloctenium radulans* tussock grasses and isolated low *Alternanthera nana*, *Dysphania kalpari* and *Goodenia pascua* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia indica subsp. *bidens*	05.0	00.30		
Tecticornia pergranulata subsp. *pergranulata*	02.0	00.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	01.5	00.20		
Goodenia pascua	01.0	00.20		
Frankenia laxiflora	01.0	00.10		
Cyperus squarrosus	01.0	00.05		
Cyperus bulbosus	00.2	00.20		
Eragrostis kennedyae	00.1	00.20		
Cyperus rigidellus	00.1	00.20		
Bulbostylis barbata	00.1	00.10		
Alternanthera nana	00.1	00.10		
Dysphania kalpari	00.1	00.05		
Dactyloctenium radulans	00.1	00.05		
Angianthus cyathifer	00.1	00.05		

Site:	TEC013-1	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.777338, 120.312452
Total vegetation cover (%):	15	**Topography:**	Lake playa/beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	15	**Soil:**	sandy loam
Grass cover (%):	0.2	**Rock type:**	none
Herb cover (%):	0.2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* sp. (sterile) [group 3] chenopod shrubland over isolated low *Eragrostis pergracilis* tussock grasses and isolated clumps of *Dysphania kalpari* and *Sclerolaena alata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. (sterile) [group 3]	15.0	00.32		
Eragrostis pergracilis	00.2	00.10		
Sclerolaena alata	00.1	00.10		
Dysphania kalpari	00.1	00.05		

Site:	TEC013-2	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.777338, 120.312452
Total vegetation cover (%):	10	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	9	**Soil:**	sand
Grass cover (%):	1	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Tecticornia willisii*, *T.* sp. (sterile) [group 3] and *Scaevola collaris* shrubland over isolated low *Eragrostis kennedyae* and *E. pergracilis* tussock grasses and isolated low *Dysphania kalpari* and *Lawrencia densiflora* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia willisii	04.0	00.30		P1 (WC Act)
Lawrencia densiflora	03.0	00.20		
Scaevola collaris	02.0	00.25		
Eragrostis kennedyae	01.0	00.20		
Dysphania kalpari	00.5	00.05		
Tecticornia sp. (sterile) [group 3]	00.2	00.30		
Eragrostis pergracilis	00.1	00.10		

Site:	TEC016-1	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.766097, 120.350967
Total vegetation cover (%):	18	**Topography:**	Lake playa/beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	18	**Soil:**	sandy clay
Grass cover (%):	0.1	**Rock type:**	none
Herb cover (%):	0.2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* sp. (sterile) [group 3], *T.* sp. Dennys Crossing and *T.* sp. Little Sandy Desert chenopod shrubland over isolated clumps of low *Eragrostis pergracilis* tussock gasses and isolated clumps of low *Dysphania kalpari* and *Sclerolaena alata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. (sterile) [group 3]	18.0	00.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	00.5	00.25		
Tecticornia willisii	00.1	00.30		P1 (WC Act)
Sclerolaena alata	00.1	00.15		
Eragrostis pergracilis	00.1	00.10		
Dysphania kalpari	00.1	00.05		

Site:	TEC016-2	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.766097, 120.350967
Total vegetation cover (%):	9	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	9	**Soil:**	sandy clay
Grass cover (%):	0.1	**Rock type:**	none
Herb cover (%):	0.2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Tecticornia* sp. (sterile) [group 5] and *T.* sp. Dennys Crossing chenopod shrubland over isolated low *Eragrostis pergracilis* tussock grasses and isolated low *Dysphania kalpari* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	07.0	00.30		
Tecticornia sp. (sterile) [group 5]	02.0	00.30		
Dysphania kalpari	00.2	00.05		
Eragrostis pergracilis	00.1	00.10		
Swainsona laciniata	00.1	<00.01		
Tecticornia indica subsp. *bidens*	0.10	00.30		

Site:	TEC016-3	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.766097, 120.350967
Total vegetation cover (%):	13	**Topography:**	Lake playa/beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	13	**Soil:**	sand
Grass cover (%):	0.2	**Rock type:**	none
Herb cover (%):	0.6	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Scaevola collaris*, *Tecticornia indica* subsp. *bidens* and *T.* sp. Dennys Crossing shrubland over isolated low *Aristida holathera* and *Eragrostis kennedyae* tussock grasses, isolated clumps of low *Bulbostylis turbinata* sedges and isolated low *Dysphania kalpari* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia indica subsp. *bidens*	06.0	00.25		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	04.0	00.30		
Scaevola collaris	03.0	00.25		
Podolepis capillaris	00.1	00.30		
Eragrostis kennedyae	00.1	00.20		
Maireana luehmannii	00.1	00.20		
Triraphis mollis	00.1	00.15		
Bulbostylis turbinata	00.1	00.10		
Muellerolimon salicorniaceum	00.1	00.1		
Dysphania kalpari	00.1	00.05		
Boerhavia coccinea	00.1	<00.01		
Swainsona laciniata	00.1	<00.01		

Site:	TEC020-1	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.753373, 120.338162
Total vegetation cover (%):	15	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	whitish
Shrub cover <2 m (%):	15	**Soil:**	clay loam
Grass cover (%):	0.5	**Rock type:**	none
Herb cover (%):	0.1	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia peltata* chenopod shrubland over isolated low *Eragrostis pergracilis* tussock grasses and isolated clumps of low *Dysphania kalpari* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia peltata	15.0	00.30		
Dysphania kalpari	00.5	00.05		
Eragrostis pergracilis	00.1	00.10		

Site:	TEC020-2	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.753373, 120.338162
Total vegetation cover (%):	19	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, whitish
Shrub cover <2 m (%):	18	**Soil:**	clay loam
Grass cover (%):	0.5	**Rock type:**	none
Herb cover (%):	0.2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* spp. shrubland over isolated low *Eragrostis pergracilis* tussock grasses and isolated low *Dysphania kalpari* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia willisii	11.0	00.30		P1 (WC Act)
Tecticornia peltata	07.0	00.30		
Eragrostis pergracilis	00.5	00.10		
Dysphania kalpari	00.2	00.05		
Tecticornia undulata	00.1	00.30		
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	00.1	00.30		

Site:	TEC020-3	**Type:**	Relevé (unbounded)
Date(s):	27 April 2015	**Position:**	-24.753373, 120.338162
Total vegetation cover (%):	15	**Topography:**	Lake playa/beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	12	**Soil:**	sandy loam
Grass cover (%):	3.5	**Rock type:**	none
Herb cover (%):	1.5	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse mid *Tecticornia* sp. Dennys Crossing shrubland over isolated low *T. indica* subsp. *bidens* shrubs over isolated low *Aristida holathera*, *Eragrostis kennedyae* and *E. pergracilis* tussock grasses and isolated low *Dysphania kalpari*, *Maireana amoena* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	09.0	01.10		
Eragrostis kennedyae	02.0	00.30		
Tecticornia indica subsp. *bidens*	02.0	00.25		
Tecticornia peltata	01.0	00.30		
Aristida holathera	01.0	00.25		
Swainsona laciniata	01.0	<00.01		
Eragrostis pergracilis	00.5	00.10		
Dysphania kalpari	00.5	00.05		
Maireana amoena	00.1	00.25		
Senecio gregorii	0.1			
Samolus repens	0.1			
Muellerolimon salicorniaceum	0.1			
Frankenia laxiflora	0.1			
Frankenia cinerea	0.1			

Site:	TEC025-1	**Type:**	Relevé (unbounded)
Date(s):	28 April 2015	**Position:**	-24.795725, 120.358156
Total vegetation cover (%):	12	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, whitish
Shrub cover <2 m (%):	12	**Soil:**	sandy clay
Grass cover (%):	0.3	**Rock type:**	none
Herb cover (%):	0.2	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia willisii*, *T.* sp. Dennys Crossing and *Frankenia cinerea* shrubland over isolated low *Eragrostis pergracilis* tussock grasses and isolated clumps of *Dysphania kalpari* and *Sclerolaena fimbriolata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia willisii	06.0	00.30		P1 (WC Act)
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	06.0	00.25		
Eragrostis pergracilis	00.3	00.10		
Dysphania kalpari	00.1	00.05		
Frankenia cinerea	0.2			
Sclerolaena fimbriolata	0.1			

Site:	TEC025-2	**Type:**	Relevé (unbounded)
Date(s):	28 April 2015	**Position:**	-24.795725, 120.358156
Total vegetation cover (%):	23	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	brown, whitish
Shrub cover <2 m (%):	22	**Soil:**	sandy clay
Grass cover (%):	0.2	**Rock type:**	none
Herb cover (%):	1.3	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Tecticornia* spp. and *Maireana amoena* chenopod shrubland over isolated low *Eragrostis kennedyae* tussock grasses and isolated low *Dysphania kalpari*, *Heliotropium tanythrix* and *Lawrencia densiflora* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	18.0	00.30		
Tecticornia indica subsp. *bidens*	03.0	00.25		
Tecticornia willisii	01.0	00.30		P1 (WC Act)
Maireana amoena	01.0	00.20		
Lawrencia densiflora	01.0	00.15		
Eragrostis kennedyae	00.2	00.20		
Dysphania kalpari	00.2	00.05		
Tecticornia sp. nov. 2 (aff. pruinosa/undulata)	00.1	00.30		
Heliotropium tanythrix	00.1	00.20		

Site:	TEC025-3	**Type:**	Relevé (unbounded)
Date(s):	28 April 2015	**Position:**	-24.795725, 120.358156
Total vegetation cover (%):	27	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	27	**Soil:**	sandy clay
Grass cover (%):	0.5	**Rock type:**	none
Herb cover (%):	0.5	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse mid *Tecticornia* sp. Sunshine Lake chenopod shrubland over open low *Tecticornia* sp. Christmas creek and *T. indica* subsp. *bidens* chenopod shrubland over isolated low *Eragrostis pergracilis* tussock grasses and isolated low mixed forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Christmas Creek (K.A. Shepherd & T	12.0	00.20		P1 (WC Act)
Tecticornia sp. Sunshine Lake (K.A. Shepherd et al	09.0	01.10		P1 (WC Act)
Tecticornia indica subsp. *bidens*	06.0	00.30		
Eragrostis pergracilis	00.5	00.10		
Dysphania kalpari	00.5	00.05		
Atriplex spongiosa	00.1	00.10		
Nicotiana rosulata	00.1	<00.01		
Swainsona laciniata	00.1	<00.01		

Site:	TEC025-4	**Type:**	Relevé (unbounded)
Date(s):	28 April 2015	**Position:**	-24.795725, 120.358156
Total vegetation cover (%):	19	**Topography:**	Lake playa/beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange
Shrub cover <2 m (%):	18	**Soil:**	sand
Grass cover (%):	0.5	**Rock type:**	none
Herb cover (%):	1	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open mid *Tecticornia* sp. Sunshine Lake chenopod shrubland over sparse low *Tecticornia indica* subsp. *bidens* and *Maireana* spp. chenopod shrubland over isolated clumps of *Enneapogon caerulescens* tussock grasses and isolated low *Dysphania kalpari* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Sunshine Lake (K.A. Shepherd et al	10.0	01.10		P1 (WC Act)
Tecticornia indica subsp. *bidens*	08.0	00.25		
Eragrostis kennedyae	00.5	00.25		
Maireana amoena	00.5	00.20		
Dysphania kalpari	00.5	00.05		
Maireana luehmannii	00.2	00.20		
Swainsona laciniata	00.2	<00.01		
Enneapogon caerulescens	00.1	00.10		

Site:	TEC026-1	**Type:**	Relevé (unbounded)
Date(s):	28 April 2015	**Position:**	-24.819592, 120.259776
Total vegetation cover (%):	5	**Topography:**	Lake playa
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, whitish
Shrub cover <2 m (%):	5	**Soil:**	sandy clay
Grass cover (%):	0.1	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Sparse low *Tecticornia pruinosa* chenopod shrubland over isolated clumps of *Eragrostis pergracilis* tussock grasses.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia pruinosa	05.0	00.20		
Eragrostis pergracilis	00.1	00.10		

Site:	TEC026-2	**Type:**	Relevé (unbounded)
Date(s):	28 April 2015	**Position:**	-24.819592, 120.259776
Total vegetation cover (%):	30	**Topography:**	Lake playa/beach
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-orange, whitish
Shrub cover <2 m (%):	29	**Soil:**	sandy clay
Grass cover (%):	0.5	**Rock type:**	none
Herb cover (%):	1.5	**Fire age:**	>5 years
Disturbance details:	livestock tracks		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open mid *Tecticornia* sp. Dennys Crossing chenopod shrubland over isolated low *Tecticornia pruinosa*, *T. undulata* and *Maireana amoena* shrubs over isolated low *Eragrostis kennedyae* and *E. pergracilis* tussock grasses and isolated low *Dysphania kalpari*, *Sclerolaena alata* and *Swainsona laciniata* forbs.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Tecticornia sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)	27.0	01.10		
Tecticornia undulata	02.0	00.30		
Dysphania kalpari	01.0	00.05		
Eragrostis kennedyae	00.5	00.20		
Swainsona laciniata	00.3	<00.01		
Tecticornia pruinosa	00.1	00.30		
Sclerolaena alata	00.1	00.10		
Maireana amoena	00.1	00.10		
Eragrostis pergracilis	00.1	00.10		

Site:	TPQ001	**Type:**	Quadrat (50 m x 50 m)
Date(s):	22 July 2015	**Position:**	-24.749062, 120.351809
Total vegetation cover (%):	50	**Topography:**	plain
Tree/shrub cover >2 m (%):	5	**Soil colour:**	red-brown
Shrub cover <2 m (%):	30	**Soil:**	sand
Grass cover (%):	20	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	>5 years
Disturbance details:	evidence of feral animals		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated tall *Acacia pteraneura*, *A. kempeana, A. minyura* shrubs over open mid *Melaleuca interioris* shrubland over open low *Triodia basedowii* hummock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Melaleuca interioris	25.0	01.50		
Triodia basedowii	20.0	00.40		
Acacia minyura	03.0	02.50		
Acacia pteraneura	01.0	04.00		
Acacia kempeana	01.0	04.00		
Eremophila maculata	01.0	01.20		
Rhagodia eremaea	00.1	01.20		
Sida sp. dark green fruits (S. van Leeuwen 2260)	00.1	01.20		
Scaevola spinescens	00.1	01.00		
Maireana planifolia	00.1	01.00		
Maireana melanocoma	00.1	00.60		
Eremophila forrestii subsp. *forrestii*	00.1	00.50		
Senna glaucifolia	00.1	00.50		
Senna artemisioides subsp. x *sturtii*	00.1	00.40		
Maireana georgei	00.1	00.30		
Eragrostis xerophila	00.1	00.20		
Eriachne helmsii	00.1	00.20		
Triodia sp.	00.1	00.20		
Dysphania kalpari	00.1	00.10		

Site:	TPQ002	**Type:**	Quadrat (50 m x 50 m)
Date(s):	22 July 2015	**Position:**	-24.749494, 120.356853
Total vegetation cover (%):	40	**Topography:**	plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	5	**Soil:**	sand
Grass cover (%):	40	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	1 – 5 years
Disturbance details:	evidence of feral animals		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated low *Melaleuca interioris, Grevillea eriostachya* and *Acacia ligulata* shrubs over a low *Triodia schinzii, Aristida holathera* and *Eragrostis xerophila* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	25.0	00.40		
Aristida holathera	12.0	00.30		
Melaleuca interioris	04.0	00.40		
Eragrostis xerophila	03.0	00.30		
Acacia ligulata	01.0	00.40		
Hakea lorea	00.1	01.00		
Grevillea eriostachya	00.1	01.00		
Seringia elliptica	00.1	00.80		
Dampiera cinerea	00.1	00.40		
Eremophila latrobei subsp. *latrobei*	00.1	00.40		
Eriachne helmsii	00.1	00.40		
Sida ammophila	00.1	00.30		

Site:	TPQ003	**Type:**	Quadrat (50 m x 50 m)
Date(s):	23 July 2015	**Position:**	-24.743626, 120.350928
Total vegetation cover (%):	45	**Topography:**	plain
Tree/shrub cover >2 m (%):	2	**Soil colour:**	red-brown
Shrub cover <2 m (%):	12	**Soil:**	sand
Grass cover (%):	35	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	1 – 5 years
Disturbance details:	evidence of feral animals		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Isolated clumps of tall *Acacia ligulata* and *Grevillea eriostachya* shrubs over sparse mid *Grevillea eriostachya* shrubland over sparse low *Melaleuca interioris* and *Leptosema chambersii* shrubland over low *Triodia schinzii, Eriachne helmsii* and *Aristida holathera* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Triodia schinzii	25.0	00.70		
Eriachne helmsii	07.0	00.70		
Grevillea eriostachya	05.0	03.00		
Melaleuca interioris	05.0	01.00		
Aristida holathera	03.0	00.50		
Leptosema chambersii	02.0	00.50		
Acacia ligulata	01.0	03.00		
Gyrostemon ramulosus	00.1	01.50		
Eucalyptus gamophylla	00.1	01.50		
Alyogyne pinoniana	00.1	01.00		
Acacia dictyophleba	00.1	00.50		
Sida cardiophylla	00.1	00.40		
Eragrostis xerophila	00.1	00.30		
Goodeniaceae sp.	00.1	00.30		
Dampiera cinerea	00.1	00.30		
Goodenia triodiophila	00.1	00.30		
Leiocarpa semicalva	00.1	00.20		
Stylidium humphreysii	00.1	00.10		

Scaevola parvifolia subsp. *pilbarae*

Site:	TPQ004	**Type:**	Quadrat (50 m x 50 m)
Date(s):	23 July 2015	**Position:**	-24.748853, 120.360611
Total vegetation cover (%):	45	**Topography:**	plain
Tree/shrub cover >2 m (%):	0	**Soil colour:**	red-brown
Shrub cover <2 m (%):	25	**Soil:**	sand
Grass cover (%):	25	**Rock type:**	none
Herb cover (%):	0	**Fire age:**	1 – 5 years
Disturbance details:	evidence of feral animals		
Vegetation condition:	Excellent, Trudgen (1991)		
Vegetation description:	Open low *Grevillea eriostachya*, *Microcorys macredieana* and *Androcalva loxophylla* shrubland over low *Triodia schinzii* and *Aristida holathera* tussock grassland.		

Species	Cover (%)	Height (m)	Weeds	Conservation status
Grevillea eriostachya	15.0	01.00		
Triodia schinzii	15.0	00.50		
Aristida holathera	08.0	00.30		
Microcorys macredieana	05.0	00.60		
Bonamia erecta	02.0	00.50		
Acacia ligulata	01.0	01.00		
Eriachne helmsii	01.0	00.60		
Androcalva loxophylla	01.0	00.50		
Calytrix carinata	01.0	00.40		
Eragrostis xerophila	01.0	00.20		
Alyogyne pinoniana	00.1	01.00		
Stylobasium spathulatum	00.1	01.00		
Senna pleurocarpa	00.1	01.00		
Solanum centrale	00.1	00.50		
Leptosema chambersii	00.1	00.50		

Appendix 2 NVIS vegetation community structure classifications

Height Classes

Height	Growth form					
Height class	Height range (m)	Tree, vine (M & U), palm (single-stemmed)	Shrub, heath shrub, chenopod shrub, ferns, Samphire shrub, cycad, tree-fern, Grass-tree, palm (multi-stemmed)	Tree mallee, Mallee Shrub	Tussock grass, hummock grass, other grass, sedge, rush, forbs, vine (G)	Bryophyte, lichen, seagrass, aquatic
8	>30	tall	N/A	N/A	N/A	N/A
7	10-30	mid	N/A	tall	N/A	N/A
6	<10	low	N/A	mid	N/A	N/A
5	<3	N/A	N/A	low	N/A	N/A
4	>2	N/A	tall	N/A	tall	N/A
3	1-2	N/A	mid	N/A	tall	N/A
2	0.5-1	N/A	low	N/A	mid	tall
1	<0.5	N/A	low	N/A	low	low

Structural Formation Classes

Growth form	Height ranges (m)	Structural formation classes					
Foliage cover % (cover #)		70-100% (5)	30-70% (4)	10-30% (3)	<10% (2)	0-5% (1)	≈0% (N)
tree, palm	<10,10-30,>30	closed forest	open forest	woodland	open woodland	isolated trees	isolated clumps of trees
tree mallee	<3, <10, 10-30	closed mallee forest	open mallee forest	mallee woodland	open mallee woodland	isolated mallee trees	isolated clumps of mallee trees
shrub, cycad, grass-tree, tree-fern	<1,1-2,>2	closed shrubland	shrubland	open shrubland	sparse shrubland	isolated shrubs	isolated clumps of shrubs
mallee shrub	<3, <10, 10-30	closed mallee shrubland	mallee shrubland	open mallee shrubland	sparse mallee shrubland	isolated mallee shrubs	isolated clumps of mallee shrubs
heath shrub	<1,1-2,>2	closed heathland	heathland	open heathland	sparse heathland	isolated heath shrubs	isolated clumps of heath shrubs
chenopod shrub	<1,1-2,>2	closed chenopod shrubland	chenopod shrubland	open chenopod shrubland	sparse chenopod shrubland	isolated chenopod shrubs	isolated clumps of chenopod shrubs

Growth form	Height ranges (m)	Structural formation classes					
samphire shrub	<0.5,>0.5	closed samphire shrubland	samphire shrubland	open samphire shrubland	sparse samphire shrubland	isolated samphire shrubs	isolated clumps of samphire shrubs
hummock grass	<2,>2	closed hummock grassland	hummock grassland	open hummock grassland	sparse hummock grassland	isolated hummock grasses	isolated clumps of hummock grasses
tussock grass	<0.5,>0.5	closed tussock grassland	tussock grassland	open tussock grassland	sparse tussock grassland	isolated tussock grasses	isolated clumps of tussock grasses
other grass	<0.5,>0.5	closed grassland	grassland	open grassland	sparse grassland	isolated grasses	isolated clumps of grasses
sedge	<0.5,>0.5	closed sedgeland	sedgeland	open sedgeland	sparse sedgeland	isolated sedges	isolated clumps of sedges
rush	<0.5,>0.5	closed rushland	rushland	open rushland	sparse rushland	isolated rushes	isolated clumps of rushes
forb	<0.5,>0.5	closed forbland	forbland	open forbland	sparse forbland	isolated forbs	isolated clumps of forbs
fern	<1,1-2,>2	closed fernland	fernland	open fernland	sparse fernland	isolated ferns	isolated clumps of ferns
bryophyte	<0.5	closed bryophytelan d	bryophytel and	open bryophytela nd	sparse bryophytela nd	isolated bryophytes	isolated clumps of bryophytes
lichen	<0.5	closed lichenland	lichenland	open lichenland	sparse lichenland	isolated lichens	isolated clumps of lichens
vine	<10,10-30, >30	closed vineland	vineland	open vineland	sparse vineland	isolated vines	isolated clumps of vines
aquatic	0-0.5,<1	closed aquatic bed	aquatic bed	open aquatic bed	sparse aquatics	isolated aquatics	isolated clumps of aquatics
seagrass	0-0.5,<1	closed seagrass bed	seagrass bed	open seagrass bed	sparse seagrass bed	isolated seagrasses	isolated clumps of seagrasses

Appendix 3 Flora species identified in the desktop review

Family	Species	Conservation status
Aizoaceae	*Gunniopsis* sp. Lake Kerrylyn (N. Gibson *et al.* NG 7028)	P1
Aizoaceae	*Trianthema glossostigmum*	
Aizoaceae	*Trianthema triquetrum*	
Aizoaceae	*Trianthema turgidifolium*	
Amaranthaceae	**Aerva javanica*	
Amaranthaceae	*Amaranthus cuspidifolius*	
Amaranthaceae	*Amaranthus mitchellii*	
Amaranthaceae	*Amaranthus* sp. Little Sandy Desert (SVL 3348)	
Amaranthaceae	*Ptilotus aervoides*	
Amaranthaceae	*Ptilotus albidus*	
Amaranthaceae	*Ptilotus aphyllus*	
Amaranthaceae	*Ptilotus astrolasius*	
Amaranthaceae	*Ptilotus calostachyus*	
Amaranthaceae	*Ptilotus carinatus*	
Amaranthaceae	*Ptilotus chrysocomus*	P1
Amaranthaceae	*Ptilotus daphne*	P1
Amaranthaceae	*Ptilotus fusiformis*	
Amaranthaceae	*Ptilotus gaudichaudii*	
Amaranthaceae	*Ptilotus helipteroides*	
Amaranthaceae	*Ptilotus macrocephalus*	
Amaranthaceae	Ptilotus nobilis	
Amaranthaceae	*Ptilotus obovatus*	
Amaranthaceae	*Ptilotus polystachyus*	
Amaranthaceae	*Ptilotus rotundifolius*	
Amaranthaceae	*Ptilotus schwartzii*	
Amaranthaceae	*Ptilotus schwartzii* var. *georgei*	
Amaranthaceae	*Ptilotus* sp. Little Sandy Desert (SVL 2884)	
Amaranthaceae	*Ptilotus stipitatus*	
Amaranthaceae	*Ptilotus tetrandrus*	P1
Amaranthaceae	*Surreya diandra*	
Apiaceae	*Daucus glochidiatus*	
Apocynaceae	*Cynanchum floribundum*	
Apocynaceae	*Cynanchum viminale* subsp. *australe*	
Apocynaceae	*Marsdenia australis*	
Apocynaceae	*Rhyncharrhena linearis*	
Araliaceae	*Trachymene bialata*	
Araliaceae	*Trachymene glaucifolia*	
Araliaceae	*Trachymene oleracea*	
Asparagaceae	*Lomandra leucocephala* subsp. *robusta*	
Asparagaceae	*Thysanotus exiliflorus*	
Asparagaceae	*Thysanotus* sp. Desert East of Newman (R.P. Hart 964)	P2

Family	Species	Conservation status
Asteraceae	**Bidens bipinnata*	
Asteraceae	*Actinobole uliginosum*	
Asteraceae	*Angianthus cyathifer*	
Asteraceae	*Angianthus milnei*	
Asteraceae	*Angianthus* sp. Little Sandy Desert (SVL 2911)	
Asteraceae	*Angianthus tomentosus*	
Asteraceae	*Brachyscome iberidifolia*	
Asteraceae	*Calocephalus* beardii P.S. Short ms	
Asteraceae	*Calocephalus knappii*	
Asteraceae	*Calotis erinacea*	
Asteraceae	*Calotis hispidula*	
Asteraceae	*Centipeda thespidioides*	
Asteraceae	*Chrysocephalum eremaeum*	
Asteraceae	*Chrysocephalum* sp. Little Sandy Desert (SVL 4899)	
Asteraceae	*Erymophyllum ramosum subsp. ramosum*	
Asteraceae	Genus nov. sp. nov. Little Sandy Desert (SVL 2645)	
Asteraceae	*Gnephosis brevifolia*	
Asteraceae	*Ixiochlamys cuneifolia*	
Asteraceae	*Kippistia suaedifolia*	
Asteraceae	*Minuria multiseta*	
Asteraceae	*Minuria* sp. Little Sandy Desert (S. van Leeuwen 4919)	P1
Asteraceae	*Myriocephalus rudallii*	
Asteraceae	*Olearia incana*	
Asteraceae	*Olearia* sp. Little Sandy Desert (SVL 3335)	
Asteraceae	*Olearia stuartii*	
Asteraceae	*Peripleura arida*	
Asteraceae	*Pluchea dentex*	
Asteraceae	*Pluchea tetranthera*	
Asteraceae	*Podolepis canescens*	
Asteraceae	*Podolepis capillaris*	
Asteraceae	*Podolepis kendallii*	
Asteraceae	*Pterocaulon sphacelatum*	
Asteraceae	*Rhodanthe charsleyae*	
Asteraceae	*Rhodanthe floribunda*	
Asteraceae	*Rhodanthe humboldtiana*	
Asteraceae	*Rhodanthe polakii*	
Asteraceae	*Rhodanthe propinqua*	
Asteraceae	*Rhodanthe sterilescens*	
Asteraceae	*Rhodanthe stricta*	
Asteraceae	*Rhodanthe tietkensii*	
Asteraceae	*Rutidosis helichrysoides*	
Asteraceae	*Schoenia cassiniana*	

Family	Species	Conservation status
Asteraceae	*Senecio gregorii*	
Asteraceae	*Senecio magnificus*	
Asteraceae	*Streptoglossa bubakii*	
Asteraceae	*Streptoglossa cylindriceps*	
Asteraceae	*Streptoglossa decurrens*	
Asteraceae	*Taplinia saxatilis*	
Asteraceae	*Tietkensia corrickiae*	
Asteraceae	*Vittadinia eremaea*	
Asteraceae	*Waitzia acuminata var. acuminata*	
Asteraceae	*Xerochrysum* sp. Beyondie (SVL 1831)	
Boraginaceae	*Halgania cyanea* var. Allambi Stn (B.W. Strong 676)	
Boraginaceae	*Halgania glabra*	
Boraginaceae	*Halgania gustafsenii*	
Boraginaceae	*Halgania solanacea* var. Mt Doreen (G.M. Chippendale 4206)	
Boraginaceae	*Heliotropium chrysocarpum*	
Boraginaceae	*Heliotropium curassavicum*	
Boraginaceae	*Trichodesma zeylanicum* var. *zeylanicum*	
Brassicaceae	*Lepidium echinatum*	
Brassicaceae	*Lepidium muelleri-ferdinandii*	
Brassicaceae	*Lepidium oxytrichum*	
Brassicaceae	*Lepidium pedicellosum*	
Brassicaceae	*Lepidium phlebopetalum*	
Brassicaceae	*Menkea sphaerocarpa*	
Brassicaceae	*Menkea villosula*	
Brassicaceae	*Stenopetalum anfractum*	
Brassicaceae	*Stenopetalum decipiens*	
Brassicaceae	*Stenopetalum lineare* var. *lineare*	
Brassicaceae	*Stenopetalum pedicellare*	
Brassicaceae	*Stenopetalum* sp. Little Sandy Desert (SVL 4964)	
Brassicaceae	*Stenopetalum velutinum*	
Campanulaceae	*Lobelia heterophylla*	
Campanulaceae	*Wahlenbergia tumidifructa*	
Capparaceae	*Capparis lasiantha*	
Capparaceae	*Capparis spinosa*	
Capparaceae	*Cassytha filiformis*	
Caryophyllaceae	*Polycarpaea holtzei*	
Caryophyllaceae	*Polycarpaea involucrata*	
Casuarinaceae	*Allocasuarina decaisneana*	
Casuarinaceae	*Casuarina pauper*	
Celastraceae	*Macgregoria racemigera*	
Celastraceae	*Maytenus* sp. Mt Windell	
Celastraceae	*Stackhousia clementii*	P3

Family	Species	Conservation status
Celastraceae	*Stackhousia intermedia*	
Celastraceae	*Stackhousia megaloptera*	
Celastraceae	*Stackhousia* sp. Lake Mackay (P.K. Latz 12870)	
Celastraceae	*Stackhousia* sp. Little Sandy Desert (SVL 4426)	
Celastraceae	*Stackhousia* sp. swollen gynophore (W.R. Barker 2041)	
Centrolepidaceae	*Centrolepis eremica*	
Chenopodiaceae	*Atriplex spongiosa*	
Chenopodiaceae	*Atriplex vesicaria*	
Chenopodiaceae	*Dissocarpus paradoxus*	
Chenopodiaceae	*Dysphania kalpari*	
Chenopodiaceae	*Dysphania melanocarpa*	
Chenopodiaceae	*Dysphania rhadinostachya*	
Chenopodiaceae	*Dysphania saxatilis*	
Chenopodiaceae	*Dysphania sphaerosperma*	
Chenopodiaceae	*Enchylaena tomentosa*	
Chenopodiaceae	*Maireana amoena*	
Chenopodiaceae	*Maireana carnosa*	
Chenopodiaceae	*Maireana georgei*	
Chenopodiaceae	*Maireana luehmannii*	
Chenopodiaceae	*Maireana melanocoma*	
Chenopodiaceae	*Maireana planifolia*	
Chenopodiaceae	*Maireana platycarpa*	
Chenopodiaceae	*Maireana prosthecochaeta*	P3
Chenopodiaceae	*Maireana* sp. Little Sandy Desert (SVL 2985)	
Chenopodiaceae	*Maireana thesioides*	
Chenopodiaceae	*Maireana tomentosa*	
Chenopodiaceae	*Maireana triptera*	
Chenopodiaceae	*Maireana villosa*	
Chenopodiaceae	*Rhagodia eremaea*	
Chenopodiaceae	*Rhagodia* sp. Little Sandy Desert (SVL 2984)	
Chenopodiaceae	*Salsola australis*	
Chenopodiaceae	*Sclerolaena alata*	
Chenopodiaceae	*Sclerolaena clelandii*	
Chenopodiaceae	*Sclerolaena cornishiana*	
Chenopodiaceae	*Sclerolaena cuneata*	
Chenopodiaceae	*Sclerolaena eriacantha*	
Chenopodiaceae	*Sclerolaena fimbriolata*	
Chenopodiaceae	*Sclerolaena* sp. Little Sandy Desert (SVL 2945)	
Chenopodiaceae	*Tecticornia bibenda*	P1
Chenopodiaceae	*Tecticornia calyptrata*	
Chenopodiaceae	*Tecticornia disarticulata*	
Chenopodiaceae	*Tecticornia halocnemoides*	

Family	Species	Conservation status
Chenopodiaceae	*Tecticornia indica*	
Chenopodiaceae	*Tecticornia indica* subsp*. bidens*	
Chenopodiaceae	*Tecticornia indica* subsp*. leiostachya*	
Chenopodiaceae	*Tecticornia laevigata*	
Chenopodiaceae	*Tecticornia mellarium*	P1
Chenopodiaceae	*Tecticornia pterygosperma* subsp*. denticulata*	
Chenopodiaceae	*Tecticornia pterygosperma* subsp*. pterygosperma*	
Chenopodiaceae	*Tecticornia* sp. Christmas Creek (K.A. Shepherd & T. Colmer *et al.* KS 1063)	P1
Chenopodiaceae	*Tecticornia* sp. Sunshine Lake (K.A. Shepherd *et al.* KS 867)	P1
Chenopodiaceae	*Tecticornia* willisii	P1
Cleomaceae	*Cleome oxalidea*	
Colchicaceae	*Wurmbea deserticola*	
Convolvulaceae	*Bonamia pannosa*	
Convolvulaceae	*Duperreya commixta*	
Convolvulaceae	*Evolvulus alsinoides*	
Cucurbitaceae	*Cucumis variabilis*	
Cyperaceae	*Bulbostylis barbata*	
Cyperaceae	*Cyperus bulbosus*	
Cyperaceae	*Cyperus centralis*	
Cyperaceae	*Cyperus rigidellus*	
Cyperaceae	*Cyperus* sp. Little Sandy Desert (SVL 4470)	
Cyperaceae	*Cyperus squarrosus*	
Cyperaceae	*Eleocharis* sp. Little Sandy Desert (SVL 3055)	
Cyperaceae	*Fimbristylis dichotoma*	
Cyperaceae	*Fimbristylis rara*	
Cyperaceae	*Fimbristylis sieberiana*	P3
Droseraceae	*Drosera burmanni*	
Droseraceae	*Drosera finlaysoniana*	
Droseraceae	*Drosera indica*	
Elaeocarpaceae	*Tetratheca chapmanii*	P1
Elatinaceae	*Bergia trimera*	
Euphorbiaceae	*Adriana tomentosa var. hookeri*	
Euphorbiaceae	*Euphorbia australis*	
Euphorbiaceae	*Euphorbia boophthona*	
Euphorbiaceae	*Euphorbia coghlanii*	
Euphorbiaceae	*Euphorbia sarcostemmoides*	P1
Euphorbiaceae	*Euphorbia stevenii*	P3
Euphorbiaceae	*Euphorbia tannensis* subsp. *eremophila*	
Euphorbiaceae	*Monotaxis luteiflora*	
Fabaceae	*Acacia abrupta*	
Fabaceae	*Acacia adoxa* var. *adoxa*	

Family	Species	Conservation status
Fabaceae	*Acacia adsurgens*	
Fabaceae	*Acacia* aff. *validinervia* (SVL 3234)	
Fabaceae	*Acacia ancistrocarpa*	
Fabaceae	*Acacia aneura*	
Fabaceae	*Acacia aneura* var. (SVL 2545)	
Fabaceae	*Acacia aptaneura*	
Fabaceae	*Acacia ayersiana*	
Fabaceae	*Acacia balsamea*	
Fabaceae	*Acacia bivenosa*	
Fabaceae	*Acacia burkittii*	
Fabaceae	*Acacia caesaneura*	
Fabaceae	*Acacia citrinoviridis*	
Fabaceae	*Acacia coriacea* subsp. *pendens*	
Fabaceae	*Acacia craspedocarpa*	
Fabaceae	*Acacia cuthbertsonii*	
Fabaceae	*Acacia daviesioides*	
Fabaceae	*Acacia dictyophleba*	
Fabaceae	*Acacia eriopoda*	
Fabaceae	*Acacia grasbyi*	
Fabaceae	*Acacia hilliana*	
Fabaceae	*Acacia inaequilatera*	
Fabaceae	*Acacia incurvaneura*	
Fabaceae	*Acacia jamesiana*	
Fabaceae	*Acacia kempeana*	
Fabaceae	*Acacia ligulata*	
Fabaceae	*Acacia maitlandii*	
Fabaceae	*Acacia marramamba*	
Fabaceae	*Acacia melleodora*	
Fabaceae	*Acacia minyura*	
Fabaceae	*Acacia nyssophylla*	
Fabaceae	*Acacia oswaldii*	
Fabaceae	*Acacia pachyacra*	
Fabaceae	*Acacia paraneura*	
Fabaceae	*Acacia prainii*	
Fabaceae	*Acacia pruinocarpa*	
Fabaceae	*Acacia pyrifolia* var. *pyrifolia*	
Fabaceae	*Acacia quadrimarginea*	
Fabaceae	*Acacia ramulosa* var. *linophylla*	
Fabaceae	*Acacia ramulosa* var. *ramulosa*	
Fabaceae	*Acacia rhodophloia*	
Fabaceae	*Acacia sericophylla*	
Fabaceae	*Acacia sibirica*	

Family	Species	Conservation status
Fabaceae	*Acacia* sp. Little Sandy Desert (SVL 2397)	
Fabaceae	*Acacia spondylophylla*	
Fabaceae	*Acacia synchronicia*	
Fabaceae	*Acacia tetragonophylla*	
Fabaceae	*Acacia validinervia*	
Fabaceae	*Acacia wanyu*	
Fabaceae	*Acacia xiphophylla*	
Fabaceae	*Crotalaria cunninghamii*	
Fabaceae	*Cullen pustulatum*	
Fabaceae	*Daviesia arthropoda*	P3
Fabaceae	*Daviesia eremaea*	
Fabaceae	*Daviesia grahamii*	
Fabaceae	*Gastrolobium grandiflorum*	
Fabaceae	*Gompholobium polyzygum*	
Fabaceae	*Gompholobium simplicifolium*	
Fabaceae	*Indigofera georgei*	
Fabaceae	*Indigofera monophylla*	
Fabaceae	*Isotropis atropurpurea*	
Fabaceae	*Isotropis forrestii*	
Fabaceae	*Jacksonia aculeata*	
Fabaceae	*Kennedia prorepens*	
Fabaceae	*Leptosema chambersii*	
Fabaceae	*Lotus cruentus*	
Fabaceae	*Mirbelia viminalis*	
Fabaceae	*Muelleranthus stipularis*	
Fabaceae	*Muelleranthus trifoliolatus*	
Fabaceae	*Petalostylis cassioides*	
Fabaceae	*Phyllota luehmannii*	
Fabaceae	*Senna artemisioides* subsp. *helmsii*	
Fabaceae	*Senna artemisioides* subsp. *oligophylla*	
Fabaceae	*Senna artemisioides* subsp. *petiolaris*	
Fabaceae	*Senna artemisioides* subsp. *x artemisioides*	
Fabaceae	*Senna artemisioides* subsp. *x sturtii*	
Fabaceae	*Senna curvistyla*	
Fabaceae	*Senna glaucifolia*	
Fabaceae	*Senna glutinosa* subsp. *chatelainiana*	
Fabaceae	*Senna glutinosa* subsp. *glutinosa*	
Fabaceae	*Senna glutinosa* subsp. *pruinosa*	
Fabaceae	*Senna glutinosa* subsp. *x luerssenii*	
Fabaceae	*Senna notabilis*	
Fabaceae	*Senna pleurocarpa* var. *angustifolia*	
Fabaceae	*Senna pleurocarpa* var. *pleurocarpa*	

Family	Species	Conservation status
Fabaceae	*Senna* sp. Meekatharra (E. Bailey 1-26)	
Fabaceae	*Swainsona formosa*	
Fabaceae	*Swainsona kingii*	
Fabaceae	*Swainsona microphylla*	
Fabaceae	*Swainsona* sp. Little Sandy Desert (SVL 5017)	
Fabaceae	*Templetonia egena*	
Fabaceae	*Tephrosia* sp. deserts (J.R. Maconochie 1403)	
Fabaceae	*Tephrosia* sp. Little Sandy Desert (SVL 3195)	
Fabaceae	*Trigonella suavissima*	
Frankeniaceae	*Frankenia cinerea*	
Frankeniaceae	*Frankenia desertorum*	
Frankeniaceae	*Frankenia fecunda*	
Frankeniaceae	*Frankenia glomerata*	P4
Frankeniaceae	*Frankenia interioris*	
Frankeniaceae	*Frankenia laxiflora*	
Frankeniaceae	*Frankenia punctata*	
Gentianaceae	*Schenkia australis*	
Goodeniaceae	*Brunonia australis*	
Goodeniaceae	*Dampiera atriplicina*	P3
Goodeniaceae	*Dampiera candicans*	
Goodeniaceae	*Dampiera cinerea*	
Goodeniaceae	*Dampiera dentata*	
Goodeniaceae	*Dampiera ramosa*	
Goodeniaceae	*Dampiera roycei*	
Goodeniaceae	*Goodenia* ?*pinifolia*	
Goodeniaceae	*Goodenia azurea*	
Goodeniaceae	*Goodenia gypsicola*	
Goodeniaceae	*Goodenia lamprosperma*	
Goodeniaceae	*Goodenia microptera*	
Goodeniaceae	*Goodenia modesta*	P3
Goodeniaceae	*Goodenia muelleriana*	
Goodeniaceae	*Goodenia pascua*	
Goodeniaceae	*Goodenia prostrata*	
Goodeniaceae	*Goodenia schwerinensis*	
Goodeniaceae	*Goodenia* sp. Beyondie (L.W. Sage & S. van Leeuwen LWS 2518)	P1
Goodeniaceae	*Goodenia* sp. Little Sandy Desert (SVL 2926)	
Goodeniaceae	*Goodenia stobbsiana*	
Goodeniaceae	*Goodenia triodiophila*	
Goodeniaceae	*Goodenia wilunensis*	
Goodeniaceae	*Goodenia xanthosperma*	
Goodeniaceae	*Lechenaultia striata*	
Goodeniaceae	*Scaevola amblyanthera* var. *centralis*	

Family	Species	Conservation status
Goodeniaceae	*Scaevola basedowii*	
Goodeniaceae	*Scaevola browniana* subsp. *browniana*	
Goodeniaceae	*Scaevola collaris*	
Goodeniaceae	*Scaevola parvifolia* subsp. *pilbarae*	
Goodeniaceae	*Scaevola sericophylla*	
Goodeniaceae	*Scaevola spinescens*	
Goodeniaceae	*Velleia connata*	
Goodeniaceae	*Velleia glabrata*	
Goodeniaceae	*Velleia panduriformis*	
Gyrostemonaceae	*Codonocarpus cotinifolius*	
Gyrostemonaceae	*Gyrostemon ramulosus*	
Haloragaceae	*Gonocarpus eremophilus*	
Haloragaceae	*Gonocarpus pycnostachyus*	P3
Haloragaceae	*Haloragis gossei*	
Haloragaceae	*Haloragis gossei* var. *gossei*	
Haloragaceae	*Haloragis odontocarpa* forma *pterocarpa*	
Haloragaceae	*Haloragis odontocarpa* forma *rugosa*	
Hemerocallidaceae	*Corynotheca micrantha* var. *divaricata*	
Hypericaceae	*Hypericum gramineum*	
Juncaginaceae	*Triglochin nana*	
Lamiaceae	*Clerodendrum tomentosum* var. *lanceolatum*	
Lamiaceae	*Dicrastylis cordifolia*	
Lamiaceae	*Dicrastylis doranii*	
Lamiaceae	*Dicrastylis exsuccosa*	
Lamiaceae	*Dicrastylis kumarinensis*	
Lamiaceae	*Dicrastylis* sp. Little Sandy Desert (SVL 2937)	
Lamiaceae	*Hemigenia tysonii*	P3
Lamiaceae	*Lachnostachys verbascifolia*	
Lamiaceae	*Microcorys macredieana*	
Lamiaceae	*Newcastelia cephalantha*	
Lamiaceae	*Newcastelia cladotricha*	
Lamiaceae	*Newcastelia spodiotricha*	
Lamiaceae	*Pityrodia loricata*	
Lamiaceae	*Prostanthera albiflora*	
Lamiaceae	*Prostanthera wilkieana*	
Lamiaceae	*Quoya loxocarpa*	
Lauraceae	*Cassytha* sp. Little Sandy Desert (SVL 3233)	
Loranthaceae	*Amyema bifurcata*	
Loranthaceae	*Amyema fitzgeraldii*	
Loranthaceae	*Amyema gibberula* var. *gibberula*	
Loranthaceae	*Amyema hilliana*	
Loranthaceae	*Amyema miquelii*	

Family	Species	Conservation status
Loranthaceae	*Amyema sanguinea* var. *pulchra*	
Loranthaceae	*Lysiana casuarinae*	
Loranthaceae	*Lysiana exocarpi*	
Malvaceae	**Malvastrum americanum*	
Malvaceae	*Abutilon leucopetalum*	
Malvaceae	*Abutilon* sp. Dioicum (A.A. Mitchell PRP 1618)	
Malvaceae	*Abutilon* sp. Little Sandy Desert (SVL 2630)	
Malvaceae	*Alyogyne pinoniana*	
Malvaceae	*Androcalva luteiflora*	
Malvaceae	*Brachychiton gregorii*	
Malvaceae	*Corchorus sidoides*	
Malvaceae	*Corchorus* sp. Little Sandy Desert (SVL 2383)	
Malvaceae	*Corchorus tectus*	
Malvaceae	*Hannafordia bissillii* subsp. *bissillii*	
Malvaceae	*Hibiscus arenicola*	
Malvaceae	*Hibiscus burtonii*	
Malvaceae	*Hibiscus coatesii*	
Malvaceae	*Hibiscus leptocladus*	
Malvaceae	*Hibiscus* sp. Carnarvon (S. van Leeuwen 5110)	P1
Malvaceae	*Hibiscus* sp. *gardneri* (A.L. Payne PRP 1435)	
Malvaceae	*Hibiscus* sp. Little Sandy Desert (SVL 2489)	
Malvaceae	*Hibiscus sturtii* var. *truncatus*	
Malvaceae	*Keraudrenia* sp. Little Sandy Desert (SVL 2376)	
Malvaceae	*Lawrencia densiflora*	
Malvaceae	*Lawrencia glomerata*	
Malvaceae	*Lawrencia helmsii*	
Malvaceae	*Seringia elliptica*	
Malvaceae	*Sida arenicola*	
Malvaceae	*Sida cardiophylla*	
Malvaceae	*Sida echinocarpa*	
Malvaceae	*Sida* sp. (SVL 3227)	
Malvaceae	*Sida* sp. Articulation below (A.A. Mitchell PRP 1605)	
Malvaceae	*Sida* sp. Excedentifolia (J.L. Egan 1925)	
Malvaceae	*Sida* sp. Golden calyces glabrous (H.N. Foote 32)	
Malvaceae	*Sida* sp. Golden calyces pubescent (G.J. Leach 1966)	
Malvaceae	*Sida* sp. Little Sandy Desert (SVL 2489)	
Malvaceae	*Sida* sp. Pilbara (A.A. Mitchell PRP 1543)	
Malvaceae	*Sida* sp. Rabbit Flat (B.J. Carter 626)	
Malvaceae	*Sida* sp. verrucose glands (F.H. Mollemans 2423)	
Malvaceae	*Sida* sp. Western sand dunes (P.K. Latz 11980)	
Marsileaceae	*Marsilea hirsuta*	
Meliaceae	*Owenia acidula*	P3

Family	Species	Conservation status
Moraceae	*Ficus brachypoda*	
Myrtaceae	*Aluta maisonneuvei*	
Myrtaceae	*Calothamnus aridus*	
Myrtaceae	*Calytrix carinata*	
Myrtaceae	*Calytrix praecipua*	P3
Myrtaceae	*Corymbia ?aspera*	
Myrtaceae	*Corymbia chippendalei*	
Myrtaceae	*Corymbia deserticola*	
Myrtaceae	*Corymbia hamersleyana*	
Myrtaceae	*Corymbia terminalis*	
Myrtaceae	*Eucalyptus camaldulensis* subsp. *obtusa*	
Myrtaceae	*Eucalyptus eremicola* subsp. *peeneri*	
Myrtaceae	*Eucalyptus gamophylla*	
Myrtaceae	*Eucalyptus kingsmillii*	
Myrtaceae	*Eucalyptus lucasii*	
Myrtaceae	*Eucalyptus mannensis* subsp. *mannensis*	
Myrtaceae	*Eucalyptus odontocarpa*	
Myrtaceae	*Eucalyptus oldfieldii*	
Myrtaceae	*Eucalyptus pachyphylla*	
Myrtaceae	*Eucalyptus rameliana*	
Myrtaceae	*Eucalyptus repullulans*	
Myrtaceae	*Eucalyptus semota*	P1
Myrtaceae	*Eucalyptus socialis*	
Myrtaceae	*Eucalyptus* sp. Little Sandy Desert (D. Nicolle & M. French DN 4304)	
Myrtaceae	*Eucalyptus trivalva*	
Myrtaceae	*Eucalyptus victrix*	
Myrtaceae	*Lamarchea sulcata*	
Myrtaceae	*Melaleuca eleuterostachya*	
Myrtaceae	*Melaleuca glomerata*	
Myrtaceae	*Melaleuca lasiandra*	
Myrtaceae	*Melaleuca linophylla*	
Myrtaceae	*Melaleuca uncinata*	
Myrtaceae	*Melaleuca xerophila*	
Myrtaceae	*Micromyrtus flaviflora*	
Myrtaceae	*Micromyrtus mucronulata*	P1
Myrtaceae	*Thryptomene wittweri*	VU (EPBC Act); VU (WC Act)
Nyctaginaceae	*Boerhavia coccinea*	
Oleaceae	*Jasminum calcareum*	
Ophioglossaceae	*Ophioglossum lusitanicum*	
Orobnachaceae	*Buchnera linearis*	
Phrymaceae	*Mimulus gracilis*	

Family	Species	Conservation status
Phrymaceae	*Peplidium* sp. C Evol. Fl. Fauna Arid Aust. (N.T. Burbidge & A. Kanis 8158)	
Phrymaceae	*Peplidium* sp. E Evol. Fl. Fauna Arid Aust. (A.S. Weston 12768)	
Phrymaceae	*Peplidium* sp. Little Sandy Desert (SVL 4986)	
Phrymaceae	*Thyridia repens*	
Phyllanthaceae	*Phyllanthus erwinii*	
Pittosporaceae	*Pittosporum angustifolium*	
Plantaginaceae	*Stemodia linophylla*	
Plumbaginaceae	*Muellerolimon salicorniaceum*	
Poaceae	**Setaria verticillata*	
Poaceae	*Amphipogon caricinus*	
Poaceae	*Aristida contorta*	
Poaceae	*Aristida holathera*	
Poaceae	*Aristida jerichoensis* var. *subspinulifera*	P3
Poaceae	*Aristida* sp. Little Sandy Desert (SVL 3047)	
Poaceae	*Chrysopogon fallax*	
Poaceae	*Cymbopogon ambiguus*	
Poaceae	*Cymbopogon bombycinus*	
Poaceae	*Cymbopogon obtectus*	
Poaceae	*Cynodon prostratus*	
Poaceae	*Dichanthium sericeum* subsp. *humilius*	
Poaceae	*Digitaria brownii*	
Poaceae	*Enneapogon avenaceus*	
Poaceae	*Enneapogon caerulescens*	
Poaceae	*Enneapogon polyphyllus*	
Poaceae	*Eragrostis cumingii*	
Poaceae	*Eragrostis desertorum*	
Poaceae	*Eragrostis dielsii*	
Poaceae	*Eragrostis eriopoda*	
Poaceae	*Eragrostis olida*	
Poaceae	*Eragrostis pergracilis*	
Poaceae	*Eragrostis setifolia*	
Poaceae	*Eragrostis* sp. Little Sandy Desert (SVL 2491)	
Poaceae	*Eragrostis xerophila*	
Poaceae	*Eriachne aristidea*	
Poaceae	*Eriachne mucronata*	
Poaceae	*Eriachne ovata*	
Poaceae	*Eriachne pulchella* subsp. *pulchella*	
Poaceae	*Eriachne* sp. Woolly culms (P.K. Latz 10065)	
Poaceae	*Eulalia aurea*	
Poaceae	*Iseilema eremaeum*	
Poaceae	*Iseilema membranaceum*	
Poaceae	*Paractaenum novae-hollandiae* subsp. *novae-hollandiae*	

Family	Species	Conservation status
Poaceae	*Paraneurachne muelleri*	
Poaceae	*Paspalidium clementii*	
Poaceae	*Paspalidium rarum*	
Poaceae	*Setaria dielsii*	
Poaceae	*Sporobolus australasicus*	
Poaceae	*Themeda triandra*	
Poaceae	*Tragus australianus*	
Poaceae	*Triodia angusta*	
Poaceae	*Triodia basedowii*	
Poaceae	*Triodia birriliburu*	P3
Poaceae	*Triodia brizoides*	
Poaceae	*Triodia lanigera*	
Poaceae	*Triodia longiceps*	
Poaceae	*Triodia melvillei*	
Poaceae	*Triodia pungens*	
Poaceae	*Triodia schinzii*	
Poaceae	*Triodia wiseana*	
Poaceae	*Tripogonella loliiformis*	
Poaceae	*Triraphis mollis*	
Poaceae	*Xerochloa laniflora*	
Polygalaceae	*Comesperma pallidum*	P3
Polygalaceae	*Comesperma viscidulum*	P4
Polygalaceae	*Polygala isingii*	
Portulacaceae	**Portulaca pilosa*	
Portulacaceae	*Calandrinia eremaea*	
Portulacaceae	*Calandrinia polyandra*	
Portulacaceae	*Calandrinia ptychosperma*	
Portulacaceae	*Portulaca filifolia*	
Portulacaceae	*Portulaca oleracea*	
Pottiaceae	*Tortula atrovirens*	
Primulaceae	*Samolus* sp. Fortescue Marsh (A. Markey & R. Coppen FM 9702)	P1
Primulaceae	*Samolus* sp. Little Sandy Desert (SVL 2912)	
Proteaceae	*Grevillea deflexa*	
Proteaceae	*Grevillea eriostachya*	
Proteaceae	*Grevillea juncifolia*	
Proteaceae	*Grevillea nematophylla*	
Proteaceae	*Grevillea pterosperma*	
Proteaceae	*Grevillea spinosa*	
Proteaceae	*Grevillea stenobotrya*	
Proteaceae	*Grevillea striata*	
Proteaceae	*Grevillea wickhamii* subsp. *aprica*	
Proteaceae	*Hakea divaricata*	

Family	Species	Conservation status
Proteaceae	*Hakea leucoptera* subsp. *sericipes*	
Proteaceae	*Hakea lorea*	
Proteaceae	*Hakea preissii*	
Proteaceae	*Hakea rhombales*	
Pteridaceae	*Cheilanthes brownii*	
Pteridaceae	*Cheilanthes lasiophylla*	
Pteridaceae	*Cheilanthes sieberi* subsp. *pseudovellea*	
Pteridaceae	*Cheilanthes sieberi* subsp. *sieberi*	
Rubiaceae	*Oldenlandia crouchiana*	
Rubiaceae	*Pomax* sp. desert (A.S. George 11968)	
Rubiaceae	*Psydrax attenuata*	
Rubiaceae	*Psydrax latifolia*	
Rubiaceae	*Psydrax suaveolens*	
Rubiaceae	*Synaptantha tillaeacea*	
Rubiaceae	*Synaptantha tillaeacea* var. *hispidula*	
Rubiaceae	*Synaptantha tillaeacea* var. *tillaeacea*	
Ruppiaceae	*Ruppia maritima*	
Santalaceae	*Anthobolus leptomerioides*	
Santalaceae	*Exocarpos sparteus*	
Santalaceae	*Santalum lanceolatum*	
Sapindaceae	*Diplopeltis stuartii* var. *stuartii*	
Sapindaceae	*Dodonaea coriacea*	
Sapindaceae	*Dodonaea microzyga* var. acrolobata	
Sapindaceae	*Dodonaea pachyneura*	
Sapindaceae	*Dodonaea petiolaris*	
Sapindaceae	*Dodonaea viscosa* subsp. *angustissima*	
Sapindaceae	*Dodonaea viscosa* subsp. *spatulata*	
Scrophulariaceae	*Eremophila anomala*	P1
Scrophulariaceae	*Eremophila appressa*	P1
Scrophulariaceae	*Eremophila arachnoides* subsp. *arachnoides*	P3
Scrophulariaceae	*Eremophila citrina*	
Scrophulariaceae	*Eremophila clarkei*	
Scrophulariaceae	*Eremophila eriocalyx*	
Scrophulariaceae	*Eremophila exilifolia*	
Scrophulariaceae	*Eremophila falcata*	
Scrophulariaceae	*Eremophila fasciata*	P3
Scrophulariaceae	*Eremophila forrestii*	
Scrophulariaceae	*Eremophila galeata*	
Scrophulariaceae	*Eremophila glabra* subsp. Inland Salt Lakes (B. & B. Backhouse SR 191)	
Scrophulariaceae	*Eremophila glabra* subsp. *tomentosa*	
Scrophulariaceae	*Eremophila laccata*	P1

Family	Species	Conservation status
Scrophulariaceae	*Eremophila lanata*	P3
Scrophulariaceae	*Eremophila lanceolata*	
Scrophulariaceae	*Eremophila latrobei subsp. filiformis*	
Scrophulariaceae	*Eremophila latrobei subsp. glabra*	
Scrophulariaceae	*Eremophila latrobei subsp. latrobei*	
Scrophulariaceae	*Eremophila longifolia*	
Scrophulariaceae	*Eremophila maculata*	
Scrophulariaceae	*Eremophila maculata* subsp*. brevifolia*	
Scrophulariaceae	*Eremophila margarethae*	
Scrophulariaceae	*Eremophila oppositifolia* subsp*. angustifolia*	
Scrophulariaceae	*Eremophila petrophila* subsp*. petrophila*	
Scrophulariaceae	*Eremophila phyllopoda* subsp*. phyllopoda*	
Scrophulariaceae	*Eremophila platythamnos*	
Scrophulariaceae	*Eremophila punctata*	
Scrophulariaceae	*Eremophila rigida*	P3
Scrophulariaceae	*Eremophila* sp. Carnarvon Range (D.J. Edinger Nats 24)	
Scrophulariaceae	*Eremophila* sp. Katjarra South (N. Gibson *et al.* NG 7149)	P1
Scrophulariaceae	*Eremophila* sp. Little Sandy Desert (SVL 2615)	
Scrophulariaceae	*Eremophila* sp. Ostrina (M. Officer 164)	P1
Scrophulariaceae	*Eremophila tietkensii*	
Solanaceae	*Duboisia hopwoodii*	
Solanaceae	*Nicotiana benthamiana*	
Solanaceae	*Nicotiana rosulata* subsp*. rosulata*	
Solanaceae	*Nicotiana simulans*	
Solanaceae	*Solanum centrale*	
Solanaceae	*Solanum cleistogamum*	
Solanaceae	*Solanum gabrielae*	
Solanaceae	*Solanum horridum*	
Solanaceae	*Solanum lasiophyllum*	
Solanaceae	*Solanum orbiculatum* subsp*. macrophyllum*	
Solanaceae	*Solanum phlomoides*	
Solanaceae	*Solanum sturtianum*	
Stylidiaceae	*Levenhookia chippendalei*	
Stylidiaceae	*Stylidium desertorum*	
Stylidiaceae	*Stylidium humphreysii*	
Stylidiaceae	*Stylidium inaequipetalum*	
Surianaceae	*Stylobasium spathulatum*	
Thymelaceae	*Pimelea ammocharis*	
Thymelaeceae	*Pimelea trichostachya*	
Typhaceae	*Typha domingensis*	
Violaceae	*Hybanthus aurantiacus*	
Xanthorrhoeaceae	*Xanthorrhoea thorntonii*	

Family	Species	Conservation status
Zygophyllaceae	*Tribulus astrocarpus*	
Zygophyllaceae	*Tribulus occidentalis*	
Zygophyllaceae	*Tribulus platypterus*	
Zygophyllaceae	*Tribulus suberosus*	
Zygophyllaceae	*Zygophyllum aurantiacum*	
Zygophyllaceae	*Zygophyllum aurantiacum* subsp. *aurantiacum*	
Zygophyllaceae	*Zygophyllum compressum*	
Zygophyllaceae	*Zygophyllum iodocarpum*	
Zygophyllaceae	*Zygophyllum simile*	
Zygophyllaceae	*Zygophyllum tesquorum*	

Appendix 4 Flora species recorded in the field survey

Family	Species
Aizoaceae	*Trianthema glossostigmum*
Aizoaceae	*Trianthema triquetrum*
Amaranthaceae	*Alternanthera angustifolia*
Amaranthaceae	*Alternanthera nana*
Amaranthaceae	*Alternanthera nodiflora*
Amaranthaceae	*Gomphrena affinis*
Amaranthaceae	*Gomphrena kanisii*
Amaranthaceae	*Ptilotus aervoides*
Amaranthaceae	*Ptilotus albidus*
Amaranthaceae	*Ptilotus aphyllus*
Amaranthaceae	*Ptilotus carinatus*
Amaranthaceae	*Ptilotus gaudichaudii*
Amaranthaceae	*Ptilotus helipteroides*
Amaranthaceae	*Ptilotus latifolius*
Amaranthaceae	*Ptilotus macrocephalus*
Amaranthaceae	*Ptilotus nobilis*
Amaranthaceae	*Ptilotus obovatus*
Amaranthaceae	*Ptilotus polystachyus*
Amaranthaceae	*Ptilotus roei*
Amaranthaceae	*Ptilotus rotundifolius*
Amaranthaceae	*Ptilotus schwartzii*
Amaranthaceae	*Ptilotus stipitatus*
Amaranthaceae	*Surreya diandra*
Apocynaceae	*Marsdenia australis*
Apocynaceae	*Rhyncharrhena linearis*
Araliaceae	*Trachymene* sp.
Asteraceae	**Bidens bipinnata*
Asteraceae	**Sigesbeckia orientalis*
Asteraceae	*Angianthus cyathifer*
Asteraceae	*Angianthus tomentosus*
Asteraceae	*Brachyscome blackii*
Asteraceae	*Brachyscome ciliaris*
Asteraceae	*Calocephalus knappii*
Asteraceae	*Calotis* sp. Carnarvon Range (D.J. Edinger & K.F. Kenneally D 2708 K 12243)
Asteraceae	*Centipeda thespidioides*
Asteraceae	*Cephalipterum drummondii*
Asteraceae	*Kippistia suaedifolia*
Asteraceae	*Leiocarpa semicalva*
Asteraceae	*Minuria multiseta*
Asteraceae	*Myriocephalus rudallii*
Asteraceae	*Olearia incana*
Asteraceae	*Olearia subspicata*

Family	Species
Asteraceae	*Pluchea dentex*
Asteraceae	*Pluchea rubelliflora*
Asteraceae	*Podolepis capillaris*
Asteraceae	*Podolepis gardneri*
Asteraceae	*Pterocaulon serrulatum*
Asteraceae	*Pterocaulon sphacelatum*
Asteraceae	*Rhodanthe humboldtiana*
Asteraceae	*Rhodanthe propinqua*
Asteraceae	*Rutidosis helichrysoides*
Asteraceae	*Senecio gregorii*
Asteraceae	*Streptoglossa cylindriceps*
Asteraceae	*Streptoglossa liatroides*
Asteraceae	*Vittadinia eremaea*
Boraginaceae	*Halgania cyanea* var. Allambi Stn (B.W. Strong 676)
Boraginaceae	*Halgania erecta*
Boraginaceae	*Halgania glabra*
Boraginaceae	*Halgania* sp. A Kimberley Flora (H.A. Johnson 5123)
Boraginaceae	*Heliotropium cunninghamii*
Boraginaceae	*Heliotropium heteranthum*
Boraginaceae	*Heliotropium tanythrix*
Boraginaceae	*Trichodesma zeylanicum* var. *grandiflorum*
Brassicaceae	*Lepidium oxytrichum*
Brassicaceae	*Lepidium phlebopetalum*
Brassicaceae	*Stenopetalum decipiens*
Brassicaceae	*Stenopetalum lineare*
Campanulaceae	*Lobelia heterophylla*
Campanulaceae	*Wahlenbergia tumidifructa*
Caryophyllaceae	*Polycarpaea corymbosa*
Casuarinaceae	*Casuarina pauper*
Celastraceae	*Maytenus* sp. Mt Windell (S. van Leeuwen 846)
Celastraceae	*Stackhousia intermedia*
Celastraceae	*Stackhousia megaloptera*
Celastraceae	*Stackhousia* sp. swollen gynophore (W.R. Barker 2041)
Chenopodiaceae	*Atriplex amnicola*
Chenopodiaceae	*Atriplex bunburyana*
Chenopodiaceae	*Atriplex* sp.
Chenopodiaceae	*Atriplex spongiosa*
Chenopodiaceae	*Chenopodium gaudichaudianum*
Chenopodiaceae	*Dysphania kalpari*
Chenopodiaceae	*Dysphania melanocarpa*
Chenopodiaceae	*Dysphania plantaginella*
Chenopodiaceae	*Dysphania rhadinostachya*
Chenopodiaceae	*Dysphania saxatilis*
Chenopodiaceae	*Dysphania simulans*

Family	Species
Chenopodiaceae	*Dysphania sphaerosperma*
Chenopodiaceae	*Enchylaena tomentosa*
Chenopodiaceae	*Eremophea spinosa*
Chenopodiaceae	*Maireana amoena*
Chenopodiaceae	*Maireana convexa*
Chenopodiaceae	*Maireana georgei*
Chenopodiaceae	*Maireana luehmannii*
Chenopodiaceae	*Maireana melanocoma*
Chenopodiaceae	*Maireana planifolia*
Chenopodiaceae	*Maireana pyramidata*
Chenopodiaceae	*Maireana scleroptera*
Chenopodiaceae	*Maireana suaedifolia*
Chenopodiaceae	*Maireana thesioides*
Chenopodiaceae	*Maireana tomentosa*
Chenopodiaceae	*Maireana tomentosa* subsp. *tomentosa*
Chenopodiaceae	*Maireana trichoptera*
Chenopodiaceae	*Maireana triptera*
Chenopodiaceae	*Maireana villosa*
Chenopodiaceae	*Rhagodia drummondii*
Chenopodiaceae	*Rhagodia eremaea*
Chenopodiaceae	*Salsola australis*
Chenopodiaceae	*Sclerolaena alata*
Chenopodiaceae	*Sclerolaena cornishiana*
Chenopodiaceae	*Sclerolaena costata*
Chenopodiaceae	*Sclerolaena deserticola*
Chenopodiaceae	*Sclerolaena diacantha*
Chenopodiaceae	*Sclerolaena eriacantha*
Chenopodiaceae	*Sclerolaena fimbriolata*
Chenopodiaceae	*Sclerolaena glabra*
Chenopodiaceae	*Sclerolaena lanicuspis*
Chenopodiaceae	*Sclerolaena* sp.
Chenopodiaceae	*Tecticornia* aff. sp. Dennys Crossing (KS 552)
Chenopodiaceae	*Tecticornia auriculata*
Chenopodiaceae	*Tecticornia calyptrata*
Chenopodiaceae	*Tecticornia globulifera* (P1 WC Act)
Chenopodiaceae	*Tecticornia indica* subsp. *bidens*
Chenopodiaceae	*Tecticornia indica* subsp. *leiostachya*
Chenopodiaceae	*Tecticornia laevigata*
Chenopodiaceae	*Tecticornia peltata*
Chenopodiaceae	*Tecticornia pergranulata* subsp. *elongata*
Chenopodiaceae	*Tecticornia pergranulata* subsp. *pergranulata*
Chenopodiaceae	*Tecticornia pruinosa*
Chenopodiaceae	*Tecticornia pterygosperma* subsp. *denticulata*
Chenopodiaceae	*Tecticornia* sp.

Family	Species
Chenopodiaceae	*Tecticornia* sp. (Group 3 0r 5)
Chenopodiaceae	*Tecticornia* sp. (sterile) ? [group 6]
Chenopodiaceae	*Tecticornia* sp. (sterile) [group 1]
Chenopodiaceae	*Tecticornia* sp. (sterile) [group 2]
Chenopodiaceae	*Tecticornia* sp. (sterile) [group 3]
Chenopodiaceae	*Tecticornia* sp. (sterile) [group 4]
Chenopodiaceae	*Tecticornia* sp. (sterile) [group 5]
Chenopodiaceae	*Tecticornia* sp. Christmas Creek (K.A. Shepherd & T. Colmer *et al.* KS 1063) (P1 WC Act)
Chenopodiaceae	*Tecticornia* sp. Dennys Crossing (K.A. Shepherd & J. English KS 552)
Chenopodiaceae	*Tecticornia* sp. nov. 1 (aff. pruinosa/ laevigata)
Chenopodiaceae	*Tecticornia* sp. nov. 2 (aff. pruinosa/undulata)
Chenopodiaceae	*Tecticornia* sp. Sunshine Lake (K.A. Shepherd *et al.* KS 867) (P1 WC Act)
Chenopodiaceae	*Tecticornia* sp. Yoothapina Station (A.A. Mitchell 883)
Chenopodiaceae	*Tecticornia undulata*
Chenopodiaceae	*Tecticornia verrucosa*
Chenopodiaceae	*Tecticornia willisii* (P1 WC Act)
Cleomaceae	*Cleome oxalidea*
Cleomaceae	*Cleome viscosa*
Convolvulaceae	*Bonamia erecta*
Convolvulaceae	*Convolvulus clementii*
Convolvulaceae	*Duperreya commixta*
Convolvulaceae	*Evolvulus alsinoides* var. *villosicalyx*
Convolvulaceae	*Ipomoea calobra*
Cucurbitaceae	**Citrullus colocynthis*
Cucurbitaceae	**Citrullus lanatus*
Cupressaceae	*Callitris columellaris*
Cyperaceae	*Bulbostylis barbata*
Cyperaceae	*Bulbostylis turbinata*
Cyperaceae	*Cyperus bulbosus*
Cyperaceae	*Cyperus iria*
Cyperaceae	*Cyperus rigidellus*
Cyperaceae	*Cyperus squarrosus*
Cyperaceae	*Eleocharis pallens*
Cyperaceae	*Fimbristylis dichotoma*
Cyperaceae	*Fimbristylis simulans*
Elatinaceae	*Bergia pedicellaris*
Euphorbiaceae	*Euphorbia australis*
Euphorbiaceae	*Euphorbia boophthona*
Euphorbiaceae	*Euphorbia drummondii*
Euphorbiaceae	*Euphorbia tannensis*
Fabaceae	*Acacia abrupta*
Fabaceae	*Acacia adsurgens*
Fabaceae	*Acacia ampliceps*
Fabaceae	*Acacia aneura*

Family	Species
Fabaceae	*Acacia aptaneura*
Fabaceae	*Acacia ayersiana*
Fabaceae	*Acacia balsamea*
Fabaceae	*Acacia brachystachya*
Fabaceae	*Acacia burkittii*
Fabaceae	*Acacia caesaneura*
Fabaceae	*Acacia citrinoviridis*
Fabaceae	*Acacia coriacea*
Fabaceae	*Acacia daviesioides*
Fabaceae	*Acacia dictyophleba*
Fabaceae	*Acacia doreta*
Fabaceae	*Acacia fuscaneura*
Fabaceae	*Acacia hamersleyensis*
Fabaceae	*Acacia incurvaneura*
Fabaceae	*Acacia kempeana*
Fabaceae	*Acacia ligulata*
Fabaceae	*Acacia macraneura*
Fabaceae	*Acacia maitlandii*
Fabaceae	*Acacia marramamba*
Fabaceae	*Acacia minyura*
Fabaceae	*Acacia mulganeura*
Fabaceae	*Acacia nyssophylla*
Fabaceae	*Acacia pachyacra*
Fabaceae	*Acacia paraneura*
Fabaceae	*Acacia prainii*
Fabaceae	*Acacia pruinocarpa*
Fabaceae	*Acacia pteraneura*
Fabaceae	*Acacia pyrifolia*
Fabaceae	*Acacia ramulosa*
Fabaceae	*Acacia ramulosa* var. *linophylla*
Fabaceae	*Acacia rhodophloia*
Fabaceae	*Acacia sibirica*
Fabaceae	*Acacia* sp.
Fabaceae	*Acacia steedmanii* subsp. *borealis*
Fabaceae	*Acacia subcontorta*
Fabaceae	*Acacia synchronicia*
Fabaceae	*Acacia tenuissima*
Fabaceae	*Acacia tetragonophylla*
Fabaceae	*Acacia thoma*
Fabaceae	*Crotalaria cunninghamii*
Fabaceae	*Daviesia eremaea*
Fabaceae	*Glycine canescens*
Fabaceae	*Indigofera colutea*
Fabaceae	*Indigofera georgei*

Family	Species
Fabaceae	*Indigofera linnaei*
Fabaceae	*Indigofera monophylla*
Fabaceae	*Kennedia prorepens*
Fabaceae	*Leptosema chambersii*
Fabaceae	*Muelleranthus trifoliolatus*
Fabaceae	*Petalostylis cassioides*
Fabaceae	*Phyllota luehmannii*
Fabaceae	*Senna artemisioides* subsp. *filifolia*
Fabaceae	*Senna artemisioides* subsp. *helmsii*
Fabaceae	*Senna artemisioides* subsp. *oligophylla*
Fabaceae	*Senna artemisioides* subsp. *petiolaris*
Fabaceae	*Senna artemisioides* subsp. x *artemisioides*
Fabaceae	*Senna artemisioides* subsp. x *sturtii*
Fabaceae	*Senna glaucifolia*
Fabaceae	*Senna glutinosa*
Fabaceae	*Senna glutinosa* subsp. *pruinosa*
Fabaceae	*Senna notabilis*
Fabaceae	*Senna pleurocarpa*
Fabaceae	*Senna sericea*
Fabaceae	*Senna symonii*
Fabaceae	*Sesbania cannabina*
Fabaceae	*Swainsona decurrens*
Fabaceae	*Swainsona laciniata*
Fabaceae	*Swainsona oroboides*
Fabaceae	*Templetonia egena*
Frankeniaceae	*Frankenia cinerea*
Frankeniaceae	*Frankenia laxiflora*
Frankeniaceae	*Frankenia setosa*
Goodeniaceae	*Brunonia australis*
Goodeniaceae	*Dampiera cinerea*
Goodeniaceae	*Goodenia gypsicola*
Goodeniaceae	*Goodenia heterochila*
Goodeniaceae	*Goodenia lamprosperma*
Goodeniaceae	*Goodenia mueckeana*
Goodeniaceae	*Goodenia muelleriana*
Goodeniaceae	*Goodenia pascua*
Goodeniaceae	*Goodenia prostrata*
Goodeniaceae	*Goodenia quasilibera*
Goodeniaceae	*Goodenia ramelii*
Goodeniaceae	*Goodenia stellata*
Goodeniaceae	*Goodenia triodiophila*
Goodeniaceae	*Goodenia wilunensis*
Goodeniaceae	Goodeniaceae sp.
Goodeniaceae	*Scaevola amblyanthera*

Family	Species
Goodeniaceae	*Scaevola basedowii*
Goodeniaceae	*Scaevola collaris*
Goodeniaceae	*Scaevola parvifolia* subsp. *pilbarae*
Goodeniaceae	*Scaevola sericophylla*
Goodeniaceae	*Scaevola spinescens*
Gyrostemonaceae	*Codonocarpus cotinifolius*
Gyrostemonaceae	*Gyrostemon ramulosus*
Haloragaceae	*Glischrocaryon angustifolium*
Haloragaceae	*Haloragis gossei*
Haloragaceae	*Haloragis* sp.
Haloragaceae	*Haloragis trigonocarpa*
Hemerocallidaceae	*Corynotheca micrantha* var. *divaricata*
Hemerocallidaceae	*Corynotheca pungens*
Juncaginaceae	*Triglochin nana*
Lamiaceae	*Clerodendrum tomentosum* var. *lanceolatum*
Lamiaceae	*Clerodendrum tomentosum* var. *tomentosum*
Lamiaceae	*Dicrastylis cordifolia*
Lamiaceae	*Dicrastylis doranii*
Lamiaceae	*Dicrastylis fulva*
Lamiaceae	*Dicrastylis kumarinensis*
Lamiaceae	*Microcorys macredieana*
Lamiaceae	*Newcastelia spodiotricha*
Lamiaceae	*Pityrodia loricata*
Lamiaceae	*Prostanthera wilkieana*
Lamiaceae	*Quoya loxocarpa*
Lamiaceae	*Spartothamnella teucriiflora*
Loranthaceae	*Amyema hilliana*
Loranthaceae	*Lysiana exocarpi*
Loranthaceae	*Lysiana murrayi*
Malvaceae	**Malvastrum americanum*
Malvaceae	*Abutilon cryptopetalum*
Malvaceae	*Abutilon fraseri*
Malvaceae	*Abutilon leucopetalum*
Malvaceae	*Abutilon macrum*
Malvaceae	*Abutilon otocarpum*
Malvaceae	*Abutilon oxycarpum*
Malvaceae	*Alyogyne pinoniana*
Malvaceae	*Androcalva loxophylla*
Malvaceae	*Brachychiton gregorii*
Malvaceae	*Corchorus crozophorifolius*
Malvaceae	*Hibiscus burtonii*
Malvaceae	*Hibiscus coatesii*
Malvaceae	*Hibiscus* sp.
Malvaceae	*Lawrencia densiflora*

Family	Species
Malvaceae	*Lawrencia glomerata*
Malvaceae	*Lawrencia helmsii*
Malvaceae	*Lawrencia squamata*
Malvaceae	*Seringia elliptica*
Malvaceae	*Sida ammophila*
Malvaceae	*Sida arenicola*
Malvaceae	*Sida calyxhymenia*
Malvaceae	*Sida cardiophylla*
Malvaceae	*Sida echinocarpa*
Malvaceae	*Sida ectogama*
Malvaceae	*Sida fibulifera*
Malvaceae	*Sida intricata*
Malvaceae	*Sida platycalyx*
Malvaceae	*Sida* sp.
Malvaceae	*Sida* sp. dark green fruits (S. van Leeuwen 2260)
Malvaceae	*Sida* sp. Golden calyces glabrous (H.N. Foote 32)
Malvaceae	*Sida* sp. Golden calyces pubescent (G.J. Leach 1966)
Malvaceae	*Sida* sp. sand dunes (A.A. Mitchell PRP1208)
Malvaceae	*Sida* sp. tiny glabrous fruit (A.A. Mitchell PRP1152)
Malvaceae	*Sida* sp. verrucose glands (F.H. Mollemans 2423)
Malvaceae	*Sida trichopoda*
Marsileaceae	*Marsilea drummondii*
Marsileaceae	*Marsilea hirsuta*
Molluginaceae	*Glinus oppositifolius*
Molluginaceae	*Hypertelis cerviana*
Myrtaceae	*Aluta maisonneuvei* subsp. *maisonneuvei*
Myrtaceae	*Calytrix carinata*
Myrtaceae	*Corymbia chippendalei*
Myrtaceae	*Corymbia deserticola*
Myrtaceae	*Corymbia hamersleyana*
Myrtaceae	*Corymbia opaca*
Myrtaceae	*Eucalyptus* ? *victrix*
Myrtaceae	*Eucalyptus camaldulensis*
Myrtaceae	*Eucalyptus gamophylla*
Myrtaceae	*Eucalyptus mannensis* subsp. *mannensis*
Myrtaceae	*Eucalyptus* sp.
Myrtaceae	*Eucalyptus* sp. Little Sandy Desert (D. Nicolle & M. French DN 4304)
Myrtaceae	*Eucalyptus trivalva*
Myrtaceae	*Melaleuca interioris*
Myrtaceae	*Melaleuca xerophila*
Myrtaceae	*Micromyrtus flaviflora*
Nyctaginaceae	*Boerhavia coccinea*
Nyctaginaceae	*Boerhavia repleta*
Nyctaginaceae	*Boerhavia schomburgkiana*

Family	Species
Oleaceae	*Jasminum didymum* subsp. *lineare*
Phrymaceae	*Mimulus gracilis*
Phrymaceae	*Peplidium aithocheilum*
Phrymaceae	*Peplidium maritimum*
Phrymaceae	*Peplidium muelleri*
Phrymaceae	*Thyridia repens*
Phyllanthaceae	*Phyllanthus maderaspatensis*
Pittosporaceae	*Pittosporum angustifolium*
Plantaginaceae	*Stemodia viscosa*
Plumbaginaceae	*Muellerolimon salicorniaceum*
Poaceae	**Cenchrus ciliaris*
Poaceae	**Chloris virgata*
Poaceae	**Digitaria ciliaris*
Poaceae	**Setaria verticillata*
Poaceae	*Amphipogon caricinus*
Poaceae	*Amphipogon sericeus*
Poaceae	*Aristida contorta*
Poaceae	*Aristida holathera*
Poaceae	*Aristida inaequiglumis*
Poaceae	*Aristida nitidula*
Poaceae	*Bothriochloa ewartiana*
Poaceae	*Chrysopogon fallax*
Poaceae	*Cymbopogon ambiguus*
Poaceae	*Cymbopogon obtectus*
Poaceae	*Cynodon convergens*
Poaceae	*Dactyloctenium radulans*
Poaceae	*Digitaria brownii*
Poaceae	*Digitaria ctenantha*
Poaceae	*Enneapogon caerulescens*
Poaceae	*Enneapogon polyphyllus*
Poaceae	*Enneapogon robustissimus*
Poaceae	*Enteropogon ramosus*
Poaceae	*Eragrostis cumingii*
Poaceae	*Eragrostis desertorum*
Poaceae	*Eragrostis dielsii*
Poaceae	*Eragrostis eriopoda*
Poaceae	*Eragrostis falcata*
Poaceae	*Eragrostis kennedyae*
Poaceae	*Eragrostis leptocarpa*
Poaceae	*Eragrostis pergracilis*
Poaceae	*Eragrostis xerophila*
Poaceae	*Eriachne aristidea*
Poaceae	*Eriachne flaccida*
Poaceae	*Eriachne helmsii*

Family	Species
Poaceae	*Eriachne mucronata*
Poaceae	*Eriachne pulchella*
Poaceae	*Iseilema membranaceum*
Poaceae	*Iseilema vaginiflorum*
Poaceae	*Monachather paradoxus*
Poaceae	*Neurachne minor*
Poaceae	*Paractaenum refractum*
Poaceae	*Paraneurachne muelleri*
Poaceae	*Paspalidium constrictum*
Poaceae	*Paspalidium rarum*
Poaceae	*Paspalidium reflexum*
Poaceae	*Perotis rara*
Poaceae	Poaceae sp.
Poaceae	*Themeda triandra*
Poaceae	*Thyridolepis mitchelliana*
Poaceae	*Thyridolepis xerophila*
Poaceae	*Tragus australianus*
Poaceae	*Triodia basedowii*
Poaceae	*Triodia longiceps*
Poaceae	*Triodia melvillei*
Poaceae	*Triodia pungens*
Poaceae	*Triodia schinzii*
Poaceae	*Triodia* sp.
Poaceae	*Tripogonella loliiformis*
Poaceae	*Triraphis mollis*
Poaceae	*Yakirra australiensis*
Polygalaceae	*Polygala isingii*
Polygonaceae	*Duma florulenta*
Portulacaceae	*Calandrinia polyandra*
Portulacaceae	*Calandrinia ptychosperma*
Portulacaceae	*Calandrinia* sp.
Portulacaceae	*Portulaca filifolia*
Portulacaceae	*Portulaca intraterranea*
Portulacaceae	*Portulaca oleracea*
Primulaceae	*Samolus repens*
Proteaceae	*Grevillea berryana*
Proteaceae	*Grevillea eriostachya*
Proteaceae	*Grevillea juncifolia* subsp. *juncifolia*
Proteaceae	*Grevillea* sp.
Proteaceae	*Grevillea stenobotrya*
Proteaceae	*Grevillea striata*
Proteaceae	*Hakea lorea*
Proteaceae	*Hakea rhombales*
Pteridaceae	*Cheilanthes sieberi* subsp. *sieberi*

Family	Species
Rubiaceae	*Pomax* sp. desert (A.S. George 11968)
Rubiaceae	*Psydrax latifolia*
Rubiaceae	*Psydrax rigidula*
Rubiaceae	*Psydrax suaveolens*
Rubiaceae	*Synaptantha tillaeacea* var. *hispidula*
Santalaceae	*Anthobolus leptomerioides*
Santalaceae	*Exocarpos sparteus*
Santalaceae	*Santalum acuminatum*
Santalaceae	*Santalum spicatum*
Sapindaceae	*Dodonaea coriacea*
Sapindaceae	*Dodonaea viscosa*
Scrophulariaceae	*Eremophila* ? *clarkei*
Scrophulariaceae	*Eremophila cuneifolia*
Scrophulariaceae	*Eremophila forrestii* subsp. *forrestii*
Scrophulariaceae	*Eremophila galeata*
Scrophulariaceae	*Eremophila glabra* subsp. *glabra*
Scrophulariaceae	*Eremophila lachnocalyx*
Scrophulariaceae	*Eremophila lanceolata*
Scrophulariaceae	*Eremophila latrobei* subsp. *filiformis*
Scrophulariaceae	*Eremophila latrobei* subsp. *glabra*
Scrophulariaceae	*Eremophila latrobei* subsp. *latrobei*
Scrophulariaceae	*Eremophila longifolia*
Scrophulariaceae	*Eremophila maculata*
Scrophulariaceae	*Eremophila margarethae*
Scrophulariaceae	*Eremophila oppositifolia*
Scrophulariaceae	*Eremophila* sp.
Scrophulariaceae	*Eremophila spectabilis*
Solanaceae	*Nicotiana occidentalis*
Solanaceae	*Nicotiana rosulata*
Solanaceae	Solanaceae sp.
Solanaceae	*Solanum centrale*
Solanaceae	*Solanum cleistogamum*
Solanaceae	*Solanum lasiophyllum*
Solanaceae	*Solanum phlomoides*
Solanaceae	*Solanum* sp.
Solanaceae	*Stylidium humphreysii*
Surianaceae	*Stylobasium spathulatum*
Thymelaeaceae	*Pimelea ammocharis*
Thymelaeaceae	*Pimelea microcephala* subsp. *microcephala*
Violaceae	*Hybanthus aurantiacus*
Xanthorrhoeaceae	*Xanthorrhoea thorntonii*
Zygophyllaceae	*Tribulus astrocarpus*
Zygophyllaceae	*Tribulus macrocarpus*
Zygophyllaceae	*Tribulus occidentalis*

Family	Species
Zygophyllaceae	*Tribulus platypterus*
Zygophyllaceae	*Tribulus suberosus*
Zygophyllaceae	*Zygophyllum aurantiacum*
Zygophyllaceae	*Zygophyllum compressum*
Zygophyllaceae	*Zygophyllum eremaeum*