

1.0 Cover Page



NSW DEPARTMENT OF
PRIMARY INDUSTRIES

REGIONAL WEED MANAGEMENT PLAN

1.1 PLAN TITLE: Sydney Vine and Scrambling Weed Management Plan

1.2 PLAN PROPONENTS

Regional Weeds Advisory Committee: **Sydney North Regional Weeds Committee; Sydney Central Regional Weeds Committee; South West Sydney Regional Weeds Committee; Sydney West ~ Blue Mountains Regional Weeds Committee**

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Signature: Date:

1.3 NAME OF PLANTS

WONS ***

BOTANICAL NAME	COMMON NAME	BOTANICAL NAME	COMMON NAME
<i>Abrus precatorius</i>	Crabs Eye Creeper	<i>Ipomoea indica</i>	Morning Glory
<i>Acetosa sagittata</i>	Turkey Rhubarb	<i>Ipomoea purpurea</i>	Purple Morning Glory
<i>Actinidia chinensis</i>	Kiwi Fruit	<i>Lathyrus tingitanus</i>	
<i>Anredera cordifolia</i>	Madeira Vine	<i>Lycyesteria Formosa</i>	Himalayan Honeysuckle
<i>Araujia sericifera</i>	Moth Vine	<i>Lonicera japonica</i>	Honeysuckle
<i>Aristolochia elegans</i>	Dutchmans Pipe	<i>Macfadyena unguis-cati</i>	Cats Claw
<i>Aristolochia littoralis</i>	Dutchmans Pipe	<i>Passiflora suberosa</i>	Corky Passionflower
<i>Asparagus aethiopicus</i>	Asparagus Fern	<i>Passiflora subpeltata</i>	White Passionflower
<i>Asparagus africanus</i>	Asparagus Fern	<i>Passiflora tarminiana</i>	
<i>Asparagus asparagoides</i>	Bridal Creeper***	<i>Pueraria lobata</i>	Kudzu
<i>Asparagus plumosus</i>	Climbing Asparagus	<i>Pithecoctenium cynanchoides</i>	Monkeycomb
<i>Asparagus scandens</i>	Climbing Asparagus	<i>Rubus ssp</i>	Blackberry (exotic species)
<i>Asystasia gangetica</i> var. <i>micrantha</i>		<i>Salpichroa origanifolia</i>	Pampas/lily of valley
<i>Caesalpinia decapetala</i>	Mysore Thorn	<i>Senecio angulatus</i>	
<i>Cardiospermum grandiflorum</i>	Balloon Vine	<i>Senecio macroglossus</i>	German Ivy
<i>Clematis vitalba</i>	Old mans Beard	<i>Solanum jasminoides</i>	Potato Vine
<i>Delairea odorata</i>	Cape Ivy	<i>Solanum seafortianum</i>	Climbing Nightshade
<i>Dioscorea bulbifera</i>	Aerial Yam	<i>Sollya heterophylla</i>	
<i>Dipogon lignosus</i>		<i>Thunbergia alata</i>	Black Eyed Susan
<i>Hedera helix</i>	English Ivy	<i>Thunbergia grandiflora</i>	Blue Trumpet Flower
<i>Ipomoea alba</i>	Moonflower	<i>Tradescantia fluminensis</i>	Wandering Jew
<i>Ipomoea cairica</i>	Coastal Morning Glory	<i>Vinca major</i>	Periwinkle

1.4 PLAN PERIOD (not to exceed five years)

Starting date: **July 2010**

Completion date: **June 2015**

1.5 AREA OF OPERATION

This plan extends over the geographical area represented by the four Regional Weeds Committees in the Sydney region.

1.6 AIM

To reduce the impact of vine and scrambler weeds on the biodiversity of the Sydney region and to protect native vegetation from future vine and scrambler weed threat.

1.7 OBJECTIVES

1. Determine the location and extent of new and existing vine and scrambler weed infestations by January 2011.
2. Identify where vine and scrambler weeds are having the greatest impact on biodiversity and prioritise areas of works by July 2011, to ensure management where it will deliver the greatest benefit.
3. Prevent the establishment, eradicate where possible and prevent the spread of **emerging** vines and scrambler weeds.
4. Reduce the impact of **widespread** vine and scrambler weeds on biodiversity, tree canopies and assets.
5. Pursue the declaration of vine and scrambler weeds that are or are likely to impact on biodiversity if needed for effective management.
6. Undertake whole of community education, awareness and training to encourage best practice control of vines and scramblers on remnant vegetation
7. Ensure a continued strategic and adaptive focus to control of vine and scrambler weeds through ongoing surveys, monitoring and evaluation.

2.0 STAKEHOLDERS

- Councils, state and federal government agencies managing public land and in particular riparian zones and high conservation areas. Land as represented on the four Regional Weeds Committees in the Sydney region.
- Natural environment conservation groups
- Land holders protecting remnant natural vegetation, in particular those adjacent to riparian and drainage lines, and adjacent to public land remnants.
- Private landholders in the vicinity of priority control zones.
- Wholesale & retail nurseries, including chain stores.
- Public and private gardeners and garden clubs.
- Landscaping organisations
- Australian Association of Bush Regenerators
- Catchment Management Authorities

3.0 BACKGROUND and JUSTIFICATION

3.1 DESCRIPTION OF THE PROBLEM

Vines and ‘scrambling’ weeds pose a major risk to the biodiversity and natural environment of the Sydney region, and threaten the integrity of riparian zones and ultimately water resources.

In 2006 The NSW scientific committee determined the ‘**invasion and establishment of exotic vines and scramblers**’ as a **Key Threatening process** in Schedule 3 of the Threatened Species Conservation Act.

The documented list of vines and scramblers causing the greatest concern forms the basis of this plan (see section 1.3). Three further taxa causing particular problems in the Sydney region have been added to this plan: *Lonicera japonica* (Honeysuckle), *Rubus* spp. (non native Blackberry species of European, Asiatic or other origin) and *Pithecoctenium cynanchoides* (Monkeycomb).



Kudzu infestation at Penrith, 2007

Vine and scrambler weeds pose a risk to the biodiversity of the Sydney region for the following reasons, (adapted from the ‘Exotic vines and scramblers – key threatening process listing’⁽¹⁾):

- Monocultures of vines and scramblers in riparian zones pose a severe threat to catchment water quality.
- In sclerophyll communities, vine and scrambler weeds are more mesic than the native species, and may change the nature of the fuel, which alters fire behaviour and regime.
- Mature canopy trees covered by some of these species can die from smothering.
- They are highly invasive and densely growing species which can completely smother native vegetation.
- They restrict movement of some native fauna, including threatened species in significant riparian corridors.
- Dense infestations in canopies can block sunlight, preventing the natural regeneration of native understorey species.
- They can alter other biotic aspects of communities such as the abundance and diversity of plant-dwelling invertebrates.
- They can over-run/smother, damage or restrict access to cultural heritage sites or infrastructure.
- Most reproduce prolifically and are well adapted to spread both from asexually produced vegetative propagules and by seed. (e.g. *Anredera cordifolia*).

Many of Sydney’s threatened species and endangered plant communities are listed as being at threat from the ‘invasion and establishment of exotic vines and scramblers’⁽¹⁾, including: *Acacia pubescens*; *Pimelea spicata*; Coastal Saltmarsh; Cumberland Plain Woodland; Littoral Rainforest; Mount Gibraltar Forest; Pittwater Spotted Gum Forest; Shale-sandstone Transition Forest; Swamp oak Floodplain Forest; Swamp Schlerophyll Forest and Western Sydney Dry Rainforest.

This plan aims to abate the extreme threat exotic vine and scrambling weeds pose to native vegetation of the Sydney region. It supersedes the Sydney Regional Bridal Creeper Management Plan July 04 – June 09.

3.2 CURRENT DISTRIBUTION OF INFESTATIONS

The vine and scrambler weed problem in the Sydney region is extensive; current distribution tables are presented in Appendix 1, pages 20-21.

Further surveying and mapping is needed to determine the full extent of distribution of vine and scrambler weeds in the region, and details of plans for this are documented in sections 6.1 and 6.2 of the action plan.

3.3 HOW THE PLAN INTENDS TO MEET ITS OBJECTIVES

In order to meet the objectives of the plan, vine and scrambler weeds have been categorised into two broad groups; **emerging** or **widespread** weeds (*see Tables 1 and 2, overpage*). These groups have been based on regional distribution information, which is shown in Appendix 1, pgs 20-21. Different actions and performance measures have been developed for each of these broad groups; detailed in the action tables for widespread and emerging weeds in sections 6.1 and 6.2 (pgs 13-18). This approach is consistent with the goals of the *NSW Invasive Species Plan 2008-2015*.

As the aim of this plan is ‘to reduce the impact of vine and scrambler weeds on biodiversity’, the weeds have been further grouped according to the threat they pose to biodiversity. This has been determined for each weed based on;

- research of the weed biology,
- its current impact on the region, and
- its impact in surrounding regions.

Throughout the life of this plan the NSW weed risk management system process will be used as required to review the level of threat for each weed.

Six categories of vine and scrambler weeds have been developed (*see Tables 1 & 2 overpage*), these are;

1. **Emerging Weeds 1:** Emerging weeds posing a Very High threat to biodiversity
2. **Emerging Weeds 2:** Emerging weeds posing a High threat to biodiversity
3. **Emerging Weeds 3:** Emerging weeds posing a Moderate threat to biodiversity
4. **Widespread Weeds 1:** Widespread weeds posing a Very High threat to biodiversity
5. **Widespread Weeds 2:** Widespread weeds posing a High threat to biodiversity
6. **Widespread Weeds 3:** Widespread weeds posing a Moderate threat to biodiversity

This categorisation has allowed for the development of actions which are strategic and cost-effective. Thorough surveying and planning actions will assist agencies to focus on-ground work in areas where the greatest biodiversity benefit is to be gained. Also, the development of clear priorities for new declarations, and subsequent enforcement activities on private lands in and around priority areas will complement on-ground work efforts.

While many actions have been developed (see Action Plan, pgs 13-17), the differences between the actions for widespread and emerging weeds are worth noting, re ‘Planning and On-ground Works Actions’ and ‘Declaration Actions’. These are summarised on pp. 6 & 7.

Table 1: Categories of Emerging Weeds, based on level of threat to biodiversity

Emerging 1 Weeds (Very high threat)	Emerging 2 Weeds (high threat)	Emerging 3 Weeds (Moderate threat)
<i>Asystasia gangetica</i> var. <i>micrantha</i> (Chinese Violet)	<i>Asparagus africanus</i> (Asparagus Fern)	<i>Abrus precatorius</i> (Crabs Eye Creeper)
<i>Caesalpinia decapetala</i> (Mysore Thorn)	<i>Passiflora suberosa</i> (Corky Passionflower)	<i>Aristolochia elegans</i> (Dutchmans Pipe)
<i>Macfadyena unguis-cati</i> (Cats Claw)	<i>Passiflora subpeltata</i> (Passionflower)	<i>Aristolochia littoralis</i> (Dutchmans Pipe)
<i>Pueraria lobata</i> (Kudzu)	<i>Passiflora tarminiana</i>	<i>Clematis vitalba</i> (Old mans Beard)
	<i>Salpichroa origanifolia</i> (PampasLily of Valley)	<i>Dioscorea bulbifera</i> (Aerial Yam)
	<i>Sollya heterophylla</i>	<i>Ipomoea alba</i> (Moonflower)
	<i>Thunbergia grandiflora</i> (Blue Trumpet Flower)	<i>Lathyrus tingitanus</i>
	<i>Asparagus scandens</i> (Climbing Asparagus)	<i>Senecio angulatus</i>
	<i>Ipomoea purpurea</i> (Purple Morning Glory)	<i>Leycesteria Formosa</i> Himalayan Honeysuckle
	<i>Pithecoctenium cynanchoides</i> (Monkeycomb)	<i>Solanum jasminoides</i> (Potato Vine)
	<i>Senecio macroglossus</i> (German Ivy)	<i>Solanum Seaforthianum</i> (Climbing Nightshade)
	<i>Actinidia chinensis</i> (Kiwi Fruit)	

N.B. The level of threat shown is based on research of the weed biology, its current impact on the region and its impact in surrounding regions.

Table 2: Categories of Widespread Weeds, based on level of threat to biodiversity

Widespread 1 Weeds (very high threat)	Widespread 2 Weeds (high threat)	Widespread 3 Weeds (moderate threat)
<i>Acetosa sagittata</i> (Turkey Rhubarb)	<i>Araujia sericifera</i> (Moth Vine)	<i>Dipogon lignosus</i>
<i>Anredera cordifolia</i> (Madeira Vine)	<i>Asparagus aethiopicus</i> (Asparagus Fern)	<i>Hedera helix</i> (English Ivy)
	<i>Asparagus asparagoides</i> (Bridal Creeper)	<i>Jasmine polyanthum</i> (White Jasmine)
	<i>Asparagus plumosus</i> (Climbing Asparagus)	<i>Rubus</i> ssp. (Blackberry of non native origin)
	<i>Cardiospermum grandiflorum</i> (Balloon Vine)	<i>Thunbergia alata</i> (Black Eyed Susan)
	<i>Delairea odorata</i> (Cape Ivy)	
	<i>Ipomoea cairica</i> (Coastal Morning Glory)	
	<i>Ipomoea indica</i> (Morning Glory)	
	<i>Lonicera japonica</i> (Honeysuckle)	
	<i>Tradescantia fluminensis</i> (Wandering Dew)	
	<i>Vinca major</i> (Periwinkle)	

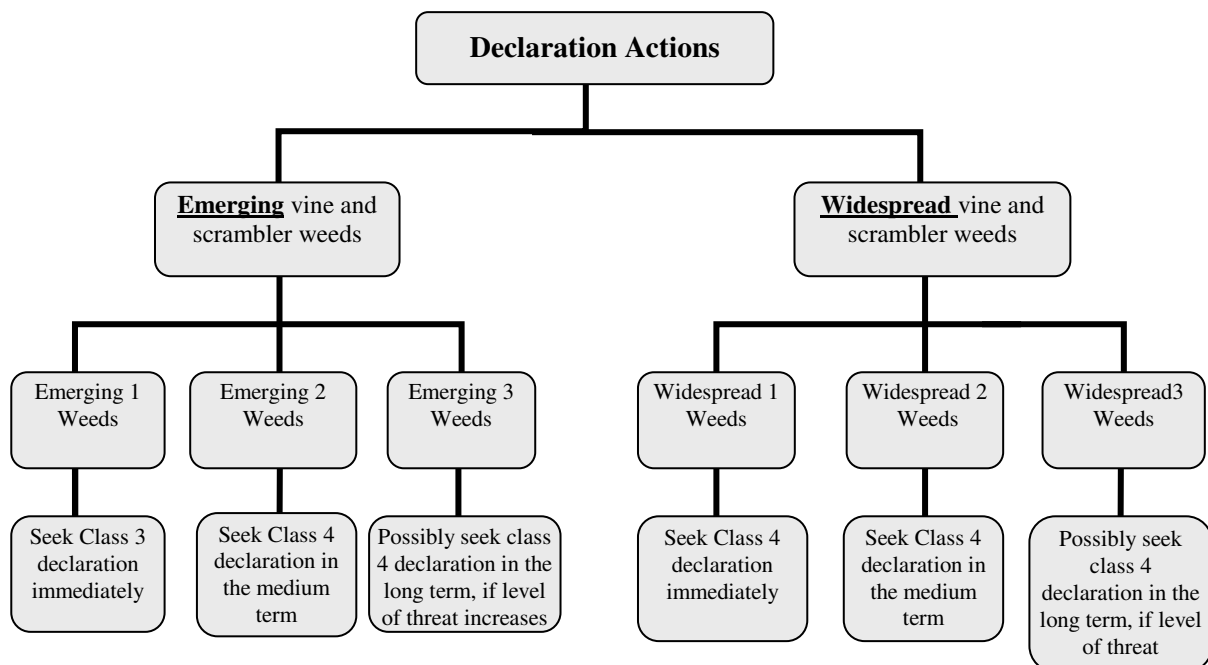
N.B. The level of threat shown is based on research of the weed, its current impact on the region and its impact in surrounding regions.

Summary of Declaration Actions

Diagram 1 below, illustrates the timeframes and recommended declaration classes for vines and scramblers in each of the weed categories. Those weeds as yet limited in distribution and which pose the highest threat to biodiversity, i.e. *Emerging 1 Weeds*, will require immediate Class 3 declaration. By contrast widespread weeds with moderate threats to biodiversity could require Class 4 declarations in the long term.

New declarations are necessary to enable enforcement activities on private lands, particularly in and /or adjacent to priority work areas. Local Control Plan templates will be developed for Widespread Weeds which encourage enforcement efforts in and or around priority work areas (see action 6.2.12, p.16). Some of the weeds in this plan are already declared in parts of Sydney. This plan encourages regionally consistent declaration.

Diagram 1: Flowchart illustrating timeframes for declaration based on weed categories



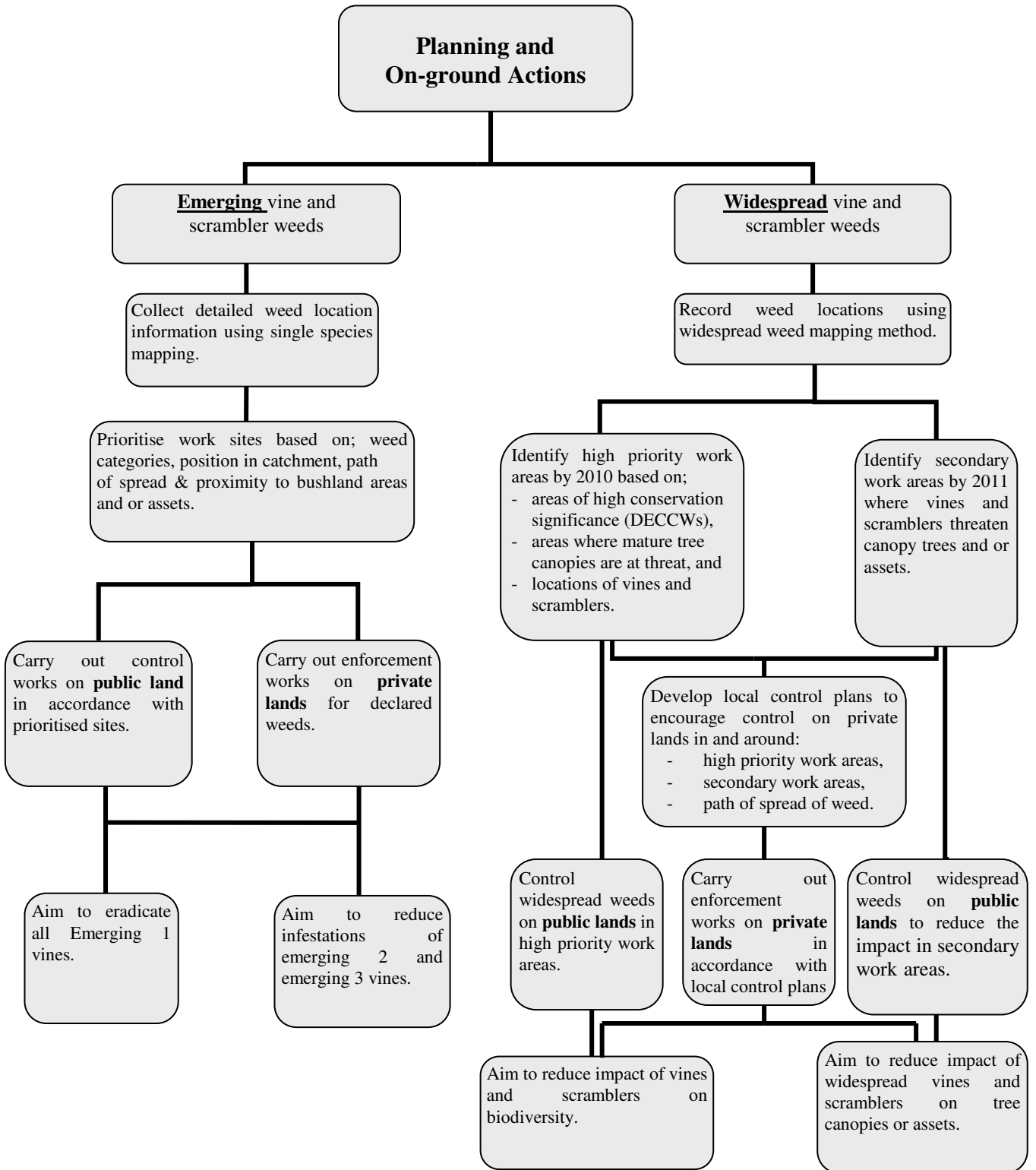
N.B. It is recommended that some Emerging 2 Weeds and Widespread 2 Weeds be declared sooner as they are either Weeds of National significance or have been identified as requiring immediate declaration in previous Sydney Vine plan. These are noted in Appendix 3 and 4.

Summary of Planning and On-Ground Works Actions

Diagram 2 (following) illustrates the difference in approach to the planning and prioritisation of sites for on-ground works.

For **emerging** weeds site prioritisation is based on the category of the weed, position in catchment, the path of spread and its proximity to bushland areas and or assets. This helps to achieve Objective 3, 'Prevent the establishment, eradicate where possible and prevent the spread of **emerging** vines and scrambler weeds'.

Diagram 2: Flowchart illustrating basic planning and on-ground work actions



N.B. This flowchart does not include all details of the action plan. It illustrates the different approach for emerging and widespread vine and scrambler weeds

For **widespread** vine weeds, the priority for control is based on results of the assessment of weed threat to specific high conservation sites 1, sites with mature tree canopies at threat, and location of vine/scrambling weed infestations as they pertain to spread.

Using the results of the collaborative DECCW/DPI/CMA project 2, which identified areas of high conservation significance at threat from widespread weeds, the objective of reducing the ‘impact of **widespread** vine and scrambler weeds on biodiversity, tree canopies and assets’ can be addressed. Incorporating local knowledge of noxious weeds, natural resource officers and conservation experts, the results revealed (as of October 2008) that 43 of the 125 Sydney sites containing the region’s threatened species, were infested with these vine/scrambling species. Uncontrolled, vine/scrambling weeds will cause further native species’ extinctions.

3.4 THE ROLE OF MAPPING

Mapping is important to the success of both the planning and monitoring components of this plan. The following is an explanation of the various mapping techniques which will be used:

Overlaying information on maps to determine priority work areas

High priority areas for widespread weed control will be determined with GIS mapping by incorporating and overlaying various available digital information, including;

- areas of high conservation significance at threat from vines (as per footnote 1)
- mature canopy trees are at threat, and,
- locations of vines and scramblers identified via ‘Widespread Weed Mapping’.

Widespread Weed Mapping

Mapping of widespread vine and scrambling weeds will be carried out using the ‘Widespread weed mapping method’ developed by the (former) Dept of Primary Industries in 2007. 3 This type of mapping requires limited resources and can be done at the desktop in a short time. It will be used to assist in prioritisation of sites and planning control.

Weed Density Mapping

Single species weed density mapping will be used to record the locations and density of the emerging weeds. The ‘regional weed mapping standard’ utilised by the Sydney Metro CMA will be used to ensure regional consistency, will assist in determining priority of control sites and will provide a basis for monitoring results of control of emerging vine and scrambler weeds.

1 The collaborative DECCW/DPI/CMA assessment of weed impact on threatened species based on site analysis is the basis for determining priority sites for vine/scrambler (and other weed species management). It is reported on in Coutts-Smith, A.J. and Downey, P.O. (2006). *Impact of weeds on threatened biodiversity in New South Wales*. Technical Series no. 11, CRC for Australian Weed Management, Adelaide .

2 Ibid.

3 Brindle, Sean, *Invasive Species Monitoring – Local Government Weed Survey*, NSW DPI, Orange NSW 2007-8, pp.81

Standardised technique for monitoring bushland condition before and after control

Many agencies have utilised bushland condition mapping for assessing bushland condition before and after works are carried out. In future projects the standardised monitoring technique adopted by DECCW and the Department of Industry and Investment (former DPI) will be promoted as the recommended method for monitoring control of widespread tree and shrub weeds.⁴

3.5 WEED BIOLOGY/ECOLOGY

Many of the weed species in this plan originate from tropical and sub-tropical climates. They tend to grow vigorously, and climb as high as their support structures allow them, making control difficult. It is expected that climate change will lead to an increase in the abundance of these species. A number of emerging vine and scrambler weeds in Sydney are currently posing significant problems on the NSW North Coast and South East Queensland, e.g Kudzu and Cats Claw Creeper.

For many species reproduction is not limited to seed and also occurs vegetatively. Underground root and tuber systems pose extreme difficulty for control by herbicide alone, so removal is labour intensive. The ability of these species to spread along waterways and re-sprout from metres below soil makes prevention of spread the highest priority.

Numerous websites have current detailed information on the weed biology of specific vine and scrambler weed species, including:

<http://www.weeds.gov.au/>

<http://www.weeds.org.au/>

<http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds/profiles>

<http://www.sydneyweeds.org.au/>

<http://www.northcoastweeds.org.au/>

3.5 KEY LAND MANAGERS

All land managers within the boundaries of the Sydney Weeds Committees are considered critical to the success of this plan.

4.0 LEGISLATIVE and REGULATORY SITUATION

4.1 CURRENT DECLARATIONS

The current declaration status of vine and scrambler weeds in the Sydney Region is shown in Appendix 2, pgs 22-23. Many of the species in this plan are already declared further north of the region, including the mid north and far north coasts of NSW. Some of the species found in Sydney e.g. Pampas Lily-of-the-valley, are only declared in other states and not known elsewhere in NSW.

⁴ Specifications for the standardised monitoring process referred to in this plan are described in *Guidelines for monitoring weed control and recovery of native vegetation* by Bruce Auld, NSW Department of Primary Industries, 2009 and in the Standard Tier (or introductory level) of the *Monitoring manual for bitou bush control and native plant recovery*, by Hughes, NK, Burley, AL, King, SA and Downey, PO, Department of Environment and Climate Change NSW, Hurstville, 2009.

4.2 DECLARATION CHANGES

The proposed declarations and timeframe for declaration changes to occur is illustrated in Appendix 3, pgs 24-25. This plan seeks to develop regionally consistent declarations of weed species which readily spread across local control authority boundaries.

Declarations are considered necessary to meet the following key objectives of this plan;

- Prevent the establishment, eradicate where possible and prevent the spread of **emerging** vines and scrambler weeds, and
- Reduce the impact of **widespread** vine and scrambler weeds on biodiversity, tree canopies and assets.

The development of local control plan templates for widespread vine and scrambler weeds which focus on controlling weeds on private land where they are having an impact on biodiversity, ensures an efficient (cost effective) approach to enforcement activities.

5.0 CONSIDERATIONS and OPPORTUNITIES

5.1 OPPORTUNITIES

This plan which conforms to the NSW Invasive Species Plan, relevant Catchment Management Authorities Weed Strategies and incorporates recent studies and methodologies undertaken in conjunction with DECCW, will assist in attracting funds beyond those available through councils' operational and capital works budgets, and environmental levies. These would include, though not be limited to, federal and/or state programmes to improve biodiversity, and mitigate effects of climate change by enhancing ecosystem resilience.

Partners to join in large scale co-ordinated control will be actively sought. Councils' operational and capital works budgets and environmental levies can support this type of project i.e. involving Green Corps, Work for the Dole and corporate volunteers.

Funding on-ground control works, survey and mapping and intensive targeted education/public awareness programs are currently undertaken in Sydney on a regional co-operative basis. It is also acknowledged that the capacity of councils and agencies to fund implementation of this plan will vary and it is the intention of the committees to seek external funding wherever possible to fill these gaps.

Irrespective of additional funding, co-operative projects for on-ground control and regional education will continue through existing weed control and bushland management programs of Councils and agencies, to be undertaken by staff, contractors and volunteers. Local control authorities recognise their responsibility to effectively manage infestations of these climbers and scramblers under the terms of this plan and in accordance with available resources.

5.2 SPECIES MANAGEMENT

Control methods for some vines/scramblers occur in the **Noxious and Environmental Weed Control Handbook** (4th edition) at:

<http://www.dpi.nsw.gov.au/agriculture/pests-ees/weeds/publications/management/noxious-environmental-weed-control>.

For others research will be documented on weed profile sheets available from the Sydney Weeds Committees website.

5.3 EXTENSION AND EDUCATION

The focus for education and extension activities will be increasing skills in identification and control of climber and scrambler weeds of local and state agency staff, volunteers, landholders and the general public through::

- A *Sydney Weed Educational Event Calendar* publicising the opportunities to participate in the co-operative activities of all agencies. It includes/will include:
 - The Sydney Royal Easter Show
 - Sydney Olympic Park ABC Garden Expo
 - Weed Busters Week
 - Caravan and Camping Roadshow
 - Kuringai Wildflower Festival
 - Regional and combined local shows
 - Festivals celebrating diverse ethnicity

Displays illustrating the potential damage of these species along riparian zones and to native bush remnants will provide information in 10 languages.

These following resources will be either established or expanded.

- WEB accessible materials including filmed demonstration of specific control techniques translated into multiple languages
- Articles in ratepayer newsletters, Bushcare newsletters and Mayoral columns, especially when species become declared in new LCAs.
- The inclusion of vine/scrambling species in existing educational display material accessible to the entire community via multiple languages
- Hands on identification and best management practice training for some for these species was held in December 2008 and will continue throughout the life of the plan, via workshops/field days/site visits
- Interviews with radio and television reporters highlighting weed impact and control efforts
- Local media releases and community newsletter articles
- Sydney Weeds Committees website will illustrate/explain impact of these species
- Regional brochures– e.g. Stop the Spread and other publications highlighting the impacts of vine and scrambling weeds re-designed for vine/scrambling weeds
- Identification of these species through specific WEEDeck cards
- Establishment of a formal network of volunteer weed vine impact spotters to assist with initial mapping and future monitoring

5.4 LINKS TO OTHER STRATEGIES

Guided by the NSW Invasive Species/New Weed Incursion Plans and consistent with the Hawkesbury Nepean and Sydney Metropolitan Weeds Strategies, this plan intends to:

1. Exclude – prevent the establishment of new invasive species
2. Eradicate or contain – eliminate, or prevent the spread of new invasive species
3. Effectively manage – reduce the impacts of widespread invasive species
4. Build Capacity – ensure the ability and commitment to manage invasive species

in relation to invasive vine and scrambling species at a regional level.

It conforms to the Mission Statement for the **National Weeds Strategy**; "to reduce the detrimental impact of weeds on the sustainability of Australia's productive capacity and natural ecosystems", and to Objective 3.2; 'encourage the development of strategic plans for weed management at all levels'. It contributes to the Natural Resource Commissions (NRC) Statewide target; 'By 2015 there is a reduction in the impact of invasive species'.

5.5 BARRIERS AND CONTINGENCIES

The following barriers are addressed through the respective Actions detailed in Section 6.0:

1. Further information regarding vine and scrambler species not nominated in DECCW's CMA weed study needs to be included as priority work areas for maximum reduction of impact on biodiversity (Action 6.2.5);
2. Current control at the regional level is not strategic in reducing the impact on biodiversity (Actions 6.1.1 – 6.1.7 and 6.2.1 – 6.2.7);
3. The current extent of some vines and scramblers is not known (Action 6.1.6 & 6.2.7);
4. New infestations of emerging vine and scrambler weeds need to be eradicated to prevent spread to new areas (Action 6.1.6);
5. Existing infestations of vines and scrambler weeds need to be managed to reduce spread and impacts on biodiversity (Action 6.1.8, 6.1.9, 6.2.8 - 6.2.10);
6. Inability to control climbers and scramblers on private property (Actions 6.1.10, 6.1.11, 6.2.11 – 6.2.13); and
7. Lack of awareness of the impacts, identification and control of vines and scramblers (Action 6.1.12, 6.1.13, 6.2.14).
8. Correct identification could be a challenge in relation to some species, (in particular *Rubus* ssp. (6.1.12)

6.0 ACTION PLAN

6.1 ACTION PLAN FOR CONTROL OF EMERGING VINES AND SCRAMBLERS:	Performance indicator	Who	Addresses which objectives. (Number)
Planning and Surveying			
6.1.1 Establish a regional vine control task force	Regional vine control task force established by 2011	Sydney Weeds Committees	7
6.1.2 Seek endorsement of this regional plan from relevant organisations	Regional Plan endorsed by all relevant organisations by June 2011	LCAs, Sydney Weeds Committees	5
6.1.3 Reassess the level of threat of emerging vines and scramblers using the NSW Weed Risk Management System and adjust current weed groupings (see Table 1), as necessary.	Vines and scramblers re-assessed using the NSW Weed Risk Assessment by 2011	Vine Control Task Force, Sydney Weeds Committees	7
6.1.4 Continue to assess any new emerging vines or scramblers as they arise and add them to this plan as deemed necessary by Sydney Weeds Committees.	New emerging vines and scramblers assessed and added to this plan as deemed necessary by Sydney Weeds Committees.	Vine Control Task Force, Sydney Weeds Committees	7
6.1.5 Collect detailed information on the <u>current</u> location and extent of emerging vines and scramblers and record on geographical information system.	Detailed information on current locations of emerging vines and scramblers is collected and recorded on geographical information system by 2011.	LCAs, Sydney Weeds Committees	1
6.1.6 Carry out survey works to locate and record <u>new</u> infestations of emerging vines and scramblers.	Annual surveys and inspections and new infestations recorded on geographical information system as discovered.	LCAs, Sydney Weeds Committees	1,7
6.1.7 Prioritise ‘work sites’ for emerging vines and scramblers, based on weed categories (see Table 1), position in catchment, path of spread, proximity to bushland areas and/or assets, etc.	Emerging vine and scambler ‘work sites’ prioritised by 2011.	Vine Control Task Force, Sydney Weeds Committees	2
On-ground works			
6.1.8 Carry out control works of emerging vines and scramblers on public lands, in accordance with prioritised ‘work sites’, with the following goals; - Eradicate all ‘Emerging 1’* vines and scramblers, - Reduce infestations of ‘Emerging 2’* and ‘Emerging 3’* vines and scramblers. <i>*See Table 1</i>	- “Emerging 1”* vines and scramblers are continually eradicated from public lands, in accordance with prioritised work sites. - Infestations of ‘Emerging 2’* and ‘Emerging 3’* weeds are reduced on public lands over the life of this plan, in accordance with prioritised work sites. <i>*See Table 1</i>	LCAs, DECCW, CMAs, Sydney Weeds Committees	3
6.1.9 Implement incentives programs to encourage proactive control of emerging vines and scramblers on private lands (e.g. Wollondilly Privet Project)	- LCAs, DECCW and CMAs are encouraged to implement incentives programs. - Incentives programs to control vines and scramblers are implemented by June 2013. - Incentives programs are evaluated based on;	LCAs, CMAs, DECCW, private landholders	3,6

	participation, pre and post surveys to determine participants' knowledge, skills, behaviour changes, and verbal feedback.		
Declarations and Enforcement			
6.1.10 Seek consistent regional declarations from NWAC for emerging vines and scramblers as per the timeframe and recommended class in the 'Declaration timeline' (Table 1), and/or as deemed necessary by the committee.	Vines and scramblers are declared in 70% of all relevant LCAs as per the class and timeframe in 'Declaration timeline' (Table 1).	LCAs, Sydney Weeds Committees	5
6.1.11 Carry out enforcement works on private lands for declared vines and scramblers.	<ul style="list-style-type: none"> - Proactive inspections are carried out, annually, on private lands. - Increase in number of landholders carrying out control works and/or number of notifications per annum. 	LCAs	3,4,5
Education			
6.1.12 Implement a Weed Alert process, in accordance with the NSW Invasive Species and New Weed Incursion Plans, when a new vine or scrambler species or infestation is discovered.	A weed alert process, in accordance with the NSW Invasive Species and New Weed Incursion Plans records and permits fast response control when a new vine or scrambler species or infestation is discovered. This process will respond to and feed into any potential state weed alert process that is developed. It will incorporate a procedure for prompt identification of new species and communication of that information.	Sydney Weeds Committees, Department Industry and Investment	6
6.1.13 Provide information and increase technical skills for the community and agency staff, on the identification and appropriate control methods of the emerging vines and scramblers.	<ul style="list-style-type: none"> - Media blitz when climbers and scramblers declared . - Annual articles mayoral columns/ratepayers newsletters - Information distributed to agency staff on identification and management of climbers and scramblers, especially - Climbers and scramblers in weed displays and in conjunction with local festivals, tree giveaways, etc. - Climbers and scramblers included in regional weed brochures, WEEDeck and the committees' website. 	LCAs, DECCW, CMAs, Sydney Weeds Committees	6
Monitoring and evaluation			
6.1.14 Monitor the success of on-ground works using weed density mapping	Mapping works incorporated into contracts or carried out by relevant organisations every 12 months.	LCAs, DECCW, CMAs, Sydney Weeds Committees	7
6.1.15 Review Vines and Scramblers plan	Plan reviewed 2015, or as deemed necessary.		7

6.2 ACTION PLAN FOR CONTROL OF WIDESPREAD VINES AND SCRAMBLERS:	Performance indicator	Who	Addresses which objectives. (Number)
Planning and Surveying			
6.2.1 Establish a regional vine control task force	Regional vine control task force established by 2011	Sydney Weeds Committees	7
6.2.2 Seek endorsement of this regional plan from relevant organisations	Regional Plan endorsed by all relevant organisations by June 2011.	LCAs, Sydney Weeds Committees	5
6.2.3 Reassess the level of threat of widespread vines and scramblers using the NSW Weed Risk Assessment method and adjust current weed groupings (see Table 2) as necessary.	Vines and scramblers re-assessed using weed risk management system by 2011	Vine Control Task Force, Sydney Weeds Committees	7
6.2.4 Record locations of widespread vines and scramblers using the 'widespread weed mapping method,' (see note 1, bottom of action plan).	Widespread vines and scrambler locations recorded using widespread weed mapping method by March 2011(footnote 3)	Vine Control Task Force, Sydney Weeds Committees	1
6.2.5 Identify 'high priority work areas' by incorporating and overlaying on maps, the following: <ul style="list-style-type: none"> o areas of high conservation significance defined in 'DECCW's CMA Weeds Project' (See note 2, bottom of action plan), o areas where mature canopy trees are at threat, and, o locations of vines and scramblers identified via 'Widespread Weed Mapping' (above). 	<ul style="list-style-type: none"> - Priority control sites (as per footnote 1) reviewed by potential new additions, hence priorities - Areas where mature canopy trees are at threat are identified and recorded on maps continually. - 'Highest priority work areas' determined by June 2010, and reviewed annually. 	Vine Control Task Force, Sydney Weeds Committees	2
6.2.6 Identify lower priority 'secondary work areas' where vines and scramblers threaten canopy trees and/or assets.	'Secondary work areas' identified by 2011, and reviewed annually.	Vine Control Task Force, Sydney Weeds Committees	2
6.2.7 Survey all areas of high conservation significance for new infestations of widespread vines and scramblers.	All areas of high conservation significance are surveyed for new infestations of widespread vines and scramblers, annually.	LCAs, CMAs, DECCW, Sydney Weeds Committees	7
On-ground works			
6.2.8 Carry out works to control infestations of widespread vines and scramblers in 'high priority work areas' on public lands.	<ul style="list-style-type: none"> - Works to control widespread vines and scramblers in highest priority areas on public land commence by December 2010 and are progressively implemented as resources permit. - The impact of widespread vines and scramblers on high priority work areas is reduced over the life of the plan. - Standard bush regeneration techniques are used to carry 	LCAs, DECCW, Sydney Weeds Committees	4

	<ul style="list-style-type: none"> out control works. - Local indigenous plants are used to revegetate areas where required. 		
6.2.9 Carry out works to reduce the impact of widespread vines and scramblers on tree canopies and or assets in 'secondary work areas' on public land.	<ul style="list-style-type: none"> - Works in secondary work areas on public land commence from 2012 and progressively implemented as resources permit. - The impact of widespread vines and scramblers on secondary work areas is reduced over the life of the plan. 	LCAs, DECCW, Sydney Weeds Committees	4
6.2.10 Implement incentives programs to encourage proactive private property control of widespread vines and scramblers in and around; <ul style="list-style-type: none"> - high priority work areas - secondary work areas, and - the path of spread of the weed (e.g. waterways) 	<ul style="list-style-type: none"> - LCAs, DECCW and CMAs are encouraged to implement incentives programs. - Incentives programs to control vines and scramblers are implemented by June 2013. - Incentives programs are evaluated based on; participation, pre and post surveys to determine participants' knowledge, skills, behaviour changes, and verbal feedback. 	LCAs, private landholders	4, 6
Declarations and Enforcement			
6.2.11 Seek regionally consistent declarations from NWAC for widespread vines and scramblers as per the 'Declaration timeline' (Table 2) or as deemed necessary by the committee.	Applications for declarations of vines/scramblers in 70% of relevant LCAs submitted as per the class and timeframe in 'Declaration timeline' (Table 2)	LCAs, Sydney Weeds Committees	5
6.2.12 Develop Local Control Action Plan templates, which include policies to assist in controlling widespread vines and scramblers from areas in and around; <ul style="list-style-type: none"> - high priority work areas, - secondary work areas, and - the path of spread of the weed (e.g. waterways) 	<ul style="list-style-type: none"> - Templates for Local Control Action Plans are developed for 'Widespread 1'* and 'Widespread 2'* weed categories by 2012. - Templates for Local Control Action Plans are developed for 'Widespread 3'* weeds as needed. <p><i>*See Table 2</i></p>	Sydney Weeds Committees	4, 5
6.2.13 Encourage or enforce control works of declared widespread vines and scramblers on private lands in accordance with local control plans.	<ul style="list-style-type: none"> - Proactive inspections are carried out, annually, on private lands - Increase in number of landholders carrying out control works and/or number of notifications per annum 	Sydney Weeds Committees, LCAs	4
Education			
6.2.14 Provide information and increase technical skills for the community and agency staff, on the identification and appropriate control methods of the widespread vines and scramblers	<ul style="list-style-type: none"> - Media blitz when climbers and scramblers are declared in local newspapers, and annual reminders. - Articles in Mayoral columns and ratepayers newsletters (once annually). - Information distributed to agency staff on identification 	LCAs, DECCW, CMAs, Dept.Industry&Investment, Sydney Weeds Committees, Regional Vine Control Task Force	6

	<ul style="list-style-type: none"> - and management of climbers and scramblers, especially Climbers and scramblers included in the annual Sydney Wide Calendar of Weed Events and at other times in conjunction with local festivals, tree giveaways, etc. - Climbers and scramblers included in regional weed brochures, WEEDeck and the committees' website. 		
Monitoring and evaluation			
6.2.15 Monitor on-ground works using standard monitoring process and/or incorporating 'Widespread Weed Mapping'.	<ul style="list-style-type: none"> - Standard tier monitoring (refer footnote 4) records condition before and after control and on an annual basis. - Decreased occurrence and density of widespread vines and scramblers recorded through standard method by June 2015. 	LCAs, CMAs, Sydney Weeds Committees	7
6.2.16 Review Vines and Scrambler Plan	Vines and Scrambler Plan reviewed by 2015, or as deemed necessary by the committee.	Regional Vine Control Task Force	7

7.0 MONITOR and REVIEW PROCESS

Works to monitor and review this plan are integral to the success of the plan.

As per footnote 4, the standard monitoring process will be incorporated into contracts or carried out by relevant organisations on a 12 monthly basis;

- 'Widespread Weed Mapping' can occur to widespread weed work areas (see action 6.2.15).
- Weed Density Mapping will be carried out in emerging weed work sites (see action 6.1.14).

Survey works to locate new infestations of emerging and widespread weeds will be carried out annually (see actions 6.1.6 and 6.2.7).

The regional plan will be reviewed in 2015, or as deemed necessary by the committee annually to allow for any additional/new information (see action 6.1.15 and 6.2.16).

8.0 BENEFITS

The implementation of this plan will reduce the impacts to biodiversity caused by widespread vine and scrambler weeds and eradicate and prevent the spread to new locations of emerging vine and scrambler weeds, particularly those limited in their distribution, e.g. Cat's Claw Creeper and Pampas Lily-of-the-Valley. It will assist in the conservation of various endangered ecological communities and threatened species listed under the *Threatened Species Conservation Act 1995*.

Some of these species, e.g. Pampas Lily-of-the-valley would otherwise develop into major weed problems in the Sydney Region and potentially across New South Wales (in association with >300mm rainfall). Being difficult to remove once established and with a variety of dispersal mechanisms, removal of these species at this early stage prevents a major threat to biodiversity and conservation efforts in the Sydney area.

9.0 RESOURCES

- (1) Department of Environment and Conservation (2006). *"Invasion and establishment of exotic vines and scramblers – key threatening process listing*. NSW Scientific Committee – final determination
- (2) Ensbey, R & Johnson, A. *Noxious and Environmental Weed Control Handbook – a guide to weed control in non-crop, aquatic and bushland situations 4th edition*, NSW DPI.
- (3) Parsons, W.T. & Cuthbert, E.G; (1992) *Noxious Weeds of Australia*. Inkata Press.
- (4) WEEDECK: *Weeds of Concern in the Sydney Region*. Sydney Weeds Committees.
- (6) Websites:
 - <http://www.sydneyweeds.org.au>
 - <http://www.weeds.org.au>
 - http://www.weeds.crc.org.au/weed_management
 - <http://www.dpi.nsw.gov.au/weeds>

Appendix 1: Known Distribution of Vines and Scramblers in Local Government Areas of Sydney

Scientific names	<i>Abrus precatorius</i>	<i>Acetosa sagittata</i>	<i>Actinidia chinensis</i>	<i>Anredera cordifolia</i>	<i>Araujia sericifera</i>	<i>Aristolochia elegans</i>	<i>Aristolochia littoralis</i>	<i>Asparagus aethiopicus</i>	<i>Asparagus africanus</i>	<i>Asparagus asparagoides</i>	<i>Asparagus plumosus</i>	<i>Asparagus scandens</i>	<i>Asystasia gangetica</i> var. <i>Micrantha</i>	<i>Caesalpinia decapetala</i>	<i>Cardiospermum grandiflorum</i>	<i>Clematis vitalba</i>	<i>Delairea odorata</i>	<i>Dioscorea bulbifera</i>	<i>Dipogon lignosus</i>	<i>Hedera helix</i>	<i>Ipomoea alba</i>
Common name	Crabs Eye Creeper	Turkey Rhubarb	Kiwi Fruit	Madeira Vine	Moth Vine	Dutchmans Pipe	Dutchmans Pipe	Asparagus Fern	Asparagus Fern	Bridal Creeper	Climbing Asparagus	Climbing Asparagus		Mysore Thorn	Balloon Vine	Old Mans Beard	Cape Ivy	Aerial Yam		English Ivy	Moon Flower
Ashfield		X		X	X			X	X	X	X	X									
Auburn		X		X	X			X		X					X				X		
Bankstown		X		X	X			X		X							X				
Baulkham Hills		X		X	X			X	X		X	X		X	X		X		X	X	
Blacktown															X	X					
Blue Mountains		X	X	X	X			X	X	X		X			X	X	X				X
Botany Bay																					
Burwood																					
Camden				X	X			X		X					X						X
Campbelltown		X		X	X				X	X					X						
Canada Bay		X		X	X			X			X				X						
Canterbury		X		X	X			X		X					X		X		X	X	
Fairfield		X			X					X					X						
Hawkesbury		X		X	X					X					X		X				X
Holroyd				X	X			X	X	X									X	X	
Hornsby		X		X	X			X		X	X	X			X		X		X	X	
HuntersHill		X		X	X			X			X				X		X				X
Hurstville		X		X	X			X		X	X	X			X		X		X	X	
Kogarah		X		X	X			X	X	X	X				X		X				X
Ku-ring-gai		X		X	X	X	X	X	X	X	X	X			X		X		X	X	
Lane Cove		X		X	X					X	X				X			X			X
Leichhardt				X	X			X			X				X					X	X
Liverpool				X	X					X					X						
Manly		X		X	X			X		X	X								X	X	
Marrickville				X	X			X													X
Mosman		X		X	X			X	X		X				X		X				X
Nth Sydney		X		X	X			X		X	X				X				X	X	
Parramatta		X		X	X			X		X		X			X		X		X	X	
Penrith		X		X	X			X		X		X			X		X		X	X	
Pittwater		X		X	X			X		X					X		X				X
Randwick		X		X	X			X		X	X				X		X		X	X	X
Rockdale		X		X	X			X													
Ryde		X		X	X			X	X	X				X		X			X		
Strathfield		X		X	X			X		X	X				X		X				
Sutherland		X		X	X										X		X				
Sydney City		X		X	X				X		X	X									X
Warringah		X		X	X			X	X		X	X			X	X	X				X
Waverley		X		X				X		X					X		X		X		
Willoughby		X		X	X			X	X	X	X	X			X		X		X	X	
Wollondilly		X		X	X			X		X					X						X
Woollahra		X		X				X			X				X		X		X		

Appendix 1 – Continued: Known Distribution of Vines and Scramblers in Local Government Areas of Sydney

Scientific names	<i>Ipomoea cairica</i>	<i>Ipomoea indica</i>	<i>Ipomoea purpurea</i>	<i>Lathyrus tingitanus</i>	<i>Leycesteria formosa</i>	<i>Lonicera japonica</i>	<i>Macfadyena unguis-cati</i>	<i>Passiflora suberosa</i>	<i>Passiflora subpeltata</i>	<i>Passiflora toriniana</i>	<i>Pithecoctenium cynanchoides</i>	<i>Pueraria lobata</i>	<i>Salpichroa origanifolia</i>	<i>Senecio angulatus</i>	<i>Senecio macroglossus</i>	<i>Solanum jasminoides</i>	<i>Solanum seaforthianum</i>	<i>Sollya heterophylla</i>	<i>Thunbergia alata</i>	<i>Thunbergia grandiflora</i>	<i>Tradescantia fluminensis</i>	<i>Vinca major</i>
Common name	Coastal Morning Glory	Morning Glory	Purple Morning Glory		Himalayan Honeysuckle	Honeysuckle	Cats Claw Creeper	Corky Passionflower	White Passionflower		MonkeyComb	Kudzu	Pampas lily of the valley		German Ivy	Potato vine	Climbing Nightshade		Black Eyed Susan	Blue Trumpet Flower	Wandering Dew	Periwinkle
Ashfield	x	x	x	x		x		x	x	x						x			x		x	
Auburn	x	x															x					
Bankstown	x	x				x															x	
Baulkham Hills		x	x			x	x		x							x	x		x	x	x	x
Blacktown															x	x			x	x		x
Blue Mountains		x			x	x	x									x			x		x	x
Botany Bay																						
Burwood																						
Camden		x	x			x	x		x							x					x	x
Campbelltown	x	x	x																			
Canada Bay		x					x						x								x	x
Canterbury		x				x			x												x	
Fairfield		x	x																			
Hawkesbury	x	x				x	x		x										x		x	x
Holroyd			x			x	x															
Hornsby	x	x				x	x	x											x		x	x
Hunters Hill			x			x			x													
Hurstville	x	x				x			x										x		x	
Kogarah	x	x	x			x			x	x					x	x			x			
Ku-ring-gai	x	x	x			x	x	x					x	x		x	x		x		x	x
Lane Cove	x	x	x			x	x	x			x									x	x	
Leichhardt	x	x					x									x					x	x
Liverpool	x	x	x																		x	
Manly	x	x				x	x		x								x		x		x	x
Marrickville																					x	
Mosman	x	x				x	x	x		x									x		x	
Nth Sydney	x	x				x	x													x	x	x
Parramatta	x	x	x	x		x	x	x	x	x						x			x		x	x
Penrith	x	x				x	x	x				x				x	x				x	x
Pittwater		x	x				x								x	x			x		x	x
Randwick	x	x	x			x											x				x	x
Rockdale																						
Ryde	x	x				x		x					x						x		x	x
Strathfield	x	x				x	x															
Sutherland	x	x				x															x	
Sydney City						x										x					x	
Warringah	x	x				x	x	x	x					x					x	x	x	x
Waverley	x	x				x	x		x					x		x			x		x	x
Willoughby	x	x				x	x	x								x			x	x	x	x
Wollondilly			x	x			x											x	x	x	x	
Woollahra	x	x				x															x	

Appendix 2 – Current declaration status of vine and scrambler weeds in the Sydney Region

Scientific names	<i>Abrus precatorius</i>	<i>Acetosa sagittata</i>	<i>Anredera cordifolia</i>	<i>Araujia sericifera</i>	<i>Aristolochia elegans</i>	<i>Aristolochia littoralis</i>	<i>Asparagus aethiopicus</i>	<i>Asparagus africanus</i>	<i>Asparagus asparagoides</i>	<i>Asparagus plumosus</i>	<i>Asparagus scandens</i>	<i>Asystasia gangetica var. Micrantha</i>	<i>Caesalpinia decapetala</i>	<i>Cardiospermum grandiflorum</i>	<i>Clematis vitalba</i>	<i>Delairea odorata</i>	<i>Dioscorea bulbifera</i>	<i>Dipogon lignosus</i>	<i>Heidera helix</i>	<i>Ipomoea alba</i>
Common name	Crabs Eye Creeper	Turkey Rhubarb	Madeira Vine	Moth Vine	Dutchmans Pipe	Dutchmans Pipe	Asparagus Fern	Asparagus Fern	Bridal Creeper	Climbing Asparagus	Climbing Asparagus		Mysore Thorn	Balloon Vine	Old Mans Beard	Cape Ivy	Aerial Yam		English Ivy	Moon Flower
Ashfield												1								
Auburn												1								
Bankstown												1								
Baulkham Hills												1								
Blacktown												1								
Blue Mountains								5				1								
Botany Bay												1								
Burwood												1								
Camden												1								
Campbelltown			4						4			1		4						
Canada Bay												1								
Cantebury												1								
Fairfield												1								
Hawkesbury												1								
Holroyd												1								
Hornsby		4	4				4		4	4		1		4		4				
Hunters Hill			4				4		4	4		1		4		4				
Hurstville												1								
Kogarah												1								
Kuringai		4	4				4		4	4		1		4		4				
Lane Cove		4	4				4		4	4		1		4		4				
Leichardt												1								
Liverpool												1								
Manly			4				4			4		1		4		4				
Marrickville												1								
Mosman			4				4			4		1		4		4				
Nth Sydney		4	4				4			4		1				4				
Parramatta			4				4		4	4		1		4		4				
Penrith												1								
Pittwater		4	4	4			4			4		1								
Randwick												1								
Rockdale												1								
Ryde			4						4	4		1								
Strathfield												1								
Sutherland									5			1								
Sydney City												1								
Warringah		4	4				4			4		1		4		4				
Waverley												1								
Willoughby		4	4				4		4	4		1		4		4				
Wollondilly												1								
Woollahra												1								

Appendix 2 – Continued: Current declaration status of vine and scrambler weeds in the Sydney Region

Scientific names	<i>Ipomoea cairica</i>	<i>Ipomoea indica</i>	<i>Ipomoea purpurea</i>	<i>Lathyrus tingitanus</i>	<i>Lycyesteria formosa</i>	<i>Lonicera japonica</i>	<i>Macfadyena unguis-cati</i>	<i>Passiflora suberosa</i>	<i>Passiflora subpeltata</i>	<i>Passiflora toriniana</i>	<i>Pueraria lobata</i>	<i>Salpichroa origanifolia</i>	<i>Senecio angulatus</i>	<i>Senecio macroglossus</i>	<i>Solanum jasminoides</i>	<i>Solanum seaforthianum</i>	<i>Sollya heterophylla</i>	<i>Thunbergia alata</i>	<i>Thunbergia grandiflora</i>	<i>Tradescantia fluminensis</i>	<i>Vinca major</i>	
Common name	Coastal Morning Glory	Morning Glory	Purple Morning Glory		Himalayan Honeysuckle	Honeysuckle	Cats Claw Creeper	Corky Passionflower	White Passionflower		Kudzu	Pampas lily of the valley		German Ivy	Potato vine	Climbing Nightshade		Black Eyed Susan	Blue Trumpet Flower	Wandering Dew	Periwinkle	
Ashfield																						
Auburn																						
Bankstown																						
Baulkham Hills																						
Blacktown																						
Blue Mountains																						
Botany Bay																						
Burwood																						
Camden																						
Campbelltown	4	4																				
Canada Bay																						
Canterbury																						
Fairfield																						
Hawkesbury																						
Holroyd																						
Hornsby	4	4					4													4		
Hunters Hill	4	4					4															
Hurstville																						
Kogarah																						
Ku-ring-gai	4	4					4													4		
Lane Cove	4	4					4													4		
Leichardt																						
Liverpool																						
Manly	4	4					4													4		
Marrickville																						
Mosman	4	4					4															
Nth Sydney	4	4																		4		
Parramatta	4	4					4															
Penrith																						
Pittwater	4	4																				
Randwick																						
Rockdale																						
Ryde	4	4					4													4		
Strathfield																						
Sutherland																						
Sydney City																						
Warringah	4	4					4															
Waverley																						
Willoughby	4	4					4													4		
Wollondilly																						
Woollahra																						

APPENDIX 3: EMERGING WEED CATEGORIES AND DECLARATION TIMELINE

Weed Category and Scientific name	Common name	Widespread	Threat	Declaration Timeline			
				Seeking Declaration Class* (subject to outcome of WRA*)	Immediate	Medium term	Optional Long term (could require declaration if level of threat increases)
Emerging 1 Weeds							
<i>Asystasia gangetica</i> var. <i>micrantha</i>		no	very high	Already C1	na		
<i>Caesalpinia decapetala</i>	Mysore Thorn	no	very high	3/2	✓		
<i>Macfadyena unguis-cati</i>	Cats Claw	no	very high	3	✓		
<i>Pueraria lobata</i>	Kudzu	no	very high	3/2	✓		
Emerging 2 Weeds							
<i>Asparagus africanus</i>	Asparagus Fern	no	high	4		✓	
<i>Passiflora suberosa</i>	Corky Passionflower	no	high	4		✓	
<i>Passiflora subpeltata</i>	Passionflower	no	high	4		✓	
<i>Passiflora tarminiana</i>		no	high	4		✓	
<i>Salpichroa origanifolia</i>	Pampas/lily of valley	no	high	4	✓ (previous draft plan)		
<i>Sollya heterophylla</i>		no	high	4		✓	
<i>Thunbergia grandiflora</i>	Blue Trumpet Flower	no	high	4		✓	
<i>Asparagus scandens</i>	Climbing Asparagus	no	high	4		✓	
<i>Ipomoea purpurea</i>	Purple Morning Glory	no	high	4		✓	
<i>Senecio macroglossus</i>	German Ivy	no	moderate	4		✓	
Emerging 3 Weeds							
<i>Abrus precatorius</i>	Crabs Eye Creeper	no	moderate	4			✓
<i>Aristolochia elegans</i>	Dutchmans Pipe	no	moderate	4			✓
<i>Aristolochia littoralis</i>	Dutchmans Pipe	no	moderate	4			✓
<i>Clematis vitalba</i>	Old mans Beard	no	moderate	4			✓
<i>Dioscorea bulbifera</i>	Aerial Yam	no	moderate	4			✓
<i>Ipomoea alba</i>	Moonflower	no	moderate	4			✓
<i>Lathyrus tingitanus</i>		no	moderate	4			✓
<i>Senecio angulatus</i>		no	moderate	4			✓
<i>Leycesteria Formosa</i>	Himalayan Honeysuckle	no	moderate	4			✓
<i>Solanum jasminoides</i>	Potato Vine	no	moderate	4			✓
<i>Solanum Seaforthianum</i>	Climbing Nightshade	no	moderate	4			✓

- **NOTES** Emerging Weeds with very high threat require class 3 declaration immediately. Emerging Weeds with high threat require class 4 declaration in the medium term. Emerging weeds with moderate threat could require class 4 declaration in the long term, if level of threat increases. The level of threat shown is based on research of the weed, its current impact on the region and its impact in surrounding regions. Future weed risk analysis could alter these recommendations.

APPENDIX 4: WIDESPREAD WEED CATEGORIES AND DECLARATION TIMELINE

Weed Category and Scientific name	Common name	Widespread	Threat	Seeking Declaration Class 4* (subject to outcome of WRA*)	Declaration Timeline		
					Immediate	Medium term	Optional Long term (could require declaration if level of threat increases)
Widespread 1 Weeds							
<i>Acetosa sagittata</i>	Turkey Rhubarb	yes	very high	4	✓		
<i>Anredera cordifolia</i>	Madeira Vine	yes	very high	4	✓		
Widespread 2 Weeds							
<i>Araujia sericifera</i>	Moth Vine	yes	high	4		✓	
<i>Asparagus aethiopicus</i>	Asparagus Fern***	yes	high	4			
<i>Asparagus asparagoides</i> **	Bridal Creeper	yes	high	4	✓ (because WONS)		
<i>Asparagus plumosus</i>	Climbing Asparagus	yes	high	4			
<i>Cardiospermum grandiflorum</i>	Balloon vine	yes	high	4		✓	
<i>Delairea odorata</i>	Cape Ivy	yes	high	4		✓	
<i>Ipomoea cairica</i>	Coastal Morning Glory	yes	high	4		✓	
<i>Ipomoea indica</i>	Morning Glory	yes	high	4		✓	
<i>Lonicera japonica</i>	Honeysuckle	yes	high	4		✓	
<i>Tradescantia fluminensis</i>	Wandering Dew	yes	high	4		✓	
<i>Vinca major</i>	Periwinkle	yes	high	4		✓	
Widespread 3 Weeds							
<i>Dipogon lignosus</i>		yes	moderate	4			✓
<i>Hedera helix</i>	English Ivy	yes	moderate	4			✓
<i>Jasmine polyanthum</i>	White Jasmine	yes	moderate	4			✓
<i>Rubus Fruticosus aggregate species</i>	Blackberry	yes	moderate	Already C4			na
<i>Thunbergia alata</i>	Black Eyed Susan	yes	moderate	4			✓

- **NOTES** All widespread weeds are recommended to be listed as class 4. Widespread Weeds with very high threat require immediate declaration. Widespread Weeds with high threat require medium term declaration. Widespread weeds with moderate threat could require declaration in long term if threat level increases. The level of threat shown is based on research of the weed biology, its current impact on the region and its impact in surrounding regions. Future weed risk analysis could alter these recommendation