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Mount Ridley Woodland Conservation Area:

Conservation Management Plan

April 2012

Biosis Research Pty. Ltd.

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Prepared for Evolve Development

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ABBREVIATIONS

DSE Department of Sustainability and Environment, Victoria
EPBC *Environment Protection and Biodiversity Conservation Act 1999*
EVC Ecological vegetation class
FFG *Flora and Fauna Guarantee Act 1988*
FIS Flora Information System (DSE)

CONTENTS

1.0 INTRODUCTION

1.1 Background

This plan provides Evolve Development with a conservation management plan (CMP) for the Mount Ridley Woodland Conservation Area identified within the Merrifield West Precinct Structure Plan (PSP). The 112.5 ha conservation area supports one of the largest, relatively intact examples of Plains Grassy Woodland within Melbourne's northern region. The woodland is dominated by an overstorey of River Red-gum *Eucalyptus camaldulensis* and a grassy, often herb-rich understorey. The conservation area also includes degraded areas which need rehabilitation and revegetation.

This conservation area will also be subject to a separate Kangaroo Management Plan which will be consistent with the management objectives of this broader CMP.

Plains Grassy Woodland is an endangered ecological vegetation classes (EVCs) within the Victorian Volcanic Plain bioregion (DSE, 2011). The area of Plains Grassy Woodland also meet the description of the threatened community 'Western Basalt Plains (River Red Gum) Grassy Woodland Floristic Community 55-04' listed under the *Flora and Fauna Guarantee Act 1988* (FFG Act) (www.dse.vic.gov.au) and 'Grassy Eucalypt Woodland' of the Victorian Volcanic Plain listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

A total of 71 indigenous plant species and 57 introduced species have been recorded from the Mount Ridley Woodland Conservation Area (Appendix 1). Recent assessments for the Growth Areas Authority (GAA) have identified a population of the nationally significant Matted Flax-lily *Dianella amoena* scattered throughout the northern section of the western Evolve property. The area has also been identified as habitat for the nationally significant Golden Sun Moth *Synemon plana*, which has been recently recorded (SMEC 2011) and Striped Legless Lizard *Delma impar*.

Past management of the proposed conservation area appears to have been limited to the grazing of domestic stock. Sections of both of the Evolve Development properties (355 and 495 Donnybrook Road) identified by a consultant ecologist and DSE officer to have higher quality native vegetation values have been fenced to exclude stock and allow for regeneration of native vegetation. The fencing of these areas occurred in January 2010. Limited stock access has occurred in these areas since this time. There is no obvious evidence of past pest plant works.

This Conservation Management Plan is the first formal management plan developed for the entire Mount Ridley Woodland Conservation Area. Francis and Just (2008) have produced a plan for areas of woodland identified at 285 Donnybrook Road, Mickleham and, where appropriate, the concepts identified in that report have been incorporated into this plan. This CMP aims to provide a strategy for the conservation and enhancement of areas of indigenous vegetation compatible with continued passive recreation. The Plan also considers the development of the surrounding environment as residential land in association with the expansion of Melbourne's urban growth boundary (DSE 2009).

Ecological management and monitoring will be an ongoing and permanent requirement within the conservation area and this must be adequately funded to enable the objectives of the plan to be realised.

1.2 Management Area

1.2.1 Mount Ridley Woodland Conservation Area

The Mount Ridley Woodland Conservation Area is located at Mickleham within the City of Hume approximately 30 kilometres north of the Melbourne central business district (Figure 1). The conservation area abuts the existing Mount Ridley Grasslands Reserve to the south with the easement for a high tension transmission line just within the southern boundary. Otherwise the proposed conservation area is bounded by private property.

Woodland vegetation on the eastern boundary (within 285 Donnybrook Road) is defined as a native vegetation offset area and is managed for its conservation values under a separate vegetation management plan (Francis and Just 2008). This area is protected under a Trust for Nature covenant. There may be scope for the future incorporation of this protected area into the Mount Ridley Woodland Conservation Area.

The precise boundary of the 112.5 ha conservation area is defined within the draft Merrifield West Precinct Structure Plan (Growth Areas Authority 2011). It is situated within the Victorian Volcanic Plain Bioregion (Department of Sustainability and Environment: dse.vic.gov.au) and forms the headwaters of Malcolm and Aitken Creeks within the Port Phillip and Western Port Region. The conservation area is currently zoned Rural Conservation Zone (RCZ). The conservation area is also currently covered by two Environmental Significance Overlays (ESO5 and ESO11). The extent of land that the RCZ, ESO5 and ESO11 affect is currently larger than the boundary defined in the draft PSP. It is proposed that the Zone and Overlay boundaries are revised to align with the conservation area boundaries when the Merrifield Precinct Structure Plan Amendment is adopted.

1.2.2 Local Context

The management plan relates specifically to the Mount Ridley Woodland Conservation Area but it is important to consider that this conservation area will be part of a wider network of ecological remnants within a predominantly residential and agricultural landscape. Malcolm Creek lies to the south within the Mount Ridley Grassland Reserve. The provision or enhancement of habitat values within the grassland reserve and the creek corridor further south would provide a significant ecological benefit to both the creek corridor and the Mount Ridley Woodland Conservation Area.

The southern boundary of the conservation area is adjacent to high voltage power-lines which run east west. The power-line easement is likely to be a fauna movement corridor, predominantly for more mobile species such as kangaroos, for the foreseeable future. This will potentially be broken by the construction of the outer metropolitan ring road.

1.3 Objectives

The objectives for management of the Mount Ridley Woodland Conservation Area are to:

- Protect and enhance biodiversity, ensuring that indigenous species survive and dominate the conservation area;
- Maintain and enhance areas of Grassy Eucalypt Woodland of the Victorian Volcanic Plain Bioregion;
- Allow natural ecological processes to operate as far as possible by keeping the impacts of introduced flora and fauna to a minimum and providing active ecological management;
- Eliminate all high threat environmental weeds within the conservation area; and
- Raise awareness in the local community of the values of the conservation area and the need for active ecological management.

These objectives will be achieved through the implementation of a management program with an initial 10 year timeframe designed to establish the conservation area in a condition where its infrastructure is established, restoration of the natural values is underway and pest plant and animal species are controlled. As this occurs the relevant components of the plan can then enter a phase where these improvements are maintained in perpetuity. The CMP will be reviewed at the end of each ten year period, and a new CMP written and implemented for the next ten years. The requirement for a CMP operates in perpetuity. Annual works plans, including burn plans and weed management must be reviewed yearly, as outlined in the Implementation Schedule of this CMP (Section

3.0). Ongoing ecological management under this CMP and subsequent reviews approved by DSE will be a permanent requirement for this conservation area.

1.3.1 Goals for Success

Implementation of the CMP will cover two basic periods of management:

- Establishment of the conservation area and its infrastructure, embarking on restoration and achieving pest plant and animal control; and
- Maintenance of improved ecological conditions in perpetuity.

This CMP will be successful if at the end of ten years:

- The total cover of all high threat environmental weeds within the conservation area decreases to less than 1%;
- The areas of degraded vegetation within the conservation area (24.68 ha) are revegetated and are dominated (>70% of the ground vegetation cover) by native grasses and herbs; and
- Areas of Plains Grassy Woodland, populations of the Matted Flax-lily and Golden Sun Moth habitat are maintained or improved.

1.3.2 Timeframes

Implementation of the CMP will be required by conditions when planning permits are issued for the land, unless voluntary commencement is initiated and agreed to by the landowner and DSE. The requirement for a CMP operates in perpetuity unless otherwise stated in writing by DSE and the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC).

At the end of ten years the landowner is responsible for the review of the CMP, and the establishment of a new CMP, for the next ten year period. The new CMP will incorporate any management requirements determined by the review, and will reflect a transition to maintaining the improvements achieved.

Formal monitoring and reporting on the condition of the conservation area will continue in perpetuity. Active ecological management of the conservation area is a permanent requirement unless otherwise determined by DSE or the DSEWPaC.

1.3.3 Responsibilities

The landowner or public authority (if transferred through an agreement with funds provided) is responsible for complying with this CMP. This CMP is generally implemented and enforced through the Merrifield West Precinct Structure Plan and the Urban Growth Zone (Schedule 4) in the Hume Planning

Scheme.

Conditional subdivision or other development permits for this land, issued under the Urban Growth Zone, require the undertaking of CMP actions as a condition of development.

2.0 MANAGEMENT ISSUES

Management activities outlined in this plan will be subject to regular evaluation, monitoring and reporting.

Prescribed management actions can be considered under three basic categories:

1. Protection – including mitigation of design impacts, legal protection, fencing and the control of construction impacts;
2. Ecological improvement – including the control of pest plants and animals, biomass control, supplementary planting and revegetation; and
3. Monitoring, review and reporting.

In this section Principles for action are listed. To comply with this CMP the specific actions shown in Table 3 and the relevant requirements of Schedule 4 to the Urban Growth Zone of the Hume Planning Scheme must be undertaken by the land owner.

The land owner will be responsible for the decisions and outcomes associated with the implementation of this CMP. As such they may wish to engage professional assistance in the supervision, monitoring and implementation of this plan. Conservation management actions will be conducted by (a) person(s)/ organisation experienced in the rehabilitation of natural temperate grasslands and grassy woodlands of the Victorian Volcanic Plain.

Conservation management actions involving the control of pest plants and animals will be conducted by a suitably qualified person/organisation experienced in the rehabilitation of native grasslands in Victoria. The actions of the appointed qualified person/organisation should be supervised and directed by a Managing Ecologist. The Managing Ecologist will be a qualified person/organisation with experience in the ecological requirements of natural temperate grasslands of the Victorian Volcanic Plain bioregion.

The patches of Plains Grassy Woodland identified by SMEC (2011) satisfy the definition criteria of the EPBC Act listed community Grassy Eucalypt Woodland of the Victorian Volcanic Plain. However, sections of the conservation area outside these patches are degraded to the extent that they do not satisfy this definition. With appropriate management it is possible that these areas may meet the criteria of the EPBC listed community in the future. It must also be recognised that management actions such as infrastructure development have the potential to result in an adverse impact on the native vegetation present. All management actions within Mount Ridley Woodland Conservation Area must be conducted in a manner consistent with the management objectives and goals identified by this CMP.

Management and or construction activities around the conservation area will generally be conducted by contractors who may be unaware of the conservation values present and the potential adverse impacts of their actions. It is therefore essential that contractors and subcontractor be inducted into the values of the conservation area before commencing work around or within the site.

2.1 Securing the Conservation Area

The proposed Mount Ridley Woodland Conservation Area within the Merrifield West PSP is currently part of freehold land divided into three parcels and held by two different owners. The future ownership of the conservation area within these properties is uncertain, although it is unlikely that a developer would retain ownership.

At a minimum, therefore, the person developing the broader parcel of land must, before the issue of a Statement of Compliance, provide for the completion of those actions by one or more of a:

- Transfer of the land to public land dedicated as a reserve for the purposes of conservation under the *Crown Land (Reserves) Act 1978* as a park under the *National Parks Act 1975*; or
- Registered on-title agreement under Section 69 of the *Conservation Forests and Lands Act 1987*.

The preferred outcome for securing the conservation area is that the land be transferred to the Crown.

2.2 Residential Subdivision Design

The Merrifield West Precinct Structure Plan (PSP) indicates that residential development will occupy much of the land in close proximity to the conservation area, although it would be buffered by areas of public open space.

Management actions have been developed for the protection and enhancement of existing vegetation remnants while allowing for some passive recreational use of the conservation area. The interface between the conservation area and residential development will be formed by a single fronted road and this will make a significant contribution to the requirements for fire protection. The interface between the conservation area and other public open space such as playing fields could include a shared path (walking/cycling) that would be managed by regular mowing and this would also form a firebreak.

The growth and regeneration of River Red-gum dominated woodlands is dependent on inundation events at a suitable frequency and duration. The abundance of relatively young River Red-gum trees within sections of the conservation area indicates that a suitable flooding regime has been in place over the recent history of the site (10 - 50 years). This has enabled recruitment of these ecologically important species and maintenance of the vegetation type in general. Drought within the last 10 years is likely to have caused floristic changes within the understorey and additional indigenous species are expected to be observed with the return of seasonal inundation within at least parts of the conservation area and the exclusion of domestic stock.

As the conservation area forms the headwaters of both Aitkin and Malcolm Creeks it is assumed that the hydrology of the site is based on incident rainfall rather than being dependant on any external surface flows. The design of surrounding housing and open space developments will therefore be developed with consideration for the hydrology of the conservation area, with a focus on ensuring the woodland is not subject to any stormwater inflows (hydrological design input and subsequent monitoring regime to be determined through liaison with an individual/organisation with hydrological expertise).

Actions – Residential Subdivision Design

1. The interface between the conservation area and residential development will be formed by a single fronted road or maintained areas of active open space.

2. The development design, including any storm water discharge, must ensure the woodland will not receive any surface water inflows over and above any existing predevelopment inflows.

3. A full review of the impact of the development on the Conservation Areas hydrology and ecology will be undertaken by an individual/organisation with hydrological and ecological expertise (hydrological design input and subsequent monitoring regime to be determined through liaison with an individual/ organisation with hydrological expertise).

2.3 High Tension Power-lines

The southern boundary of the conservation area will continue to include a high tension power-line easement. This could present a number of management challenges that will impact on both management actions and the timing of those actions. Management of land within the easement will also have a number of specific requirements including the control of tree recruitment/growth and general access requirements. Maintaining the vegetation within the existing power-line easement must be consistent with the Electricity Safety (Electric Line

Clearance) Regulations 2010 or any updates to those regulations. Maintaining this area as grassland will be consistent with the current requirements of these regulations. This will allow this CMP to be implemented in full with the exception that the growth of trees and shrubs will be managed to comply with the relevant regulations. However this plan, and subsequent updates, must be submitted to the relevant manager of the power-line for comment and, if required, revised to satisfy any regulatory concerns. Any other management actions which may impact on the operation or function of these power-lines (i.e. ecological burning) will need to consider this infrastructure before being implemented.

Actions – High Tension Power-lines

4. Maintain the vegetation within the existing power-line easement consistent with the Electricity Safety (Electric Line Clearance) Regulations 2010 or any updates to those regulations. (Maintaining this area as grassland will be consistent with the current requirements of these regulations.).

5. Supply the CMP to the relevant manager of the high tension power-line and reach a management consensus for the power-line easement. Re-submit the plan to the relevant manager of the easement if the CMP is revised to change management of the easement.

6. Ensure the operation of the power-line is considered where broader actions could impact on this asset (i.e. ecological burning).

2.4 Access, fencing and other infrastructure

The control of access is important to ensure protection of the existing ecological values, to prevent inadvertent or deliberate damage and to minimise opportunities for the introduction of pest plants and animals. At present, while the property is within an agricultural context, good quality post and wire fencing with four wire strands will provide sufficient access control, provided the fence is maintained in good repair. However, into the future the interface with residential development will need fencing to be able to discourage/prevent the intrusion of vehicles. Eastern Grey Kangaroos and some other wildlife will also move through the conservation area on occasion and fence design will need to take this into consideration (i.e. providing gaps for movement, strictly no use of barbed wire).

The perimeter of the conservation area is currently unfenced although some sections are fenced with post and wire fencing to exclude or control access by stock. Fencing will be installed around the boundary of the conservation area as soon as possible and prior to any other works commencing on the site. This

fencing will be important in delineating the conservation area and clearly identifying the area to be excluded from any impacts associated with construction works. The location of the fence and its purpose needs to be included in any Construction Management Plan produced for development of the land surrounding the conservation area. DSE require this perimeter fencing to be a 1.4m high, black PVC coated chain link style fence with lockable gates. The design of this fence may be varied to a different, equivalent design with DSE approval.

This fencing must be installed around the outer perimeter of the conservation area prior to any works commencing on within that property. Some gaps in the fence will be necessary to allow pedestrian access and to allow the movement of Eastern Grey Kangaroos through the conservation area, and barbed wire must not be used, as it poses a hazard for this species.

In the longer term it is not envisaged that the conservation area would be excluded from passive recreational uses. Within the conservation area it is expected that the impact of human activity would be restricted to a small number of defined pathways and access to the broader conservation area would be discouraged. The extent of potential pedestrian access would need to be carefully designed, with any pathway avoiding any areas of native vegetation where ever possible and predominantly utilising existing vehicle tracks and other disturbed areas.

Pathways are to be constructed to allow access restricted to pedestrians, cyclists and management vehicles while also providing functional control lines for any ecological burning. These pathways should be designed to meet design requirements of the land manager. A suggested approach is three metre wide path constructed of appropriate materials (i.e. granitic sand or similar). The margins of these tracks will be slashed to a height of 10 centimetres to a width of two metres. This will provide a seven metre wide firebreak for use in the control of ecological burns.

The construction footprint associated with establishing the track network will be confined to a four metre wide band. No materials or equipment will be permitted outside the designated construction footprint. Any laydown areas will be confined to areas outside the woodland conservation area. The disturbed margins of the track network will be revegetated using indigenous grasses and be subject to intensive weed control works until an indigenous grassy ground cover is established.

The proposed pathways network is outlined in Figure 2. This is based on existing tracks and the placement of new tracks within areas which do not support an indigenous groundcover.

One area, currently devoid of significant native groundcover vegetation may be developed to provide for passive uses including interpretation facilities, seating, electric barbeques, shelters and play areas (Figure 2). If any public toilet facilities are provided they will either be waterless or be sewered in a manner which minimises the impact on the conservation area. Any works associated with toilet facilities must be approved by DSE. No structures will be permitted within 10 metres of the edge of this recreation zone. No camping or open fires are permitted in this area or any other areas of the conservation area.

This is also expected to occur within the smaller conservation area in the south west of 495 Donnybrook Road (west side of the extension of Forest Red Gum Drive). This smaller conservation area may also incorporate a nature/educational walk, associated with the wider Mount Ridley Woodland Conservation Area and the nearby future active open space and schools.

Once established (in Year 1 of this CMP), fencing will be maintained to be in good repair at all times ensuring this infrastructure continues to provide the required management objectives in perpetuity.

An initial survey of the current fence condition will be undertaken during the first year of management. Where damage to the fence is observed this will be repaired promptly. Where additional fencing is required, this will be installed. Formal monitoring of the fence condition and objectives will be undertaken every second year of management. However contractors working within the conservation area will report any damage to the landowner/public land manager and any repairs will be conducted promptly as required.

Any proposed fencing or pathways, including the maintenance or replacement of boundary fencing with neighbouring properties, will avoid disturbance to areas of remnant native vegetation.

Actions – Access and Fencing

7. Fence sections of the conservation area in Year 0, as per specifications outlined in this section.
8. Monitor the condition of fences and maintain as required.
9. Define the route of internal access pathways (shown in Figure 2 of this CMP) and construct with regard to land manager's pathway requirements and subject to approval from DSE.

2.5 Management of Existing Structures

The three properties which constitute the conservation area are separated by existing fences. Within each property, each section of the conservation

area also supports a number of internal fences. All existing internal fencing associated with each property within the conservation area will be removed with minimal soil disturbance once the conservation area perimeter fencing for that property has been completed. This will be done within six months of the completion of the perimeter fence.

Fences which divide each property would be removed when the relevant section of adjacent titles are included within the conservation area.

Each property within the conservation area contains one or more informal tracks, not all of which may be required for ongoing management. The need for the existing track network should be assessed and tracks closed and rehabilitated as required.

The section of the conservation area within 355 Donnybrook Road contains a number of buildings and associated refuse (Plate 1).

Plate 1: Sheds and associated refuse within 355 Donnybrook Road.

The existing shed will be assessed for its value as an onsite works base. If it does not contribute to the management of the conservation area it will be removed. Unnecessary structures and refuse (including discarded vehicles) will be removed within the first year of management.

The conservation area supports two farm dams (Plate 2). These need to be decommissioned as soon as possible, as their presence will facilitate an artificially high kangaroo population. These dams are to be filled in to a form which reflects the natural soil surface so they can be revegetated.

Plate 2: The farm dam within the conservation area at 355 Donnybrook Road

A line of rock debris is located close to the farm dam shown in Plate 2. Presumably these were unearthed during the construction of the dam (Plate 3).

Plate 3: A rock dump near the farm dam shown in Plate 2.

While individual rocks do not pose a problem, rock piles provide harbour for vermin such as the European Rabbit *Oryctolagus cuniculus* and Foxes *Vulpes vulpes*. These rocks are to be moved to the areas on the northern edge of the Conservation Area which will be subject to revegetation works. Placement of

these rocks in revegetation areas will be such that they do not provide rabbit harbour by do provide habitat for native small mammals and reptiles. Rocks must not be relocated onto pathways or tracks, as they may impede management vehicles.

10. Remove any internal fencing with minimal disturbance within six months of the perimeter fence being completed. Maintain inter-property fencing until the relevant section of each property is formally included within the conservation area.
11. Identify the location and condition of the existing track network and rationalise as appropriate. Establish track and pathway network as per guidelines in this section and Figure 2 of this CMP.
12. Move the rock debris identified within the conservation area at 355 Donnybrook Road (Plate 3) and any embedded rocks that may cause an impediment to management vehicles (on tracks). Place these rocks in the northern revegetation zones at an appropriate time and in a configuration that does not provide rabbit harbour. The rock debris associated with the farm dam (Plate 3) may be removed in association with works to decommission the nearby farm dam.
13. Decommission the existing two farm dams at a time consistent with the Kangaroo Management Plan.

2.6 Signage

Signage at access points identifying the Mt Ridley Woodland as a conservation area and with some basic interpretive material can assist to discourage inappropriate use of the conservation area and stimulate community interest in the management objectives.

During any construction works adjacent to the conservation area, the conservation area will be clearly identified as a no go zone.

Actions - Signage

14. During the construction period the conservation area will be signed as a no go zone.
15. Install signs around the conservation area perimeter fence identifying the site as a conservation area and providing details of prohibited uses such as management vehicles only, dogs on lead only and rubbish dumping prohibited.
16. Maintain signage to ensure it is in place and provides current applicable information about the conservation area.

2.7 Flora Inventory

Up-to-date records of flora values within the conservation area will be maintained. A flora list for the conservation area is provided in Appendix 1 (Table A1.1). This is to be updated to incorporate all known species within the conservation area at five year intervals or as additional species (indigenous and introduced) are observed. A formal inventory of all flora species present within the conservation area is to be undertaken when the conservation area is established.

This data will be important in identifying potential pest plant control targets and identifying any indigenous species which could require special management.

Actions – Flora Inventory

17. Update the flora species lists as new species are observed noting species that are indigenous and introduced.

18. Undertake a formal inventory of all flora species once every five years. Continue to note which species are indigenous and introduced.

2.8 Remnant Vegetation

The areas of remnant vegetation (Figure 3) must be managed to maintain and improve their ecological values. Other degraded areas (also shown in Figure 3) will be the subject of revegetation works.

Baseline Vegetation Quality Assessment data for each patch of remnant vegetation is based on the DSE time-stamping data. Vegetation quality should remain within 10% of this baseline data or otherwise be higher and improve in condition every year.

Implement a fire regime within the conservation area with the objective to burning the whole of the conservation area on at least a four year rotation. This will be the absolute minimum fire frequency applied to the conservation area (see Section 2.11). If ground-cover grasses develop more or less densely than expected this fire frequency may be varied. A fire management plan will be developed for the conservation area detailing specific fire requirements for indigenous species. Additional resources will be required for monitoring and weed control following a burn and will be detailed in the fire management plan.

Actions – Remnant Vegetation

19. Monitor remnant vegetation against baseline (time-stamped) data using the approved DSE net gain monitoring protocols.

20. Implement an appropriate fire regime within the conservation area (see Section 2.11).

2.9 Significant Species

2.9.1 Plants

One nationally listed threatened plant species, Matted Flax-lily occurs within the conservation area. The known distribution of these plants is provided in Figure 3. The locations of these plants must (when relevant) be known to any contractor working within the conservation area so that they can be protected/avoided during any management works. Data on the location of significant plant species will be provided as a map and, if appropriate, GPS waypoints. Plants will also be marked in the field to allow for these to be located when required. Markers will not be placed within 3 meters of individual plants.

The use of non-specific herbicide within 3 metres of known plants will be prohibited with hand weeding preferred. After hand weeding, the weed material must be removed from site with care not to spread weed seed or disturb the soil surface further. Specific herbicides known not to impact on the relevant threatened species (i.e. grass specific herbicides) may be used in these areas. If it is uncertain that a specific herbicide will impact on the relevant threatened species then an offsite trial is required before that herbicide may be used within the 3 metre exclusion zone. All management actions within 3 metres of these plants will be approved by the land manager.

A targeted survey was conducted by SMEC (2011) although up to five additional plants were recorded by Biosis Research in 2011. The location of any additional plants observed will be recorded and mapped to allow the ongoing monitoring of the known population. Monitoring of these plants should be undertaken every second year. Where losses are recorded, an assessment of how each loss has occurred will be undertaken and management practice adjusted where natural process are not the cause.

Consideration will be given to using the conservation area as a recipient site for translocation of additional Matted Flax-lily plants where they are being removed from other sites locally. Any translocation must be conducted in a manner consistent with this CMP and to the satisfaction of DSE.

2.9.2 Animals

One nationally listed threatened animal species, Golden Sun Moth S*ynemon plana* occurs within the conservation area. The entire conservation area provides potential habitat for this species which has been recorded largely from the western side of the conservation area. Management of the conservation area, as identified in this CMP, will be consistent with the Principles and Practical Management Guidelines for protected areas of Golden Sun Moth (GSM) habitat in urban areas (Biosis Research 2011).

Inter-tussock spaces are considered important in assisting patrolling GSM males to locate GSM females displaying from a sedentary position. This is supported by observations of male moths showing a preference for relatively open areas with reduced biomass, suggesting females are in turn present in those areas (Gilmore et al. 2008).

Without some type of management, native grasslands and grassy woodlands of the Victorian Basalt Plains will develop dense swards of rank grass with few inter-tussock spaces. Biomass management is therefore an essential management requirement to maintain areas of GSM habitat in optimal condition.

The progress of habitat management works and its implications for threatened species will be monitored at defined intervals, generally annually (unless otherwise specified). Baseline monitoring data will be collected during the first spring after the conservation area is established (see the section on monitoring within this CMP).

Actions – Significant Species

21. Record, map and mark the locations of Matted Flax-lily within the conservation area.

22. Monitor Matted Flax-lily plants every second year; update marking and mapping as required and review management actions if losses are observed.

23. Undertake weed control in the vicinity of Matted Flax-lily plants by hand removal only. Herbicides must not be used within three metres of this species unless the specific herbicide is known not to impact this species.

24. Populations of GSM will be recorded opportunistically to document the ongoing presence and abundance of this species (see section on monitoring within this CMP).

2.10 Pest Plant and Animal Control

2.10.1 Pest Plants

Weed control must be undertaken in order to eliminate woody weeds and control all other high threat weeds. An annual Weed Control Plan, which will form part of the annual Works Plan, will be developed by the land manager. The Weed Control Plan will include:

- Mapping of the present weed situation and the priority zones for weed management actions for the 12 month period; and
- Text to correspond to the mapping which describes the weed issues and treatments required.

The flora values and revegetation zones identified by Figure 3 of this CMP provides a basis for development of this Plan. Control techniques are to be selected to minimise off-target damage and to facilitate the natural regeneration of native species. Weed levels will be monitored and management techniques adapted over time in response to site specific results.

Woody and high threat weed species for the conservation area are given in Table 1 and Table 2. These species are based on the survey conducted by Biosis Research in the preparation of this plan. Any other significant environmental weeds identified during the ongoing site monitoring must be added to these tables and must also be controlled.

Both species noted in Table 1 are all 'regionally controlled weeds' under the *Catchment and Land Protection Act 1994*. This means that landowners already have an obligation to 'take all reasonable steps to control and prevent the spread of these weeds on their land'.

The aim of weed control is to effectively eliminate these weeds. Fortunately the extent of woody weeds within the conservation area is limited and very few plants of either species were observed. These plants are to be located and destroyed within the first year of management. Follow-up control works will subsequently treat any reinvasion by these and any other woody weeds.

Table 1: High Threat woody environmental weeds within the conservation area

Name	Common name	Weed spread mechanism	Control and eradication
Crataegus monogyna	Hawthorn	Machinery, birds via faeces.	Hand-pull or dig up small bushes, use machinery to remove larger bushes. Cut and paint stems with neat herbicide
Lycium ferocissimum	African Box-thorn	Machinery, birds via faeces.	Hand-pull or dig up small bushes, use machinery to remove larger bushes. Cut and paint stems with neat herbicide

According to the DSEs Vegetation Quality Assessment Manual (DSE 2004) high threat weeds are defined as:

"introduced species (including non-indigenous 'natives') with the ability to out compete and substantially reduce one or more indigenous life forms in the longer term assuming on-going current site characteristics and disturbance regime."

Benchmarks for Ecological Vegetation Classes (EVCs) include lists of commonly occurring highly invasive and high impact weeds however these lists are not exhaustive. Additional species may be assigned 'high threat' status given the condition of the site and the threat posed by any observed weed species.

Table 2 provides a list of high threat weeds for control within the conservation area.

The emphasis for weed control is on **prevention of weed seed production** with the goals being:

- Eliminate all high threat woody weeds;
- Control high threat weeds (including grasses) to <1% of total vegetation cover; and
- Control all other weed species to <5% of total vegetation cover.

Hygiene of vehicles is important to ensure weed seeds are not transported into the conservation area. All individuals undertaking management activities or works within the conservation area must have a high standard of vehicle, plant and operator hygiene. All persons and their equipment will ensure all reasonable precaution is taken to avoid the transport of weed seeds into and within the conservation area by regular inspection and cleaning.

Weed control works will only be conducted by an appropriately experienced individual or organisation capable of differentiating between native and weed species and in selecting appropriate control techniques for each species targeted. Weed control must be undertaken every year.

Monitoring of weed control activities will be undertaken every second year, with high threat weeds and management actions adjusted as required.

Weed control works will be prioritised with works in and immediately adjacent to areas of significant vegetation being the highest priority. Areas of lower quality vegetation will be managed at a minimum to prevent weed seed production.

It is important to minimise soil disturbance during weed control activities to prevent opportunities for establishment of weed seed so mechanical removal should be avoided as far as possible. However, where high threat weeds occur in small populations, rapid manual removal will be considered.

Table 2: High threat herb/grass weeds within the conservation area

Name	Common name	Weed spread mechanism	Control and eradication
Agrostis capillaris	Brown-top Bent	Machinery and vehicles, adheres to animals and clothing, wind and water may also spread seed.	Burn and spot spray
Anthoxanthum odouratum	Sweet Vernal-grass	Machinery and vehicles, adheres to animals and clothing, wind and water may also spread seed.	Manual removal, spring burning, spot spray
Avena spp.	Oat	Animals, in fodder and grain, machinery.	Integrated weed management that utilises both chemical and biological control.
Carduus pycnocephalus	**Slender Thistle**	**Herbaceous, wind blown seed.**	**Spot spray, hand chip and subsequent revegetation with native species**
Cirsium vulgare	**Spear Thistle**	**Herbaceous, wind blown seed.**	**Spot spray, hand chip and subsequent revegetation with native species**
Cynara cardunculus	**Artichoke Thistle**	**Wind blown.**	**Spot spray, hand chip and subsequent revegetation with native species.**
Cynodon dactylon	Couch	Water, animals and birds.	Combination of burning and herbicide application.
Dactylis glomerata	Cocksfoot	Rhizomes and stolons, and by seed.	Dig up plants, slash or burn clumps and spray regrowth with herbicide. Follow-up with seedling control over following years.
Helminthotheca echioides	Ox-tongue	Machinery and vehicles, adheres to animals and clothing, wind and water may also spread seed.	Remove isolated plants by hand. Spray small areas with herbicide in winter each year.
Lolium spp.	Rye-grass	Fur of animals, birds via faeces, machinery and cars.	Herbicide spraying with a range of herbicides, burning.
Marrubium vulgare	**Horehound**	**Generally by fruit with hooks that attach to wool, fur, bags and other material, and water.**	**Integrated weed management including competition from native species, burning, and chemical control.**
Nassella hyalina	Cane Needle-grass	Clothing, fur, machinery, movement of contaminated soil.	Herbicide use, exhaust seed bank by burning and out compete with native species
Nassella neesiana	Chilean Needle-grass	Wind, machinery and vehicles, wool and clothing, water, mud and in the faeces of animals.	Stage competitive removal and replacement with native species. Persistent herbicide application and burning.
Nassella trichotoma	**Serrated Tussock**	**Wind blown.**	**Spot spray and competitive replacement through revegetation of native species.**
Phalaris aquatica	Toowoomba Canary-grass	Seed and rhizomes.	Burn the infestation and then treat regrowth with herbicide.
Plantago lanceolata	Ribwort	Seed.	Spot spray with herbicide.

In accordance with Section 2.9; weed control within 3 metres of Matted Flax-lily plants will be predominantly by hand only. Herbicides use is to be excluded within three metres of this species unless the herbicide is know not to impact on this species.

Slashing must also be avoided where possible due to the high risk of spreading weed seed, particularly from Needle-grasses. Where slashing cannot be avoided (e.g. along control lines in preparation for an ecological burn), great care must be taken to avoid these easily-spread, high threat weeds. Post-slashing, all plant

material must be removed from the site, taking care not to spread weed seed or disturbing the soil surface. The Weed Control Plan is to incorporate advice around the appropriate slashing approach.

The conservation area will be monitored for any new high threat weeds and management actions updated as required.

Actions – Weed Control

25. Develop the annual Weed Control Plan (part of the Annual Works plan).

26. Undertake weed control activities as specified in the plan.

27. Monitor weed control works; update the list of high priority weeds and control regime as required.

28. Update the Weed Control Plan annually, including mapping of priority control zones.

2.10.2 Introduced Pest Animals

The control of vermin including rabbits and other pest herbivores beyond the legal duty of care is a requirement of this CMP. Therefore pest animal control works are required within the conservation area. Grazing by European Rabbits *Oryctolagus cuniculus* and European Hares *Lepus europeaus* is evident and is likely to have a significant impact within the conservation area. Control will in part be achieved through the removal and destruction of the shelter provided by shrubby weeds such as African Box-thorn and dismantling of rock dumps (Plate 3). The control of rabbits will be guided by the best available resources (i.e. http://www.feral.org.au/rabbits-a-threat-to-conservation-and-natural-resource-management/) and be conducted in a persistent and ongoing manner. Assessment of the need to control rabbits and hares must be conducted at least annually. Control works will generally be achieved by a poisoning program using Pindone. As Hares may be difficult to poison shooting needs to be considered as a control method if this species persists and is considered problematic.

Predation by European Red Fox is listed as a key threatening process under the *Flora and Fauna Guarantee Act* 1988. Similarly predation by domestic cats has the potential to have a significant impact on indigenous fauna. Control of both of these pest predators will be a key requirement of this CMP and will be guided by the best available resources (i.e. http://www.feral.org.au/).

Populations of rabbits, hares, foxes and cats will be kept as low as possible and the presence of any individuals detected by regular monitoring will generate an action to control these species. Monitoring for these pest species will occur at

least on an annual basis and control measures taken as indicated by the monitoring results.

Old River Red-gums within the conservation area provide hollows and nesting resources for native fauna. It is possible that some of these hollows may be occupied seasonally by introduced bees or introduced birds. Opportunistic observations of tree hollows should be undertaken at the time of other pest animal control works to locate and remove these introduced species where found.

A survey to determine the presence and extent of pest animals within the conservation area will be undertaken in the first year to determine species to be targeted for management. Control of pest animals within the conservation area will be undertaken by an experienced pest controller. The control program will be reviewed every second year and amended as required to ensure appropriate species are being targeted and control strategies used. The control program will also have consideration to the ongoing requirements for native mammals to occupy or move through the conservation area. Surveys to determine the presence and extent of pest animal populations will be conducted every six months.

2.10.3 Indigenous Pest Species

It is highly likely that a number of indigenous fauna will become problematic give the isolated and modified nature of the conservation area. Species such as Eastern Grey Kangaroos *Macropus giganteus*, Brush-tail Possums *Trichosurus vulpecula* and Noisy Miners *Manorina melanocephala* may expand their populations due to a lack of predators and other environmental conditions which favour these species. However, it is not expected that this would occur within the first ten year management period covered by this CMP.

The removal of artificial watering points such as farm dams may assist in maintaining populations of Eastern Grey Kangaroos at sustainable levels. This will therefore be a priority action to be conducted in the first year the conservation area is established over relevant areas.

Populations of potentially problematic indigenous species need to be monitored annually and if unstainable numbers occur then appropriate management actions will be determined.

Actions – Pest Animal Management

29. Undertake pest animal survey during the first year of management to determine species to target for management within the conservation area.

30. Control pest animals within the conservation area as required.

31. Monitor pest animals within the conservation area annually and modify/initiate the control regime as required.

32. Monitor populations of potentially problematic indigenous species annually and determine if management actions are required. Prepare a separate Kangaroo Management Plan the content of which will be consistent with the management objectives of this CMP. Implement any actions needed to maintain improvements in the ecological condition of the conservation area.

2.11 Biomass Control

Biomass reduction is essential to maintain indigenous flora and fauna values throughout the conservation area, as well as providing protection from wildfire (through fuel reduction) and enhancing aesthetic values. Where there is a sustained build up in ground cover biomass over any one year, biomass will need to be actively reduced.

Burning is an efficient and cost-effective technique for reducing biomass in grassy ecosystems such as those that occur within the conservation area. Importantly, burning (c.f. slashing) allows greater access and efficiency for weed control, increased natural regeneration of indigenous understorey plant species and intuitively enhances habitat values for GSM. While burning may enhance germination of indigenous species, it can also be expected to promote certain exotic species (e.g. Needle-grasses), and as such post-burning weed-control will be vital in maintaining remnant vegetation. However stimulating the soil stored weed seed bank is seen as positive as this allows this seed bank to be exhausted through active management.

The controlled application of fire will be used for biomass reduction in the Mount Ridley Woodland Conservation Area. While all of the conservation area will not be burnt every year, it is expected that any area will be burnt at a frequency that maintains a suitable habitat structure to maintain a species rich ground cover within this area of Grassy Eucalypt Woodland. Maintaining an open tussock structure will also be beneficial for species such as Matted Flax-lily and GSM. Management burns will not be conducted in a manner which would be expected to negatively impact on the GSM population as a whole. Areas may be burnt during the GSM flight season but this will largely focus on priority weed control areas.

Ecological burns will be conducted during benign weather conditions and may be patchy (i.e. not result in the uniform burning of all areas). Patchy burns are a desirable outcome and areas not burnt within a planned burn are taken as burnt in the context of this plan. Management action will therefore not be required to target such unburnt patches in order to achieve the overall goal of burning all

areas of the conservation area within a period of four years. Such unburnt patches (areas with low biomass) could therefore potentially remain unburnt for longer periods.

The preference for ecological burning is to generate a mosaic of fuel loads generated from a number of management fires applied in any one year. Rather than burning one quarter of the conservation area at one time in any particular year, the preference would be to have numerous smaller burns spread out in either time or space or both. The goal of burning all of the conservation area every four years should be more of a general goal rather than a compulsory management target. Drought conditions may generate a situation where biomass doesn't build up quickly or seed set may be poor. This type of situation could allow less burning. However, burning some areas more frequently is unlikely to be problematic although burning any one area very frequently (i.e. every year for year after year) is to be avoided.

Burning within the conservation area is most likely to require the establishment of fire-break infrastructure. Slashing two metre wide firebreaks will occur along each side of pathways established within the conservation area. Firebreaks for the perimeter of the conservation area will be established where required and need to meet any prescribed minimum standards (set by either council or another relevant authority) and would ideally be maintained in association with a perimeter pathway. Where the conservation area is adjacent to other areas of public open space (i.e. playing fields), normal maintenance of these areas will provide the required firebreak and no additional infrastructure will be required to be maintained within the conservation area. Where an acceptable firebreak cannot be maintained within the buffer zone the balance of any minimum firebreak must be provided outside of the conservation area.

Tree stumps, logs and stags all provide habitat value for native fauna. Precautions (such as wetting down or managing fuel around these features) should be taken to protect these habitat features from being consumed during ecological burns.

Burning under the high tension power-lines will be conducted in a manner which does not impact on the operation of this infrastructure and in a manner consistent with any regulatory guidelines. Generally this will be conducted during wind conditions which will rapidly move smoke away from the power-line easement and not impact on the power-lines themselves. If burning in this area is prohibited or otherwise impractical, this area may be subject to slashing to provide biomass control.

Note, slashing is generally not considered an appropriate means of controlling biomass in the conservation area, due to the high risk of spreading seeds of high threat weeds (particularly Needle-grasses). Where slashing cannot be avoided

(e.g. along control lines in preparation for an ecological burn), care must be taken to avoid these easily-spread, high threat weeds. The Weed Control Plan is to incorporate advice around the appropriate slashing approach.

Burning is also expected to control the broad-acre regeneration of River Red-gum. While some regeneration of this canopy species is desirable, in the absence of fire this species is likely to reproduce prolifically and produce dense stands of small saplings. This is undesirable as dense regeneration provides a more significant fire hazard, is likely to have an adverse impact on mature trees and is also likely to suppress the species richness of the ground-cover.

The conservation area currently supports a density of large old trees (LOTs) roughly equivalent to the benchmark for this ecological vegetation class (8/ha). The mortality of these trees is expected to be relatively low, but some recruitment is ecologically desirable to cater for some level of mortality. Some sections of the conservation area also have a relatively low density of trees and low levels of recruitment are desirable to maintain the open grassy woodland nature of the site.

Relatively small trees are capable of surviving the low intensity ecological burns as are the LOTs present. However, small saplings and seedlings are expected to be killed. As a target **no more than** 16 small to medium sized saplings per hectare is considered appropriate recruitment in this environment. A lower figure is appropriate but 1 tree per hectare should be treated as the minimum. Recruitment over and above this level which is not controlled by ecological burning will be cut down and, if necessary, painted with herbicide to prevent the broad-acre development of a dense, young stand of eucalypts. Samplings should be identified for retention and protected if required from any deleterious management actions. All other saplings which reach a stage where they are not removed by the ecological burning regime will be controlled as part of the weed control program.

Actions – Biomass Control

33. The land manager for the conservation area will evaluate the need for biomass control at least an annual basis. This evaluation process will generally occur in late spring, to provide the best assessment of likely biomass levels.

34. Develop an annual burn plan to biomass reduce targeted areas including notification of parties that may be directly affected by the impacts of the burn such as nearby residents, businesses and community organisations and submit to DSE with annual reporting.

35. Incorporate post-burn targeted weed control as part of the annual burn plan. This will include the control of excessive eucalypt regeneration.

36. Develop a plan for the area to be burnt in time to complete any required approval process (i.e. obtaining council permits, acceptance of the plan by DSE).

37. Establish a slashed fire-break on the margin of the conservation area if required by Hume City Council.

2.12 Supplementary Planting and Revegetation

During the initial ten year period of this CMP, areas of degraded vegetation will be subject to revegetation (approximately 25 ha) and rehabilitation works.

Supplementary planting may also be required in areas of remnant vegetation where natural recruitment is limited (e.g. in weed control areas) or where lifeform densities within EVCs are below relevant DSE benchmark thresholds (provided in Appendix 2). Many species indigenous to these woodlands are also locally extinct and their re-introduction is likely to increase the diversity and resilience of the Grassy Eucalypt Woodland ecosystem.

To improve the health and viability of the conservation area as a whole, intensive restoration of the understorey in degraded areas (approximately 25 ha) will be required in areas where weeds are dominant (i.e. areas not mapped as patches of native vegetation in Figure 2). While the focus of revegetation works during the first ten years of this CMP will be to establish an indigenous grassy ground cover, revegetation works will, at a minimum, also establish understorey trees and medium and small shrubs to a standard defined by the DSE revegetation planting standards (DSE 2006). No planting of River Red-gums *Eucalyptus camaldulensis* is required as recruitment of this species is considered adequate.

Establishing a grassy groundcover in this environment is best achieved through direct seeding. Locally indigenous seed may be available from commercial sources but is otherwise best collected from within the conservation area or other nearby areas dominated by native grasses. The area required to be revegetated is relatively large. It is therefore proposed to achieve the revegetation requirement in a stage approach with a revegetation target of four hectares per year. The roughly 24 hectares of revegetation will therefore be completely established by the end of 7 years of revegetation works (the first year is required to collect seed).

The amount of seed to be collected each year to provide for the revegetation of 4 ha will be determined in consultation with an experienced land manager or an appointed ecologist. However it is initially estimated that a target of four grass plants per square metre is an appropriate planting target.

The revegetation standard, guided by the Plains Grassy Woodland ecological

vegetation class benchmark, requires the establishment of the following plants for the understorey of Plains Grassy Woodland within the Victorian Volcanic Plain Bioregion:

- 50 understorey trees or large shrubs per hectare using at least one species;
- 400 medium shrubs per hectare using at least three species; and
- 100 small shrubs per hectare using at least two species.

Small areas within these degraded portions of the conservation area identified for pathways, interpretive infrastructure and more intensive recreation (i.e. a barbeque facilities) would not be subject to revegetation works but will be designed to exclude any non-indigenous plantings (including any areas maintained as lawn) and disturbed ground will be rehabilitated after construction is completed. Rehabilitation will generally involve the establishment of a suitable indigenous grassy groundcover.

To determine requirements for supplementary planting within patches of remnant vegetation; Vegetation Quality Assessment density data provided by SMEC (2011) should be compared to the applicable DSE benchmark. Where the occurrence of various life-forms are absent from remnant native vegetation and where natural recruitment is limited, supplementary planting of species representing those life-forms will be required. Supplementary planting may be achieved by direct seeding within patches of Plains Grassy Woodland but will most likely require the planting of seedlings within areas requiring complete revegetation.

The objective of supplementary plant will not be to achieve a defined cover of particular life-forms but to establish populations of uncommon or locally extinct plants which would otherwise have been expected to occur in this woodland. On going active ecological management would then provide a favourable environment for the natural expansion of these populations into vacant niches. This process then adds to the ecological resilience of the woodland and occupies habitat otherwise available to weeds. Supplementary plant is therefore expected to be an effective weed control mechanism.

Supplementary planting will target establishing 2000 plants per annum within selected 5 ha areas. Species targeted for supplementary plants will use the abovementioned criteria and use Appendix 3 as a guide to the species selection process. Species may be added to this list if it is considered that they did occur naturally within this environment. Species considered suitable for supplementary planting must be approved by DSE.

Supplementary planting and / or revegetation is to occur during autumn of the second year. Additional planting will be undertaken every second autumn thereafter when monitoring determines additional planting is required to achieve

benchmark densities. Species suitable for supplementary planting / revegetation are listed in Appendix 3. Monitoring of the supplementary planting / revegetation strategy will be undertaken every second year focused on reviewing densities against applicable DSE benchmarks.

Actions - Revegetation

38. Undertake supplementary planting / revegetation as required (see Table 3).

39. Monitor the supplementary planting / revegetation strategy and undertake additional planting as required to achieve benchmark densities.

2.13 Fauna Values

The only known fauna survey within the conservation area to date was undertaken by SMEC as part of the Growth Areas Authority surveys during 2009. Species recorded during that survey are included in Appendix 4.

The species list is to be updated as new species are recorded as incidental observations while completing other actions within the conservation area. Management actions may require modification as new species are identified within the conservation area to ensure their habitat is appropriately maintained / enhanced.

Areas of Plains Grassy Woodland contain potentially suitable habitat for the nationally significant Golden Sun Moth *Synemon plana*, a critically endangered species listed under the EPBC Act. It is also assumed that Striped Legless Lizard *Delma impar* is present. None of the management actions proposed in this plan are likely to have a negative impact on either of these species if they area present. The maintenance of suitable vegetation structure for Golden Sun Moth will occur as part of the conservation area management to maintain this remnant of Grassy Eucalypt Woodland.

All embedded rocks within the conservation area will be maintained for its habitat value except where rocks on management tracks are considered an impediment to management vehicles. Where this is the case, rocks are to be relocated to an appropriate location, determined by the land manager.

The large trees present within the conservation area are important for providing fauna nesting and refuge sites. Fallen logs and branches and leaf litter provide important structural fauna habitat components within the woodland and will be retained.

Actions - Fauna Values

40. Update the fauna species lists as new species are recorded. If additional state or nationally significant species are recorded modify management actions if appropriate in accordance with the ecological requirements of these species.

2.14 Monitoring

The progress of management works and its implications for the conservation area will be monitored at defined intervals as required by the approved DSE net gain offset monitoring protocols. Management actions will be updated as required, with a formal review of this management plan undertaken within 10 years.

Any reports evaluating the response of the conservation area to management and monitoring the populations of threatened species present will be provided to DSE within a month of the collection of the relevant monitoring data. However, all data collected for the site will be collated by the land manager for this Conservation Area. This data will provide the basis for initiating or changing management actions. Where any such change requires DSE or other external approval, the interpretation of that data (and the data itself if that authority is not DSE) will be provided to the relevant authority.

2.14.1 Golden Sun Moth Monitoring

Populations of GSM will be monitored opportunistically to determine the ongoing presence of this species. This could include surveys by a Friends Group or other volunteer group. Surveys aiming to detect the numbers of GSM present will follow accepted survey protocols where possible.

The flying season around Melbourne can vary between early November to mid-December and late November to early January. In years with a cold, wet spring, adult moths may not start flying until early December and continue until mid to late January. Because of the variability in the timing of the flying season, people working within the conservation area need to be aware of the potential to observe this species from late October to the end of January.

Adult male Golden Sun Moths will fly about 1 m above the ground in bright sunlight during the warmest part of the day (1000–1400 hrs, above 20 °C), and when cloud cover and wind are minimal. Despite their display behaviour, adult female Golden Sun Moths prove extremely difficult to survey. Any surveys should therefore target flying males, but aim to record females if detected.

Actions – Golden Sun Moth Monitoring

41. Monitor the population of GSM during the flight season on an opportunistic basis and submit results to DSE.

42. If results suggest that the population is declining, formal monitoring is advisable to help determine the condition or extent of the population. Existing management prescriptions may need to be modified if the species declines within the conservation area. This would need to be done in consultation with DSE.

2.14.2 General Monitoring and Reporting

General supervision/monitoring of the ecological response of the woodland to management actions will be undertaken to ensure those actions have met the objectives and goals outlined by this plan. This will require regular site inspections that will be completed roughly every three months.

For the purpose of measuring the progress of management works and implications for threatened species, monitoring will take place at defined intervals, in general annually (unless otherwise specified above). Monitoring tasks will include the establishment of at least 30 permanently marked photo monitoring points. These will be established and marked with a GPS to be accurately located by GPS or similar within the conservation area. Photo points will be placed to cover a range of habitats and management issues including revegetation areas, a range of weed infestations and different vegetation patches. Information collected at these sites will include assessments of biomass, the abundance of weeds and the diversity of plant species observed.

Baseline Quality Assessment data for each patch of remnant vegetation will be based on the DSE time-stamping data. Vegetation quality comparisons with this baseline data will be undertaken every year. Vegetation quality should remain within 10% of the baseline data or otherwise be higher and improve in condition after every assessment.

The monitoring protocol is to be approved by DSE.

Actions – General Monitoring

43. Document a monitoring protocol for approval by DSE which can measure net gain as well as measure progress against the objectives and goals of this CMP from Year 0 onwards.

44. Collect further baseline spring vegetation monitoring data using photo points (established as per specifications, above) and general narrative data on the condition of each patch of native vegetation within the conservation area,

during spring of Year 1.

45. The results of the current year's management actions in relation to the annual management objectives will be reviewed by the end of June each year. Short inspections to monitor management progress will be completed every three months.

46. An annual management review will develop the annual works program. This works program will be prepared by the end of June each year. The plan will include achievable management objectives consistent with this management plan. The works program for the coming year will also address issues that may not have been anticipated in formulating this original management plan.

47. Annual progress reports, including species monitoring results and any other relevant information pertaining to management outcomes will be prepared by the land manager and provided to DSE. A copy of the report must be provided to the Secretary of DSE.

48. The land manager or a contracted ecologist will complete a formal update of the management plan at the end of 10 years to provide for the next 10 year period.

49. Initiate the implementation of the revised CMP for the next 10 year period.

3.0 IMPLEMENTATION SCHEDULE

The Implementation Schedule (Table 3 below) provides a guide as to when and by whom a management action will be undertaken for the Mount Ridley Woodland Conservation Area.

Table 3. Implementation Schedule

Numbering of actions is for recording purposes and does not indicate the order of actions. When preparing a yearly plan all actions should be included in the relevant order for that year. Note that the responsibility of these actions falls to the land owner (or public authority, if the land is transferred to the Crown through an agreement with funds provided). Where the conservation area is subsequently transferred to a new landowner/public authority the responsibility for these actions is transferred to the new owner/public authority.

Acronyms

PC Pre-construction
C Construction
AC After construction

Year 0

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
0.1	Establish and secure the conservation area	None	PC This action is a key requirement defining the start of the prescribed management period	conservation area within each title	-	Landowner or public land manager (if land has been transferred to Crown)	Secure conservation area (refer Section 2.1). Confirm management actions and prescribe person responsible for complying with the CMP (if other than the landowner) and provide appropriate funding
0.2a	Establish fencing (temporary or permanent) and any sediment control measures to protect the conservation area from any construction impacts	None	PC This action is a key requirement defining the start of the prescribed management period	-	-	Landowner or public land manager (if land has been transferred to Crown)	Site isolated from activities excluded by this plan (i.e. construction works, grazing by domestic stock). Fencing erected as per requirements of Section 2.4.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
0.2b	Establish management vehicle tracks and pathways as per guidelines in Section 2.4 and Figure 2 of this CMP.	None	PC, C	-	-	Landowner or public land manager (if land has been transferred to Crown).	Management vehicles are able to use vehicle tracks.
0.3	Install signage that clearly identifies the conservation area as a no-go zone during the construction period and provides a contact number for any enquiries	None	PC Immediate (signage), Continuous (inspection and maintenance)	1 for every 100 m of fenceline	Sign	Landowner or public land manager (if land has been transferred to Crown)	Conservation area clearly identified as a no-go zone during construction.
0.4	If required, contract a Managing Ecologist and/or Native Vegetation Contractor	None	PC One of the first actions associated with initiating an offset plan	-	-	Landowner or public land manager (if land has been transferred to Crown)	Appropriate and qualified personnel/consultant/contractor appointed to conduct and monitor works
0.5	Design proposed subdivision consistent with the requirements of this CMP	None	PC	-	-	Landowner or public land manager (if land has been transferred to Crown)	Design as per Section 2.2

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
0.6	Design and implement a process for communicating information about the presence and function of the conservation area to all parties working on or adjacent to the site	None	PC, C, AC Immediate (develop process), Continuous (ongoing communication)	-	-	Landowner or public land manager (if land has been transferred to Crown)	All personnel working in the PSP are aware of the conservation area location and status as a no go area Awareness of the conservation area and sediment control requirements are incorporated into all relevant construction documentation including environmental management and safety plans. Appropriate site induction for contractors/visitors
0.7	Land manager or appointed ecologist to undertake baseline monitoring, weed mapping, establish monitoring points and refine management actions based on baseline results as outlined in Section 2.14. Update flora/fauna lists where appropriate. Conduct ecological site inspections every 3 months	None	PC, C, AC Nov-Dec monitoring, Site inspections every 3 months	-	-	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard report including photos, weed distribution maps and confirm agreed performance measures outlined in Section 2.10. 4 short site inspection reports
0.8	Supply the CMP to the relevant manager of the high tension power-line and reach a management consensus for the power-line easement.	None	PC, C	-	-	Landowner or public land manager (if land has been transferred to Crown).	Agreement for management of the power-line easement.
0.9	Decommission the existing two farm dams (timing to be consistent with the requirements of the Kangaroo Management Plan).	None	PC, C	-	-	Landowner or public land manager (if land has been transferred to Crown).	Dams are not providing a water source for kangaroos.

Start Year 1

Year 1

Table 3: Conservation management actions (cont.)

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
1.1	Seek approval of burn plan in consultation with the local CFA/DSE branch that ensures all patches are burnt when they are planned.	None	PC,C, AC By end of January	conservation area within each title or entire reserved area	-	Landowner or public land manager (if land has been transferred to Crown)	Burn plan approved by January and all permits obtained
1.2	Land manager to develop annual works plan	0.1	PC, C, AC Start date to June			Landowner or public land manager (if land has been transferred to Crown)	Annual works plan prepared and approved for implementation
1.3	Maintain fences in good working order. Remove all internal fencing and other rubbish present within the conservation area.	0.2	C, AC Continuous (inspection and management)	-	-	Landowner or public land manager (if land has been transferred to Crown)	Potential threats (i.e. domestic stock, unauthorised entry) excluded; Internal fencing and other rubbish removed from conservation area
1.4	Spot spray all high threat grass / herb weeds before seed set using appropriate herbicide. Control total cover of weeds while limiting impacts on GSM.	-	PC,C, AC July - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Year 1 target includes reduce cover of High threat weeds by 30% No increase in cover of other weeds beyond baseline levels. Minimum off-target damage

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
1.5	Eliminate all high threat woody environmental weeds (cut and paint). This will include excessive eucalypt regeneration.	-	PC,C,AC Jan - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Complete first treatment of ALL shrubby weeds (Table 1) Maintain a maximum density of 16 sapling River Red-gums per hectare
1.6	Assess pest animals (e.g. rabbits, hares, foxes and cats) within the conservation area and surrounding area (within 500m of the conservation area where possible). Remove pest animal warrens and redistribute rock piles, as per Section 2.5.	None	PC, C,AC Sept – Nov Feb – Apr	-	-	Landowner or public land manager (if land has been transferred to Crown)	Low levels of pest animals within the conservation area. No active rabbit warrens present within conservation area, minimal surface harbour for rabbits and hares present.
1.7	Evaluate ground cover biomass.	None	PC,C, AC Spring	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Maintain an open tussock grassy ground cover and ensure areas with high levels of dead weeds are burnt.
1.8	Collect propagation material for supplementary planting and revegetation works. Source locally indigenous tubestock.	None	PC,C, AC Sept - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Enough material to plant out five ha of revegetation works in year 2
1.9	Burn areas of the conservation area as per burn plan	-	PC,C, AC Autumn (at least 6 weeks after the end of the GSM flight season)	About 28	ha	Landowner or public land manager (if land has been transferred to Crown)	Areas within the conservation area to be burnt (or frequency adapted as appropriate as specified in the approved burn plan).

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
1.10	Review and update Annual Work Plan. Review mapping of priority weeds near the end of the management Year.	-	PC,C, AC June	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown).	Following years management tailored to current site conditions. New weed priority area maps available.
1.11	Prepare annual report on management works based on site inspections conducted throughout the year. Update flora/fauna inventory as appropriate.	-	PC,C, AC June	1	report	Landowner or public land manager (if land has been transferred to Crown)	Report reviewing the success of management and level of implementation of CMP provided to DSE
1.12	Advise staff/contractors of the likely times GSM could be observed. Collate any data collected opportunistically on the presence of GSM.	None	PC Nov - December	NA	-	Landowner or public land manager (if land has been transferred to Crown)	Document the number of GSM, location and date for opportunistic observations
1.13	Repeat photo point monitoring and prepare monitoring report on site condition and the implementation of CMP Report provided to DSE and Council	-	PC,C Nov-Dec	1	report	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard conservation area monitoring report including photos and confirm agreed performance measures outlined in Section 2.13.
1.14	Review environmental induction process by construction companies within the PSP. Ensure workers within the PSP have been inducted	0.6	PC, C Continuous	1	Precinct	Landowner or public land manager (if land has been transferred to Crown)	All workers within the PSP are aware of the location of the conservation area and its status as a NO GO area and are also aware of sediment control requirements. Note that this action is relevant for every year that construction activities occur within the PSP even though it is not repeated in this schedule.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
1.15	Establish signage around the conservation area perimeter fence identifying the site as a conservation area, and detailing prohibited uses (as specified in Section 2.6).	-	AC Maintain signage into perpetuity.	1 for every public and management access point	Sign	Landowner or public land manager (if land has been transferred to Crown).	Interpretive signage and prohibited uses signage both clearly displayed.

End of Year 1.

Year 2

Table 3: Conservation management actions (cont.)

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
2.1a	Spot spray all high threat grass / herb weeds before seed set using appropriate herbicide. Control total cover of weeds.	-	PC, C, AC July - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Year 2 target includes reduce cover of High threat weeds by 30% of their cover at end of year 1 No increase in cover of other weeds beyond baseline levels. Minimum off-target damage
2.1b	Eliminate all high threat woody environmental weeds (cut and paint). This will include excessive eucalypt regeneration.	-	PC,C,AC Jan - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Complete first treatment of ALL shrubby weeds (Table 1) Maintain a maximum density of 16 sapling River Red-gums per hectare
2.2	Assess pest animals (e.g. rabbits, hares, foxes and cats) within the conservation area and surrounding area. Implement control if needed.	1.3	PC,C,AC Sept – Nov Feb – Apr	-	-	Landowner or public land manager (if land has been transferred to Crown)	Absence of evidence of grazing/browsing by pest animals. Supplementary plantings not impacted by hares or rabbits.
2.3	Maintain fences in good working order and remove any rubbish.	1.2	PC, C AC Continuous (inspection and management)	-	-	Landowner or public land manager (if land has been transferred to Crown)	Potential threats (i.e. domestic stock, unauthorised entry) excluded and any rubbish removed.
2.4	Evaluate ground cover biomass.	None	PC, C AC Spring	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Maintain an open tussock grassy ground cover and ensure areas with high levels of dead weeds are burnt.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
2.5	Establish supplementary planting and collect additional material for replacement plantings. Establish 4 ha of revegetation works.	1.6	PC, C AC April - Dec	10k 4	Plants ha	Landowner or public land manager (if land has been transferred to Crown)	2000 plants per ha over 5 ha for supplementary planting and 4 ha direct seeded for revegetation.
2.6	Advise staff/contractors of the likely times GSM could be observed. Collate any data collected opportunistically on the presence of GSM.	1.7	PC Nov - December	NA	-	Landowner or public land manager (if land has been transferred to Crown)	Document the number of GSM, location and date for opportunistic observations
2.7	Undertake site monitoring, and refine management actions based on results as outlined in Section 2.13. Update flora/fauna inventory as appropriate. Conduct ecological site inspections every 3 months	1.1	C, AC Oct – Nov monitoring, Site inspections every 3 months	-	-	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard report including photos and confirm agreed performance measures outlined in Section 2.13. 4 short site inspection reports
2.8	Collect propagation material for supplementary planting and revegetation works.	1.6	C, AC Sept - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Enough material to plant out five hectare of revegetation works in Year 3 and supplement any deficiencies in previous revegetation works
2.9	Prepare a burn plan in consultation with the local CFA branch that ensures all patches are burnt when they are deemed to be structurally unsuitable for GSM (see Section 2.10).	-	C, AC By end of January	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Burn plan approved by January and all permits obtained

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
2.10	Burn areas of the conservation area as per burn plan	-	C, AC Autumn (at least 6 weeks after the end of the GSM flight season)	About 28	ha	Landowner or public land manager (if land has been transferred to Crown)	Areas within the conservation area to be burnt at least every second year
2.11	Review and update Annual Work Plan. Review mapping of priority weeds near the end of the management Year.	-	PC,C, AC June	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown).	Following years management tailored to current site conditions. New weed priority area maps available.
2.12	Prepare annual report on management works based on site inspections conducted throughout the year. Update flora/fauna inventory as appropriate.	-	C, AC June	1	report	Landowner or public land manager (if land has been transferred to Crown)	Report reviewing the success of management and level of implementation of CMP provided to DSE
2.13	Repeat photo point monitoring and prepare monitoring report on site condition and implementation of CMP	-	C, AC Nov-Dec	1	report	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard conservation area monitoring report including photos and confirm agreed performance measures outlined in Section 2.13.

End of Year 2.

Year 3

Table 3: Conservation management actions (cont.)

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
3.1a	Spot spray all high threat grass / herb weeds before seed set using appropriate herbicide. Control total cover of weeds.	-	C, AC July - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Year 3 target includes reduce cover of High threat weeds by 30% of their cover at end of year 2 No increase in cover of other weeds beyond baseline levels. Minimum off-target damage
3.1b	Eliminate all high threat woody environmental weeds (cut and paint). This will include excessive eucalypt regeneration.	-	PC,C,AC Jan - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Complete first treatment of ALL shrubby weeds (Table 1) Maintain a maximum density of 16 sapling River Red-gums per hectare
3.2	Control pest animals (e.g. rabbits, hares, foxes and cats) within the conservation area and surrounding area	2.2	C, AC Sept – Nov Feb – Apr	-	-	Landowner or public land manager (if land has been transferred to Crown)	Absence of evidence of grazing/browsing by pest animals. Supplementary plantings not impacted by hares or rabbits.
3.3	Maintain fences in good working order and remove any rubbish.	2.3	C, AC Continuous (inspection and management)	-	-	Landowner or public land manager (if land has been transferred to Crown)	Potential threats (i.e. domestic stock, unauthorised entry) excluded and any rubbish removed.
3.4	Evaluate ground cover biomass.	None	C, AC Spring	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Maintain an open tussock grassy ground cover and ensure areas with high levels of dead weeds are burnt.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
3.5	Establish supplementary planting and collect additional material for replacement plantings. Establish 4 ha of revegetation works.	2.5	C, AC April - Dec	10k 4	Plants ha	Landowner or public land manager (if land has been transferred to Crown)	2000 plants per ha over another 5 ha for supplementary planting. 80% survival of Year 2 plantings. A total of 8 ha direct seeded for revegetation.
3.6	Advise staff/contractors of the likely times GSM could be observed. Collate any data collected opportunistically on the presence of GSM.	2.6	PC Nov - December	NA	-	Landowner or public land manager (if land has been transferred to Crown)	Document the number of GSM, location and date for opportunistic observations
3.7	Conduct ecological site inspections every 3 months	2.7	C, AC Site inspections every 3 months	-	-	Landowner or public land manager (if land has been transferred to Crown)	4 short site inspection reports
3.8	Collect propagation material for supplementary planting and revegetation works.	2.8	C, AC Sept - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Enough material to plant out 5 hectare of revegetation works in year 4 and supplement any deficiencies in previous revegetation works
3.9	Prepare a burn plan in consultation with the local CFA branch that ensures all patches are burnt when they are deemed to be structurally unsuitable for GSM (see Section 2.10).	-	C, AC By end of January	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Burn plan approved by January and all permits obtained

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
3.10	Burn areas of the conservation area as per burn plan	-	C, AC Autumn (at least 6 weeks after the end of the GSM flight season)	About 28	ha	Landowner or public land manager (if land has been transferred to Crown)	Areas within the conservation area to be burnt at least every second year
3.11	Review and update Annual Work Plan. Review mapping of priority weeds near the end of the management Year.	-	PC,C, AC June	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown).	Following years management tailored to current site conditions. New weed priority area maps available.
3.12	Prepare annual report on management works based on site inspections conducted throughout the year. Update flora/fauna inventory as appropriate.	-	C, AC June	1	report	Landowner or public land manager (if land has been transferred to Crown)	Report reviewing the success of management and level of implementation of CMP provided to DSE
3.13	Repeat photo point monitoring and prepare monitoring report on site condition and implementation of CMP Report provided to DSE and Council	-	C, AC Nov-Dec	1	report	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard conservation area monitoring report including photos and confirm agreed performance measures outlined in Section 2.13.

End of year 3.

Year 4

Table 3: Conservation management actions (cont.)

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
4.1a	Spot spray all high threat grass / herb weeds before seed set using appropriate herbicide. Control total cover of weeds.	-	C, AC July - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Year 4 target includes reduce cover of High threat weeds by 30% of their cover at end of year 3 No increase in cover of other weeds beyond baseline levels. Minimum off-target damage
4.1b	Eliminate all high threat woody environmental weeds (cut and paint). This will include excessive eucalypt regeneration.	-	PC,C,AC Jan - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Complete first treatment of ALL shrubby weeds (Table 1) Maintain a maximum density of 16 sapling River Red-gums per hectare
4.2	Control pest animals (e.g. rabbits, hares, foxes and cats) within the conservation area and surrounding area	3.2	C, AC Sept – Nov Feb – Apr	-	-	Landowner or public land manager (if land has been transferred to Crown)	Absence of evidence of grazing/browsing by pest animals. Supplementary plantings not impacted by hares or rabbits.
4.3	Maintain fences in good working order and remove any rubbish..	3.3	C, AC Continuous (inspection and management)	-	-	Landowner or public land manager (if land has been transferred to Crown)	Potential threats (i.e. domestic stock, unauthorised entry) excluded and any rubbish removed.
4.4	Evaluate ground cover biomass.	None	C, AC Spring	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Maintain an open tussock grassy ground cover and ensure areas with high levels of dead weeds are burnt.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
4.5	Establish supplementary planting and collect additional material for replacement plantings. Establish 4 ha of revegetation works.	3.5	C, AC April - Dec	10k 4	Plants ha	Landowner or public land manager (if land has been transferred to Crown)	2000 plants per ha over another 5 ha for supplementary planting. 80% survival of Year 3 plantings. A cumulative total of 12 ha direct seeded for revegetation.
4.6	Advise staff/contractors of the likely times GSM could be observed. Collate any data collected opportunistically on the presence of GSM.	3.6	PC Nov - December	NA	-	Landowner or public land manager (if land has been transferred to Crown)	Document the number of GSM, location and date for opportunistic observations
4.7	Conduct ecological site inspections every 3 months	3.7	C, AC Site inspections every 3 months	-	-	Landowner or public land manager (if land has been transferred to Crown)	4 short site inspection reports
4.8	Collect propagation material for supplementary planting and revegetation works.	3.8	C, AC Sept - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Enough material to plant out five hectare of revegetation works in year 5 and supplement any deficiencies in previous revegetation works
4.9	Prepare a burn plan in consultation with the local CFA branch that ensures all patches are burnt when they are deemed to be structurally unsuitable for GSM (see Section 2.10).	-	C, AC By end of January	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Burn plan approved by January and all permits obtained

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
4.10	Burn areas of the conservation area as per burn plan	-	C, AC Autumn (at least 6 weeks after the end of the GSM flight season)	About 28	ha	Landowner or public land manager (if land has been transferred to Crown)	Areas within the conservation area to be burnt at least every second year
4.11	Review and update Annual Work Plan. Review mapping of priority weeds near the end of the management Year.	-	PC,C, AC June	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown).	Following years management tailored to current site conditions. New weed priority area maps available.
4.12	Prepare annual report on management works based on site inspections conducted throughout the year. Update flora/fauna inventory as appropriate.	-	C, AC June	1	report	Landowner or public land manager (if land has been transferred to Crown)	Report reviewing the success of management and level of implementation of CMP provided to DSE
4.13	Repeat photo point monitoring and prepare monitoring report on site condition and implementation of CMP	-	C, AC Nov-Dec	1	report	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard conservation area monitoring report including photos and confirm agreed performance measures outlined in Section 2.13.

End of year 4.

Year 5

Table 3: Conservation management actions (cont.)

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
5.1a	Spot spray all high threat grass / herb weeds before seed set using appropriate herbicide. Control total cover of weeds.	-	C, AC July - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Year 5 target includes reduce cover of High threat weeds by 30% of their cover at end of year 4 No increase in cover of other weeds beyond baseline levels. Minimum off-target damage
5.1b	Eliminate all high threat woody environmental weeds (cut and paint). This will include excessive eucalypt regeneration.	-	PC,C,AC Jan - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Complete first treatment of ALL shrubby weeds (Table 1) Maintain a maximum density of 16 sapling River Red-gums per hectare
5.2	Control pest animals (e.g. rabbits, hares, foxes and cats) within the conservation area and surrounding area	4.2	C, AC Sept – Nov Feb – Apr	-	-	Landowner or public land manager (if land has been transferred to Crown)	Absence of evidence of grazing/browsing by pest animals. Supplementary plantings not impacted by hares or rabbits.
5.3	Maintain fences in good working order and remove any rubbish..	4.3	C, AC Continuous (inspection and management)	-	-	Landowner or public land manager (if land has been transferred to Crown)	Potential threats (i.e. domestic stock, unauthorised entry) excluded and any rubbish removed.
5.4	Evaluate ground cover biomass.	4.4	C, AC Spring	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Maintain an open tussock grassy ground cover and ensure areas with high levels of dead weeds are burnt.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
5.5	Establish supplementary planting and collect additional material for replacement plantings. Establish 4 ha of revegetation works.	4.5	C, AC April - Dec	10k 4	Plants ha	Landowner or public land manager (if land has been transferred to Crown)	2000 plants per ha over 5 ha for supplementary planting. 80% survival of year 4 plantings and a cumulative total of 16 ha direct seeded revegetation.
5.6	Advise staff/contractors of the likely times GSM could be observed. Collate any data collected opportunistically on the presence of GSM.	4.6	PC Nov - December	NA	-	Landowner or public land manager (if land has been transferred to Crown)	Document the number of GSM, location and date for opportunistic observations
5.7	Undertake site monitoring, and refine management actions based on results as outlined in Section 2.13 Conduct ecological site inspections every 3 months	4.7	C, AC Oct – Nov monitoring, Site inspections every 3 months	-	-	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard report including photos and confirm agreed performance measures outlined in Section 2.13. 4 short site inspection reports
5.8	Collect propagation material for supplementary planting and revegetation works.	4.8	C, AC Sept - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Enough material to plant out five hectare of revegetation works in year 6 and supplement any deficiencies in previous revegetation works
5.9	Prepare a burn plan in consultation with the local CFA branch that ensures all patches are burnt when they are deemed to be structurally unsuitable for GSM (see Section 2.10).	-	C, AC By end of January	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Burn plan approved by January and all permits obtained

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
5.10	Burn areas of the conservation area as per burn plan	-	C, AC Autumn (at least 6 weeks after the end of the GSM flight season)	About 28	ha	Landowner or public land manager (if land has been transferred to Crown)	Areas within the conservation area to be burnt at least every second year
5.11	Review and update Annual Work Plan. Review mapping of priority weeds near the end of the management Year.	-	PC,C, AC June	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown).	Following years management tailored to current site conditions. New weed priority area maps available.
5.12	Prepare annual report on management works based on site inspections conducted throughout the year. Update flora/fauna inventory as appropriate.	-	C, AC June	1	report	Landowner or public land manager (if land has been transferred to Crown)	Report reviewing the success of management and level of implementation of CMP provided to DSE
5.13	Repeat photo point monitoring and prepare monitoring report on site condition and implementation of CMP Report provided to DSE	-	C, AC Nov-Dec	1	report	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard conservation area monitoring report including photos and confirm agreed performance measures outlined in Section 2.13.
5.14	Undertake a formal inventory of all flora in conservation area.		C, AC (Once every 5 years) Oct - December	1	list	Landowner or public land manager (if land has been transferred to Crown).	Addendum is added to this CMP with updated flora inventory.

End of year 5.

Year 6

Table 3: Conservation management actions (cont.)

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
6.1a	Spot spray all high threat grass / herb weeds before seed set using appropriate herbicide. Control total cover of weeds.	-	C, AC July - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Year 6 target includes reduce cover of High threat weeds by 30% of their cover at end of year 5 No increase in cover of other weeds beyond baseline levels. Minimum off-target damage
6.1b	Eliminate all high threat woody environmental weeds (cut and paint). This will include excessive eucalypt regeneration.	-	PC,C,AC Jan - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Complete first treatment of ALL shrubby weeds (Table 1) Maintain a maximum density of 16 sapling River Red-gums per hectare
6.2	Control pest animals (e.g. rabbits, hares, foxes and cats) within the conservation area and surrounding area	5.2	C, AC Sept – Nov Feb – Apr	-	-	Landowner or public land manager (if land has been transferred to Crown)	Absence of evidence of grazing/browsing by pest animals. Supplementary plantings not impacted by hares or rabbits.
6.3	Maintain fences in good working order and remove any rubbish..	5.3	C, AC Continuous (inspection and management)	-	-	Landowner or public land manager (if land has been transferred to Crown)	Potential threats (i.e. domestic stock, unauthorised entry) excluded and any rubbish removed.
6.4	Evaluate ground cover biomass.	None	C, AC Spring	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Maintain an open tussock grassy ground cover and ensure areas with high levels of dead weeds are burnt.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
6.5	Establish supplementary planting and collect additional material for replacement plantings. Establish 4 ha of revegetation works.	5.5	C, AC April - Dec	10k	Plants ha	Landowner or public land manager (if land has been transferred to Crown)	2000 plants per ha over another 5 ha for supplementary planting. 80% survival of Year 5 plantings. A cumulative total of 20 ha direct seeded for revegetation.
6.6	Advise staff/contractors of the likely times GSM could be observed. Collate any data collected opportunistically on the presence of GSM.	5.6	PC Nov - December	NA	-	Landowner or public land manager (if land has been transferred to Crown)	Document the number of GSM, location and date for opportunistic observations
6.7	Conduct ecological site inspections every 3 months	5.7	C, AC Site inspections every 3 months	-	-	Landowner or public land manager (if land has been transferred to Crown)	4 short site inspection reports
6.8	Collect propagation material for supplementary planting and revegetation works.	5.8	C, AC Sept - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Enough material to plant out five hectare of revegetation works in year 7 and supplement any deficiencies in previous revegetation works
6.9	Prepare a burn plan in consultation with the local CFA branch that ensures all patches are burnt when they are deemed to be structurally unsuitable for GSM (see Section 2.10).	-	C, AC By end of January	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Burn plan approved by January and all permits obtained

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
6.10	Burn areas of the conservation area as per burn plan	-	C, AC Autumn (at least 6 weeks after the end of the GSM flight season)	About 28	ha	Landowner or public land manager (if land has been transferred to Crown)	Areas within the conservation area to be burnt at least every second year
6.11	Review and update Annual Work Plan. Review mapping of priority weeds near the end of the management Year.	-	PC,C, AC June	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown).	Following years management tailored to current site conditions. New weed priority area maps available.
6.12	Prepare annual report on management works based on site inspections conducted throughout the year.	-	C, AC June	1	report	Landowner or public land manager (if land has been transferred to Crown)	Report reviewing the success of management and level of implementation of CMP provided to DSE
6.13	Repeat photo point monitoring and prepare monitoring report on site condition and implementation of CMP	-	C, AC Nov-Dec	1	report	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard conservation area monitoring report including photos and confirm agreed performance measures outlined in Section 2.13.

End of year 6.

Year 7

Table 3: Conservation management actions (cont.)

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
7.1a	Spot spray all high threat grass / herb weeds before seed set using appropriate herbicide. Control total cover of weeds.	-	C, AC July - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	<1% cover of High threat environmental weeds (Tables 1 & 2) to be maintained until the end of 10 years No increase in cover of other weeds beyond baseline levels. Minimum off-target damage
7.1b	Eliminate all high threat woody environmental weeds (cut and paint). This will include excessive eucalypt regeneration.	-	PC,C,AC Jan - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Complete first treatment of ALL shrubby weeds (Table 1) Maintain a maximum density of 16 sapling River Red-gums per hectare
7.2	Control pest animals (e.g. rabbits, hares, foxes and cats) within the conservation area and surrounding area	6.2	C, AC Sept – Nov Feb – Apr	-	-	Landowner or public land manager (if land has been transferred to Crown)	Absence of evidence of grazing/browsing by pest animals. Supplementary plantings not impacted by hares or rabbits.
7.3	Maintain fences in good working order and remove any rubbish..	6.3	C, AC Continuous (inspection and management)	-	-	Landowner or public land manager (if land has been transferred to Crown)	Potential threats (i.e. domestic stock, unauthorised entry) excluded and any rubbish removed.
7.4	Evaluate ground cover biomass.	None	C, AC Spring	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Maintain an open tussock grassy ground cover and ensure areas with high levels of dead weeds are burnt.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
7.5	Establish supplementary planting and collect additional material for replacement plantings. Establish 4 ha of revegetation works.	6.5	C, AC April - Dec	10k 4	Plants ha	Landowner or public land manager (if land has been transferred to Crown)	2000 plants per ha over another 5 ha for supplementary planting. 80% survival of Year 6 plantings. A cumulative total of 24 ha direct seeded for revegetation.
7.6	Advise staff/contractors of the likely times GSM could be observed. Collate any data collected opportunistically on the presence of GSM.	6.6	PC Nov - December	NA	-	Landowner or public land manager (if land has been transferred to Crown)	Document the number of GSM, location and date for opportunistic observations
7.7	Conduct ecological site inspections every 3 months	6.7	C, AC Site inspections every 3 months	-	-	Landowner or public land manager (if land has been transferred to Crown)	4 short site inspection reports
7.8	Collect propagation material to maintain supplementary plantings and revegetation works.	6.8	C, AC Sept - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Enough material to maintain the established revegetation works and supplement plantings
7.9	Prepare a burn plan in consultation with the local CFA branch that ensures all patches are burnt when they are deemed to be structurally unsuitable for GSM (see Section 2.10).	-	C, AC By end of January	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Burn plan approved by January and all permits obtained

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
7.10	Burn areas of conservation area as per burn plan	-	C, AC Autumn (at least 6 weeks after the end of the GSM flight season)	About 28	ha	Landowner or public land manager (if land has been transferred to Crown)	Areas within conservation area to be burnt at least every second year
7.11	Review and update Annual Work Plan. Review mapping of priority weeds near the end of the management Year.	-	PC,C, AC June	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown).	Following years management tailored to current site conditions. New weed priority area maps available.
7.12	Prepare annual report on management works based on site inspections conducted throughout the year. Update flora/fauna inventory as appropriate.	-	C, AC June	1	report	Landowner or public land manager (if land has been transferred to Crown)	Report reviewing the success of management and level of implementation of CMP provided to DSE
7.13	Repeat photo point monitoring and prepare monitoring report on site condition and implementation of CMP	-	C, AC Nov-Dec	1	report	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard conservation area monitoring report including photos and confirm agreed performance measures outlined in Section 2.13.

End of year 7.

Year 8

Table 3: Conservation management actions (cont.)

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
8.1a	Spot spray all high threat grass / herb weeds before seed set using appropriate herbicide. Control total cover of weeds.	-	C, AC July - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	<1% cover of High threat environmental weeds (Tables 1 & 2) to be maintained until the end of 10 years No increase in cover of other weeds beyond baseline levels. Minimum off-target damage
8.1b	Eliminate all high threat woody environmental weeds (cut and paint). This will include excessive eucalypt regeneration.	-	PC,C,AC Jan - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Complete first treatment of ALL shrubby weeds (Table 1) Maintain a maximum density of 16 sapling River Red-gums per hectare
8.2	Control pest animals (e.g. rabbits, hares, foxes and cats) within the conservation area and surrounding area	7.2	C, AC Sept – Nov Feb – Apr	-	-	Landowner or public land manager (if land has been transferred to Crown)	Absence of evidence of grazing/browsing by pest animals. Supplementary plantings not impacted by hares or rabbits.
8.3	Maintain fences in good working order and remove any rubbish..	7.3	C, AC Continuous (inspection and management)	-	-	Landowner or public land manager (if land has been transferred to Crown)	Potential threats (i.e. domestic stock, unauthorised entry) excluded and any rubbish removed.
8.4	Evaluate ground cover biomass.	None	C, AC Spring	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Maintain an open tussock grassy ground cover and ensure areas with high levels of dead weeds are burnt.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
8.5	Maintain supplementary plantings and collect additional material for replacement plantings. Maintain revegetation works.	7.5	C, AC April - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Maintained 80% survival of supplementary plantings. A cumulative total of 6 ha direct seeded for revegetation obtained and maintained.
8.6	Advise staff/contractors of the likely times GSM could be observed. Collate any data collected opportunistically on the presence of GSM.	7.6	PC Nov - December	NA	-	Landowner or public land manager (if land has been transferred to Crown)	Document the number of GSM, location and date for opportunistic observations
8.7	Conduct ecological site inspections every 3 months	7.7	C, AC Site inspections every 3 months	-	-	Landowner or public land manager (if land has been transferred to Crown)	4 short site inspection reports
8.8	Collect propagation material to maintain supplementary plantings and revegetation works.	7.8	C, AC Sept - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Enough material to maintain the established revegetation works and supplement plantings
8.9	Prepare a burn plan in consultation with the local CFA branch that ensures all patches are burnt when they are deemed to be structurally unsuitable for GSM (see Section 2.10).	-	C, AC By end of January	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Burn plan approved by January and all permits obtained

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
8.10	Burn areas of conservation area as per burn plan	-	C, AC Autumn (at least 6 weeks after the end of the GSM flight season)	About 28	ha	Landowner or public land manager (if land has been transferred to Crown)	Areas within conservation area to be burnt at least every second year
8.11	Review and update Annual Work Plan. Review mapping of priority weeds near the end of the management Year.	-	PC,C, AC June	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown).	Following years management tailored to current site conditions. New weed priority area maps available.
8.12	Prepare annual report on management works based on site inspections conducted throughout the year.	-	C, AC June	1	report	Landowner or public land manager (if land has been transferred to Crown)	Report reviewing the success of management and level of implementation of CMP provided to DSE
8.13	Repeat photo point monitoring and prepare monitoring report on site condition and implementation of CMP	-	C, AC Nov-Dec	1	report	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard conservation area monitoring report including photos and confirm agreed performance measures outlined in Section 2.13.

End of year 8.

Year 9

Table 3: Conservation management actions (cont.)

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
9.1a	Spot spray all high threat grass / herb weeds before seed set using appropriate herbicide. Control total cover of weeds.	-	C, AC July - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	<1% cover of High threat environmental weeds (Tables 1 & 2) to be maintained until the end of 10 years No increase in cover of other weeds beyond baseline levels. Minimum off-target damage
9.1b	Eliminate all high threat woody environmental weeds (cut and paint). This will include excessive eucalypt regeneration.	-	PC,C,AC Jan - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Complete first treatment of ALL shrubby weeds (Table 1) Maintain a maximum density of 16 sapling River Red-gums per hectare
9.2	Control pest animals (e.g. rabbits, hares, foxes and cats) within the conservation area and surrounding area	8.2	C, AC Sept – Nov Feb – Apr	-	-	Landowner or public land manager (if land has been transferred to Crown)	Absence of evidence of grazing/browsing by pest animals. Supplementary plantings not impacted by hares or rabbits.
9.3	Maintain fences in good working order and remove any rubbish.	8.3	C, AC Continuous (inspection and management)	-	-	Landowner or public land manager (if land has been transferred to Crown)	Potential threats (i.e. domestic stock, unauthorised entry) excluded and any rubbish removed.
9.4	Evaluate ground cover biomass.	None	C, AC Spring	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Maintain an open tussock grassy ground cover and ensure areas with high levels of dead weeds are burnt.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
9.5	Maintain supplementary plantings and collect additional material for replacement plantings. Maintain revegetation works.	8.5	C, AC April - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Maintained 80% survival of supplementary plantings. A cumulative total of 6 ha direct seeded for revegetation obtained and maintained.
9.6	Advise staff/contractors of the likely times GSM could be observed. Collate any data collected opportunistically on the presence of GSM.	8.6	PC Nov - December	NA	-	Landowner or public land manager (if land has been transferred to Crown)	Document the number of GSM, location and date for opportunistic observations
9.7	Conduct ecological site inspections every 3 months	8.7	C, AC Site inspections every 3 months	-	-	Landowner or public land manager (if land has been transferred to Crown)	4 short site inspection reports
9.8	Collect propagation material to maintain supplementary plantings and revegetation works.	8.8	C, AC Sept - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Enough material to maintain the established revegetation works and supplement plantings
9.9	Prepare a burn plan in consultation with the local CFA branch that ensures all patches are burnt when they are deemed to be structurally unsuitable for GSM (see Section 2.10).	-	C, AC By end of January	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Burn plan approved by January and all permits obtained

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
9.10	Burn areas of conservation area as per burn plan	-	C, AC Autumn (at least 6 weeks after the end of the GSM flight season)	About 28	ha	Landowner or public land manager (if land has been transferred to Crown)	Areas within conservation area to be burnt at least every second year
9.11	Review and update Annual Work Plan. Review mapping of priority weeds near the end of the management Year.	-	PC,C, AC June	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown).	Following years management tailored to current site conditions. New weed priority area maps available.
9.12	Prepare annual report on management works based on site inspections conducted throughout the year. Update flora/fauna inventory as appropriate.	-	C, AC June	1	report	Landowner or public land manager (if land has been transferred to Crown)	Report reviewing the success of management and level of implementation of CMP provided to DSE
9.13	Repeat photo point monitoring and prepare monitoring report on site condition and implementation of CMP	-	C, AC Nov-Dec	1	report	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard conservation area monitoring report including photos and confirm agreed performance measures outlined in Section 2.13.
9.14	Undertake a hydrological assessment of the Conservation Area in order to inform the ecological requirements for the next ten year plan.	-	C, AC June	1	Brief report	Landowner or public land manager (if land has been transferred to Crown).	Ten year plan has been updated in consideration of hydrological advice.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
9.15	Revise the CMP to the satisfaction of DSE for the next 10 year management period, identify resources for that management period and continue to implement active ecological management. Many management requirements will enter an ongoing maintenance stage and this will be clearly documented in the revised CMP for the next 10 year period. Ongoing ecological management guided by this CMP is an on-going permanent requirement for this Conservation Area.	-	C, AC June	1	CMP	Landowner or public land manager (if land has been transferred to Crown).	Ongoing ecological management to maintain and improve the ecological values of the conservation area in perpetuity. DSE approval of CMP for next 10 years.

End of year 9

Year 10

Table 3: Conservation management actions (cont.)

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
10.1a	Spot spray all high threat grass / herb weeds before seed set using appropriate herbicide. Control total cover of weeds.	-	C, AC July - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	<1% cover of High threat environmental weeds (Tables 1 & 2) to be maintained until the end of 10 years No increase in cover of other weeds beyond baseline levels. Minimum off-target damage
10.1b	Eliminate all high threat woody environmental weeds (cut and paint). This will include excessive eucalypt regeneration.	-	PC,C,AC Jan - Dec	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Complete first treatment of ALL shrubby weeds (Table 1) Maintain a maximum density of 16 sapling River Red-gums per hectare
10.2	Control pest animals (e.g. rabbits, hares, foxes and cats) within the conservation area and surrounding area	9.2	C, AC Sept – Nov Feb – Apr	-	-	Landowner or public land manager (if land has been transferred to Crown)	Absence of evidence of grazing/browsing by pest animals. Supplementary plantings not impacted by hares or rabbits.
10.3	Maintain fences in good working order and remove any rubbish.	9.3	C, AC Continuous (inspection and management)	-	-	Landowner or public land manager (if land has been transferred to Crown)	Potential threats (i.e. domestic stock, unauthorised entry) excluded and any rubbish removed.
10.4	Evaluate ground cover biomass.	None	C, AC Spring	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Maintain an open tussock grassy ground cover and ensure areas with high levels of dead weeds are burnt.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
10.5	Maintain supplementary plantings and collect additional material for replacement plantings. Maintain revegetation works.	9.5	C, AC April - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Maintained 80% survival of supplementary plantings. A cumulative total of 6 ha direct seeded for revegetation obtained and maintained.
10.6	Advise staff/contractors of the likely times GSM could be observed. Collate any data collected opportunistically on the presence of GSM.	9.6	PC Nov - December	NA	-	Landowner or public land manager (if land has been transferred to Crown)	Document the number of GSM, location and date for opportunistic observations
10.7	Conduct ecological site inspections every 3 months	9.7	C, AC Site inspections every 3 months	-	-	Landowner or public land manager (if land has been transferred to Crown)	4 short site inspection reports
10.8	Collect propagation material to maintain supplementary plantings and revegetation works.	9.8	C, AC Sept - Dec	-	-	Landowner or public land manager (if land has been transferred to Crown)	Enough material to maintain the established revegetation works and supplement plantings
10.9	Prepare a burn plan in consultation with the local CFA branch that ensures all patches are burnt when they are deemed to be structurally unsuitable for GSM (see Section 2.10).	-	C, AC By end of January	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown)	Burn plan approved by January and all permits obtained

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
10.10	Burn areas of conservation area as per burn plan	-	C, AC Autumn (at least 6 weeks after the end of the GSM flight season)	About 28	ha	Landowner or public land manager (if land has been transferred to Crown)	Areas within conservation area to be burnt at least every second year
10.11	Review and update Annual Work Plan. Review mapping of priority weeds near the end of the management Year.	-	PC,C, AC June	Entire conservation area	-	Landowner or public land manager (if land has been transferred to Crown).	Following years management tailored to current site conditions. New weed priority area maps available.
10.12	Prepare annual report on management works based on site inspections conducted throughout the year. Update flora/fauna inventory as appropriate.	-	C, AC June	1	report	Landowner or public land manager (if land has been transferred to Crown)	Report reviewing the success of management and level of implementation of CMP provided to DSE
10.13	Repeat photo point monitoring and prepare monitoring report on site condition and implementation of CMP	-	C, AC Nov-Dec	1	report	Landowner or public land manager (if land has been transferred to Crown)	Prepare standard conservation area monitoring report including photos and confirm agreed performance measures outlined in Section 2.13.

Action No.	Action	Required preceding action*	Timing	Quantity	Units	Responsible person	Standard to be achieved
10.14	Finalise the CMP for the next 10 year management period, identify resources for that management period and continue to implement active ecological management. Many management requirements will enter an ongoing maintenance stage and this needs to be clearly documented in the revised CMP for the next 10 year period. Ongoing ecological management guided by this CMP is an on-going permanent requirement for this Conservation Area.	-	C, AC June	1	CMP	Landowner or public land manager (if land has been transferred to Crown)	Ongoing ecological management to maintain and improve the ecological values of the conservation area in perpetuity.
10.15	Undertake a formal inventory of all flora in conservation area.		C, AC (Once every 5 years) Oct - December	1	list	Landowner or public land manager (if land has been transferred to Crown).	Addendum is added to this CMP with updated flora inventory.
10.16	Undertake Vegetation Quality Assessment for remnant patches to collect baseline data for the next 10 year period.		C, AC Spring – mid summer.			Landowner or public land manager (if land has been transferred to Crown).	Baseline VQA data can be compared to monitoring data to ensure progress in ecological management works and objectives, especially weed control.

End Year 10: Implement the CMP for the next 10 year management period.

REFERENCES

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APPENDICES

APPENDIX 1

Plant Species recorded in the Conservation Area

Table A1.1: Flora of the Mount Ridley Woodland Conservation Area (71 indigenous, 57 weeds)

Status of species (Source: DSE Flora Information System, 2009 Version)

Australian/Victorian status:

- E/e Endangered
- V/v Vulnerable
- R/r Rare
- W Species which are predominantly wetland species

Species of regional significance are highlighted in **bold**

All indigenous species have at least local significance

Planted species have not been recorded unless they are spreading (naturalised).

	Scientific Name	Common Name
Rare or Threatened Species		
k	*Convolvulus angustissimus* subsp. *omnigracilis*	Slender Bindweed
Ee	*Dianella amoena*	Matted Flax-lily
v	*Geranium solanderi* var. *solanderi*	Austral Crane's-bill
Native Species		
	Acacia mearnsii	Black Wattle
	Acaena echinata	Sheep's Burr
	Acaena novae-zelandiae	Bidgee-widgee
	Acaena ovina	**Australian Sheep's Burr**
W	***Amphibromus nervosus***	**Common Swamp Wallaby-grass**
	Asperula conferta	Common Woodruff
	Atriplex semibaccata	Berry Saltbush
	Austrodanthonia auriculata	Lobed Wallaby-grass
	Austrodanthonia caespitosa	Common Wallaby-grass
	Austrodanthonia carphoides	**Short Wallaby-grass**
W	*Austrodanthonia duttoniana*	Brown-back Wallaby-grass
	Austrodanthonia eriantha	Hill Wallaby-grass
	Austrodanthonia racemosa var. *racemosa*	Slender Wallaby-grass
	Austrodanthonia setacea	Bristly Wallaby-grass
	Austrostipa bigeniculata	Kneed Spear-grass
	Austrostipa curticoma	**Short-crown Spear-grass**
	Calocephalus citreus	Lemon Beauty-heads
	Carex inversa	Knob Sedge
	Chenopodium pumilio	**Clammy Goosefoot**
	Crassula sieberiana	Sieber Crassula
	Deyeuxia quadriseta	**Reed Bent-grass**
	Dichelachne crinita	Long-hair Plume-grass
	Dichondra repens	Kidney-weed
	Drosera peltata	**Pale Sundew**

	Scientific Name	Common Name
Native Species (cont.)		
	Einadia nutans subsp. *nutans*	Nodding Saltbush
	Elatine gratioloides	**Waterwort**
W	*Eleocharis acuta*	Common Spike-sedge
W	***Eleocharis pusilla***	**Small Spike-sedge**
	Elymus scaber var. *scaber*	Common Wheat-grass
	Epilobium billardierianum	Variable Willow-herb
	Epilobium hirtigerum	Hairy Willow-herb
	Eragrostis brownii	**Common Love-grass**
	Eryngium ovinum	Blue Devil
	Eucalyptus camaldulensis	River Red-gum
	Euchiton collinus	**Creeping Cudweed**
	Euchiton involucratus	**Star Cudweed**
	Geranium retrorsum	Grassland Crane's-bill
	Haloragis heterophylla	Varied Raspwort
	Hypericum gramineum	Small St John's Wort
W	*Juncus amabilis*	Hollow Rush
	Juncus bufonius	Toad Rush
	Juncus holoschoenus	**Joint-leaf Rush**
	Juncus subsecundus	Finger Rush
W	*Lachnagrostis filiformis*	Common Blown-grass
	Leptorhynchos squamatus	Scaly Buttons
W	*Lobelia pratioides*	Poison Lobelia
	Lomandra filiformis	Wattle Mat-rush
	Lythrum hyssopifolia	Small Loosestrife
	Melicytus dentatus	Tree Violet
	Microlaena stipoides var. *stipoides*	Weeping Grass
W	***Myriophyllum simulans***	**Amphibious Water-milfoil**
W	***Myriophyllum verrucosum***	**Red Water-milfoil**
	Oxalis perennans	Grassland Wood-sorrel
	Pentapogon quadrifidus* var. *quadrifidus	**Five-awned Spear-grass**
	Poa labillardierei	Common Tussock-grass
	Poa sieberiana var. *sieberiana*	Grey Tussock-grass
	Pseudognaphalium luteoalbum	Jersey Cudweed
	Rumex brownii	Slender Dock
	Rumex dumosus	Wiry Dock
	Schoenus apogon	Common Bog-sedge
	Solenogyne dominii	Smooth Solenogyne
	Themeda triandra	Kangaroo Grass
	Tricoryne elatior	Yellow Rush-lily
	Veronica gracilis	Slender Speedwell
	Vittadinia gracilis	**Woolly New Holland Daisy**
	Wahlenbergia gracilis	**Sprawling Bluebell**
	Wahlenbergia luteola	**Bronze Bluebell**
	Wahlenbergia multicaulis	**Branching Bluebell**
Introduced Species		
	Acetosella vulgaris	Sheep Sorrel

Scientific Name	Common Name
Introduced Species (cont.)	
Agrostis capillaris	Brown-top Bent
Aira cupaniana	Quicksilver Grass
Anagallis arvensis	Pimpernel
Anthoxanthum odoratum	Sweet Vernal-grass
Arctotheca calendula	Cape Weed
Briza minor	Lesser Quaking-grass
Bromus catharticus	Prairie Grass
Bromus diandrus	Great Brome
Bromus hordeaceus subsp. *hordeaceus*	Soft Brome
Carduus pycnocephalus	Slender Thistle
Centaurium erythraea	Common Centaury
Centaurium tenuiflorum	Slender Centaury
Cirsium vulgare	Spear Thistle
Crataegus monogyna	Hawthorn
Crepis capillaris	Smooth Hawksbeard
Cynara cardunculus	Artichoke Thistle
Cynodon dactylon var. *dactylon*	Couch
Cynosurus echinatus	Rough Dog's-tail
Dactylis glomerata	Cocksfoot
Gamochaeta purpurea	Spiked Cudweed
Gaudinia fragilis	Fragile Oat
Helminthotheca echioides	Ox-tongue
Hirschfeldia incana	Buchan Weed
Holcus lanatus	Yorkshire Fog
Hordeum leporinum	Barley-grass
Hypochaeris radicata	Flatweed
Isolepis levynsiana	Tiny Flat-sedge
Leontodon taraxacoides subsp. *taraxacoides*	Hairy Hawkbit
Lepidium africanum	Common Peppercress
Lolium rigidum	Wimmera Rye-grass
Lycium ferocissimum	African Box-thorn
Malva nicaeensis	Mallow of Nice
Marrubium vulgare	Horehound
Molineriella minuta	Small Hair-grass
Nassella hyalina	Cane Needle-grass
Nassella neesiana	Chilean Needle-grass
Nassella trichotoma	Serrated Tussock
Phalaris aquatica	Toowoomba Canary-grass
Plantago coronopus	Buck's-horn Plantain
Plantago lanceolata	Ribwort
Romulea rosea	Onion Grass
Rumex crispus	Curled Dock
Sisyrinchium iridifolium	Striped Rush-leaf
Solanum nigrum	Black Nightshade
Sonchus oleraceus	Common Sow-thistle
Stellaria media	Chickweed
Torilis nodosa	Knotted Hedge-parsley

Scientific Name	Common Name
Introduced Species (cont.)	
Trifolium angustifolium var. *angustifolium*	Narrow-leaf Clover
Trifolium campestre var. *campestre*	Hop Clover
Trifolium dubium	Suckling Clover
Trifolium glomeratum	Cluster Clover
Trifolium repens var. *repens*	White Clover
Trifolium subterraneum	Subterranean Clover
Urtica urens	Small Nettle
Vicia sativa	Common Vetch
Vulpia bromoides	Squirrel-tail Fescue

APPENDIX 2

DSE Benchmarks

Department of Sustainability and Environment

EVC/Bioregion Benchmark for Vegetation Quality Assessment

Victorian Volcanic Plain bioregion

EVC 55_61: Plains Grassy Woodland

Description:
An open, eucalypt woodland to 15 m tall. Occupies poorly drained, fertile soils on flat or gently undulating plains at low elevations. The understorey consists of a few sparse shrubs over a species-rich grassy and herbaceous ground layer. This variant occupies areas receiving approximately 500 – 700 mm annual rainfall.

Large trees:

Species	DBH(cm)	#/ha
Eucalyptus spp.	80 cm	8 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
10%	*Eucalyptus camaldulensis*	River Red Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	3	10%	MS
Small Shrub	2	1%	SS
Prostrate Shrub	1	1%	PS
Large Herb	3	5%	LH
Medium Herb	8	15%	MH
Small or Prostrate Herb	3	5%	SH
Large Tufted Graminoid	2	5%	LTG
Medium to Small Tufted Graminoid	12	45%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Bryophytes/Lichens	na	10%	BL
Soil Crust	na	10%	S/C

LF Code	Species typical of at least part of EVC range	Common Name
MS	*Acacia pycnantha*	Golden Wattle
MS	*Acacia paradoxa*	Hedge Wattle
SS	*Pimelea humilis*	Common Rice-flower
PS	*Astroloma humifusum*	Cranberry Heath
PS	*Bossiaea prostrata*	Creeping Bossiaea
MH	*Oxalis perennans*	Grassland Wood-sorrel
MH	*Gonocarpus tetragynus*	Common Raspwort
MH	*Acaena echinata*	Sheep's Burr
SH	*Dichondra repens*	Kidney-weed
SH	*Hydrocotyle laxiflora*	Stinking Pennywort
LTG	*Austrostipa mollis*	Supple Spear-grass
LTG	*Austrostipa bigeniculata*	Kneed Spear-grass
MTG	*Themeda triandra*	Kangaroo Grass
MTG	*Elymus scaber* var. *scaber*	Common Wheat-grass
MTG	*Austrodanthonia setacea*	Bristly Wallaby-grass
MTG	*Austrodanthonia racemosa* var. *racemosa*	Stiped Wallaby-grass
MNG	*Microlaena stipoides* var. *stipoides*	Weeping Grass

Recruitment:
Continuous

Organic Litter:
10 % cover

Logs:
10 m/0.1 ha.

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Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	*Lycium ferocissimum*	African Box-thorn	high	high
LH	*Cirsium vulgare*	Spear Thistle	high	high
LH	*Sonchus oleraceus*	Common Sow-thistle	high	low
LH	*Plantago lanceolata*	Ribwort	high	low
MH	*Hypochoeris radicata*	Cat's Ear	high	low
LNG	*Holcus lanatus*	Yorkshire Fog	high	high
MTG	*Vulpia bromoides*	Squirrel-tail Fescue	high	low
MTG	*Romulea rosea*	Onion Grass	high	low
MTG	*Briza minor*	Lesser Quaking-grass	high	low
MTG	*Briza maxima*	Large Quaking-grass	high	low

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APPENDIX 3

Species for revegetation works

The following is a list of plant species could be utilised in any revegetation/ supplementary planting program. All tubestock should be sourced from locally collected seed.

Wetland specialist species are indicated by **W**, while species not recorded within the conservation area are indicated by **S.**

Table A3.1 Planting list

Lifeform	Species	Common Name
Shrubs		
S	*Acacia implexa*	Lightwood
	Acacia mearnsii	Black Wattle
	Acacia melanoxylon	Blackwood
S	*Acacia pycnantha*	Golden Wattle
S	*Banksia marginata*	Silver Banksia
S	*Bursaria spinosa*	Sweet Bursaria
S	*Melicytus dentatus*	Tree Violet
Graminoids		
W	*Amphibromus nervosus*	Common Swamp Wallaby-grass
S	*Arthropodium strictum*	Chocolate Lily
	Austrodanthonia auriculata	Lobed Wallaby-grass
	Austrodanthonia caespitosa	Common Wallaby-grass
	Austrodanthonia carphoides	Short Wallaby-grass
W	*Austrodanthonia duttoniana*	Brown-back Wallaby-grass
	Austrodanthonia eriantha	Hill Wallaby-grass
S	*Austrodanthonia laevis*	Smooth Wallaby-grass
S	*Austrodanthonia penicillata*	Slender Wallaby-grass
S	*Austrodanthonia pilosa*	Velvet Wallaby-grass
	Austrodanthonia racemosa	Slender Wallaby-grass
	Austrodanthonia setacea	Bristly Wallaby-grass
S	*Austrostipa aristiglumis*	Plump Spear-grass
	Austrostipa bigeniculata	Kneed Spear-grass
S	*Austrostipa blackii*	Crested Spear-grass
	Austrostipa curticoma	Short-crown Spear-grass
S	*Austrostipa scabra* subsp. *falcata*	Rough Spear-grass
S	*Bothriochloa macra*	Red-leg Grass
S	*Bulbine bulbosa*	Bulbine Lily
S	*Burchardia umbellata*	Milkmaids
S	*Caesia calliantha*	Blue Grass-lily
	Carex inversa	Knob Sedge
	Deyeuxia quadriseta	Reed Bent-grass
S	*Dianella revoluta*	Black-anther Flax-lily
	Dichelachne crinita	Long-hair Plume-grass
	Elymus scaber	Common Wheat-grass
	Eragrostis brownii	Common Love-grass
W	*Lachnagrostis filiformis*	Common Blown-grass
	Lomandra filiformis	Wattle Mat-rush
	Microlaena stipoides var. *stipoides*	Weeping Grass
	Pentapogon quadrifidus	Five-awned Spear-grass
	Poa labillardierei	Common Tussock-grass
	Poa sieberiana	Grey Tussock-grass
	Themeda triandra	Kangaroo Grass

Lifeform	Species	Common Name
Forbs		
	Acaena echinata	Sheep's Burr
	Acaena novae-zelandiae	Bidgee-widgee
	Acaena ovina	Australian Sheep's Burr
	Asperula conferta	Common Woodruff
S	*Brachyscome dentata*	Lobe-seed Daisy
	Calocephalus citreus	Lemon Beauty-heads
S	*Calotis anthemoides*	Cut-leaf Burr-daisy
S	*Calotis scabiosifolia*	Rough Burr-daisy
S	*Calotis scapigera*	Tufted Burr-daisy
S	*Cullen parvum*	Tough Scurf-pea
S	*Cullen tenax*	Small Scurf-pea
S	*Cynoglossum suaveolens*	Sweet Hound's-tongue
S	*Dianella* sp. aff. *longifolia* (Benambra)	Arching Flax-lily
	Dichondra repens	Kidney-weed
S	*Erodium crinitum*	Blue Heron's-bill
	Eryngium ovinum	Blue Devil
	Euchiton collinus	Creeping Cudweed
	Geranium retrorsum	Grassland Crane's-bill
	Haloragis heterophylla	Varied Raspwort
	Hypericum gramineum	Small St John's Wort
	Leptorhynchos squamatus	Scaly Buttons
S	*Linum marginale*	Native Flax
S	*Microseris scapigera*	Plains Yam Daisy
	Oxalis perennans	Grassland Wood-sorrel
S	*Pelargonium rodneyanum*	Magenta Stork's-bill
	Plantago gaudichaudii	Narrow Plantain
S	*Podolepis* sp. 1	Basalt Podolepis
S	*Ptilotus macrocephalus*	Feather Heads
S	*Ptilotus spathulatus*	Pussy Tails
S	*Pycnosorus chrysanthes*	Golden Billy-buttons
	Rumex brownii	Slender Dock
	Rumex dumosus	Wiry Dock
S	*Senecio macrocarpus*	Large-fruit Fireweed
	Solenogyne dominii	Smooth Solenogyne
	Tricoryne elatior	Yellow Rush-lily
S	*Velleia paradoxa*	Spur Velleia
	Veronica gracilis	Slender Speedwell
S	*Vittadinia cuneata* var. *cuneata*	Fuzzy New Holland Daisy
	Vittadinia gracilis	Woolly New Holland Daisy
	Wahlenbergia gracilis	Sprawling Bluebell
	Wahlenbergia luteola	Bronze Bluebell
	Wahlenbergia multicaulis	Branching Bluebell
Scrambler/Climbers		
S	*Desmodium varians*	Slender Tick-trefoil
	Einadia nutans subsp. *nutans*	Nodding Saltbush
S	*Glycine latrobeana*	Clover Glycine
S	*Glycine tabacina*	Variable Glycine

APPENDIX 4

Fauna Species recorded in the Conservation Area

Table A4: Fauna of the Mount Ridley Woodland Conservation Area

Status of species (Source: DSE Flora Information System, 2009 Version)

Conservation status:

VU – EPBC Act listed as vulnerable

en – state listed as endangered in DSE advisory list

L – listed as threatened under the FFG Act

All indigenous species have at least local significance

Status	Scientific Name	Common Name	Most Recent Record
Indigenous Species			
	Accipiter fasciatus	Brown Goshawk	1988
	Aquila audax	Wedge-tailed Eagle	1999
	Hieraaetus morphnoides	Little Eagle	1999
	Haliastur sphenurus	Whistling Kite	1999
	Falco longipennis	Australian Hobby	1999
	Falco berigora	Brown Falcon	1988
	Glossopsitta concinna	Musk Lorikeet	1999
	Glossopsitta porphyrocephala	Purple-crowned Lorikeet	1999
	Platycercus eximius	Eastern Rosella	1988
	Psephotus haematonotus	Red-rumped Parrot	1999
	Hirundo neoxena	Welcome Swallow	1988
	Rhipidura leucophrys	Willie Wagtail	1988
	Grallina cyanoleuca	Magpie-lark	1999
	Acanthiza chrysorrhoa	Yellow-rumped Thornbill	1999
	Cincloramphus cruralis	Brown Songlark	1999
	Malurus cyaneus	Superb Fairy-wren	1999
	Zosterops lateralis	Silvereye	1988
	Lichenostomus penicillatus	White-plumed Honeyeater	1988
	Manorina melanocephala	Noisy Miner	1999
	Anthus novaeseelandiae	Australasian Pipit	1988
	Gymnorhina tibicen	Australian Magpie	1999
	Corvus mellori	Little Raven	1988
	Pardalotus striatus	Striated Pardalote	1988
	Nyctophilus geoffroyi	Lesser Long-eared Bat	1988
	Chalinolobus gouldii	Gould's Wattled Bat	1988
	Chalinolobus morio	Chocolate Wattled Bat	1988
	Vespadelus regulus	Southern Forest Bat	1988
	Vespadelus vulturnus	Little Forest Bat	1988
	Vespadelus darlingtoni	Large Forest Bat	1988
VU, en, L	*Delma impar*	Striped Legless Lizard	1988
	Tiliqua scincoides	Common Blue-tongued Lizard	1999
	Notechis scutatus	Tiger Snake	1978
	Bassiana duperreyi	Eastern Three-lined Skink	1978

Status	Scientific Name	Common Name	Most Recent Record
	Suta flagellum	Little Whip Snake	1988
	Pseudemoia pagenstecheri	Tussock Skink	1999
	Limnodynastes dumerilii	Southern Bullfrog	1999
	Limnodynastes tasmaniensis	Spotted Marsh Frog	1999
	Neobatrachus sudelli	Common Spadefoot Toad	1999
	Crinia signifera	Common Froglet	1978
VU, en, L	*Litoria raniformis*	Growling Grass Frog	1978
	Limnodynastes tasmaniensis SCR	Spotted Marsh Frog SCR	1988
Introduced Species			
*	*Streptopelia chinensis*	Spotted Turtle-Dove	1988
*	*Alauda arvensis*	European Skylark	1999
*	*Passer domesticus*	House Sparrow	1988
*	*Carduelis carduelis*	European Goldfinch	1999
*	*Acridotheres tristis*	Common Myna	1988
*	*Sturnus vulgaris*	Common Starling	1988
*	*Mus musculus*	House Mouse	1988
*	*Oryctolagus cuniculus*	European Rabbit	1988
*	*Vulpes vulpes*	Red Fox	1988

FIGURES

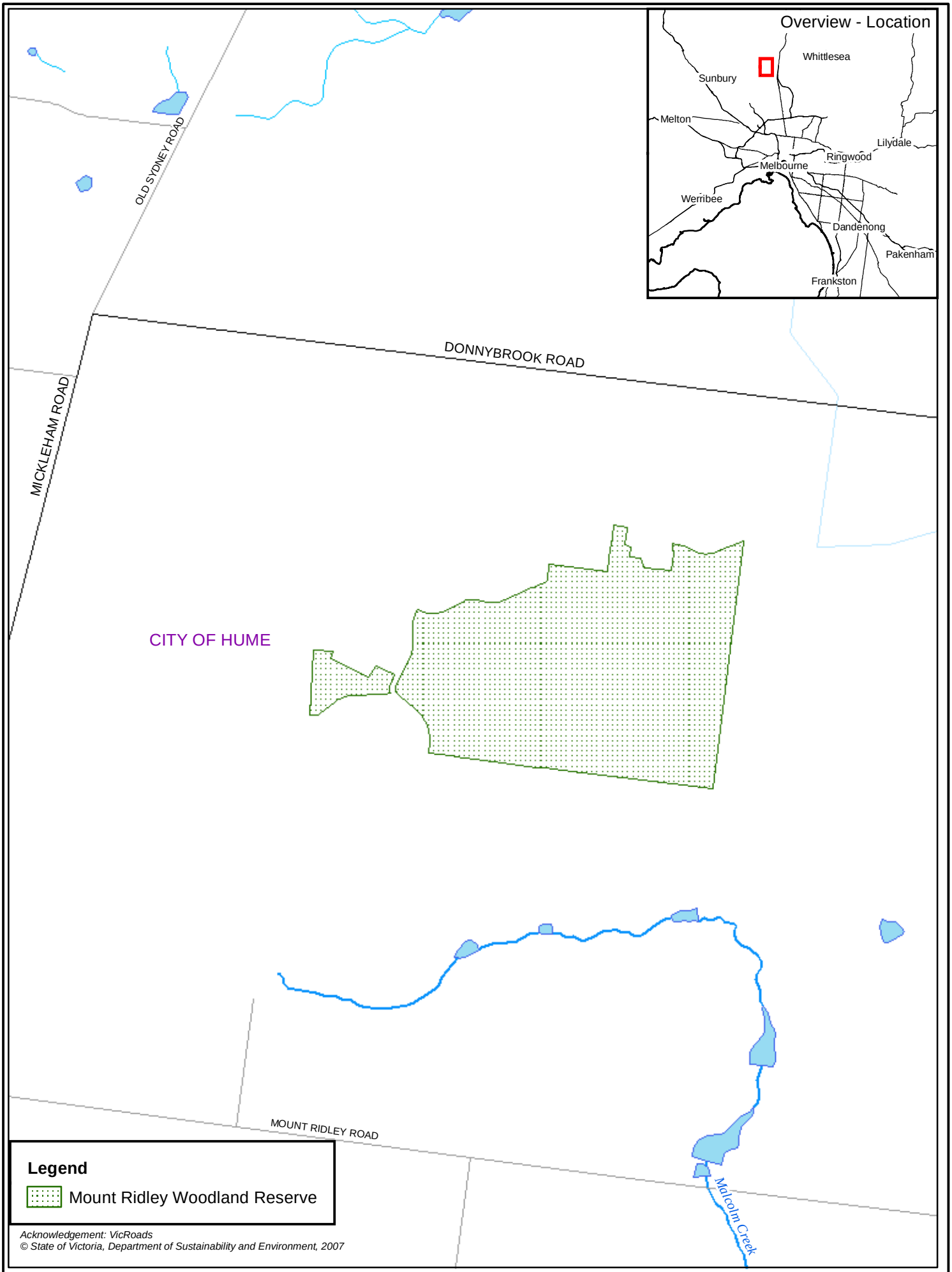

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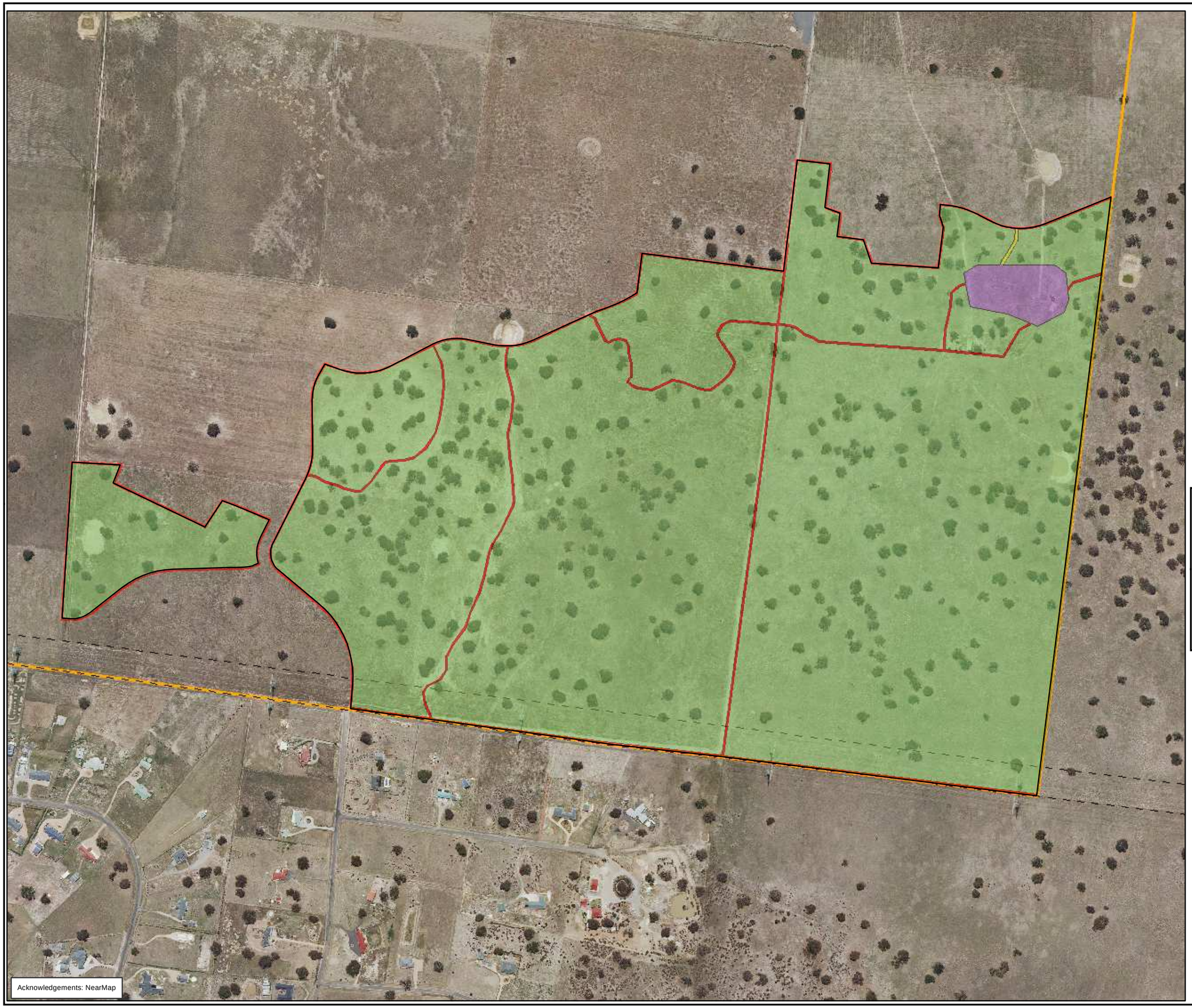
Figure 1: Location of the Mount Ridley Woodland Reserve

Matter: 12719
Date: 26 March 2012, Checked By: SGM, Drawn By: SKM
Location: P:\12700s\12719\Mapping\12719 Fig 1.mxd

0 200 400 800
Metres
N
Scale 1:20,000 @ A4, GDA 1994 MGA Zone 55



Legend

- Walking/Management tracks
- Playground and barbeque area
- Track and easement for services
- Conservation area to be marked
- BJ_ElectricityTransmissionEasement
- Merrifield PSP Boundary

Figure 2: Proposed track network and recreation area, Mt Ridley Conservation Area

0 60 120 180 240 300

Metres

Scale: 1:6,000 @ A3

Coordinate System: GDA 1994 MGA Zone 55

N

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Matter: 12719
Date: 03 April 2012,
Checked by: SGM, Drawn by: SKM \ PJY
Location:P:\12700s\12719\Mapping\12719 Figure 2 Tracks and Recreation.mxd

Legend

- Matted Flax Lily plant locations
- Mt Ridley conservation area
- Plains Grassy Woodland Ecological Vegetation Class
- Electricity Transmission Easement
- Merrifield PSP Boundary

Figure 3: Patches of existing native vegetation and threatened flora locations, Mt Ridley Conservation Area

0 60 120 180 240 300

Metres

Scale: 1:6,000 @ A3

Coordinate System: GDA 1994 MGA Zone 55

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Matter: 12719
Date: 03 April 2012,
Checked by: SGM, Drawn by: SKM \ PJY
Location:P:\12700s\12719\Mapping\12719 Figure 3 Mt Ridley Flora Reserve.mxd