

## **Thomson Aberfeldy Demonstration Site – a strategic weed project. Implementing Victoria’s biosecurity approach to pest management on public land**

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**Summary** The Victorian Government’s biosecurity approach to managing weeds on public land was demonstrated in the upper Thomson River catchment between 2009 and 2012. High risk new and emerging weeds were treated for eradication or containment across the whole area whilst widespread high risk weeds were only treated in the area’s highest value biodiversity assets.

**Keywords** Thomson Aberfeldy Demonstration Site, biosecurity approach, weed management.

### INTRODUCTION

In 2007, the Department of Sustainability and Environment (DSE) published guidelines (DSE 2007) describing the implementation of Victoria’s biosecurity approach to weed management on public land. The Thomson Aberfeldy Demonstration Site (TADS) was one of five strategic weed management projects funded under Victoria’s Weed and Pest Initiative (2007–2011) to demonstrate the application of these guidelines on-ground. The TADS project commenced in 2009.

This paper and poster describe how the project followed the guidelines to implement a biosecurity approach to weed management in the upper Thomson River catchment in Victoria’s Central Highlands.

### METHODS

The guidelines interpret the Victorian Government’s biosecurity approach to pest management on public land, prioritising the eradication or containment of new and emerging weed species that pose a high risk to the biodiversity values at the landscape scale, whilst only controlling widespread established weeds where they directly threaten the highest value biodiversity assets in the area. The need for a tenure-blind approach to land management, with the engagement and participation of all local land managers to ensure a successful project outcome, is emphasised.

Land managers are asked to follow eleven key steps to strategic weed

management and these were applied to the TADS as follows.

### RESULTS AND DISCUSSION

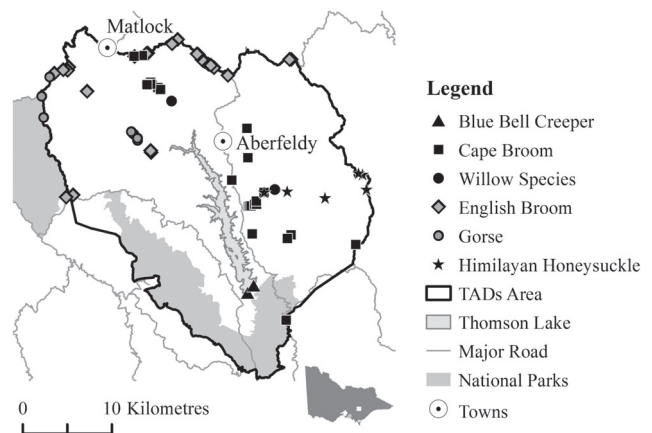
**Step 1.** The TADS project area, approximately 89 000 ha, was defined as all public land in the upper Thomson River catchment above the Thomson Dam (Figure 1).

**Step 2.** Policy relating to management priorities in the TADS area was summarised from a range of state government reports including biodiversity, water, timber production and recreation policy.

**Step 3.** Key weed sources were identified as:

- roads and other vehicle access
- waterways
- bushfire and fire management activities such as fuel break management
- small and localised infestations of high risk weeds already present in the project area.

The project area was surveyed for new and emerging high risk weeds (DSE 2009) in 2010 using the DSE rapid survey technique (DSE 2008). Figure 1 illustrates the results of rapid survey which clearly



**Figure 1.** Map of the TADS area, with locations of new and emerging high risk weeds identified by the rapid weed survey.

showed english broom (*Cytisus scoparius* (L.) Link) and gorse (*Ulex europaeus* L.) spreading into the catchment from the north and a localised area of himalayan honeysuckle in the south east. Cape broom (*Genista monspessulana* (L.) L. Johnson), often treated by forest managers, was located in numerous previously untreated areas. Some high risk species, such as bluebell creeper (*Ballardiera heterophylla* (Lindl.) L.W.Cayzer & Crisp.), were mapped to one or two small infestations.

**Step 4.** Six areas, totalling approximately 14 000 ha, were identified as the highest value biodiversity assets in the TADS. Within five of these asset areas, Blackberry (*Rubus fruticosus* agg. L.) and all other high risk weeds are being treated to reduce the impact on local biodiversity values.

**Step 5.** Although not considered a priority in this demonstration project, identification of social and economic assets in the area added value to the decision to include one of the biodiversity assets in the project area.

**Step 6.** Records, previously recorded on office based hard copy maps, or never formally recorded, of weed distribution in the project area, were digitised and combined with all survey data.

**Step 7.** The 'Advisory list of environmental weeds of the Ranges bioregions of Victoria' (DSE 2009), was used to determine the risk of weed species to the TADS project area.

**Step 8.** All six assets identified were surveyed in detail to determine the extent of high risk weeds.

**Step 9.** Rapid weed mapping allowed the setting of ecological management priorities at the landscape scale as follows.

Willows (*Salix* spp.) and bluebell creeper have been targeted for eradication in the TADS area. Himalayan honeysuckle (*Leycesteria formosa* Wall.), has been targeted for containment in only one area of difficult terrain. Infestations identified by satellite across the TADS are still to be targeted for eradication.

Broom species and gorse are being managed for containment with the aim to reduce their area of infestation.

Blackberry, a widespread, high risk weed in the project area, has been targeted for containment outside asset areas if possible, by annual chemical treatment within assets.

**Step 10.** The TADS project was only able to treat four of the six assets identified in the first two years of operation. The West Gippsland Catchment Management Authority funded the treatment of blackberry in one asset as it fell within the criteria of its Caring for our Country (CFOC) funded Highlands Down project (willows and other WONS (Weeds of National Significance)).

**Step 11.** All sites, except one, have been treated twice since 2009. The project has partnered with DSE's fire management program to address newly emerging infestations of gorse, english broom and cape broom along its northern boundary, where it was found to be spreading south, east and west along strategic fuel breaks.

The Baw Baw Shire also participated in the project by contributing weed management funds to treat roadside infestations of high risk weeds along the Walhalla Road.

Monitoring quadrats, transects and photo points have been established in all treatment areas and assets to measure the effectiveness of the weed treatment programs annually.

**Step 12.** Treatment will continue as part of 'Central Highlands Eden', a Victoria Government Invasive Species Program.

The Eden project will reassess the priorities identified in the TADS project as a part of its planning process. This may, in the future, result in the final asset area also being treated.

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