



A Land Management Plan (LMP) is a mandatory condition for all subdivision permits that include a conservation area as identified in the *Biodiversity Conservation Strategy for Melbourne's Growth Corridors*. This document provides guidance to proponents on the essential components of a LMP and how they support effective management outcomes.

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## 1. Background

The Melbourne Strategic Assessment (MSA) program is protecting 36 conservation areas (CAs) identified in the Biodiversity Conservation Strategy for Melbourne's Growth Corridors (BCS). CAs will be secured for conservation purposes in perpetuity through one of the following mechanisms:

- Land is transferred to the Minister for Environment or a public authority approved by the Department of Energy, Environment and Climate Action (DEECA); or
- DEECA has endorsed issuing of Statement of Compliance for the last stage of subdivision where land is secured through an on-title agreement made under Section 69 of the *Conservation, Forests and Lands Act 1987*.

Further detail on land security mechanisms can be found in the MSA Planning Guidance Note 1- Meeting the Condition: Security of conservation land and the Conservation area land security requirements under the Melbourne Strategic Assessment.

The Victoria Planning Provisions and planning schemes relevant to Melbourne's growth corridors include a mandatory permit condition as follows:

*Prior to the commencement of development, a land management plan for the conservation area land must be prepared by a suitably qualified consultant, submitted to, and approved by the Secretary to the Department of Energy, Environment, Land, Water and Planning (as constituted under Part 2 of the Conservation, Forests and Lands Act 1987) (Secretary). The land management plan must outline how the biodiversity values for the land identified in the Biodiversity Conservation Strategy for Melbourne's Growth Corridors (Department of Environment and Primary Industries, 2013) will be maintained, managed and improved, including:*

- *How environmental weeds will be managed up until the securing of the conservation area.*
- *How any revegetation will be undertaken in coordination with weed management activities to prevent re-colonisation of weed species.*
- *How rubbish and hazards will be removed, and any contaminated material managed up until the securing of the conservation area.*

*Once approved the plan will form part of the permit and must be implemented to the satisfaction of the Secretary and the responsible authority.*

This condition is placed on all planning permits issued for subdivision or works for a lot which includes conservation area land.

This guidance note describes how landowners must manage private land within a conservation area before it is secured. The purposes of the Land Management Plan (LMP) are to ensure that existing biodiversity values on conservation area land are maintained, managed and improved during the period prior to land security. LMPs must outline how ecological values will be managed across the whole conservation area by identifying conservation objectives and a plan for key actions. This document covers key LMP requirements and is not intended to be exhaustive. This document may be updated periodically to reflect current best practice in conservation area management and lessons learned.

## 2. Types of conservation areas

Management requirements are guided by the type of CA, and requirements set out under the BCS. It is the proponent's responsibility to determine in what CA type their site falls and the values to be protected. There are three broad types of conservation area:

### 2.1. Growling Grass Frog

The Growling Grass Frog (*Litoria raniformis*) is listed as a threatened species under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. The Victorian Government has committed to ensuring the persistence of the Growling Grass Frog (GGF) within the Melbourne Strategic Assessment program area. More information is available in the [Growling Grass Frog Masterplan for Melbourne's Growth Corridors](#).

CAs categorised for GGF conservation are focused on providing essential habitat requirements for this species of national significance. Components and values of GGF habitat are described in the [Growling Grass Frog Habitat Design Standards](#). Habitat wetlands within these CAs will be designed and constructed to suit GGF ecology, mitigate threats and be complementary to other conservation outcomes.

These areas provide co-benefits for other species. Creeks and rivers are also managed to support endangered fish species including the Dwarf Galaxias and Australian Grayling. Other biodiversity values including native vegetation and habitat for other matters of national environmental significance (MNES) may also be present in these areas and must be protected accordingly.

### 2.2. Nature conservation

CAs categorised as nature conservation (NC) protect nationally endangered ecological communities - specifically, Natural Temperate Grassland and Grassy Eucalypt Woodland.

The woodland and grassland communities within the CAs are home to many threatened species, including, matted flax lily, spiny rice flower, button wrinklewort, striped legless lizard, golden sun moth and small golden moths orchid.

### 2.3. Regional park

The BCS prescribes a management category of 'Regional Park' to areas of land within two CAs. These areas provide unique character and biodiversity values, as well as connecting and complimenting other parklands in the region. The regional parks are:

- [Kororoit Creek Regional Park](#) (Conservation Area 3)

This CA comprises biodiversity values of national and state significance, including high quality herb-rich Natural Temperate Grassland, Small Golden Moths Orchid, Spiny Rice-flower, Growling Grass Frog, Sun Orchid (*Thelymitra*) species, Golden Sun Moth, Striped Legless Lizard habitat, Inland Sicklefern and Derrinallum Billy-buttons.

- [Werribee Township Regional Park](#) (Conservation Area 14)

This CA contains important populations of Growling Grass Frog within high quality habitat and provides for connectivity among populations of the frog along the Werribee River and Davis Creek.

### 3. Content required in a Land Management Plan

#### 3.1. Context and objectives

LMPs must be prepared by a qualified ecologist. Proponents should describe the land for which the LMP applies, including geographic context (e.g. surrounding suburbs/developments, council area, connectivity to surrounding areas of habitat or other features of environmental or cultural importance), and CA type. Proponents should identify that the LMP applies up until the chosen form of land security is achieved.

The LMP must set out management activities to achieve aims set out by the permit condition before DEECA will provide Statement of Compliance. Proponents should describe how these aims relate to the 'key rationale for protection' identified in Section 5 of the BCS. The management activity section below describes how key outcomes are to be achieved.

#### 3.2. Assessment of current biodiversity values and threats

Data should be collected through site inspection(s) and review of available information to identify:

- Any foreign organic, domestic or commercial debris
- Potential locations of unauthorised/ inappropriate access
- Evidence of pest animals
- Cover and composition of high threat weeds
- The extent and condition of native vegetation
- Assessment of biomass volume, composition and distribution across the site
- Flora species list and compilation of known records for flora and fauna species of national or state significance
- Nature and quality of habitat for MNES and possibilities for improvement.

Threats and values assessments can include results obtained through a Vegetation Quality Assessment (Habitat Hectares approach) or surveys completed as part of Works in Conservation Area (WiCA) applications. All species records obtained must be submitted to the [Victorian Biodiversity Atlas \(VBA\)](#). A point-based assessment can provide a robust and comprehensive method for assessing the threats and values on a site, as well as identifying management actions and monitoring progress (refer to Supporting Document for more detail).

The LMP should contain detailed descriptions and mapping of all values and threats. An aerial imagery base site map should be included, showing:

- The conservation area boundary
- Location of native vegetation and habitat for MNES
- Locations of specific hazards (e.g. structures)
- Location of other significant features (e.g. waterbodies, stony rises and areas of cultural significance)
- Growling Grass Frog Masterplan Areas of Strategic Importance (ASI) layer, if in a GGF conservation area
- Elevation contours.

### 3.3. Management activities

Essential to the LMP is a detailed methodology of management actions that will be undertaken with respect to the removal of rubbish, materials/structures inappropriate for conservation purposes, hazard control, weed control (including complementary biomass control and revegetation) and pest control. The LMP must describe how these will be undertaken to ensure biodiversity values will be maintained and managed, with threats mitigated or eliminated.

Land management activities need to be consistent with and complimentary to any Construction Environmental Management Plans, Rehabilitation Plans, Landscape Plans or similar approved by DEECA.

For case studies on specific management considerations for the different conservation area types refer to Supporting Documents. A summary management actions table should describe who will be undertaking works, as well as when and where they will occur. An example table is provided in Supporting Documents. Management should be adaptive and consider site-specific conditions. A good resource to guide management activities is the [DELWP Output delivery standards](#).

#### 3.3.1 Removal of materials, structures and rubbish and hazard control

The LMP must include methodology for the safe removal and disposal of stockpiles and structures not fixed to the property that are considered inappropriate for the purpose of a CA. The entire CA must be clear of rubbish associated with estate development as well as other rubbish. Any hazards identified in the CA that pose a risk to public and land management persons must be assessed and controlled or eliminated. The safe removal and disposal of materials, structures, rubbish and hazards must be undertaken with consideration to the environmental and cultural heritage values in the CA. Removal of materials should not result in the degradation of existing areas of native vegetation. Additional rubbish and hazards (e.g. old internal fencing) may be revealed after other management actions, such as weed and biomass control, have been undertaken. This should be managed as per the principals and methods established in the LMP. DEECA should be contacted if any new rubbish or hazards are found which may result in unforeseen damage to the CA.

Previous land use may have resulted in the piling of rocks and earth from agricultural ploughing or quarry works. An assessment should be made on the potential habitat value of these materials if they were retained, as well as factoring in the disturbance and potential rehabilitation works required if they are removed. Where appropriate, rocks and logs may be repositioned within the site to maximise habitat utility and ecological outcomes.

The LMP must set out the requirement for regular monitoring of and response to any rubbish accumulation during the management period.

#### 3.3.2 Weed control

Weed control actions under the LMP must focus on:

- Maintaining and improving habitat for MNES
- Maintaining and improving the quality of remnant patches of native vegetation
- Ensuring the landowner is meeting their statutory requirements under the *Catchment and Land Protection Act 1994* (CaLP Act) and the planning permit.

Proponents have a statutory obligation to control declared noxious weeds listed under the [CaLP Act](#). Environmental weeds rated as high and very high risk on the [Advisory list of Environmental Weeds in Victoria](#) should be targeted, as well as those sited under [Weeds of National Significance \(WoNS\)](#) or [National Environmental Alert](#) that are or have the potential to threaten conservation area values.

Weed control strategies will be influenced by the dominant weed(s) present, the presence of native vegetation and the CA type. Weed control typically requires several years of herbicide treatment and mechanical removal and should occur concurrently with appropriate biomass management and revegetation. LMPs should incorporate the following weed control principals:

- Identify and map infestations to inform a detailed strategy
- Follow an asset- and risk- based approach; prioritise the treatment of weeds within areas of highest ecological value (remnant vegetation or habitat) first, and new and emerging weeds that can easily be eradicated. See [DEECA's WESI guide](#) for more information on the preventative and early intervention approach
- Avoid disturbance to the natural conditions, minimising soil disturbance. Less destructive methods like spot spraying or hand removal of weeds should be used within patches of native vegetation to avoid off-target damage
- Work on small areas at a time and promote natural recruitment and recolonisation of native plants from the seedbank. Avoid over clearing – regeneration of habitat should inform the pace of clearance. As a general rule, a continuous treatment area (patch of dead vegetation) should not exceed 400m<sup>2</sup>
- Always follow weed hygiene protocol (see [DELWP Output delivery standard](#) Section 9: Weed control – Minimising the spread of weeds and plant pathogens).

Guidance on control methods for four broad weed types is provided in the Supporting Documents.

### **Herbicide application**

Herbicide application can be effective in controlling weeds, particularly when executed with other strategic methods. The two most common methods are 1) Spraying, 2) Cutting & painting / Drilling & filling.

The type of herbicide and the method of application used must be sensitive to the environmental values of the site. In particular, herbicide use should be minimised close to waterbodies and avoid off-target damage to native vegetation.

Removing treated weeds and other dead vegetation should be undertaken via appropriate methods to minimise disturbance. Manual removal and the use of hand-held machinery are preferable to avoid destruction of vegetation and soil disturbance from vehicles or large machinery within the CA. Note that dead vegetation can sometimes provide important habitat value for fauna species. Thus, consideration can be made for retaining some treated biomass if there is sufficient ecological justification.

### **Biomass control**

Biomass control is the temporary reduction of vegetation through slashing, mowing, ecological grazing, burns and thinning. It can be effective in reducing the cover and seed set of weeds and promoting regeneration of native vegetation.

#### Slashing

Slashing can be used to reduce the seed set of weeds or to temporarily reduce their cover. It is often used effectively in combination with other weed control techniques such as herbicide applications. Slashing can be done with a mechanical slasher or by a handheld brush cutter depending on the environmental values of the site. The method used must ensure appropriate weed hygiene measures are implemented and that ground disturbance in sensitive areas is minimised. Slashing should be timed strategically, including prior to seeding and not during wet or boggy periods. GGF CAs must be slashed to facilitate inspection of the site by DEECA and to maintain suitable vegetation structure for the GGF. Slashing works must consider native vegetation patches, areas of sensitivity (e.g. cultural heritage sites, high biodiversity areas, existing wetlands/waterbodies, etc.), and hazardous terrain. Slashing is generally not an appropriate method for managing native vegetation.

### Ecological Grazing

Ecological grazing may be a useful tool to control weeds in sites where weeds are difficult to manage through other methods. However, grazing should be managed appropriately so as to avoid adverse impacts and not damage CA values. Grazing should be completely avoided in areas of native vegetation or where there has been replanting until plants are well established (typically 3 years for species which grow above browsing height).

### Ecological Burns

Ecological burns can be an effective tool where other weed control methods are difficult to implement due to the structural or compositional vegetation mix at the site. Appropriate fire regimes preference regeneration of native species and can reduce weed seed production if timed appropriately (i.e. after flowering but before seed set). If the LMP proposes ecological burns it must identify the approvals needed and the qualifications required for those undertaking the burn.

### Ecological Thinning

Overabundant tree cover (e.g. Red Gums) is typically a result of changing land use. Some CAs may require ecological thinning where the canopy cover (or projected canopy cover in the case of saplings) is significantly higher than would be expected under natural conditions. Thinning efforts should be strategically targeted to protect values on a site; for example, where there is pressure on large old trees or excessive shading of GGF aquatic habitat in creeks or wetlands.

## **Revegetation to prevent weed colonisation**

Removal of weeds without adequate replacement of suitable species often results in reestablishment of weeds, poor structural or habitat outcomes, as well as erosion risks. Revegetation actions should focus on preventing these issues in areas where weed control or other disturbance has occurred. Revegetation within GGF CAs need to be consistent with the Growing Grass Frog Habitat Design Standards. In all cases, revegetation should be consistent with local context and Ecological Vegetation Class (EVC) benchmarks both in terms of floristics and structure. Revegetation through direct seeding and supplementary planting should be undertaken in a staged process over several seasons.

### Direct seeding

Where larger areas of ground cover weeds have been treated with herbicide, direct seeding can be an effective way of reducing the ability of weeds to re-establish and supporting biodiversity values. While invasive plant species must not be used anywhere, direct seeding of non-invasive exotic species can be acceptable in GGF CAs which are absent of native vegetation. Where working at a site with high native vegetation values, only native species should be used for complimentary revegetation.

For both GGF and NC CAs, a two-step recruitment strategy is advised. Introduced species can in some cases establish faster, be more resilient and prevent the re-establishment of harmful invasive weeds. Therefore, direct seeding of controlled areas can occur in the first instance with a non-invasive annual crop (where approved by DEECA). Once established (typically after 15-18 months), a second round of direct seeding should occur with a native species mix appropriate for revegetation and suited to the EVC. This promotes greater diversity and environmental outcomes at the site.

### Supplementary planting

In grassland CAs, revegetation should keep shrubs and canopy species to a low density so as to retain open grassland structure.

Trees and shrubs can be important for bank stabilisation and erosion control around waterways. Invasive species should be removed progressively and replaced with native species which provide adequate soil stabilising effects. In

GGF CAs planting of trees and shrubs along waterways should consider the need for thermal variability across the site. Some shady, densely vegetated areas add habitat value, provided there are other more open areas to facilitate basking and warmer waters for GGF.

### **3.3.3 Pest control**

Established pests must be controlled within the CA in accordance with landowners' obligations under the CaLP Act. Pest animals such as rabbits, foxes and feral cats degrade habitat and pose risks to native vegetation and GGF through herbivory, predation and the creation of warrens or dens. Control methods should be targeted and sensitive to the biodiversity and cultural values of the CA land. Where large scale (>400m<sup>2</sup>) disturbance or earthworks are unavoidable, revegetation or facilitation of natural regeneration should be employed to mitigate soil degradation and weed encroachment.

### **3.3.4 Domestic animals**

Domestic animals are not permitted on CA land that is to be transferred to DEECA. Any domestic animals present must be appropriately relocated.

## **4. Progress reporting**

The LMP must set out the requirement for progress reporting on implementation. An annual progress report must be submitted to DEECA, no later than 3 months from the anniversary of commencement, until the land is ready to be secured. This must be supplemented by a shorter mid-year update via email, covering off on works completed and any issues or divergence from the works plan. A final handover report must be provided to DEECA for endorsement prior to land security.

Progress reports are to be prepared by a suitably qualified third party and must document management actions implemented and progress that has been made towards achieving defined targets and conservation outcomes more broadly. Where changing environmental conditions necessitate adaptive changes to the management approach these should be documented in progress reports. DEECA endorsement is required prior to implementing significant management changes.

These reports should be submitted to the MSA Biodiversity Conservation Areas Team at [msa.bioconservation@delwp.vic.gov.au](mailto:msa.bioconservation@delwp.vic.gov.au) and will be used as supporting evidence when reviewing Statement of Compliance.