Blackberry National Priority Framework 2009-2011

Goal 1
Prevent, contain and rehabilitate blackberry infestations

Goal 2
Adoption of "best practice" management

Goal 3
National commitment to the effective management of blackberries is maintained

The vision of this strategy is:
Blackberry is managed effectively to prevent spread and reduce impact on all land across Australia.

Priority	Goal 1	Goal 2	Goal 3
1	⋆ **Identify and prioritise blackberry infestations** (2.1.1)	⋆ **Identify additional "best practice" management options (2.2.1)** ⋆ **Identify and fill in gaps in knowledge. (2.2.2)**	⋆ **Identify the different land managers with responsibilities for blackberry management, and develop cooperative links** (2.3.3)
2	⋆ **Assess the impacts of blackberry infestations** (2.1.2)	⋆ **Implementation of "best practices" (2.2.3)**	⋆ **National blackberry research programs are initiated and coordinated (2.3.4)**
3	**Develop rehabilitation schemes (2.1.3)**		

Detailed information regarding the National Blackberry Program Priority Framework

Introduction

Blackberry is recognised as a Weed of National Significance (WoNS) because of its high degree of invasiveness, potential for spread, and economic and environmental impacts.
There are at least 23 invasive *Rubus* taxa in Australia. Blackberry has almost reached the climatic limits of its potential range in Australia; however, individual species may spread further within these climatic limits.
In 2001, a National Strategy for the management of blackberry was developed. The major challenges for blackberry management addressed in the ***WoNS National Blackberry Strategy*** are to prevent its spread, contain infestations, and rehabilitate treated areas to prevent reinfestation. Work has progressed towards many actions in the National Strategy in conjunction with the National Coordinator and the National Blackberry Taskforce (NBT). The NBT has developed this list of priority actions based on the National Strategy and the current progress of the National Blackberry Program

This framework is divided into 4 sections of equal priority: Early Detection, Prevention of Spread, Reduction of Impacts, and Cross-Program Actions. Cross-Program actions include research, education, awareness, NBT and national coordinator operations, and other actions relevant to multiple programs.

Early Detection

Priority 1

- **Early warning rapid response of new blackberry taxa/ species.**

There is the potential for both existing and newly introduced Rubus species to become naturalised in Australia and spread. We need to develop (through a Weed Risk Assessment process) a list of new potentially weedy Rubus species.

Prevention of Spread

Priority 1

Action: 2.1.1: Identify and prioritise blackberry infestations

- **Mapping extent and density of blackberry species in SA, VIC, Tas, NSW, ACT, QLD,**

We need to accurately map the different taxa of blackberry in each State (except WA-where they have been mapped) to enable best-practice management of infestations. As the different species of blackberry react differently to various management (e.g. blackberry rust, herbicides etc) there is a risk of one species replacing another –thus increasing the extent and density of infestations in an area. This mapping will enable us to strategically manage the different species, set up control lines between them and aim for eradication of the more resistant species. We also need to predict where the different species will spread. This would enable us to better predict the implications of climate change.

Priority 2

Action: 2.1.2: Assess the impacts of blackberry infestation

- **Ecological studies on the blackberry taxa.**

We need to know a lot more about the biology and ecology of different blackberry species. This is so we can target our control efforts. Understanding seed longevity is also necessary for many management options; especially the feasibility of eradication and we need to compare characteristics of blackberry taxa to see how much they colonise different places and have different impacts. This is important knowledge for strategically managing the different blackberry taxa.

Priority 3

Action: 2.1.3: Develop rehabilitation schemes

- **Suitable site restoration and rehabilitation to prevent recolonisation**

We need to understand how to properly restore ecosystems once blackberry is controlled. We also need to know how to encourage natural regeneration in an area to out compete blackberry reinvasion.

Eradication and Containment

Priority 1

- **The following areas are National priority areas for containment, eradication and outlier control.**

Eradication Targets /zones

Tasmania

- South -West World Heritage Area including Southwest NP and Maatsuyker Island
- Recherche Bay Nature Recreation Area south from Catamaran River
- Flinders Island
- King Island

SA

- Kangaroo Island

WA

- Esperance.

Containment Lines (CLs)

- **WA**: **Bunbury to Collie** CL to separate the different Blackberry species in WA (Rubus laudatus, from *R. anglocandicans* and *R. ulmnifolius* to the South of the CL.)

- **QLD:** Northern boundary of the Southern Downs Regional Council (SDRC) area

- **TAS-** All of the boundary of the Southwest National Park, all of Hartz Mountains National Park and the part of Recherch Bay Nature Recreation Area south from Catamaran River.

Control Targets

- **WA**: Warren River Catchment in SW WA- isolated species south of the Brunswick buffer zone; areas surrounding the Porongurup national park and satellite infestations next to RAMSAR wetlands in Esperance in SW WA.

- **ACT-**within this area there are several Blackberry control target areas . For more information contact Steve Taylor : Ph: 02 6207 2278. Email:Steve.Taylor@act.gov.au

- **Vic / NSW-** Genoa & Wallagarah River catchments

- **QLD: Southern Downs Regional Council area and Blackberry infestations** /outliers north of the SDRC area.

- **Tasmania -**South -West World Heritage Area – Outlier control target area

- **SA –**Eyre Peninsula, Yorke Peninsula, and blackberry infestations at the northern extremity of the Northern & Yorke NRM region and in the northern part of the South East (SA) NRM region at the northern edge of its range.

Core infestation: Contain / Reduce Impacts.

- **ACT**–The major infestations are on ex-forestry land and along the Molonglo River. There are large scale weed control projects in these areas to spray blackberry. There are also small infestations across the ACT. The highest priority for control is in high conservation value areas. For more information contact Steve Taylor of ACT Parks, Conservation & Lands : Ph: 02 6207 2278. Email:Steve.Taylor@act.gov.au

Surveillance Zone

Tasmania -South -West World Heritage Area

Nationally Strategic On-Ground Control

- As blackberry is so widespread in distribution we need to prioritise areas for blackberry control. A Decision support tool (DSS) has been developed that can be used to determine the optimum goals and actions for blackberry management at a regional or sub- catchment scale. This DSS needs to be implemented and trialled so it can be further refined.

- The development of Eradication Zones and Containment Lines/ areas for blackberry is needed in each state, particularly on the edges of it's range.

- Eradication and control of outliers through' best practice management' is needed especially in areas with high community support

Reduce Impacts

Priority 1

Action 2.3.3: Identify the different land managers with responsibilities for blackberry management, and develop cooperative links.

- **Blackberry Action Groups**

The Victorian Community Weed Model (CWM) can be used to facilitate the implementation of Blackberry Action Groups in areas with high community support (this could also incorporate a 'seeding' Incentive Program).

Priority 2

Action 2.2.2: Identify and fill in gaps in knowledge and Action 2.2.3: Implementation of "best practices"

- **Adoption of Best Practice Management (BPM)**

We need to further refine our Best Practice Management (BPM) information & fill any gaps in knowledge especially in terms of herbicide use, non- herbicide methods, use of integrated methods and BPM where blackberry is providing critical habitat for native fauna.

Priority 3

- **Biocontrol distribution with the community and monitoring of the efficacy of the biocontrol agents.**

The blackberry leaf rust Phragmidium violaceum, which attacks the leaves, has been the most successful biocontrol so far. Although the rust has had an impact on some blackberry species, other species are resistant. To address this issue, additional rust strains are being released with community input. We need to

continue funding for community groups to assist in dispersing the rust varieties across Australia, especially in Tasmania, East Gippsland in Victoria and Sthn Rivers area in NSW.

Cross-Program Actions

Capacity Building

Priority 1

- **Training workshops for the identification of blackberry species.**

With the release of the interactive CD-ROM 'Blackberry; an identification tool to introduced and native Rubus in Australia ,there is a growing demand for workshops to be run nationally to enhance the use of the CD-ROM and train people in the identification of the 23 introduced and 11 native species in Australia. This will lead to increased capacity of weed professionals and community members to identify the blackberry species in their area; increased community capacity to map blackberry species and more targeted and effective blackberry control programs.

- **Scoping study for feasibility of new GM (GM blackberry, & GM biocontrol agents)**

Management Group and National Coordinator Operations

- **National Co-ordination** *(co-ordinate National Blackberry Taskforce and projects managing blackberry mitigation on a national scale)*

Education and Awareness

- **Nationally Consistent Awareness , Education and Communication**

Research

Action 2.3.4: National blackberry research programs are initiated and coordinated

- **New tool development**
  - (a)Chemical studies (herbicide trials, techniques, selectivity). *Research is needed to find out the reactions of different blackberry species to herbicides and the optimal controls methods for the different blackberry species.*

(b) Filling the gaps for biological control agents.

Red Berry disease -

Research is needed to understand the potential of red berry mite as a biocontrol agent and the impact of red berry mite on seed dispersal.

- **Ecological studies on the effect of blackberry on native biodiversity**

We need to document the environmental impact of blackberry: how many rare and endangered species are threatened, and the ecological impacts. This will help in determining priorities for further work and justify current and future expenditure.

- **Blackberry decline**

An investigation is needed to find out what is causing blackberry decline along the Warren River in SW WA.

- **Control options for blackberry control in riparian areas.**

Research is needed to develop herbicidal control techniques that are registered for use in riparian areas. At present most of the heaviest blackberry infestations occur in these areas and the only herbicide registered for use is a special formulation of glyphosate that does not provide high levels of control.