



## **JANDAKOT AIRPORT WEED MANAGEMENT PLAN**

## **CONSERVATION MANAGEMENT PLAN APPENDIX B**

Jandakot Airport Holdings Pty Ltd  
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## Amendment History

Version	Issue Date	Description	Prepared By	Approved By (JAH)	Approved by (DAWE now DITRDCA)
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## 1 Introduction

All methods of weed control (chemical, physical, or biological) need to be considered for their application at Jandakot Airport. Ecological considerations place constraints on weed control because side-effects, such as those on native plants or habitat, may rule out the use of some techniques. There are also financial constraints on the amount of weed control that can be carried out.

Guidance for weed management at Jandakot Airport is provided by various sources including consultants, weed contractors and resources provided by the Department of Biodiversity, Conservation and Attractions (DBCA). This plan is consistent with the Jandakot Airport Master Plan 2020.

In determining weed control JAH considers the following matters:

- Recognition of weed potential (invasiveness, distribution and environmental impact).
- Maintaining areas that have vegetation in good condition as a priority.
- Control of weeds that impact on significant species and threatened species and communities as a priority.
- Opportunity to eradicate weed species whilst population size is low or has limited distribution.

It is at times important to discuss weed control with leaseholders and neighbours to enable a more coordinated effort of weed control to be implemented. The planting of non-local plant species within Jandakot Airport is discouraged and JAH promote the planting of local species in landscape areas consistent with the Jandakot Airport Landscape Design Guidelines.

Previous versions of this Weed Management Plan contained details of monitoring regimes and management actions directly related to rehabilitation requirements detailed in the Jandakot Airport Offset Plan (March 2010) associated with the rehabilitation of Precincts 7 and 8. As subsequent decisions have resulted in alternative offsets being approved (refer EPBC Referral 2009/4796), relevant details have been removed from this version of the Weed Management Plan.

## 2 Weed Species and Priority Targets for Control

A comprehensive baseline weed survey was undertaken in 2011 to provide grid point based weed mapping and to assess the bushland condition of the vegetation (Ecoscape 2011) (Figures 1 and 2). The survey resulted in an initial target species list. That list, along with other weed species identified during the 2012 – 2021 annual quadrat surveys and 2016 five-yearly Weed and Bushland Condition survey, was reviewed by Ecoscape prior to the repetition of the surveys in 2022 to determine if any modification or addition to the target species list was required. The results of this review are shown in Table 1. This list should be used for all future surveys. The review determined a species priority by considering that species rating/listing under the following:

- *Swan Impact and Invasiveness Ratings (SIIR)* under DBCA's Weed Prioritisation Process (DBCA 2016)
- Declared Plants listed under the *Agriculture and Related Resources Protection Act 1976* (now replaced by the *Biosecurity and Agriculture Management Act 2007, BAM Act that was enacted in 2013; plants now known as Declared Pest plants*)
- *Weeds Australia 2008 Weeds of National Significance (WoNS)* (Australian Government 2016).

Table 1. Revised Target Weed Species List (Ecoscape 2022).

SIIR ecological impact; L = low, M = medium, H = high, U = unknown

SIIR invasiveness; S = slow, M = Moderate, R = rapid, U = unknown

Primary/ Secondary	Scientific Name	Common Name	SIIR ecological impact	SIIR Invasiveness	Declared Pest	WoNS	Action
Primary	<i>Acacia longifolia</i>	Sydney Golden Wattle	H	R	No	No	Retained
	<i>Asparagus asparagoides</i>	Bridal Creeper	H	R	Yes	Yes	Retained
	<i>Bromus diandrus</i>	Great Brome	H	R	No	No	Changed to primary – highly competitive weed, serious threat to wetland habitats
	<i>Echium plantagineum</i>	Patersons Curse	H	M	Yes	No	Retained
	<i>Ehrharta calycina</i>	Perennial Veldt Grass	H	R	No	No	Retained
	<i>Euphorbia terracina</i>	Geraldton Carnation Weed	H	R	No	No	Changed to primary – known to invade undisturbed bushland once established
	<i>Freesia alba x leichtlinii</i>	Freesia	H	R	No	No	Retained
	<i>Gladiolus caryophyllaceus</i>	Wild Gladiolus	H	R	No	No	Changed to primary – widespread but currently at low densities. Major threat to <i>Banksia</i> woodlands
	<i>Leptospermum laevigatum</i>	Victorian Tea Tree	H	R	No	No	Retained
	<i>Pelargonium capitatum</i>	Rose pelargoium	H	R	No	No	Retained
	<i>Zantedeschia aethiopica</i>	Arum Lily	H	R	Yes	No	Retained
Secondary	<i>Acacia iteaphylla</i>		H	R	No	No	Added – recently recorded on site
	<i>Arctotheca calendula</i>	Cape Weed	H	R	No	No	Added – known to occur on site. Poor competitor in undisturbed bushland but can have a high impact if established
	<i>Asphodelus fistulosus</i>	Onion Weed	U	R	No	No	Retained
	<i>Avena barbata</i>	Bearded Oat	H	R	No	No	Retained
	<i>Brassica tournefortii</i>	Mediterranean Turnip	H	R	No	No	Changed to secondary – few records on site
	<i>Chamelaucium uncinatum</i>	Gerladton Wax	M	S	No	No	Retained
	<i>Cynodon dactylon</i>	Couch	H	R	No	No	Removed – no recent records on site
	<i>Ehrharta longiflora</i>	Annual Veldt Grass	M	R	No	No	Retained
<i>Euphorbia peplus</i>	Petty Spurge	U	M	No	No	Retained	

Primary/ Secondary	Scientific Name	Common Name	SIIR ecological impact	SIIR Invasiveness	Declared Pest	WoNS	Action
	<i>Fumaria capreolata</i>	Whiteflower Fumitory	H	R	No	No	Retained
	<i>Hordeum leporinum</i>	Barley Grass	H	U	No	No	Retained
	<i>Hypochaeris glabra</i>	Smooth Cats-ear	H	R	No	No	Reinstated – recently recorded on site
	<i>Lagurus ovatus</i>	Hares Tail Grass	H	S	No	No	Removed – no recent records
	<i>Oxalis pes-caprae</i>	Soursob	U	R	No	No	Retained
	<i>Vulpia myuros</i>	Rat's Tail Fescue	H	R	No	No	Added – recently recorded on site
	<i>Watsonia meriana</i> <i>var. meriana</i>	Watsonia	H	R	No	No	Changed to secondary – few records at low densities

### 3 Weed Control

Weed control is an ongoing management requirement. The potential for weeds to regrow after weed removal strategies have been implemented is particularly high within urban areas. This Weed Management Plan assists with prioritising responses to the control of weeds based on the threat posed by each population. It also addresses:

- Documentation of weed control actions
- Establishing performance criteria
- Determining a monitoring regime
- Contingencies for where monitoring indicates performance criteria are not being met.

The recommended approach is therefore to control weeds as required on an on-going basis by spraying and/or removal. The eventual eradication of certain weed species is possible if a long term approach is taken.

A target of a maximum of 20% weed cover is considered appropriate considering the location of the sites (surrounded by urban development and infrastructure). With these factors taken into consideration it will be impossible to eliminate weeds altogether, and therefore a more realistic goal is to manage them in a way that they are not going to impede the establishment and growth of native species.

This target is based on the most current, available scientific information and does not pertain to any specific legislative requirement. It is a target which should be reached in order to ensure the optimum outcome is received for the property, from a visual amenity as well as an ecological perspective.

#### 3.1 Weed Control Program

The Weed Control Program (Attachment A) identifies the weed species and their priorities for treatment. The list of species and the priorities assigned to each species resulted from the 2022 Weed Survey and Bushland Condition Assessment (Ecoscape 2022). Ecoscape recommended that all other target weed species should be controlled as resources allow and during control works targeting the listed priority species.

Areas of 'Degraded' bushland condition (i.e. >20% weed cover) will be targeted for weed control as a priority, followed by weed species within all other bushland areas to be treated according to their treatment priority as detailed in Attachment A.

The Weed Control Program is a 'live' document and as such will require regular review and amendment in order to meet practical requirements on site as changing circumstances demand (e.g. following identification of a new weed species, following a weed monitoring/survey event, after formal changes in weed risk ratings etc.).

Weed contractors (or JAH staff) implementing the weed control program will utilise the following to ensure the program is targeted and effective:

- Existing weed maps such as those produced within the most recent five-yearly Weed Survey and Bushland Condition Assessment report
- Local knowledge (either first hand or sourced from others such as the JAH EM) as to the location of target weed species not previously mapped
- Systematic search in areas/habitat where target species are likely to occur (e.g. Arum lily is likely to be present in low-lying *Melaleuca* damplands).

## 4 Management and recording of Weed Control Activities

The JAH Environment Manager is responsible for maintenance of a Weed Register, where records relating to weed control activities are recorded. Maintenance of such information is essential in order to be able to assess the effectiveness of weed control measures that have been employed.

All personnel (whether site staff or contractors) undertaking weed control activities within the Jandakot Airport Conservation Precincts are required to complete Weed Control Record Sheets (see Attachment B) or similar documented evidence and submit to the JAH Environment Manager.

## 5 Monitoring Regimes and Survey Methods

### 5.1 Weed and Bushland Condition Surveys

Condition, in an environmental context, is a rating given to vegetation to categorise disturbance related to human activities. This rating refers to the degree of change in the structure, density and species present in vegetation in relation to undisturbed vegetation of the same type. The most widely used condition system is that defined by Keighery (1994) (DER 2014).

In addition to targeted weed surveys, assessment of bushland condition is a method of determining whether weed management regimes have been effective. As well as confirming the abundance of weeds within conservation precincts, it provides assurances that habitats required by significant fauna are being adequately maintained. A bushland condition scale has been modified by Ecoscape (2011, 2017) to ensure areas that exceed the 20% weed cover trigger are readily identified (see Table 2).

A detailed weed mapping and bushland condition survey will be undertaken every five\* years by experienced botanical consultants. These surveys will essentially replicate that undertaken by Ecoscape in 2011, 2016 and 2022 (Ecoscape 2011, 2017, 2022), allowing for changes in distribution and abundance across the Conservation Precincts to be assessed. The methodology for the surveys will include:

- Location of the established grid-based monitoring points (established at 100m spacing, Ecoscape 2011) by handheld Global positioning System (GPS) (Figure 3)
- Assessment (within a 30m radius of each grid point) of bushland condition rating (using modified Keighery (1994) scale as shown in Table 2. Where bushland condition is Degraded, the consultant's report will include discussion on the likely cause of the rating (e.g. dieback, a specific weed etc.), thus enabling targeted action to be taken in order to increase the rating to Good or above.
- Assessment (within a 30m radius of each grid point) of cover/abundance (estimated using an adapted Braun-Blanquet scale) of target weed species
- Opportunistically record populations of target weed species occurring between grid points and significant populations of non-target weeds, as well as significant disturbances to bushland, degrading factors and sources of weed invasion.

\* DAWC were advised and accepted that, due to unforeseen circumstances, the 5-yearly 2021 bushland condition survey was unable to be undertaken and was rescheduled for 2022.

Ultimately, these surveys will determine the effectiveness of the existing Weed Control Program and provide results and recommendations for ongoing weed management.

The 2022 Weed and Bushland Condition Assessment found that, overall, the bushland within Jandakot Airport continues to be of very high quality (Figure 4). A total of 34 weed species

were recorded in bushland areas during 2022, several of which require ongoing targeted management to meet the objectives under the *Jandakot Airport Conservation Management Plan*. There has been some decline in bushland condition since 2016 (mostly due to increases in weed cover); however, the majority of bushland continues to be maintained in Good or better condition (Figure 5).

Table 2. Modified Bushland Condition Scale for Jandakot Airport.

Keighery 1994 Condition Scale	Kaesehagen 1995 Condition Scale	Modified Keighery Condition Scale for Jandakot Airport
<b>Pristine</b> No obvious signs of disturbance	<b>Very Good – Excellent</b> <ul style="list-style-type: none"> <li>80 – 100% Native Flora composition</li> <li>Vegetation structure intact or nearly so</li> <li>Cover/abundance of weeds less than 5%</li> <li>Minor signs of disturbance</li> </ul>	<b>Pristine</b> No obvious signs of disturbance 100% Native Flora composition <b>No cover/abundance of weeds</b>
<b>Excellent</b> Vegetation structure intact, disturbance only affecting individual species and weeds are non-aggressive species		<b>Excellent</b> Vegetation structure intact, disturbance only affecting individual species and weeds are non-aggressive species 80 – 100% Native Flora composition <b>Cover/abundance of weeds less than 5%</b>
<b>Very Good</b> Vegetation structure altered, obvious signs of disturbance e.g: repeated fires, aggressive weeds, dieback, logging and grazing.	<b>Fair – Good</b> <ul style="list-style-type: none"> <li>50 – 80% Native Flora composition</li> <li>Vegetation structure modified or nearly so</li> <li>Cover/abundance of weeds 5 – 20%</li> <li>Disturbance influence moderate</li> </ul>	<b>Very Good</b> Vegetation structure altered, obvious signs of disturbance eg: repeated fires, aggressive weeds, dieback, logging and grazing. 50 – 80% Native Flora composition <b>Cover/abundance of weeds 5 – 20%</b>
<b>Good</b> Vegetation structure altered, obvious signs of disturbance. Retains basic vegetation structure or ability to regenerate it. The presence of very aggressive weeds at high density, partial clearing, dieback, logging and grazing.		<b>Good</b> Vegetation structure altered, obvious signs of disturbance. Retains basic vegetation structure or ability to regenerate it. The presence of very aggressive weeds at high density, partial clearing, dieback, logging and grazing. 50 – 80% Native Flora composition <b>Cover/abundance of weeds 5 – 20%</b>
<b>Degraded</b> Basic vegetation structure severely impacted by disturbance. Requires intensive management. The presence of very aggressive weeds at high density, partial clearing, dieback, logging and grazing.	<b>Poor</b> <ul style="list-style-type: none"> <li>20 – 50% Native Flora composition</li> <li>Vegetation structure completely modified</li> <li>Cover/abundance of weeds 20 – 60%</li> <li>Disturbance incidence high</li> </ul>	<b>Degraded</b> Basic vegetation structure severely impacted by disturbance. Requires intensive management. The presence of very aggressive weeds at high density, partial clearing, dieback, logging and grazing. 20 – 50% Native Flora composition <b>Cover/abundance of weeds 20 – 60%</b>
<b>Completely Degraded</b> Vegetation structure is no longer intact and the area is completely or almost completely without native flora. 'Parkland Cleared'.	<b>Very Poor</b> <ul style="list-style-type: none"> <li>0 – 20% Native Flora composition</li> <li>Vegetation structure disappeared</li> <li>Cover/abundance of weeds 60 – 100%</li> <li>Disturbance incidence very high</li> </ul>	<b>Completely Degraded</b> Vegetation structure is no longer intact and the area is completely or almost completely without native flora. 'Parkland Cleared'. <b>Cover/abundance of weeds 60 – 100%</b> 0 – 20% Native Flora composition

## 5.2 Weed Monitoring Quadrats

Weed monitoring quadrats (10m x 10m) were established in the Jandakot Airport Conservation Precincts in 2011 so that the success of the weed control methods can be easily assessed annually between the more detailed five-yearly weed and bushland condition surveys. Quadrats were established in areas adjacent to disturbance (e.g. near tracks or the edges of

bushland), where any impacts from new weed infestations would likely be initially observed, thus allowing for appropriate management to occur in order to mitigate impacts on the wider bushland precinct(s). Quadrats that were within Precinct 6 prior to it being cleared were relocated in 2014 into Precinct 1B, 2A and 2B (Figure 6).

The timing of monitoring is seasonally dependent and will be determined by the bushland weed experts engaged to undertake the task. The methodology for quadrat surveys will include:

- Bushland condition rating (using modified Keighery (1994) scale as shown in Table 2)
- Presence of any weed species and their cover/abundance (estimated using an adapted Braun-Blanquet scale)
- A representative photo of the NW corner facing SE.

The percentage of quadrats in each recorded condition class for each annual monitoring period since the 2011 baseline survey is shown in Figure 7. Results show an overall improvement over time, with all quadrats from 2013 onwards being in Very Good or Excellent condition. Mean weed species richness per quadrat from 2011-2024 is shown in Figure 8. Noting that many factors, particularly rainfall, influence species richness from year to year, the trend is relatively stable.

The quadrats will continue to be monitored annually\*. The future ongoing frequency of weed quadrat monitoring will be guided by the results and recommendations reported within the annual weed quadrat monitoring reports by bushland weed experts, noting that any amendment to the frequency of quadrat monitoring will require amendment and Department of Climate Change, Energy, the Environment and Water (DCCEEW previously DAWE) approval of the Weed Management Plan.

\* DAWE were advised and accepted that, due to unforeseen circumstances, the annual 2021 weed quadrat survey was unable to be undertaken.

### 5.3 Informal Weed Inspections

The exact timing for seasonal weed control for particular species can vary from year to year and is dependent on factors such as temperature and rainfall. The JAH Environment Manager will undertake regular informal inspections of the weed populations within Conservation Precincts to ensure that:

- Weed control contractors (or JAH staff) are engaged to undertake work at the appropriate time for the species being targeted
- The priority areas, as identified in previous weed surveys, contain the target weed species
- Any new species (or an existing species in a new location) not identified in previous weed surveys can be assessed and included in the annual weed control program if warranted.

These weed inspections are informal and often undertaken opportunistically during general site inspections and while undertaking other works within Conservation Precincts. They serve only to assist in the preliminary planning requirements of the annual weed control programme, and as such, there is no requirement to document them.

## 6 *Phytophthora cinnamomi* Dieback Control

A Dieback Management Plan has been prepared for Jandakot Airport in accordance with the airport's Environment Strategy and forms a component (i.e. Appendix C) of the Jandakot Airport Conservation Management Plan. For this reason, issues associated with dieback and its management are not covered in this document.

## 7 Rehabilitation and Revegetation Guidelines

The need to undertake rehabilitation or revegetation within the Conservation Precincts of Jandakot Airport can be triggered by the impact of weeds as well as other factors such as bushfires and dieback impacts.

To date, no areas within the Jandakot Airport Conservation Precincts have been identified as requiring rehabilitation or revegetation. However, in the event that revegetation is required to be undertaken at some future point, the Rehabilitation and Revegetation Guidelines (Conservation Management Plan Appendix D) have been developed to assist in planning. As the rehabilitation and revegetation requirements of a specific area will be determined by many factors, including the vegetation community in which works are to occur and the cause of the vegetation condition loss (e.g. weeds, dieback, bushfire etc.), it is not possible to develop a site-specific revegetation plan in advance.

## 8 Thresholds for Triggering Further Management Intervention

### 8.1 Weeds

JAH will retain the following goals, initially established in 2011, for outcomes of weed control activities within the Conservation Precincts at Jandakot Airport:

- A target of no more than 20% weed cover is considered appropriate, considering the location of the precincts (surrounded by urban development and infrastructure). This equates to maintaining a bushland condition value of 'Good' or above (see Figure 2).
- Stable or declining species richness/weed diversity.

These standards are based on the most current, available scientific information and do not pertain to any specific legislative requirement.

### Weed Survey Findings

The results of the 2024 Weed Survey Report determined that weed species richness and diversity have increased by an average of 2.6 species since annual monitoring began in 2011 (Ecoscape, 2024). This increase meets the management threshold for "increasing weed species richness/diversity," which triggers the need for further weed management. However, weed species' cover has remained stable, with most quadrats recording less than 1% cover and no quadrats exceeding the 20% threshold.

### Additional Weed Management Actions

Based on recommendations from the 2023 Weed Monitoring Survey (Ecoscape, 2024), JAH will also implement the following actions:

- **Prioritised Control of *Asparagus asparagoides*:** Occurrences of *A. asparagoides* (a Weed of National Significance, WoNS) were recorded opportunistically in 2024. Given its highly invasive nature, early intervention is necessary to prevent further

spread and potential large-scale infestation. Control measures will align with DBCA's management advice for the species, which includes:

- Treatment will include manual removal of plants and chemical control where necessary.
- Spray of herbicide chemicals will occur between July to August as recommended by DBCA.
- Review of the population will occur annually through the weed monitoring program.
- Target Weed Spread and New Introductions within Conservation Precincts:
  - Increased weed species diversity has been observed, particularly in disturbed areas near fencing and access tracks. JAH will prioritise the control of weeds in these high-risk zones and implement measures to prevent the introduction of new species during scheduled weed treatment activities.
- **Ongoing Monitoring and Management Response** Annual Monitoring: Weed surveys (WMP07) will continue on an annual basis, with results analysed to detect trends in weed cover and diversity.
- Responsive Weed Control: If future monitoring shows:
  - Weed cover exceeds 20%, or
  - Weed species richness increases significantly, then weed control measures will be triggered and implemented within the next suitable weed control window, which varies depending on the target species and control techniques.

## 8.2 Bushland Condition

If Bushland Condition is assessed as being below "Good", further management intervention is required.

Where a consultant assesses the condition at monitoring points as "Degraded" or "Completely Degraded," the resulting consultant's report will include an explanation of the factors contributing to the condition.

Where a consultant assesses a significant decline in Bushland Condition across the study area (as determined via statistical scientific analysis), monitoring will be amended to either:

- (a) include degraded grid point locations within annual quadrat monitoring program in order to more closely monitor the effects of targeted management measures; or
- (b) increase the frequency of the Bushland Condition survey (frequency will be determined by the consultant and appropriate to the survey results).

Where Annual Quadrat Monitoring or Triennial Dieback Assessment identifies significant unexpected detrimental changes (as determined via the consultant's scientific analysis), then bushland condition assessment of the impacted area will be undertaken within 12 months of the impact being reported.

Where areas assessed as Degraded show further decline in a subsequent 5-yearly bushland condition survey despite targeted weed and dieback management measures, revegetation/rehabilitation measures, consistent with Bushland Rehabilitation and Revegetation Guidelines (Appendix D) will be implemented.

## 9 Reporting Requirements

Reporting against actions described in this plan will be included within the Jandakot Airport Annual Environment Report (AER). In line with the *Airports (Environment Protection) Regulations 1997*, the AER will be submitted to the Department of Infrastructure, Transport,

Regional Development, Communications, Sport and the Arts (DITRDCSA previously DITRDC by 28<sup>th</sup> October each year. A copy of the report will be provided to DCCEEW by 28<sup>th</sup> October each year.

## **10 Review and Amendment of Weed Management Plan**

As with the overarching Conservation Management Plan, the Weed Management Plan will require regular review and amendment in order to meet practical requirements on site, as changing circumstances demand.

Once amended, the Weed Management Plan will be submitted to DCCEEW for the Minister's approval (ref Conditions 6 and 12 of EPBC 2009/4796 approval). The approved management plan will be implemented.

The Weed Management Plan will undergo a comprehensive review every 5 years. The next comprehensive review will be undertaken in 2028 following completion of the 2027 bushland condition survey.

## 11 Summary of Actions

The Table below contains a list of summary actions relating to the Jandakot Airport Weed Management Plan.

<b>Table 3. Weed Management Plan Summary of Actions.</b>			
<b>Action</b>		<b>Responsibility</b>	<b>Timing</b>
<b>Weed Control</b>			
WMP1	<p>Undertake targeted weed control in line with the Weed Control Program Attachment A.</p> <p>In particular, JAH will ensure the implementation of new actions:</p> <ul style="list-style-type: none"> <li>• Prioritise control of <i>Asparagus asparagoides</i> due to its highly invasive nature and early detection. Control will be undertaken as per DBCA's advice for the species.</li> <li>• Prioritise control in high-risk areas such as near fencing and access tracks</li> <li>•</li> </ul>	JAH EM	Annually
WMP2	For Action WMP1 above, areas defined as Degraded or below will be treated as a priority over other areas.	JAH EM	Annually
WMP3	Maintain a Register documenting details of weed control undertaken.	JAH	Annually
<b>Monitoring</b>			
WMP4	Undertake Weed and Bushland Condition Survey and update mapping every 5 years (refer also CMP1).	JAH EM	Every 5 years (next due 2027)
WMP5	<p>Where a consultant assesses a significant decline in Bushland Condition across the study area (as determined via statistical scientific analysis), monitoring will be amended to:</p> <p>(a) include degraded grid point locations within annual quadrat monitoring program; or</p> <p>(b) increase the frequency of the Bushland Condition survey (frequency to be determined by</p>	JAH EM	To be determined by the consultant undertaking Bushland Condition assessment.

<b>Table 3. Weed Management Plan Summary of Actions.</b>			
<b>Action</b>		<b>Responsibility</b>	<b>Timing</b>
	the consultant and appropriate to the survey results).		
WMP6	Where areas assessed as Degraded show further decline in a subsequent 5-yearly Bushland Condition survey despite targeted weed and dieback management measures, revegetation/rehabilitation measures, consistent with Bushland Rehabilitation and Revegetation Guidelines (Appendix D) will be implemented.	JAH EM	Revegetation Plan (including specific actions/timing) to be developed within 12 months of further decline being identified within Bushland Condition Report.
WMP7	Undertake Weed Quadrat Monitoring.	JAH EM	Spring Annually
WMP8	Update Bushland Condition mapping (targeting impacted areas) if significant unexpected detrimental changes are noted in annual weed quadrat surveys or triennial dieback assessments (refer also CMP2).	JAH EM	Within 12 months of the impact being reported.
<b>Reporting Requirements</b>			
WMP9	Report against actions of the WMP within the Jandakot Airport Annual Environment Report (AER) and provide copies to DIRTDCA and DCCEEW.	JAH EM	28 October Annually
WMP10	Report against actions of the WMP within an Annual Compliance Report (ref Condition 16 of EPBC 2009/4796) and publish on the JAH website.	JAH EM	28 October Annually.
<b>Review and Amendment of WMP</b>			
WMP11	Review and if required amend the Weed Control Program (Attachment A) following completion of the 2027 weed and bushland condition survey and mapping.	JAH EM	2028 or earlier if required (based on monitoring results, identification of new species, formal changes in weed risk status, opportunistic observations etc.)
WMP12	Update and revise the existing Environmental Weed Management Plan.	JAH EM	2028

## 12 References

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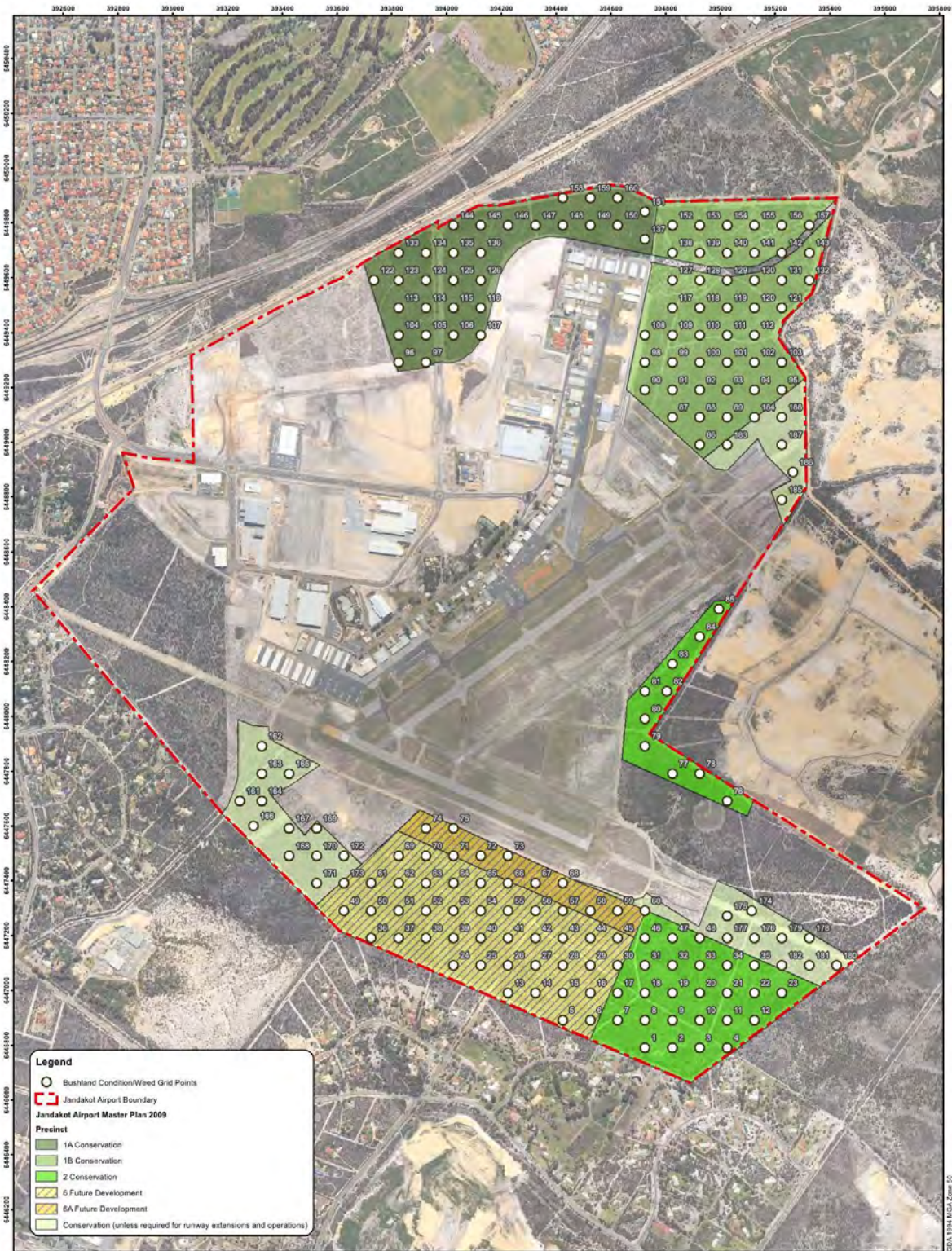
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## 13 Glossary

<b>AER</b>	Annual Environment Report
<b>ARRPA</b>	<i>Agriculture and Related Resources Protection Act 1976</i>
<b>CMP</b>	Conservation Management Plan
<b>DAWE</b>	Department of Agriculture, Water and the Environment (formerly DOEE, DOE, DSEWPaC and DEWHA now DCCEEW)
<b>DBCA</b>	Department of Biodiversity, Conservation and Attractions (formerly DPAW, DEC and CALM).
<b>DCCEEW</b>	Department of Climate Change, Energy, the Environment and Water (previously DAWE)
<b>DITRDC</b>	Department of Infrastructure, Transport, Regional Development and Communications (formerly DIT, DIRD and DIRDC now DITRDCA)
<b>DITRDCA</b>	Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts
<b>DPAW</b>	Department of Parks and Wildlife (formerly DEC). On 1 July 2017 DPAW was merged with three other Departments to become DBCA.
<b>DPIRD</b>	Department of Primary Industries and Regional Development (formerly DAFWA)
<b>EPBC</b>	Environmental Protection and Biodiversity Conservation Act 1999
<b>EWCP</b>	Environmental Weed Census and Prioritisation
<b>EWSWA</b>	Environmental Weed Strategy of Western Australia
<b>JAH</b>	Jandakot Airport Holdings
<b>JAH EM</b>	Jandakot Airport Holdings Environment Manager
<b>WoNS</b>	Weeds of National Significance
<b>WMP</b>	Weed Management Plan

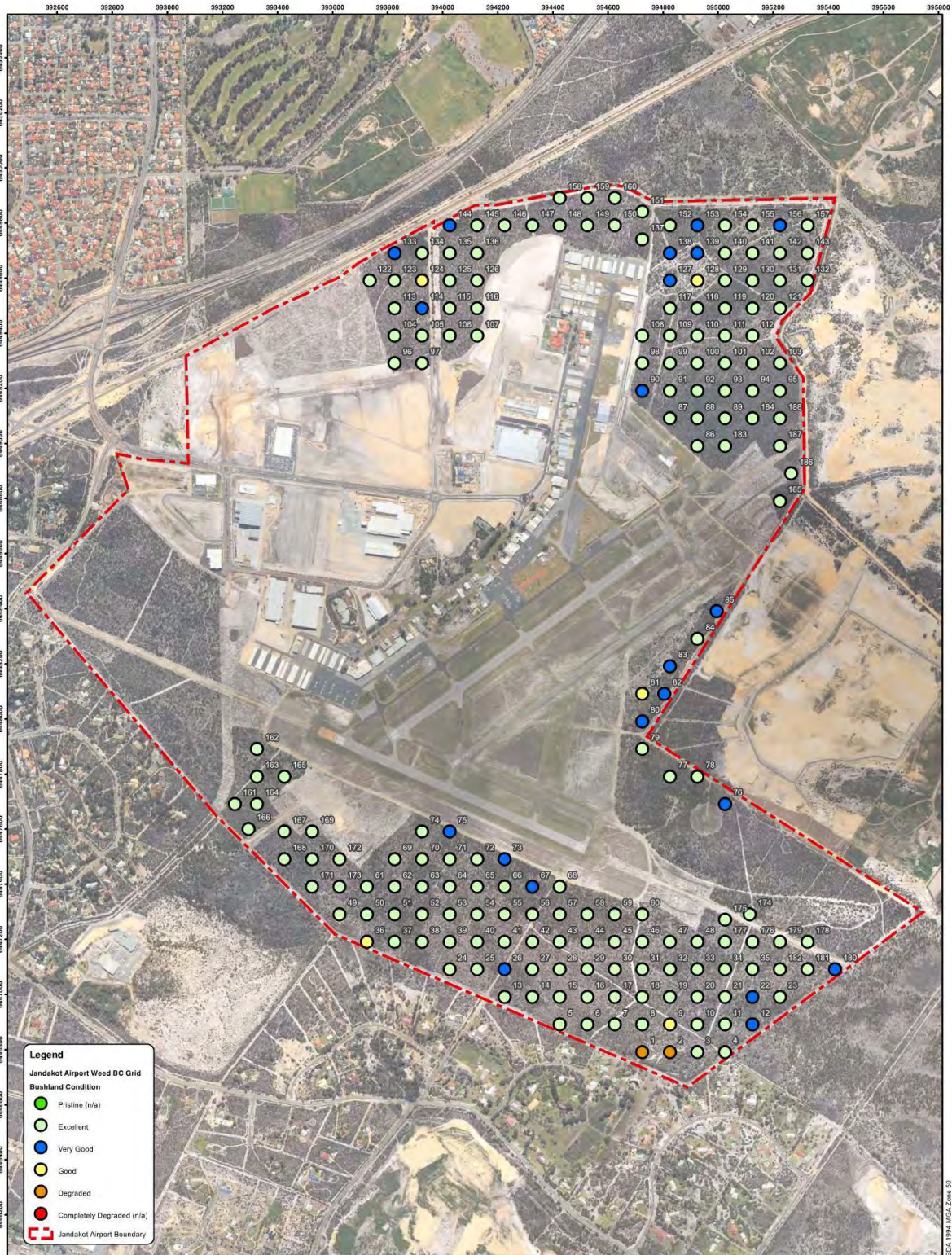
FIGURE 1. WEED GRID POINT LOCATIONS 2011



Jandakot Weed and Bushland Condition Survey  
**Grid Point Locations**  
 Oct 2011  
 prepared for Jandakot Airport Holdings  
 0 100 200 300 400 500 Metres  
 1:12,000 @ A3  
 Project No. 2701-11



**FIGURE 2. BUSHLAND CONDITION MAPPING 2011**



**Map 3** Jandakot Weed and Bushland Condition Survey  
**Bushland Condition**  
 Sep 2011 prepared for Jandakot Airport Holdings  
 0 100 200 300 400 500 Metres  
 1:12,000 @ A3  
 Project No. 2701-11

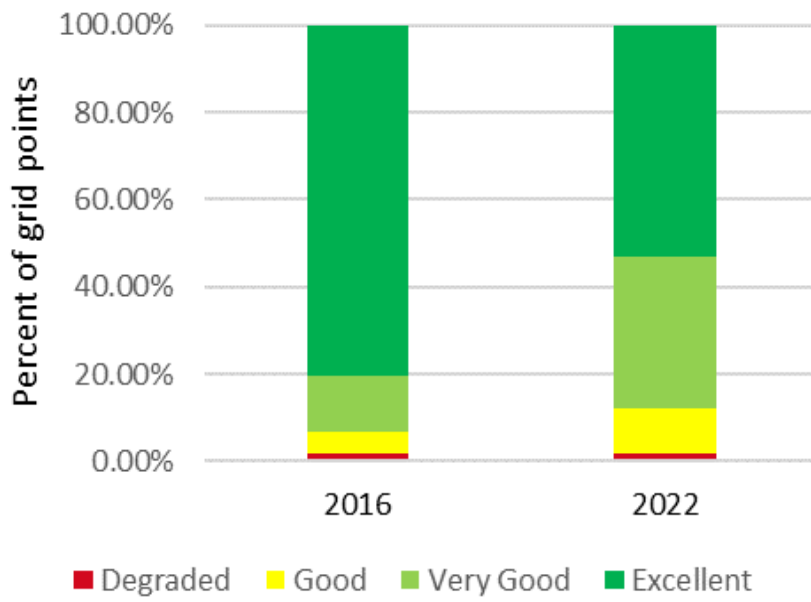


### FIGURE 3. WEED GRID POINT LOCATIONS 2022





**FIGURE 5. GRID SURVEY – BUSHLAND CONDITION 2011-2022**

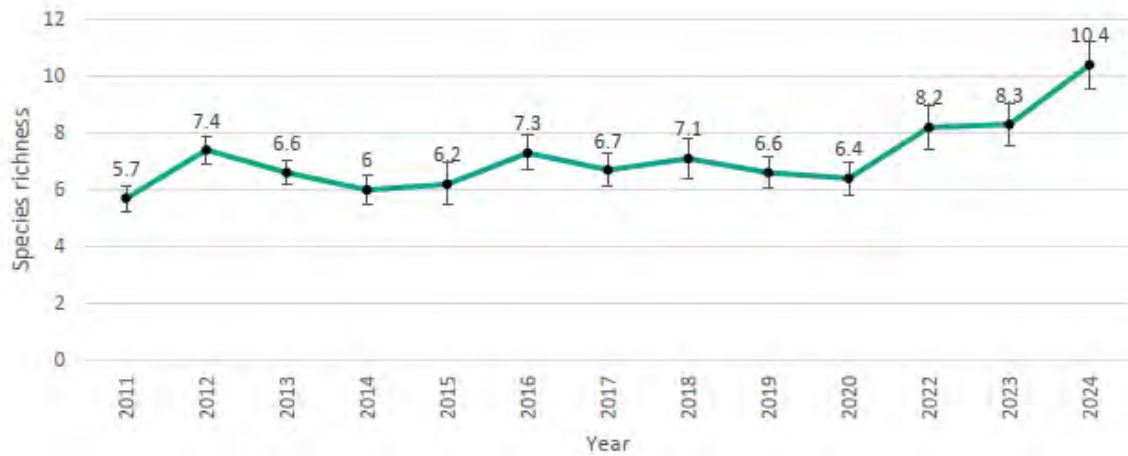




**Figure 7. Quadrat Monitoring - Bushland Condition 2011-2024**



**Figure 8 Quadrat Monitoring – Mean Species Richness per Quadrat 2011-2024**



Attachment A. Weed Control Program.

Priority for Control	Scientific Name	Common Name	Justification	Suggested Method of Management & Control	Priority	Optimum Timing for Treatment
1	<i>Asparagus asparagoides</i>	Bridal Creeper	While this species was recorded at low densities, it is a WoNS species and is highly invasive. Control of this species in high infestation areas can be problematic as it forms dense canopies and requires long term management intervention which can be costly. Therefore, early intervention while densities are low is highly recommended.	Manual, Biological, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/8779">https://florabase.dpaw.wa.gov.au/browse/profile/8779</a>	High	Jul-Aug
2	<i>Zantedeschia aethiopica</i>	Arum Lily	This species was also recorded at low densities but is a Declared Pest and is highly invasive in wetland areas. Early intervention while species cover is low is highly recommended.	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/1049">https://florabase.dpaw.wa.gov.au/browse/profile/1049</a>	Moderate	Jun-Sep
3	<i>Ehrharta calycina</i>	Perennial Veldt Grass	While the population of <i>E. calycina</i> has decreased since 2016, ongoing control is recommended to maintain cover below the threshold of 20%. This species is highly invasive and was observed to be growing in excess of 20% cover at grid point 81 in Precinct 2B. Precinct 2B is a small bushland area surrounded by disturbed areas and hence is most susceptible to weed invasion. This area should be targeted for weed control with priority given to bushland around grid point 81 where vegetation condition is currently Degraded due to the abundance of <i>E. calycina</i> .	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/347">https://florabase.dpaw.wa.gov.au/browse/profile/347</a>	Moderate	Jul-Aug
4	<i>Leptospermum laevigatum</i>	Victorian Tea Tree	This species has formed dense thickets in Precinct 1A and was also recorded from 1B. Ongoing removal of plants is recommended, particularly at grid point 156 where it exceeds the threshold of 20% cover. Felled plants were observed in several areas, however, it is recommended that plants be removed completely with follow-up weed control of germinating seedlings and revegetation implemented to restore native vegetation structure and composition. As this species is well established, control and remedial works should be prioritised at grid point 156 where vegetation condition is currently Degraded as well as in high value areas. Short longevity of the seed bank indicates that intensive management should only be required for 1-2 years following removal of mature plants.	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/5850">https://florabase.dpaw.wa.gov.au/browse/profile/5850</a>	Moderate	Jul-Oct
5	<i>Gladiolus caryophyllaceus</i>	Wild Gladiolus	This species was common throughout all Precincts but typically occurred at low densities. Control should be prioritised in high value areas (e.g, where Threatened <i>Caladenia huegelii</i> occurs).	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/1520">https://florabase.dpaw.wa.gov.au/browse/profile/1520</a>	Moderate	Jul-Sep
6	<i>Bromus diandrus</i>	Great Brome	This species has increased slightly since 2016 and control can be implemented concurrently with that of other annual grass species. Control should be prioritised in areas prone to disturbance, such as Precinct 2B which is surrounded by cleared land.	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/249">https://florabase.dpaw.wa.gov.au/browse/profile/249</a>	Moderate	Jun-Aug
7	<i>Acacia longifolia</i>	Sydney Golden Wattle	Continued control of <i>A. longifolia</i> is recommended as this species can form dense thickets in moist areas. Control should be prioritised in the wetland area of Precinct 1A.	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/17861">https://florabase.dpaw.wa.gov.au/browse/profile/17861</a>	Moderate	Mar-Aug
8	<i>Pelargonium capitatum</i>	Rose Pelargonium	This species occurred at low densities and was typically observed in seedling form. It is known to invade sandy areas following disturbances such as fire. The population is mostly found in the northern Precincts and control should be prioritised in these areas to prevent further spread.	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/4343">https://florabase.dpaw.wa.gov.au/browse/profile/4343</a>	Moderate	Jun-Oct
9	<i>Hypochoeris glabra</i>	Smooth Cats-ear	This species was the most abundant target weed observed within the survey area. It is a widely tolerant species capable of growing in a variety of conditions. High infestation areas should be targeted for control.	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/8086">https://florabase.dpaw.wa.gov.au/browse/profile/8086</a>	Moderate	May-Sept
10	<i>Ehrharta longiflora</i> <i>Avena barbata</i>	Annual Veldt Grass Bearded Oat	These species have increased since 2016. Both species can be targeted for control with other annual grasses.	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the links below:	Moderate	Aug-Oct Jul-Oct

Priority for Control	Scientific Name	Common Name	Justification	Suggested Method of Management & Control	Priority	Optimum Timing for Treatment
				<a href="https://florabase.dpaw.wa.gov.au/browse/profile/349">https://florabase.dpaw.wa.gov.au/browse/profile/349</a> <a href="https://florabase.dpaw.wa.gov.au/browse/profile/233">https://florabase.dpaw.wa.gov.au/browse/profile/233</a>		
11	<i>Arctotheca calendula</i>	Capeweed	While most records of this species were at low densities, high density cover was recorded at grid point 107 and should be targeted for control to prevent spread into adjacent bushland. Dense infestations were also observed along fence lines outside of Conservation Precinct boundaries. Consideration should be given to the control of this species along fence lines where resources allow.	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/7838">https://florabase.dpaw.wa.gov.au/browse/profile/7838</a>	Moderate	Jun-Nov
12	<i>Centranthus macrosiphon</i>	Pretty Betsy	This species is a non-target weed and has not been previously recorded within the survey area. It is known to invade rapidly into bushland if left undisturbed. A small dense pocket was observed along the road edge in the western section of Precinct 1A. This area should be targeted for control (if resources allow) to prevent the spread into bushland.	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the link below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/7366">https://florabase.dpaw.wa.gov.au/browse/profile/7366</a>	Moderate	Jul-Sep
13	<i>Carpobrotus edulis</i> <i>Cynodon dactylon</i>	Hottentot Fig Couch	Both of these species are non-target species, however, they are highly invasive and rapidly spreading weeds. Current occurrences are at low densities and consideration should be given to targeted control if resources allow.	Manual, Mechanical and Chemical Control as per government recommended guidelines described in the links below: <a href="https://florabase.dpaw.wa.gov.au/browse/profile/2795">https://florabase.dpaw.wa.gov.au/browse/profile/2795</a> <a href="https://florabase.dpaw.wa.gov.au/browse/profile/283">https://florabase.dpaw.wa.gov.au/browse/profile/283</a>	Moderate	Jun-Oct Nov-Feb
<p>This table is to be updated by JAH Environment Manager as required (e.g. following identification of a new weed species, or following a weed monitoring/survey event).</p> <ul style="list-style-type: none"> <li>Weeds in areas of 'Degraded' bushland condition (i.e. &gt;20% weed cover) will always be targeted for weed control as a priority.</li> <li>Species identified above as Priority 1-10 will, if present, be subjected to weed control activity on an annual basis.</li> <li>All other *target weed species should be controlled as resources allow and during control works targeting the listed priority species.</li> <li>Reference should also be made to Florabase (<a href="https://florabase.dpaw.wa.gov.au/">https://florabase.dpaw.wa.gov.au/</a>) prior to treating weeds. It is anticipated that weed control practitioners will be suitably experienced and have access to the most up-to-date resources in order to control weed species appropriately and effectively.</li> </ul>						
<p><b>*Other target weed species:</b>  <i>Acacia iteaphylla</i>  <i>Asphodelus fistulosus</i> Wild Onion  <i>Brassica tournefortii</i> Wild Turnip  <i>Chamelaucium uncinatum</i> Geraldton Wax</p>			<p><i>Echium plantagineum</i> Patersons Curse  <i>Euphorbia peplus</i> Petty Spurge  <i>Fumaria capreolata</i> Whiteflower Fumitory  <i>Hordeum leporinum</i> Barley Grass</p>	<p><i>Vulpia myuros</i> Rat's Tail Fescue  <i>Oxalis pes-caprae</i> Soursob  <i>Watsonia meriana</i> var. <i>meriana</i></p>		



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