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Baseline Weed Survey Methodology

Gawara Baya Windfarm

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TERRA SOLUTIONS PTY LTD Company Details

Approved By	Laurence Liessmann		
Address	Unit 2, 106 Dalrymple Road, Currajong QLD 4812, Australia		
Signature			
Telephone	0407 623 528		
Email	laurence@terrasolutions.com.au	Website	www.terrasolutions.com.au

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1 Introduction

Windlab Pty Ltd (Windlab) is required to prepare a Weed Survey Methodology (the methodology) for Baseline Weed Survey at the Gawara Baya Windfarm (the Project). A Weed Survey Methodology is a requirement of the Department of Climate Change, Energy, the Environment and Water (DCCEEW) *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) approval (EPBC 2021/9066).

This report stipulates the on-ground survey effort, analysis and mapping methodology to guide the Baseline Weed Survey.

1.1 Project Description

Windlab is proposing to build the Project, a wind energy project on an operating cattle property within Gugu Badhun Country, approximately 65 km south-west of Ingham in North Queensland (

Figure 1). The Project is within the Charters Towers Regional Council Local Government Area (LGA) on Lot 3198 on SP344602.

The Project includes the construction, operation and decommissioning of Gawara Baya wind farm. The Project will generate approximately 400 megawatts of renewable energy from up to 69 wind turbine generators. The project also comprises associated ancillary infrastructure including access tracks, laydowns, electrical reticulation, collector sub-stations, concrete batching plants and construction offices.

The location and design of the Project has been determined and refined through careful consideration of the location, quality and profile of the wind energy resource, proximity to existing energy transmission infrastructure, established use of the land for cattle grazing, and the proponent's ability to appropriately and responsibly manage local-scale impacts associated with the Project.

1.2 Statutory Consideration

1.2.1 EPBC Approval Conditions

Windlab received an EPBC Act approval (EPBC 2021/9066) on 17 June 2024 from DCCEEW.

The development and implementation of a weed survey is required to satisfy the relevant EPBC Act approval conditions:

> *38. Using method(s) and effort approved by the department in writing, the Approval Holder must have a suitably qualified field ecologist conduct baseline surveys at least 1 month prior to commencement of the Action for weed species[1], recording the extent and abundance of weeds in any areas proposed to be cleared and within 500 metres of any proposed clearing.*
>
> *39. To avoid and mitigate harm to protected matters, relative to the baseline data collected under condition 38 the Approval Holder must ensure that there are no new species of weeds in the Implementation Area[2] at 2, 5, 10, 20, 41, 46, 50 and 69 years after commencement of the Action.*
>
> *40. To avoid and mitigate harm to protected matters, relative to the baseline data collected under condition 38, the Approval Holder must ensure that there is no increase in the extent or abundance of weeds in the final development footprint and within 500-metres on all sides of the final development footprint: at 2, 5, 10, 20, 41, 46, 50, 65 and 69 years after commencement of the Action.*
>
> *41. At least 1 month prior to commencement of the Action, the Approval Holder must submit the results of all the surveys required under Condition 38 to the department.*
>
> *42. The Approval Holder must have a suitably qualified field ecologist monitor weed species, extent and abundance in the final development footprint and within 500-metres on all sides of the final development*

[1] Weed means any weed species identified within the Weeds of National Significance and invasive plants listed under *Part 3, Schedule 1 of the Biosecurity Act 2014* (Qld). Hereafter, weeds species that meet this definition are referred to as "target weeds".

[2] The implementation area is defined as the area of proposed clearing plus a 500 m buffer.

footprint at least once every year until 70 years after commencement of the Action using method(s) and effort approved by the department in writing.

43. The Approval Holder must include the report and findings of the annual monitoring undertaken in accordance with condition 42 in the next compliance report required under condition 110.Other Statutory Considerations

The legislation, policy, guidelines, and guidance documents provided in Table 1 are relevant to the management of biosecurity risks at the site and in some instances provide guidance on weed management of the Project.

Table 1: Relevant Environmental Statutory Considerations

Legislation	Description
Environmental Protection Act 1994 (EP Act)	The object of the EP Act is to protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (ecologically sustainable development).
Biosecurity Act 2014 (Biosecurity Act)	The Biosecurity Act is designed to ensure a consistent, modern, risk-based, and less prescriptive approach to biosecurity in Queensland. The Act requires all people and organisations in Queensland to manage biosecurity risks under their control under the general biosecurity obligation.
Weeds of National Significance (WoNS)	Weeds of National Significance (WoNS) is a list of 32 weeds agreed by Australian governments as requiring prioritisation based on their invasiveness, potential for spread and environmental, social, and economic impacts. Landowners and land managers at all levels are responsible for managing WoNS. State and territory governments are responsible for legislation, regulation, and administration of weeds. A strategic plan for each WoNS has been developed. The strategies aim to: • Prevent spread of new infestations. • Reduce adverse impacts of existing infestations. • Establish and maintain national commitment. • Coordinate management at a national level, and • Increase community awareness.
National Strategies	National strategies help government, industry and the broader community manage weeds in a coordinated manner at a national level. National strategies include: • Australian Weeds Strategy 2017 to 2027 (Department of Agriculture and Water Resources), and • Threat Abatement plans.

1.3 Objectives

This methodology specifically identifies the methods and effort for the baseline surveys, required by condition 38 of the EPBC Act approval (Baseline Weed Survey). The Baseline Weed Survey will be conducted within the area of proposed clearing plus a 500 m buffer, hereafter the Implementation Area (Figure 1).

A separate methodology will propose the methods and effort for the ongoing monitoring of weed species, extent and abundance (relative to the baseline data collected during the Baseline Surveys), as required by condition 42 of the EPBC Act approval (Ongoing Weed Surveys). Preparing a separate methodology for Ongoing Weed Surveys will assist the proponent in the appointment and scheduling of pre-commencement and post-commencement contractors and ensure that any enhancement, improvements or efficiencies arising from the Baseline Weed Survey can be accurately captured.

In accordance with the EPBC Act Approval Condition 39 the Approval Holder must ensure that there are no new species of weeds in the Implementation Area at 2, 5, 10, 20, 41, 46, 50 and 69 years after commencement of the Action. In accordance with the EPBC Act Approval Condition 40 the Approval Holder must ensure that there is no increase in the extent or abundance of weeds in the Implementation Area at 2, 5, 10, 20, 41, 46, 50 and 69 years after commencement of the Action.

1.4 Scope of Works

The scope of works included the following tasks:

- Desktop assessment of background information and legislative/policy documents along with Commonwealth and State mapping layers and databases.
- Development of a weed survey methodology that sufficiently covers the EPBC Act Approval requirements, with the view that the methodology shall be given to the Department for approval; and should include at a minimum:
  - Field surveying efforts.
  - Consideration of seasonal variation.
  - References to applicable standards, industry best practices and alike, to justify methodology in a way such that the methodology should be approved by the Department, and
  - Details of any desktop or digital survey methods to improve efficiencies.
- A report detailing the methodology.

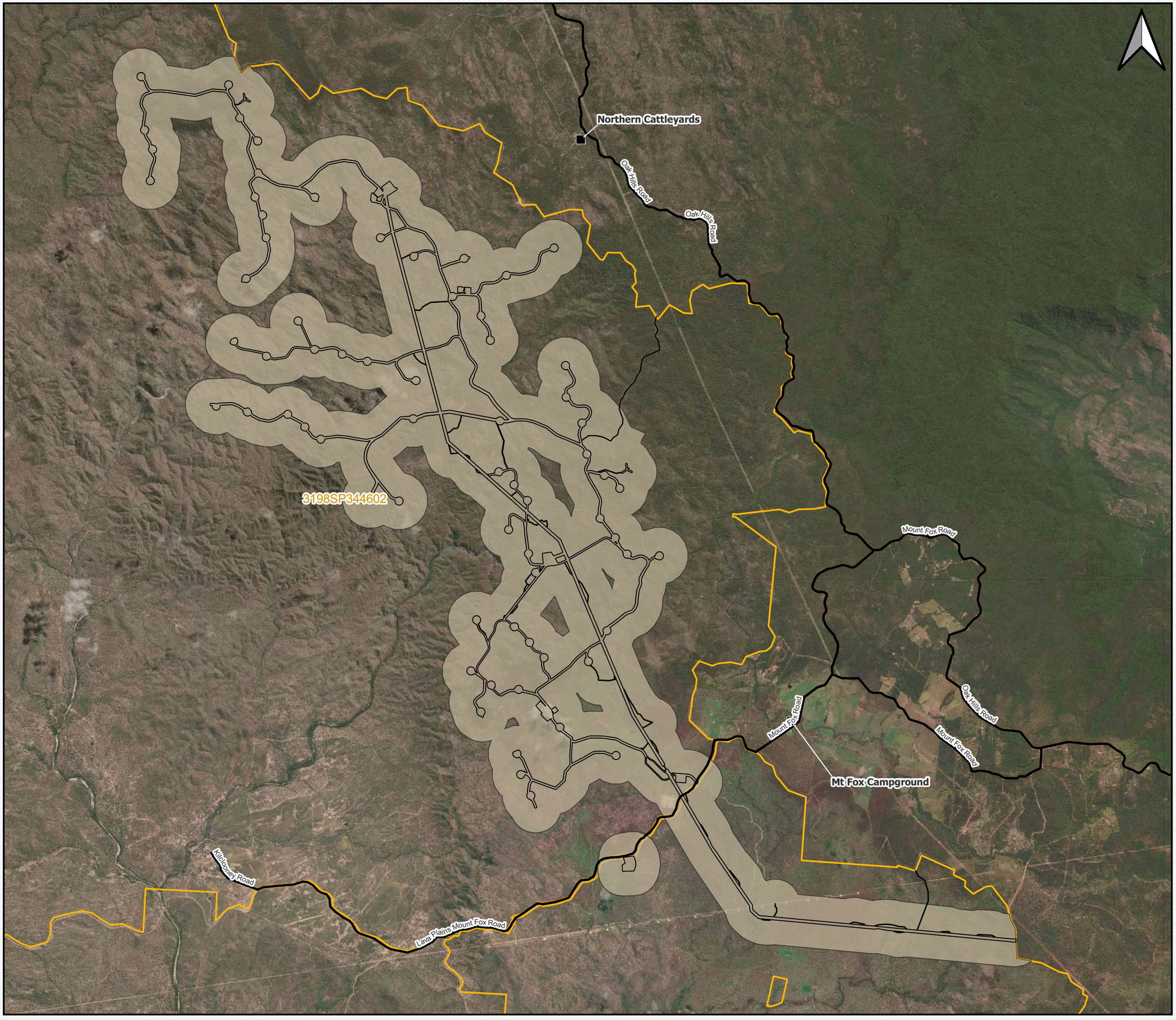

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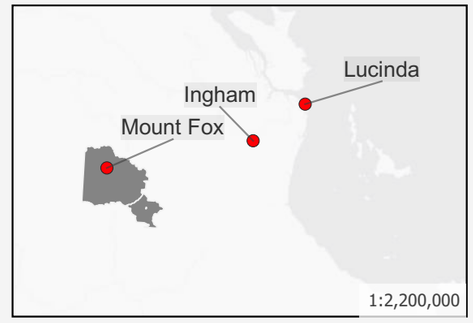
FIGURE 1: PROJECT LOCATION & IMPLEMENTATION AREA

0 1 2 3 4 5 km

1:70,000

LEGEND:

- Proposed Clearing Area
- Implementation Area
- Cadastral Boundary (3198 on SP344602)



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2 Preliminary Desktop Assessment

2.1 Listed & Weeds of National Significance

A preliminary desktop assessment was undertaken to provide a summary of target weeds, including Weeds of National Significance (WoNS) and restricted weeds listed pursuant to the *Biosecurity Act 1994* identified from WildNet searches (Table 2). Species not recorded within 100 km of the Implementation Area are considered unlikely to occur and are not considered target species, whilst species recorded within 10km have a high likelihood of occurrence.

Upper Burdekin Wind Farm – Ecological Assessment (ELA 2020) report provides list of weed species identified through incidental observations and provides a general description of their distribution and relative abundance. Twenty-seven weed species were identified during flora surveys including the following target weeds:

- Lantana (*Lantana camara*).
- Sicklepod (*Senna obtusifolia*).
- Singapore daisy (*Sphagneticola trilobata*), and
- American rat's tail grass (*Sporobolus jacquemontii*).

Preliminary site visits and previous ecological assessments confirmed that riparian environments associated with land zone 3 have a higher proportion of introduced species than other communities, especially the larger steams in Bioregion 9.

Table 2: Target Weeds - Biosecurity Act Weeds & Weeds of National Significance from Desktop Searches

Species Name	Common Name	Growth Form	Life Cycle	Biosecurity Act Category[1]	WoNS	WildNet Records 10km[2]	WildNet Records 100km[2]	Eco Logical Australia (2020)[3]
Andropogon gayanus	Gamba grass	Grass	Perennial	3	Y		6	
Annona glabra	Pond apple	Tree	Perennial	3	Y		2	
Argyreia nervosa	Elephant ear vine	Vine	Perennial	3			2	
Bryophyllum delagoense	Mother of millions	Succulent	Perennial	3			2	
Cardiospermum grandiflorum	Balloon vine	Liane	Perennial	3			1	
Cascabela thevetia	Yellow oleander	Shrub	Perennial	3			3	
Chromolaena odorata	Siam weed	Shrub	Perennial	3			24	
Chromolaena squalida	Siam weed	Shrub	Perennial	3			3	
Cryptostegia grandiflora	Rubber vine	Woody vine	Perennial	3	Y		33	
Elephantopus mollis	Tobacco weed	Herb	Perennial	3			1	
Hygrophila costata	Hygrophila	Aquatic herb	Perennial	3			1	
Lantana camara	Lantana	Shrub	Perennial	3	Y	3	43	Recorded. Widespread (Low – High)
Limnocharis flava	Limnocharis	Aquatic herb	Annual or perennial	2,3,4,5			5	
Mikania micrantha	Mikania vine	Vine	Perennial	2,3,4,5			4	
Opuntia stricta	Common pest pear	Succulent	Perennial	3	Y		3	
Parkinsonia aculeata	Parkinsonia	Tree	Perennial	3	Y		1	
Parthenium hysterophorus	Parthenium	Herb	Annual	3	Y	1	8	
Sagittaria platyphylla	Sagittaria	Emergent aquatic	Perennial	3	Y		1	

Species Name	Common Name	Growth Form	Life Cycle	Biosecurity Act Category[1]	WoNS	WildNet Records 10km[2]	WildNet Records 100km[2]	Eco Logical Australia (2020)[3]
Salvinia molesta	Salvinia	Floating aquatic herb	Annual or perennial	3	Y		2	
Schinus terebinthifolius	Broad-leaved pepper tree	Tree	Perennial	3			1	
Senna hirsuta	Sicklepod - hairy cassia	Subshrub / forb	Perennial	3			2	
Senna obtusifolia	Sicklepod	Subshrub / forb	Annual or perennial	3		1	6	Recorded.
Senna tora	Sicklepods - foetid cassia	Subshrub / forb	Annual or perennial	3			1	
Sphagneticola trilobata	Singapore daisy	Herb	Perennial	3			13	Recorded.
Sporobolus fertilis	Giant Parramatta grass	Grass	Perennial	3		1	9	
Sporobolus jacquemontii	American rat's tail grass	Grass	Perennial	3			23	Recorded. Limited (Low)
Sporobolus natalensis	Giant rat's tail grass	Grass	Perennial	3		1	8	
Sporobolus pyramidalis	Giant rat's tail grass	Grass	Perennial	3			10	
Tamarix aphylla	Athel pine	Tree	Perennial	3	Y		2	
Thunbergia grandiflora	Thunbergia	Vine	Perennial	3			1	
Ziziphus mauritiana	Chinee apple	Tree	Perennial	3			2	

[1] Category 2 restricted matters have specific urgent reporting requirements. You must report restricted matter from these categories if it is present in, or on, something in your possession or under your control or at a place where you are the occupier, unless an appropriately authorised officer has already been advised or you possess a permit for the restricted matter.
Category 3 You must not distribute this restricted matter. This means it must not be given as a gift, sold, traded or released into the environment unless the distribution or disposal is authorised in a regulation or under a permit. Deliberate human distribution or disposal contrary to the legislation is a key source of spread into other areas of the state.
Category 4 You must not move this restricted matter to ensure that it does not spread into other areas of the state.
Category 5 You must not possess or keep this restricted matter under your control. These pests have a high risk of negatively impacting on the environment. You may only keep this restricted matter under a permit of the Biosecurity Act 2014 or another Act.

[2] Number denotes total record count retrieved from search

[3] WoNS and restricted weeds (Biosecurity Act) recorded during ecological surveys (Eco Logical Australia, 2020)

3 Baseline Weed Survey Methodology

The methodology is designed to be replicated across the Implementation Area (

Figure 1) and has been prepared generally in accordance with *A Field Manual for Surveying and Mapping Nationally Significant Weeds* (McNaught et al., 2008) with consideration given to the following:

- Existing information with respect to known and potential weed species presence and locations such as within creek and drainage lines.
- Priority weeds – Weed species are prioritised based on known significant species present in the Implementation Area and within 10 km of the Implementation Area. In cases where there are no records of a particular WoNS or restricted species they are considered low risk.
- Seasonal influences – timing of survey period and how this will affect the detectability of weeds e.g. lifecycle (annual or perennial), flowering or fruiting periods, leaf flushing.
- Accessibility – where areas are inaccessible, and likely to remain inaccessible over the foreseeable future attempts will be made to assess the area via aerial survey.
- Detection methods – Ground-based survey methods using light vehicle, ATV and on foot along and aerial surveys.
- Density of weed infestation – where priority weeds are more frequent or problematic, more effort will be required to categorise the population, and
- References to applicable standards, industry best practices and alike, to justify methodology

3.1 Constraints & Limitations

Due to the constraints associated with the size and remoteness of parts of the Implementation Area, several constraints to the feasible delivery of the project to the scope required in the approval conditions must be considered. These constraints will limit the options available for weed survey methodology until such time as access becomes more readily available and include:

Scale

The survey area (approximately 100 linear kilometres with a 500 m weed survey buffer) is approximately 8,676 hectares requiring a combination of ground-based and aerial survey methods to achieve a comprehensive survey of the site.

Access

The total linear footprint is over 100 km in length and much of this area and the surrounding buffer remains inaccessible via light vehicle or side-by-side (all terrain) vehicle. Obstacles such as creek crossings may impede access in some areas. The assessment of inaccessible areas will require the use of aerial vehicles to detect weed infestations. This method will not be suitable for individual plants and small infestations of difficult to detect species (e.g. some grasses).

Future aerial access to parts of the implementation area is unlikely to be possible via aerial survey due to potential collision risk with turbines.

Remoteness & Terrain

The remoteness and complexity of the terrain adds both time and safety constraints to weed data capture when traversing by either vehicle and/or on foot. Access to emergency services in the event of an incident will be constrained by lengthy response times and accessibility. Risk management procedures must be put in place before commencing work in any areas at a distance from vehicular access.

Seasonality

The detectability of weed species varies seasonally and between species due to factors such as annual lifecycle, dormancy, deciduousness and flowering and fruiting periods. Surveys are proposed for the wet season and this timing has been selected to maximise the detectability of the target species.

3.2 Desktop Assessment

Prior to each field survey a desktop assessment will be undertaken including a review of relevant environmental documents, databases, scientific journals, books, technical reports, maps, and legislation (Commonwealth, State and Local) to identify the weed species that may occur within the weed survey area. This review shall include an assessment of the following information:

- Aerial Photograph Interpretation (API) to determine the broad categorisation of vegetation within and surrounding the site and to review the extent of historical clearing and land use, and any other significant environmental features such as watercourses and wetlands.
- Review previous drone imagery to identify probable weed infestations for subsequent field verification.
- Regional ecosystem mapping: The most recent version of the Department of Resources (DoR) Regulated Vegetation Management Regional Ecosystem mapping (latest version) and essential habitat mapping (latest version).
- Wetland mapping. The referable wetlands mapping produced by the Department of Environment, Science and Innovation (DESI) was reviewed to provide an indication of the occurrence and location of any wetland management areas (comprising significant wetlands and a 100 m wetland buffer area) in relation to the landforms of the site.
- WildNet database of flora and fauna. This database holds records of plants and animals that have either been sighted or collected within a given radius of the site (search parameter used included a 10 km buffer and a 100 km around the Implementation Area. and was prescribed limiting the search area to a 10 km buffer around the basin. Records held in this database are maintained by DESI (Appendix A).
- Atlas of Living Australia species records review.
- EPBC Act Protected matters database. This database applies a range of bio-models to predict the presence of species of flora and fauna and other Matters of National Environmental Significance within a given radius of the site.

3.3 Survey Timing

The detectability of weed species varies seasonally and between species due to factors such as annual lifecycle, dormancy, deciduousness and flowering and fruiting periods. Baseline Weed Surveys should ideally be undertaken during the wet season when the target species, particularly annual grasses are most detectable (i.e. flowering or fruiting), however surveys can be undertaken during other periods. It is important that subsequent monitoring events are undertaken at a similar time of the year to maintain consistency between surveys and aid in the comparison of results.

Baseline Weed Surveys will be undertaken a minimum of one month prior to the commencement of the proposed Action, in accordance with Condition 38 of the EPBC Act approval.

3.4 Survey Methods

3.4.1 Approach

The approach to surveys is to undertake ground-based and aerial surveys within the Implementation Area at least one (1) month prior to commencement of the Action. Existing disturbance areas (e.g. access tracks) and accessible areas up to the extent of the Implementation Area will be surveyed using a combination of aerial and ground-based surveys.

The introduction and proliferation of weeds associated with the project may result from soil disturbance, transport on construction equipment, imported materials, human activity, stormwater runoff, vegetation removal and along transportation corridors. Additionally, since the Implementation Area is concurrently used for grazing, the spread of weeds through this vector pathway is likely.

As the distance from the proposed clearing area increases, the probability that observed weed occurrences are attributable to project-related activities correspondingly decrease. This trend reflects the diminishing influence of project-associated disturbance and vector pathways, such as machinery movement, with increasing spatial separation and the increasing influence of outside vectors.

The survey approach proposed requires a preliminary assessment of previous drone imagery, aerial surveys and ground-based survey (Light Vehicle, UTV and on-foot) to identify and map significant infestations and represents the first phase of assessment.

A GPS track log shall be taken for all methods and will be presented in field survey effort maps. The proposed area for the Baseline Weed Survey is presented in Figure 2.

3.4.2 Aerial Photograph Interpretation

Prior to field investigations existing aerial photographs of the implementation will be reviewed to identify probable weed infestations for field verification. Aerial photograph interpretation will involve the identification of aerial signatures that may be considered with weed infestations using various sources including drone imagery, satellite imagery and other available sources of aerial imagery. Where infestations can be identified using the existing imagery they will be validated in the field via ground-based surveys.

3.4.3 Aerial Surveys

Aerial surveys will be conducted to collect georeferenced RGB and multispectral imagery across the implementation area. This will enable comparison with other imagery sources and enable reproducible comparison of visual indicators of infestations during future monitoring events (see Table 2).

The aerial surveys will be undertaken outside of existing tracks and where access is impractical for health and safety reasons.

Where it is not possible to collect key the key data attributes of species, density and infestation area via the aerial survey (see Table 5) for an infestation this data will be established via ground-based surveys where the site can be safely accessed, otherwise this information will be provided as an estimate.

3.4.4 Ground-based Surveys

Ground-based surveys will target the accessible areas of the site using a combination of light vehicle, utility vehicle (UTV) and on-foot within line of sight of existing traversable tracks. Where denser infestations are encountered ecologists will exit the vehicle and capture data on foot and/or via drone.

It is not the intent for ground-based surveys to locate and record every plant, however, small infestations will be more readily detected using this methodology.

Ground-based surveys will be used to confirm and validate potential weed infestations identified via aerial photograph interpretation.

3.4.5 Survey Extent Mapping

The extent of each survey will be provided as a map in which each method of assessment will be broken down (i.e. aerial survey and ground-based survey) in the following manner:

1) Ground-based survey extent: Accessible areas around existing access tracks.
2) Aerial survey: The extent of aerial imagery collected via UAV that is within the Implementation Area.

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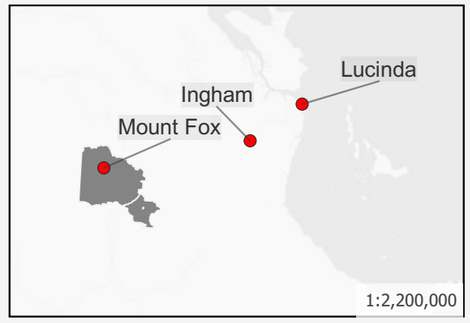
FIGURE 2: ESTIMATED EXTENT OF SURVEY METHODS

0 1 2 3 4 5 km

1:70,000

LEGEND:

- Proposed Clearing Area
- Minimum Ground Survey Extent
- Maximum Aerial Survey Extent



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3.5 Weed Cover Determination

The density of weed infestations detected during ground-based surveys will be estimated via visual inspection. Indicative photographs will be taken during Ground-based surveys and Aerial surveys for verification.

The visual inspection method estimates ground cover by selecting a cover class category (1-7) from Table 3. The cover categories are: 1. Absent; 2. Isolated plants; 3. Very Sparse; 4. Sparse; 5. Mid-dense; 6. Dense and 7. Very dense. This method is beneficial for large sites and is suitable for assessing all growth forms.

A non-compliance in accordance with Condition 40 of the EPBC Approval with regards to abundance would be an increase in the cover class relative to the baseline data (e.g. an increase from very sparse to sparse) for each target weed species at 2, 5, 10, 20, 41, 46, 50, 65 and 69 years after commencement of the Action.

A non-compliance in accordance with Condition 39 of the EPBC Approval would be an increase from Cover Class 1 – Absent or not detected during the Baseline Weed Survey to a higher cover class at 2, 5, 10, 20, 41, 46, 50 and 69 years after commencement of the Action.

The total weed cover for a species is calculated as follows:

$$Total\ Weed\ Cover = \sum(Ci \times Ai)$$

Where:

Ci=Middle value of each cover class (expressed as a percentage)

Ai= Area corresponding to that cover class (in the same units, e.g. hectares or square metres)

i = index for each cover class

The process is to iterate through each weed cover class, multiply the cover class by its corresponding area, and sum the results to get the total weed cover.

Table 3: Modified Vegetation Cover Classes, based on Braun–Blanquet Cover-abundance Scale (Watson et al., 2021)

Cover Class	% Cover Range	Grasses & Forbs	Shrubs	Trees
7 – Very Dense	> 75%	Individual plants are touching or overlapping – forming a monoculture with few other species present. Individuals may be very densely clumped.	The crowns or edges of individual plants of the target species are either touching or overlapping one another – forming a monoculture with few other species present.	As for shrubs.
6 – Dense	51—75%	Individual plants are slightly separated or touching – not forming a monoculture, with other plants present or bare ground. Individuals may be densely clumped.	The crowns or edges of individual plants of the target species are either slightly separated or touching – not forming a monoculture, with other plants present or bare ground.	As for shrubs.
5 – Mid-dense	26—50%	Individual plants are separated or rarely touching. Individuals may be moderately clumped. Other plants present or bare ground.	The crowns or edges of individual plants of the target species are clearly separated. Other plants present or bare ground.	As for shrubs.
4 – Sparse	11—25%	Individual plants are well separated. Other plant species dominate and typically occur between the target species. Small clumps may occur.	The crowns or edges of individual plants of the target species are well-separated. Other plant species dominate and typically occur between the target species.	As for shrubs except the degree of crown separation is higher.
3 – Very sparse	1—10%	Individuals scattered. Small clumps may occur.	Individual plants of the target species are scarce or scattered.	As for shrubs except the individual plants of the target species are further apart.
2 – Isolated plants	<1%	Plants are extremely isolated. May consist of only one record of the species.	As for grasses, forbs, etc.	As for grasses, forbs, etc.
1 – Absent or not detected	-	-	-	-

3.6 Weed Extent Mapping

A weed map for each target species detected will be prepared using Geographic Information System software (e.g. ArcGIS or QGIS) using point data information (Table 5 and Table 6) from surveys and interpretation of RGB imagery previously collected by Windlab and/or UAV during the Baseline Weed Survey. Each weed map will be presented at an appropriate scale in accordance with Table 4.

Where infestation extents identified during aerial surveys cannot be accurately delineated using RGB imagery, the extents will utilise indicative circular polygons using the area estimates from field data collection information (i.e. for an approximate 10 ha infestation, the radius will be approximately 178 m).

Weed infestations will be divided into separate sites if there is a gap of 200 m or more between stands of similar density or where there is a useful and obvious boundary between infestations (e.g. property boundary, drainage line, road). Infestations will be stratified by density so that areas with uniform cover are grouped together.

The smallest weed extent mapped as a polygon will be 1,000 m^2. Individual plants will not be mapped due to the project scale.

In accordance with condition 108 of the EPBC Approval spatial data including field data and any post-processed weed mapping is to be prepared in accordance with the *Guide to providing maps and boundary data for EPBC Act projects* (DAWE, 2021). All data is to be provided in Esri shapefile format as per the definitions of the approval, where shapefiles consist of the following:

a) '.shp', '.shx', '.dbf' files,
b) a '.prj' file which specifies the projection or geographic coordinate system used, and
c) an '.xml' metadata file that describes the shapefile for discovery and identification purposes.

A non-compliance in accordance with Condition 40 of the EPBC Approval with regards to weed extent would be an increase in the total mapped area for each target weed species at 2, 5, 10, 20, 41, 46, 50, 65 and 69 years after commencement of the Action.

Table 4: Weed Mapping Approach

Feature Type	Area	Density
Point	Non-linear infestations < 1 ha	Green – (1 – 5 %) Yellow (6% – 25%) Orange (26% – 50%) Bright Red (51% – 75%) Dark Red (> 75%)
Line	Linear infestations (e.g. along watercourses) less than 50 m wide.	
Polygon	Non-linear infestations > 1 ha	

3.7 Data Collection

The location and attributes of the targeted weed species will be recorded using a customised data collection program Fulcrum® and Bad Elf GNSS Surveyor, or similar. Detection of species and analysis of infestations is based around the classification groups in Table 3. The baseline assessment and future monitoring will be completed with the intent of detecting a change in distribution or density from one class to another.

Measurable attributes and other field-based parameters, and the field and values collected for each entry are presented in Table 5.

Each record captured will be for one species record per event. Individual plants will only be recorded where it is a target species and hasn't previously been recorded. The smallest area recorded will be 1,000 m^2 (0.1 ha).

Table 5: Data Collection Fields & Values

Data Type	Value Type	Format
Unique identifier*	Alphanumeric	Automatically generated
Date*	Text	DD-MM-YYYY
Collector*	Text	Name
Species*	Text	Genus species
Life cycle*	Categorical (multichoice)	• Flowering • Fruiting • Flushing • Absent
Common name	Text	
Coordinate system*	Alphanumeric	WGS84
Location/elevation*	Numerical	• Latitude (-dd.dddddd) • Longitude (ddd.dddddd) • Elevation (mAHD)
Coordinate precision	Numerical	Automatically generated
Survey method	Categorical	• Vehicle • ATV • Foot • Aerial • Drone
Density	Categorical	• Absent or not detected • 1 – 5 % • 6% – 25% • 26% – 50% • 51% – 75% • > 75% • Present (density unknown) • Not known (or uncertain) • Not assessed
Area estimate	Categorical	• < 0.1 ha (1,000m2) • 0.1 ha –1 ha • 1 ha – 10 ha • 10 ha – 100 ha • 100 ha – 1,000 ha • > 1,000 ha
Habitat	Broad vegetation group	Refer Table 6.
Photograph	Image	
Other		Other relevant information e.g. substrate, soils, disturbance. Source point if known, and distance from source point.

3.8 Vegetation Communities

State mapping identifies primarily remnant vegetation, with large polygons containing up to three Regional Ecosystems (REs) reflecting geological variations. Ecological surveys undertaken by Ecological (2020) identified 69 REs across six land zones within two bioregions. Field surveys confirmed the accuracy of state-mapped RE boundaries noting that heterogeneous polygons in general sufficiently represented the area.

Dominant vegetation types included primarily *Eucalyptus* and *Corymbia* open forests and woodlands with variable shrub layers (dominated by *Acacia* spp.) and a ground layer commonly consisting of *Themeda triandra* and *Heteropogon* spp. Small patches of vine thicket, simple notophyll vine forest occurred along with riparian woodland along major watercourses.

A description of the broad vegetation groups identified by Eco Logical Australia is presented in Table 6. These broad vegetation groups will be used to define habitat types during weed surveys of the Implementation Area.

Table 6: Habitat Types

BVG (5 Million)	BVG (1 Million)	Description
5. Notophyll to microphyll vine forests, frequently with Araucaria spp. or Agathis spp. (kauri pines)	5b	Notophyll to microphyll vine forests, frequently with *Araucaria cunninghamii* (hoop pine), on ranges of central coastal bioregions. (land zones 12, 11, 8)
6. Notophyll vine forest and microphyll fern forests to thickets on high peaks and plateaus	6b	Simple evergreen notophyll vine forest to simple microphyll vine fern thicket on high peaks and plateaus of northern Queensland (land zones 12, 11)
7. Semi-evergreen to deciduous microphyll vine thickets	7a	Semi-evergreen vine thickets on wide range of substrates. (land zones 8, 9, 11, 12, 5, 4, 3, 10, [7])
8. Wet eucalypt tall open forests on uplands and alluvia	8a	Wet tall open forest dominated by species such as *Eucalyptus grandis* (flooded gum) or E. saligna, *E. resinifera* (red mahogany), *Lophostemon confertus* (brush box), *Syncarpia glomulifera* (turpentine), *E. laevopinea* (silvertop stringybark). Contains a well-developed understorey of rainforest components, including ferns and palms, or the understorey may be dominated by sclerophyll shrubs. (land zones 12, 8, 10, 11, 3, 5, 9)
9. Moist to dry eucalypt open forests to woodlands usually on coastal lowlands and ranges	9c	Open forests of *Corymbia clarksoniana* (grey bloodwood) (or *C. intermedia* (pink bloodwood) or *C. novoguinensis*), *C. tessellaris* (carbeen) ± *Eucalyptus tereticornis* (blue gum) predominantly on coastal ranges. Other frequent tree species include *Eucalyptus drepanophylla* (grey ironbark), *E. pellita* (large-fruited red mahogany), *E. brassiana* (Cape York red gum) and *Lophostemon suaveolens* (swamp box). (land zones 12, 11, 8, 5).
	9d	Moist to dry open forest to woodland dominated by *Eucalyptus portuensis*, *Corymbia intermedia* (pink bloodwood), *E. drepanophylla*, *E. resinifera* or *E. reducta* +/- *Syncarpia glomulifera* (turpentine) or *E. cloeziana* (Gympie messmate) on ranges. Also includes mixed forests with *Eucalyptus pellita* or *Corymbia torelliana* emergents and rainforest understories (land zones 12, 11, 3, 9, 5, 8).
	9e	Open forests, woodlands and open woodlands dominated by *Corymbia clarksoniana* (grey bloodwood) (or *C. novoguinensis* or *C. intermedia* (pink bloodwood) or *C. polycarpa* (long-fruited bloodwood)) frequently with *Erythrophleum chlorostachys* (red ironwood) or *Eucalyptus platyphylla* (poplar gum) predominantly on coastal sandplains and alluvia. (land zones 3, 5, 2).
10. Corymbia citriodora (spotted gum) dominated open forests to woodlands on undulating to hilly terrain	10a	Dry woodlands to open woodlands dominated by *Corymbia citriodora* (spotted gum). (land zones 10, 7, 12, 11, 8)
	10b	Moist open forests to woodlands dominated by *Corymbia citriodora* (spotted gum). (land zones 12, 11, 9, 5, 8)
11. Moist to dry eucalypt open forests to woodlands mainly on basalt areas (land zone 8)	11b	Moist to dry open forests to woodlands dominated by *Eucalyptus crebra* (narrow-leaved red ironbark) or *E. tereticornis* (blue gum), frequently with *Corymbia species* or *E. microneura* (Gilbert River box) on red krasnozems on undulating terrain. (land zone 8)
12. Dry eucalypt woodlands to open woodlands, mostly on shallow soils in hilly terrain (mainly on sandstone and weathered rocks, land zones 7 and 10)	12b	Woodlands and open woodlands dominated by *Eucalyptus crebra* (sens. lat) (narrow-leaved red ironbark) and/or Corymbia spp. such as *C. clarksoniana* (grey bloodwood), *C. stockeri*, *C. setosa* (rough leaved bloodwood) or *C. peltata* (yellowjacket) on hilly terrain. (land zones 7, 10, 11)
13. Dry to moist eucalypt woodlands and open forests, mainly on undulating to	13c	Woodlands of *Eucalyptus crebra* (sens. lat.) (narrow-leaved red ironbark), *E. drepanophylla* (grey ironbark), *E. fibrosa* (dusky-leaved

BVG (5 Million)	BVG (1 Million)	Description
hilly terrain of mainly metamorphic and acid igneous rocks, Land zones 11 and 12)		ironbark), *E. shirleyi* (shirley's silver-leaved ironbark) on granitic and metamorphic ranges (land zones 12, 11, 9, 5)
	13d	Woodlands dominated by *Eucalyptus moluccana* (gum-topped box) (or *E. microcarpa* (inland grey box)) on a range of substrates. (land zone 5, 9, 3, 11, 12)
16. Eucalyptus spp. dominated open forest and woodlands drainage lines and alluvial plains	16a	Open forest and woodlands dominated by *Eucalyptus camaldulensis* (river red gum) (or *E. tereticornis* (blue gum)) and/or *E. coolabah* (coolabah) (or *E. microtheca* (coolabah)) fringing drainage lines. Associated species may include Melaleuca spp., *Corymbia tessellaris* (carbeen), Angophora spp., *Casuarina cunninghamiana* (riveroak). Does not include alluvial areas dominated by herb and grasslands or alluvial plains that are not flooded. (land zone 3)
	16c	Woodlands and open woodlands dominated by *Eucalyptus coolabah* (coolabah) or *E. microtheca* (coolabah) or *E. largiflorens* (black box) or *E. tereticornis* (blue gum) or E. chlorophylla on floodplains. Does not include alluvial areas dominated by herb and grasslands or alluvial plains that are not flooded. (land zone 3)
	16d	Riverbeds, open water or sand, or rock, frequently unvegetated. (land zone 3)
17. Eucalyptus populnea (poplar box) or E. melanophloia (silver-leaved ironbark) (or E. whitei (White's ironbark)) dry woodlands to open woodlands on sandplains or depositional plains	17d	Woodlands to open woodlands dominated by *Eucalyptus melanophloia* (silver-leaved ironbark) (or *E. shirleyi* (shirley's silver-leaved ironbark)) on sand plains and footslopes of hills and ranges. (land zones 5, 12, 3, 11, 9, 7)
18. Dry eucalypt woodlands to open woodlands primarily on sandplains or depositional plains	18b	Woodlands dominated *Eucalyptus crebra* (sens. lat.) (narrow-leaved red ironbark) frequently with Corymbia spp. or Callitris spp. on flat to undulating plains. (land zones 5, 3)
19. Eucalyptus spp. (E. leucophloia (snappy gum), E. leucophylla (Cloncurry box), E. persistens, E. normantonensis (Normanton box)) low open woodlands often with Triodia spp. dominated ground layer	19d	Low open woodlands dominated by Eucalyptus persistens (or *E. normantonensis* (Normanton box), *E. tardecidens*, *E. provecta*) with Triodia spp. dominated ground layer, mainly on hills and ranges. (land zones 7, 11, 12, 5, 4, 10)
12. Melaleuca spp. open forests and woodlands on seasonally inundated lowland coastal swamps and fringing drainage lines (Palustrine wetlands)	22c	Open forests dominated by Melaleuca spp. (*M. argentea* (silver tea-tree), *M. leucadendra* (broad-leaved tea-tree), *M. dealbata* (swamp tea-tree) or *M. fluviatilis*), fringing major streams with *Melaleuca saligna* or *M. bracteata* (black tea-tree) in minor streams. (land zone 3)
28. Open forests to open woodlands in coastal locations. Dominant species such as Casuarina spp., Corymbia spp., Allocasuarina spp. (she-oak), Acacia spp., Lophostemon suaveolens (swamp box), Asteromyrtus spp., Neofabricia myrtifolia	28e	Low open forest to woodlands dominated by *Lophostemon suaveolens* (swamp box) (or *L. confertus* (brush box)) or *Syncarpia glomulifera* (turpentine) frequently with *Allocasuarina* spp. on rocky hill slopes (land zones 12, 9, 3, 11, [10, 8]).
29. Heathlands and associated scrubs and shrublands on coastal dunefields and inland montane locations	29b	Open shrublands to open heaths in montane frequently rocky locations. (land zones 7, 12, 11, 5, 8, 10)
30. Astrebla spp. (Mitchell grass), Dichanthium spp. (bluegrass) tussock grasslands	30b	Tussock grasslands dominated by Astrebla spp. (mitchell grass) or Dichanthium spp. (bluegrass) often with Iseilema spp. on undulating downs or clay plains. (land zones 9, 3, 4, 8, [5])

4 Reporting

This section outlines the reporting requirements for Baseline Weed Survey of the Implementation Area. A Baseline Weed Report will be prepared at the completion of the field investigations.

The Baseline Weed Report will provide the baseline approximate species, extent and density of weed infestations by which all future monitoring requirements are compared. These reports will include the following:

- Introduction: A brief introduction to the project.
- Scope of work: A brief description of the tasks undertaken.
- Limitations: A description of the limitations imposed during the survey, necessitating an improved approach to the field effort, access restrictions, species detectability, timing and/or methodology.
- Methods including:
    - The desktop and field survey methodology.
    - Survey timing and timeframe, and
    - Maps indicating field survey tracks and survey extent.
- Results including:
    - Results of the desktop review including any new weed species recorded locally and regionally.
    - A summary of the survey results in tabulated form, and
    - Maps indicating the weed extent and density observed during field investigations.
- Recommendations including:
    - The provision of recommendations addressing any limitations identified.
    - Recommendations for the full Baseline Assessment report including proposed survey methods to quantify weed extent and density.
    - Priority areas for ongoing management, and
    - Division of the Implementation Area into weed management areas.
- Provision of a completed survey dataset including supporting data for each datapoint collected and the provision of all GIS files mapping files.

5 References

DAWE. (2021). *Guide to providing maps and boundary data for EPBC Act projects,*. Department of Agriculture, Water and the Environment.

Eco Logical Australia. (2020). *Upper Burdekin Wind Farm—Ecological Assessment*.

McNaught, I., Thackway, R., Brown, L., & Parsons, M. (2008). *A Field Manual For Surveying and Mapping Nationally Significant Weeds. 2nd Edition.* Bureau of Rural Sciences, Canberra.

Watson, G. M., French, K. O., Burley, A. L., Brading, M. B., & Hamilton, M. A. (2021). *Monitoring Manual for Invasive and Native Flora: Guidance for field monitoring and reporting*. NSW Department of Planning, Industry and Environment.

Appendix A Wildlife Online Search Results

Search Criteria:
Species List for a Specified Point

Species:	All
Type:	Introduced
Queensland status:	All
Records:	All
Date:	All
Latitude:	-18.7736
Longitude:	145.7432
Distance:	100
Email:	anton@terrasolutions.com.au
Date submitted:	Wednesday 18 Sep 2024 14:00:29
Date extracted:	Wednesday 18 Sep 2024 14:10:01

The number of records retrieved = 427

Description of the CODES

I - Y indicates that the taxon is introduced to Queensland and has naturalised.

Q - Indicates the Queensland conservation status of each taxon under the Nature Conservation Act 1992. The codes are Extinct (EX), Extinct in the Wild (PE), Critically Endangered (CR), Endangered (E), Vulnerable (V), Near Threatened (NT), Special Least Concern (SL) and Least Concern (C).

A - Indicates the Australian conservation status of each taxon under the Environment Protection and Biodiversity Conservation Act 1999. The values of EPBC are Extinct (EX), Extinct in the Wild (XW), Critically Endangered (CE), Endangered (E), Vulnerable (V) and Conservation Dependent (CD).

Records - The first number indicates the total number of records of the taxon (wildlife records and species listings for selected areas). This number is output as 99999 if it equals or exceeds this value. A second number located after a / indicates the number of specimen records for the taxon. This number is output as 999 if it equals or exceeds this value.

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Sighting Records	Specimen Records
animals	amphibians	Bufonidae	Rhinella marina	cane toad	Y			645	1
animals	birds	Cacatuidae	Cacatua tenuirostris	long-billed corella	Y	C		2	0
animals	birds	Columbidae	Columba livia	rock dove	Y			7	0
animals	birds	Columbidae	Spilopelia chinensis	spotted dove	Y			69	1
animals	birds	Estrildidae	Lonchura punctulata	nutmeg mannikin	Y			80	0
animals	birds	Passeridae	Passer domesticus	house sparrow	Y			91	0
animals	birds	Phasianidae	Pavo cristatus	Indian peafowl	Y			5	0
animals	birds	Sturnidae	Acridotheres tristis	common myna	Y			175	0
animals	birds	Sturnidae	Sturnus vulgaris	common starling	Y			5	0
animals	insects	Nymphalidae	Danaus plexippus	monarch	Y			1	0
animals	mammals	Bovidae	Bos indicus	zebu	Y			1	0
animals	mammals	Bovidae	Bos sp.	cattle	Y			7	0
animals	mammals	Bovidae	Bos taurus	European cattle	Y			81	0
animals	mammals	Bovidae	Capra hircus	goat	Y			2	0
animals	mammals	Canidae	Canis familiaris	dog	Y			9	0
animals	mammals	Canidae	Canis sp.		Y			5	0
animals	mammals	Cervidae	Axis axis	chital	Y			10	0
animals	mammals	Equidae	Equus caballus	horse	Y			25	0
animals	mammals	Felidae	Felis catus	cat	Y			70	1
animals	mammals	Leporidae	Oryctolagus cuniculus	rabbit	Y			70	0
animals	mammals	Muridae	Mus musculus	house mouse	Y			58	4
animals	mammals	Muridae	Rattus norvegicus	brown rat	Y			1	0
animals	mammals	Muridae	Rattus rattus	black rat	Y			17	4
animals	mammals	Suidae	Sus scrofa	pig	Y			109	0
animals	ray-finned fishes	Cichlidae	Oreochromis mossambica	Mozambique mouthbrooder	Y			89	0
animals	ray-finned fishes	Cichlidae	Tilapia mariae	spotted tilapia	Y			3	0
animals	ray-finned fishes	Poeciliidae	Gambusia holbrooki	mosquitofish	Y			11	0
animals	ray-finned fishes	Poeciliidae	Poecilia reticulata	guppy	Y			16	0
animals	ray-finned fishes	Poeciliidae	Xiphophorus maculatus	platy	Y			6	0
animals	reptiles	Gekkonidae	Hemidactylus frenatus	house gecko	Y			9	0
plants	land plants	Acanthaceae	Asystasia gangetica subsp. gangetica		Y			2	2
plants	land plants	Acanthaceae	Brillantaisia lamium		Y			1	1
plants	land plants	Acanthaceae	Hygrophila costata		Y			1	1
plants	land plants	Acanthaceae	Hygrophila triflora		Y			3	3
plants	land plants	Acanthaceae	Hypoestes phyllostachya		Y			1	1
plants	land plants	Acanthaceae	Odontonema cuspidatum		Y			1	1
plants	land plants	Acanthaceae	Ruellia simplex		Y			1	1
plants	land plants	Acanthaceae	Thunbergia alata	black-eyed Susan	Y			6	4
plants	land plants	Acanthaceae	Thunbergia fragrans		Y			9	9
plants	land plants	Acanthaceae	Thunbergia grandiflora	sky flower	Y			1	1
plants	land plants	Aizoaceae	Trianthema portulacastrum	black pigweed	Y			1	0
plants	land plants	Alismataceae	Echinodorus cordifolius		Y			1	1
plants	land plants	Alismataceae	Limnocharis flava	yellow burrhead	Y			5	5
plants	land plants	Alismataceae	Sagittaria platyphylla	sagittaria	Y			1	1
plants	land plants	Amaranthaceae	Alternanthera brasiliana		Y			1	1
plants	land plants	Amaranthaceae	Alternanthera ficoidea		Y			15	15
plants	land plants	Amaranthaceae	Alternanthera pungens	khaki weed	Y			5	3
plants	land plants	Amaranthaceae	Amaranthus hybridus	redshank	Y			1	1
plants	land plants	Amaranthaceae	Amaranthus viridis	green amaranth	Y			2	2
plants	land plants	Amaranthaceae	Celosia argentea		Y			6	6
plants	land plants	Amaranthaceae	Gomphrena celosioides	gomphrena weed	Y			8	6
plants	land plants	Anacardiaceae	Anacardium occidentale		Y			1	1
plants	land plants	Anacardiaceae	Mangifera indica	mango	Y			2	1
plants	land plants	Anacardiaceae	Schinus terebinthifolius		Y			1	1
plants	land plants	Annonaceae	Annona glabra	pond apple	Y			2	2
plants	land plants	Annonaceae	Annona reticulata	custard apple	Y			1	1
plants	land plants	Apiaceae	Cyclospermum leptophyllum		Y			3	2
plants	land plants	Apocynaceae	Asclepias curassavica	red-head cottonbush	Y			6	4
plants	land plants	Apocynaceae	Calotropis gigantea		Y			1	1
plants	land plants	Apocynaceae	Calotropis procera		Y			4	4
plants	land plants	Apocynaceae	Cascabela thevetia	yellow oleander	Y			3	2

plants	land plants	Apocynaceae	Catharanthus roseus	pink periwinkle	Y	3	3
plants	land plants	Apocynaceae	Cryptostegia grandiflora	rubber vine	Y	33	1
plants	land plants	Apocynaceae	Rauvolfia tetraphylla		Y	2	2
plants	land plants	Araceae	Syngonium podophyllum		Y	4	4
plants	land plants	Aristolochiaceae	Aristolochia elegans	calico-flower	Y	1	1
plants	land plants	Asteraceae	Acanthospermum hispidum	star burr	Y	6	5
plants	land plants	Asteraceae	Ageratum conyzoides	billygoat weed	Y	11	9
plants	land plants	Asteraceae	Ageratum conyzoides subsp. conyzoides		Y	4	3
plants	land plants	Asteraceae	Ageratum houstonianum	blue billygoat weed	Y	2	0
plants	land plants	Asteraceae	Bidens alba var. radiata		Y	4	4
plants	land plants	Asteraceae	Bidens bipinnata	bipinnate beggar's ticks	Y	3	2
plants	land plants	Asteraceae	Bidens pilosa		Y	4	4
plants	land plants	Asteraceae	Calyptocarpus vialis	creeping cinderella weed	Y	2	2
plants	land plants	Asteraceae	Centratherum punctatum		Y	6	6
plants	land plants	Asteraceae	Chromolaena odorata	Siam weed	Y	24	21
plants	land plants	Asteraceae	Chromolaena squalida		Y	3	3
plants	land plants	Asteraceae	Cirsium vulgare	spear thistle	Y	1	0
plants	land plants	Asteraceae	Cosmos caudatus		Y	1	1
plants	land plants	Asteraceae	Crassocephalum crepidioides	thickhead	Y	11	10
plants	land plants	Asteraceae	Eclipta prostrata	white eclipta	Y	19	11
plants	land plants	Asteraceae	Elephantopus mollis	tobacco weed	Y	1	1
plants	land plants	Asteraceae	Eleutheranthera ruderalis		Y	6	6
plants	land plants	Asteraceae	Emilia sonchifolia		Y	7	0
plants	land plants	Asteraceae	Emilia sonchifolia var. javanica		Y	5	5
plants	land plants	Asteraceae	Emilia sonchifolia var. sonchifolia		Y	10	10
plants	land plants	Asteraceae	Erechtites valerianifolius		Y	3	3
plants	land plants	Asteraceae	Erigeron bonariensis		Y	5	5
plants	land plants	Asteraceae	Erigeron pusillus		Y	6	6
plants	land plants	Asteraceae	Erigeron sumatrensis		Y	6	6
plants	land plants	Asteraceae	Galinsoga parviflora	yellow weed	Y	1	1
plants	land plants	Asteraceae	Gamochaeta pensylvanica		Y	2	2
plants	land plants	Asteraceae	Gnaphalium polycaulon		Y	2	2
plants	land plants	Asteraceae	Mikania micrantha	mikania vine	Y	4	4
plants	land plants	Asteraceae	Parthenium hysterophorus	parthenium weed	Y	8	7
plants	land plants	Asteraceae	Praxelis clematidea		Y	65	56
plants	land plants	Asteraceae	Pseudelephantopus spicatus		Y	4	4
plants	land plants	Asteraceae	Solidago altissima subsp. altissima	goldenrod	Y	1	1
plants	land plants	Asteraceae	Soliva anthemifolia	dwarf jo jo weed	Y	2	1
plants	land plants	Asteraceae	Sonchus oleraceus	common sowthistle	Y	3	3
plants	land plants	Asteraceae	Sphagneticola trilobata		Y	13	5
plants	land plants	Asteraceae	Synedrella nodiflora		Y	7	7
plants	land plants	Asteraceae	Synedrellopsis grisebachii		Y	1	1
plants	land plants	Asteraceae	Tagetes minuta	stinking roger	Y	5	4
plants	land plants	Asteraceae	Thymophylla tenuiloba		Y	1	1
plants	land plants	Asteraceae	Tithonia diversifolia	Japanese sunflower	Y	1	0
plants	land plants	Asteraceae	Tridax procumbens	tridax daisy	Y	13	8
plants	land plants	Asteraceae	Xanthium occidentale		Y	7	4
plants	land plants	Bignoniaceae	Pyrostegia venusta		Y	2	1
plants	land plants	Bignoniaceae	Spathodea campanulata subsp. nilotica		Y	3	3
plants	land plants	Bignoniaceae	Tecoma stans var. stans		Y	2	2
plants	land plants	Boraginaceae	Heliotropium indicum		Y	3	3
plants	land plants	Brassicaceae	Cardamine flexuosa	wood bittercress	Y	2	2
plants	land plants	Brassicaceae	Lepidium bonariense	Argentine peppercress	Y	2	2
plants	land plants	Brassicaceae	Lepidium didymum		Y	1	1
plants	land plants	Brassicaceae	Lepidium virginicum	Virginian peppercress	Y	1	1
plants	land plants	Brassicaceae	Rorippa palustris	marsh cress	Y	1	1
plants	land plants	Cabombaceae	Cabomba caroliniana var. caroliniana	cabomba	Y	2	2
plants	land plants	Cactaceae	Hylocereus undatus	night blooming cactus	Y	1	1
plants	land plants	Cactaceae	Opuntia stricta		Y	3	1
plants	land plants	Cannaceae	Canna indica	Indian shot	Y	1	1
plants	land plants	Caprifoliaceae	Lonicera japonica	Japanese honeysuckle	Y	3	3
plants	land plants	Caryophyllaceae	Drymaria cordata subsp. cordata		Y	3	3
plants	land plants	Cleomaceae	Tarenaya aculeata		Y	2	2
plants	land plants	Cleomaceae	Tarenaya houtteana		Y	2	2
plants	land plants	Commelinaceae	Commelina benghalensis		Y	1	1
plants	land plants	Commelinaceae	Murdannia nudiflora		Y	2	2
plants	land plants	Commelinaceae	Tradescantia spathacea		Y	2	2
plants	land plants	Commelinaceae	Tradescantia zebrina		Y	2	2
plants	land plants	Convolvulaceae	Argyreia nervosa		Y	2	2
plants	land plants	Convolvulaceae	Distimake dissectus		Y	1	1
plants	land plants	Convolvulaceae	Distimake quinquefolius		Y	3	3
plants	land plants	Convolvulaceae	Evolvulus nummularius		Y	1	1
plants	land plants	Convolvulaceae	Ipomoea hederifolia		Y	3	3
plants	land plants	Convolvulaceae	Ipomoea nil		Y	7	6
plants	land plants	Convolvulaceae	Ipomoea quamoclit	star of Bethlehem	Y	1	1
plants	land plants	Convolvulaceae	Ipomoea triloba		Y	2	2
plants	land plants	Crassulaceae	Bryophyllum delagoense		Y	2	1
plants	land plants	Crassulaceae	Bryophyllum pinnatum	resurrection plant	Y	2	2
plants	land plants	Cucurbitaceae	Citrullus amarus		Y	1	1
plants	land plants	Cucurbitaceae	Cucumis anguria var. anguria	West Indian gherkin	Y	4	4
plants	land plants	Cucurbitaceae	Cucumis metuliferus	prickly cucumber	Y	1	1
plants	land plants	Cucurbitaceae	Cucurbita pepo		Y	1	1
plants	land plants	Cucurbitaceae	Momordica charantia	balsam pear	Y	1	1
plants	land plants	Cyperaceae	Cyperus aromaticus		Y	8	8
plants	land plants	Cyperaceae	Cyperus brevifolius	Mullumbimby couch	Y	15	11
plants	land plants	Cyperaceae	Cyperus involucratus		Y	1	1
plants	land plants	Cyperaceae	Cyperus melanospermus		Y	11	4
plants	land plants	Cyperaceae	Cyperus metzii		Y	2	2
plants	land plants	Cyperaceae	Cyperus mindorensis		Y	1	1
plants	land plants	Cyperaceae	Cyperus rotundus	nutgrass	Y	2	2
plants	land plants	Cyperaceae	Cyperus sesquiflorus		Y	1	1
plants	land plants	Cyperaceae	Cyperus sphacelatus		Y	7	7
plants	land plants	Cyperaceae	Eleocharis minuta		Y	19	10
plants	land plants	Cyperaceae	Schoenoplectiella erecta		Y	2	1
plants	land plants	Dioscoreaceae	Dioscorea alata	greater yam	Y	1	1
plants	land plants	Dracaenaceae	Dracaena fragrans		Y	1	1
plants	land plants	Euphorbiaceae	Euphorbia heterophylla		Y	4	4
plants	land plants	Euphorbiaceae	Euphorbia hirta		Y	9	5
plants	land plants	Euphorbiaceae	Euphorbia hyssopifolia		Y	1	1
plants	land plants	Euphorbiaceae	Euphorbia thymifolia		Y	1	1
plants	land plants	Euphorbiaceae	Jatropha curcas	physic nut	Y	1	1

plants	land plants	Euphorbiaceae	Manihot esculenta		Y	2	2
plants	land plants	Euphorbiaceae	Ricinus communis	castor oil bush	Y	5	3
plants	land plants	Iridaceae	Gladiolus x gandavensis		Y	1	1
plants	land plants	Lamiaceae	Hyptis capitata		Y	8	6
plants	land plants	Lamiaceae	Leucas lavandulifolia		Y	2	2
plants	land plants	Lamiaceae	Mesosphaerum pectinatum		Y	1	1
plants	land plants	Lamiaceae	Mesosphaerum suaveolens		Y	9	4
plants	land plants	Lamiaceae	Ocimum americanum		Y	3	3
plants	land plants	Lamiaceae	Ocimum x africanum		Y	2	2
plants	land plants	Lamiaceae	Salvia hispanica		Y	1	1
plants	land plants	Lamiaceae	Salvia misella		Y	4	4
plants	land plants	Lamiaceae	Salvia reflexa		Y	4	4
plants	land plants	Lamiaceae	Tectona grandis		Y	1	1
plants	land plants	Leguminosae	Acaciella angustissima	white ball acacia	Y	1	1
plants	land plants	Leguminosae	Acaciella glauca	redwood	Y	9	9
plants	land plants	Leguminosae	Aeschynomene americana		Y	1	1
plants	land plants	Leguminosae	Aeschynomene americana var. americana		Y	7	7
plants	land plants	Leguminosae	Aeschynomene americana var. glandulosa		Y	1	1
plants	land plants	Leguminosae	Aeschynomene villosa		Y	4	3
plants	land plants	Leguminosae	Alysicarpus bupleurifolius	sweet alys	Y	4	4
plants	land plants	Leguminosae	Alysicarpus vaginalis		Y	7	6
plants	land plants	Leguminosae	Biancaea decapetala		Y	1	1
plants	land plants	Leguminosae	Calopogonium mucunoides		Y	7	7
plants	land plants	Leguminosae	Centrosema molle		Y	7	7
plants	land plants	Leguminosae	Centrosema pascuorum		Y	2	2
plants	land plants	Leguminosae	Chamaecrista rotundifolia		Y	6	2
plants	land plants	Leguminosae	Chamaecrista rotundifolia var. rotundifolia		Y	7	7
plants	land plants	Leguminosae	Clitoria laurifolia		Y	4	4
plants	land plants	Leguminosae	Clitoria ternatea	butterfly pea	Y	1	1
plants	land plants	Leguminosae	Crotalaria goreensis	gambia pea	Y	24	19
plants	land plants	Leguminosae	Crotalaria grahamiana		Y	1	1
plants	land plants	Leguminosae	Crotalaria incana		Y	1	0
plants	land plants	Leguminosae	Crotalaria incana subsp. incana		Y	2	2
plants	land plants	Leguminosae	Crotalaria juncea	sunhemp	Y	4	4
plants	land plants	Leguminosae	Crotalaria laburnifolia		Y	5	5
plants	land plants	Leguminosae	Crotalaria lanceolata subsp. lanceolata		Y	9	9
plants	land plants	Leguminosae	Crotalaria micans		Y	1	1
plants	land plants	Leguminosae	Crotalaria pallida		Y	2	0
plants	land plants	Leguminosae	Crotalaria pallida var. obovata		Y	13	13
plants	land plants	Leguminosae	Desmanthus leptophyllus		Y	1	1
plants	land plants	Leguminosae	Desmanthus pernambucanus		Y	1	0
plants	land plants	Leguminosae	Desmodium heterophyllum		Y	1	1
plants	land plants	Leguminosae	Desmodium intortum		Y	1	1
plants	land plants	Leguminosae	Desmodium scorpiurus		Y	2	2
plants	land plants	Leguminosae	Desmodium strigillosum		Y	1	1
plants	land plants	Leguminosae	Desmodium tortuosum	Florida beggar-weed	Y	5	5
plants	land plants	Leguminosae	Desmodium triflorum		Y	7	7
plants	land plants	Leguminosae	Indigofera suffruticosa		Y	2	2
plants	land plants	Leguminosae	Indigofera tinctoria		Y	5	5
plants	land plants	Leguminosae	Lablab purpureus	lablab	Y	1	1
plants	land plants	Leguminosae	Leucaena leucocephala		Y	44	0
plants	land plants	Leguminosae	Leucaena leucocephala subsp. leucocephala		Y	12	12
plants	land plants	Leguminosae	Lotononis bainesii	lotononis	Y	3	3
plants	land plants	Leguminosae	Macroptilium atropurpureum	siratro	Y	7	2
plants	land plants	Leguminosae	Macroptilium lathyroides		Y	2	2
plants	land plants	Leguminosae	Macrotyloma axillare		Y	1	0
plants	land plants	Leguminosae	Macrotyloma uniflorum var. uniflorum		Y	2	2
plants	land plants	Leguminosae	Mimosa pudica		Y	4	0
plants	land plants	Leguminosae	Mimosa pudica var. hispida		Y	1	1
plants	land plants	Leguminosae	Mimosa pudica var. tetrandra		Y	1	1
plants	land plants	Leguminosae	Mimosa pudica var. unijuga		Y	3	3
plants	land plants	Leguminosae	Mucuna pruriens		Y	4	0
plants	land plants	Leguminosae	Neonotonia wightii var. wightii		Y	1	1
plants	land plants	Leguminosae	Parkinsonia aculeata	parkinsonia	Y	1	0
plants	land plants	Leguminosae	Phaseolus lunatus	sieva bean	Y	1	1
plants	land plants	Leguminosae	Samanea saman		Y	1	1
plants	land plants	Leguminosae	Senna alata		Y	1	1
plants	land plants	Leguminosae	Senna hirsuta		Y	2	2
plants	land plants	Leguminosae	Senna obtusifolia		Y	6	6
plants	land plants	Leguminosae	Senna occidentalis	coffee senna	Y	7	7
plants	land plants	Leguminosae	Senna siamea		Y	1	1
plants	land plants	Leguminosae	Senna tora		Y	1	1
plants	land plants	Leguminosae	Stylosanthes guianensis var. guianensis		Y	3	3
plants	land plants	Leguminosae	Stylosanthes hamata		Y	7	6
plants	land plants	Leguminosae	Stylosanthes humilis	Townsville stylo	Y	6	3
plants	land plants	Leguminosae	Stylosanthes scabra		Y	17	15
plants	land plants	Leguminosae	Stylosanthes viscosa		Y	3	3
plants	land plants	Leguminosae	Tephrosia candida		Y	2	2
plants	land plants	Leguminosae	Tephrosia glomeruliflora	pink tephrosia	Y	2	2
plants	land plants	Leguminosae	Tephrosia noctiflora		Y	2	2
plants	land plants	Leguminosae	Tephrosia tinctoria		Y	1	1
plants	land plants	Leguminosae	Vachellia farnesiana		Y	7	0
plants	land plants	Leguminosae	Vigna adenantha		Y	2	2
plants	land plants	Leguminosae	Vigna luteola	dalrymple vigna	Y	1	1
plants	land plants	Leguminosae	Zornia latifolia		Y	3	3
plants	land plants	Lythraceae	Ammannia auriculata		Y	4	4
plants	land plants	Lythraceae	Cuphea carthagenensis		Y	1	1
plants	land plants	Lythraceae	Cuphea ignea		Y	1	1
plants	land plants	Malvaceae	Abelmoschus manihot subsp. manihot		Y	1	1
plants	land plants	Malvaceae	Abutilon guineense		Y	3	3
plants	land plants	Malvaceae	Malvastrum americanum var. americanum		Y	16	16
plants	land plants	Malvaceae	Malvastrum coromandelianum subsp. coromandelianum		Y	4	4
plants	land plants	Malvaceae	Sida acuta	spinyhead sida	Y	9	5
plants	land plants	Malvaceae	Sida ciliaris		Y	1	1
plants	land plants	Malvaceae	Sida cordifolia		Y	18	10
plants	land plants	Malvaceae	Sida rhombifolia		Y	10	9
plants	land plants	Malvaceae	Sida spinosa	spiny sida	Y	8	7
plants	land plants	Malvaceae	Urena lobata	urena weed	Y	16	6
plants	land plants	Marantaceae	Thalia geniculata		Y	1	1
plants	land plants	Melastomataceae	Pleroma urvilleanum		Y	1	1
plants	land plants	Melastomataceae	Tristemma mauritianum var. mauritianum		Y	3	3

plants	land plants	Molluginaceae	Mollugo		Y	C	1	0
plants	land plants	Molluginaceae	Mollugo verticillata		Y		1	1
plants	land plants	Molluginaceae	Trigastrotheca stricta		Y		1	1
plants	land plants	Moraceae	Artocarpus altilis	breadfruit	Y		1	1
plants	land plants	Moraceae	Ficus benghalensis	banyan	Y		1	1
plants	land plants	Myrsinaceae	Ardisia crenata		Y		2	2
plants	land plants	Myrsinaceae	Ardisia elliptica		Y		3	3
plants	land plants	Myrsinaceae	Lysimachia arvensis		Y		1	1
plants	land plants	Myrtaceae	Psidium guajava	guava	Y		3	3
plants	land plants	Myrtaceae	Psidium guineense	cherry guava	Y		1	1
plants	land plants	Nyctaginaceae	Boerhavia diffusa		Y		2	2
plants	land plants	Nyctaginaceae	Mirabilis jalapa	four o'clock	Y		1	1
plants	land plants	Oleaceae	Jasminum multiflorum		Y		1	1
plants	land plants	Onagraceae	Ludwigia hyssopifolia		Y		2	2
plants	land plants	Oxalidaceae	Oxalis corniculata		Y		1	0
plants	land plants	Oxalidaceae	Oxalis debilis var. corymbosa	pink shamrock	Y		1	1
plants	land plants	Papaveraceae	Argemone mexicana	prickly poppy	Y		1	0
plants	land plants	Papaveraceae	Argemone ochroleuca		Y		1	1
plants	land plants	Papaveraceae	Argemone ochroleuca subsp. ochroleuca	Mexican poppy	Y		2	2
plants	land plants	Passifloraceae	Passiflora edulis		Y		3	3
plants	land plants	Passifloraceae	Passiflora foetida		Y		17	9
plants	land plants	Passifloraceae	Passiflora laurifolia		Y		1	1
plants	land plants	Passifloraceae	Passiflora pallida		Y		4	4
plants	land plants	Passifloraceae	Passiflora suberosa	corky passion flower	Y		6	0
plants	land plants	Passifloraceae	Passiflora suberosa subsp. litoralis		Y		4	4
plants	land plants	Passifloraceae	Turnera subulata		Y		1	1
plants	land plants	Petiveriaceae	Rivina humilis		Y		9	9
plants	land plants	Phyllanthaceae	Phyllanthus amarus		Y		4	4
plants	land plants	Phyllanthaceae	Phyllanthus debilis		Y		3	3
plants	land plants	Phyllanthaceae	Phyllanthus tenellus		Y		3	3
plants	land plants	Phytolaccaceae	Phytolacca octandra	inkweed	Y		2	2
plants	land plants	Pinaceae	Pinus caribaea	Caribbean pine	Y		3	3
plants	land plants	Pinaceae	Pinus caribaea x Pinus elliottii		Y		1	1
plants	land plants	Plantaginaceae	Angelonia salicariifolia	Granny's caps	Y		2	2
plants	land plants	Plantaginaceae	Mecardonia procumbens		Y		13	12
plants	land plants	Plantaginaceae	Scoparia dulcis	scoparia	Y		10	10
plants	land plants	Poaceae	Andropogon gayanus	gamba grass	Y		6	4
plants	land plants	Poaceae	Axonopus compressus		Y		5	5
plants	land plants	Poaceae	Axonopus fissifolius		Y		6	6
plants	land plants	Poaceae	Bothriochloa insculpta		Y		1	1
plants	land plants	Poaceae	Bothriochloa pertusa		Y		10	8
plants	land plants	Poaceae	Cenchrus ciliaris		Y		4	3
plants	land plants	Poaceae	Cenchrus echinatus	Mossman River grass	Y		4	2
plants	land plants	Poaceae	Cenchrus setaceus		Y		3	2
plants	land plants	Poaceae	Cenchrus setigerus		Y		1	1
plants	land plants	Poaceae	Chloris gayana	rhodes grass	Y		5	5
plants	land plants	Poaceae	Chloris inflata	purpletop chloris	Y		6	2
plants	land plants	Poaceae	Chloris virgata	feathertop rhodes grass	Y		3	3
plants	land plants	Poaceae	Chrysopogon aciculatus	Mackie's pest	Y		4	4
plants	land plants	Poaceae	Cynodon dactylon		Y		16	1
plants	land plants	Poaceae	Cynodon dactylon var. dactylon		Y		5	4
plants	land plants	Poaceae	Cynodon nlemfuensis var. nlemfuensis		Y		2	2
plants	land plants	Poaceae	Cynodon radiatus		Y		2	2
plants	land plants	Poaceae	Dactyloctenium aegyptium	coast button grass	Y		9	7
plants	land plants	Poaceae	Dactyloctenium australe	sweet smother grass	Y		1	1
plants	land plants	Poaceae	Dichanthium annulatum	sheda grass	Y		4	4
plants	land plants	Poaceae	Dichanthium aristatum	angleton grass	Y		12	10
plants	land plants	Poaceae	Digitaria ciliaris	summer grass	Y		12	11
plants	land plants	Poaceae	Digitaria didactyla	Queensland blue couch	Y		4	3
plants	land plants	Poaceae	Digitaria eriantha		Y		2	2
plants	land plants	Poaceae	Digitaria eriantha 'Pangola'		Y		1	1
plants	land plants	Poaceae	Digitaria violascens	bastard summergrass	Y		2	2
plants	land plants	Poaceae	Echinochloa colona	awnless barnyard grass	Y		29	15
plants	land plants	Poaceae	Echinochloa crus-galli	barnyard grass	Y		1	1
plants	land plants	Poaceae	Echinochloa polystachya		Y		1	0
plants	land plants	Poaceae	Echinochloa polystachya 'Amity'		Y		5	5
plants	land plants	Poaceae	Eleusine indica	crowsfoot grass	Y		9	6
plants	land plants	Poaceae	Eragrostis cilianensis		Y		4	4
plants	land plants	Poaceae	Eragrostis paniciformis		Y		1	1
plants	land plants	Poaceae	Eragrostis pilosa	soft lovegrass	Y		2	2
plants	land plants	Poaceae	Eragrostis tenuifolia	elastic grass	Y		7	7
plants	land plants	Poaceae	Eragrostis unioloides		Y		3	3
plants	land plants	Poaceae	Eriochloa meyeriana		Y		1	1
plants	land plants	Poaceae	Hymenachne amplexicaulis	hymenachne	Y		2	1
plants	land plants	Poaceae	Hymenachne amplexicaulis 'Olive'		Y		8	8
plants	land plants	Poaceae	Hyparrhenia rufa		Y		7	2
plants	land plants	Poaceae	Hyparrhenia rufa subsp. rufa		Y		15	14
plants	land plants	Poaceae	Megathyrsus maximus		Y		5	0
plants	land plants	Poaceae	Megathyrsus maximus var. coloratus		Y		4	4
plants	land plants	Poaceae	Megathyrsus maximus var. maximus		Y		8	5
plants	land plants	Poaceae	Megathyrsus maximus var. maximus 'Hamil'		Y		1	1
plants	land plants	Poaceae	Megathyrsus maximus var. pubiglumis		Y		7	6
plants	land plants	Poaceae	Melinis minutiflora	molasses grass	Y		3	3
plants	land plants	Poaceae	Melinis repens	red natal grass	Y		20	12
plants	land plants	Poaceae	Paspalum conjugatum	sourgrass	Y		13	8
plants	land plants	Poaceae	Paspalum distichum	water couch	Y		3	1
plants	land plants	Poaceae	Paspalum paniculatum	Russell River grass	Y		8	8
plants	land plants	Poaceae	Paspalum plicatulum	plicatulum	Y		9	9
plants	land plants	Poaceae	Paspalum urvillei	vasey grass	Y		2	2
plants	land plants	Poaceae	Paspalum vaginatum	saltwater couch	Y		1	1
plants	land plants	Poaceae	Saccharum officinarum	sugarcane	Y		1	1
plants	land plants	Poaceae	Setaria pumila		Y		1	1
plants	land plants	Poaceae	Setaria pumila subsp. subtesselata		Y		7	6
plants	land plants	Poaceae	Setaria sphacelata		Y		4	4
plants	land plants	Poaceae	Sorghum arundinaceum	Rhodesian Sudan grass	Y		2	2
plants	land plants	Poaceae	Sporobolus africanus	Parramatta grass	Y		2	2
plants	land plants	Poaceae	Sporobolus coromandelianus		Y		2	2
plants	land plants	Poaceae	Sporobolus fertilis	giant Parramatta grass	Y		9	9
plants	land plants	Poaceae	Sporobolus jacquemontii		Y		23	20
plants	land plants	Poaceae	Sporobolus natalensis		Y		8	8
plants	land plants	Poaceae	Sporobolus pyramidalis		Y		10	10

plants	land plants	Poaceae	Steinchisma laxa		Y	2	2
plants	land plants	Poaceae	Stenotaphrum secundatum	buffalo grass	Y	1	1
plants	land plants	Poaceae	Themeda quadrivalvis	grader grass	Y	40	13
plants	land plants	Poaceae	Urochloa decumbens		Y	6	5
plants	land plants	Poaceae	Urochloa distachya		Y	5	5
plants	land plants	Poaceae	Urochloa fusca		Y	1	0
plants	land plants	Poaceae	Urochloa mosambicensis	sabi grass	Y	4	4
plants	land plants	Poaceae	Urochloa mutica		Y	10	3
plants	land plants	Poaceae	Urochloa subquadripara		Y	10	7
plants	land plants	Polygalaceae	Polygala paniculata		Y	5	5
plants	land plants	Pontederiaceae	Pontederia crassipes		Y	3	2
plants	land plants	Portulacaceae	Portulaca oleracea	pigweed	Y	3	3
plants	land plants	Portulacaceae	Portulaca pilosa		Y	5	3
plants	land plants	Pteridaceae	Pityrogramma calomelanos var. calomelanos		Y	3	3
plants	land plants	Rhamnaceae	Ziziphus mauritiana	Indian jujube	Y	2	0
plants	land plants	Rosaceae	Rubus alceifolius	giant bramble	Y	4	4
plants	land plants	Rubiaceae	Mitracarpus hirtus		Y	24	21
plants	land plants	Rubiaceae	Oldenlandia corymbosa var. corymbosa		Y	5	5
plants	land plants	Rubiaceae	Richardia brasiliensis	white eye	Y	5	5
plants	land plants	Rubiaceae	Richardia scabra		Y	6	6
plants	land plants	Rubiaceae	Spermacoce exilis		Y	1	1
plants	land plants	Rubiaceae	Spermacoce latifolia		Y	6	6
plants	land plants	Rubiaceae	Spermacoce ocymifolia	slender buttonweed	Y	2	2
plants	land plants	Rubiaceae	Spermacoce prostrata		Y	1	1
plants	land plants	Rubiaceae	Spermacoce verticillata		Y	4	4
plants	land plants	Rutaceae	Citrus x limon		Y	2	2
plants	land plants	Salicaceae	Flacourtia jangomas		Y	1	1
plants	land plants	Salviniaceae	Salvinia molesta	salvinia	Y	2	2
plants	land plants	Sapindaceae	Cardiospermum grandiflorum	heart seed vine	Y	1	0
plants	land plants	Sapindaceae	Cardiospermum halicacabum var. microcarpum		Y	1	1
plants	land plants	Scrophulariaceae	Buddleja madagascariensis	buddleia	Y	1	1
plants	land plants	Solanaceae	Browallia viscosa		Y	1	1
plants	land plants	Solanaceae	Capsicum frutescens		Y	3	3
plants	land plants	Solanaceae	Cestrum nocturnum		Y	1	1
plants	land plants	Solanaceae	Datura inoxia		Y	3	3
plants	land plants	Solanaceae	Datura stramonium	common thornapple	Y	1	1
plants	land plants	Solanaceae	Nicotiana glauca	tree tobacco	Y	2	2
plants	land plants	Solanaceae	Physalis angulata		Y	4	4
plants	land plants	Solanaceae	Physalis lanceifolia		Y	1	1
plants	land plants	Solanaceae	Physalis peruviana		Y	1	1
plants	land plants	Solanaceae	Physalis pubescens		Y	1	1
plants	land plants	Solanaceae	Solanum americanum		Y	8	7
plants	land plants	Solanaceae	Solanum capsicoides	devil's apple	Y	1	0
plants	land plants	Solanaceae	Solanum erianthum	potato tree	Y	3	3
plants	land plants	Solanaceae	Solanum lycopersicum var. cerasiforme		Y	1	1
plants	land plants	Solanaceae	Solanum mauritianum	wild tobacco	Y	4	1
plants	land plants	Solanaceae	Solanum nigrum		Y	4	3
plants	land plants	Solanaceae	Solanum seaforthianum	Brazilian nightshade	Y	6	5
plants	land plants	Solanaceae	Solanum torvum	devil's fig	Y	6	4
plants	land plants	Sparrmanniaceae	Triumfetta pentandra		Y	1	1
plants	land plants	Sparrmanniaceae	Triumfetta pilosa		Y	3	3
plants	land plants	Sparrmanniaceae	Triumfetta rhomboidea	chinese burr	Y	17	16
plants	land plants	Tamaricaceae	Tamarix aphylla	athel pine	Y	2	2
plants	land plants	Theaceae	Camellia sinensis		Y	1	1
plants	land plants	Verbenaceae	Duranta erecta	duranta	Y	1	1
plants	land plants	Verbenaceae	Lantana camara	lantana	Y	43	22
plants	land plants	Verbenaceae	Stachytarpheta australis		Y	3	2
plants	land plants	Verbenaceae	Stachytarpheta cayennensis		Y	5	5
plants	land plants	Verbenaceae	Stachytarpheta jamaicensis	Jamaica snakeweed	Y	17	8
plants	land plants	Verbenaceae	Stachytarpheta mutabilis	pink snakeweed	Y	1	1
plants	land plants	Verbenaceae	Verbena incompta		Y	3	3
plants	land plants	Verbenaceae	Verbena litoralis var. litoralis		Y	2	2
plants	land plants	Vitaceae	Ampelocissus martinii		Y	2	2