

# REGIONAL WEED MANAGEMENT PLAN

**1.1 PLAN TITLE:** Regional Asthma Weed Management Plan – Sydney Central

## 1.2 PLAN PROPONENTS

Regional Weeds Advisory Committee: Sydney Central Regional Weeds Committee

Address: **Randwick City Council, 30 Frances Street, Randwick NSW 2031**

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Signature:..... Date: .....

## 1.3 NAME OF PLANT(S)

WONS N

Botanical name(s): *Parietaria judaica*

Common name(s): **Asthma Weed , Pellitory,  
Pellitory of the Wall, Sticky Weed, Kirribilli Curse**

## 1.4 PLAN PERIOD (not to exceed five years)

Starting date: **July 2003**

Completion date: **June 2008**

## 1.5 AREA OF OPERATION:

This plan extends over the geographical area of central and southern Sydney, covering the Local Control Authorities (LCAs) south of Sydney Harbour to Sutherland LCA, and west to Hurstville, Canterbury and Strathfield LCAs, and covers a population of over 1 million people, (A.B.S. 30 June 2001).

## 1.6 AIM:

To control and prevent the spread of Asthma Weed (*Parietaria judaica*) on both public and private land.

## 1.7 OBJECTIVES:

1. Contain and where possible locally eradicate Asthma Weed infestations in rare and isolated infestations on public land within 5 years.
2. Contain and reduce Asthma Weed in marginal areas on public land within 5 years, and prevent from becoming core infestations.
3. Contain and reduce Asthma Weed infestations in core areas on public land within 5 years.
4. Facilitate more effective and efficient control and eradication of Asthma Weed.
5. Facilitate the control and eradication of Asthma Weed on private and other public authority lands.
6. Increase community awareness of the identification and need for appropriate control of Asthma Weed by private landholders.
7. Increase the knowledge and skills of relevant indoor and outdoor LCA staff and community volunteers on the correct identification of, and appropriate control techniques for Asthma Weed.
8. Monitor plan implementation and success.

## 2.0 STAKEHOLDERS

Signatories and other landholders include the LCAs of Ashfield, Botany Bay, Burwood, Canada Bay, Canterbury, Hurstville, Kogarah, Leichhardt, Marrickville, Randwick, Rockdale, South Sydney, Strathfield, Sydney, Waverley and Woollahra Councils, and the following State Government agencies: Sydney Water, National Parks and Wildlife Service, Roads and Traffic Authority, Rail Infrastructure Corporation, Sydney Harbour Foreshore Authority, Sydney Ports, Dept of Housing, Planning NSW and the Department of Land and Water Conservation.

## 3.0 BACKGROUND and GENERAL FACTS

### 3.1 Weed Biology/ Ecology

Asthma Weed can be described as a perennial herb, usually 30-60cm high, with alternate glossy olive-green pointed leaves, with fine white. Stems are greenish brown or reddish and 4 – angled. Flowers are greenish and small, in axillary clusters, while seeds are dark brown to black. The plant's root system is extensive and becomes woody with age. A native of the Mediterranean region, Asthma Weed is common in stony soils, particularly in urban areas, and has been introduced to most of the warmer temperate regions of the world.

### 3.2 Method of Spread

Every year, mature plants produce thousands of seeds which are spread by both wind and water. The hairs covering the plant also stick to clothing and animals, allowing the flower heads to be transported thus facilitating further spread of the seeds. Seedlings grow quickly, producing flowers and seeds while still young. It is not known how long the seeds can remain viable.

### 3.3 Description of the Problem

Asthma Weed has the dubious honour of being reported as one of the first introduced weeds in Australia. Although entry into Australia is not clear, it has been suggested that it was initially introduced at Woolloomooloo, Sydney, during the early 19<sup>th</sup> Century on marble used for head stones in cemeteries. Asthma Weed is now present in all southern states, except Tasmania, and is mainly found in and around the major urban areas, and occasionally occurring as a roadside weed elsewhere. In Sydney, the weed is widespread over the Inner Sydney region, continuing to spread through the North Shore, the Western Suburbs to Mount Druitt and to Sutherland in the south.

*Parietaria* species are members of the nettle family, Urticaceae, which is characterised by fine stinging hairs that induce adverse skin reactions. Asthma Weed can cause skin reactions in susceptible people when they touch the plant. Far worse, however, the pollen of Asthma Weed can cause allergic rhinitis (hayfever), asthma and conjunctivitis, which are exacerbated by the long flowering season.

The prevalence of asthma in Australia is amongst the highest in the world, and is Australia's most widespread chronic health problem affecting more than 2 million Australians. The condition affects 1 in 4 children, 1 in 7 adolescents and 1 in 10 adults (National Asthma Council, Australia 2002). The prevalence and severity of asthma symptoms Australia wide is increasing, with the Central Sydney and South East Sydney Health Service areas (on average) having a higher incidence of asthma in comparison to the rest of the state. At the same time, the numbers and distribution of Asthma Weed plants/infestations in the Sydney region is also on the rise. It has been speculated that there could be a link between the two, however, there is no documented evidence of a direct causal relationship between the increase in the incidence of asthma and the distribution and abundance of Asthma Weed.

The occurrence and spread of Asthma Weed in natural areas is also on the increase, mostly in areas where the soil has been disturbed in the past, displacing understorey native species and habitat.

The control of Asthma Weed on public land requires considerable resources which most councils in the Sydney Central region do not currently have available. As mentioned below in Section 5.2, best

practice management of Asthma Weed requires three or four regular follow-up treatments after initial treatment before it sets seed again, so as to exhaust the seed bank, otherwise it quickly returns.

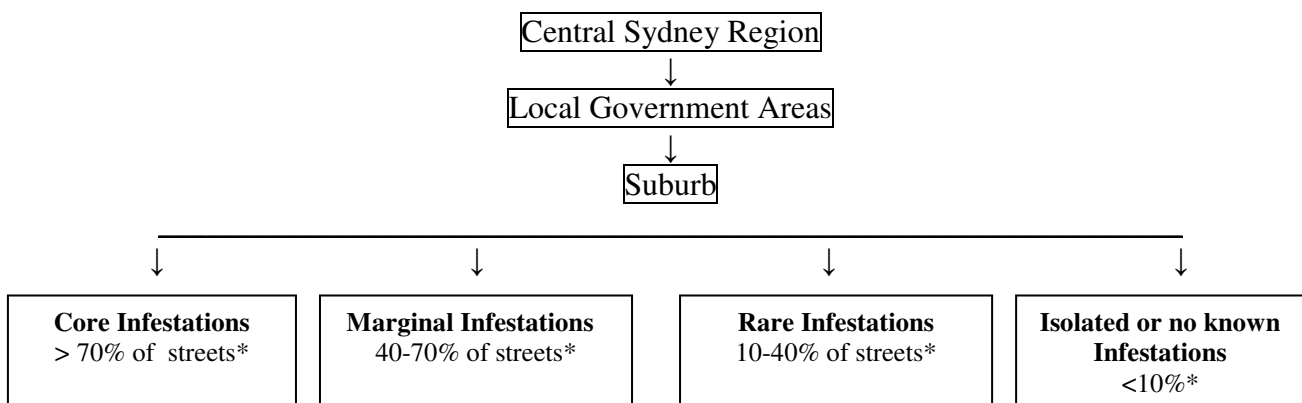
### 3.4 Reason for the Plan

The containment and reduction of Asthma Weed infestations is essential for the long term benefit of the community and the natural environment in the Sydney Central region. Asthma Weed is distributed widely in the region, the density of its infestations is increasing, and its continuing to spread to new areas. A regional approach, involving ALL stakeholders is required to minimise this plant’s spread, distribution and numbers. The signatories to this plan are committed to managing Asthma Weed in a coordinated and strategic way that covers the core objectives of education and appropriate, effective control.

This plan details a common course of action and is essentially focused on educating residents, landowners, council staff and others with land management responsibilities, in an effort to increase awareness of the plant’s health and environmental impacts and of landholders’ obligations to control the weed under the Noxious Weeds Act 1993. Community education will form the basis for this plan, as a large percentage of infestations are present on private land.

### 3.5 Distribution of the infestations

Asthma Weed is most prevalent in urban areas, generally being seen on roadsides, laneways, walls, footpaths and disturbed bushland areas, as well as in neglected yards, vacant land and common areas of apartment buildings. The mapping of specific Asthma Weed infestations is impractical due to the plant’s widespread distribution and growth habit. Instead, suburbs in each council area have been rated according to the % of streets known to contain Asthma Weed, as illustrated by the following flow diagram:



Streets\* = Includes the presence of Asthma Weed on roadsides, laneways, footpaths, parks and gardens, and private properties.

(Note: Requires consistency in observation technique to demonstrate accurate, objective and repeatable results)

#### Ashfield Council

- Ashfield                      Marginal
- Summer Hill                Core
- Croydon                      Marginal
- Haberfield                  Marginal

#### Botany Bay Council

#### Burwood Council

- Burwood                      Rare
- Croydon                      Rare
- Enfield                        Rare

- Burwood Heights Rare

## Canada Bay Council

### Canterbury City Council

- Ashbury Rare
- Beverly Hills Rare
- Canterbury Rare
- Campsie Rare
- Clemton Park Rare
- Croydon Park Rare
- Earlwood Rare
- Hurlstone Park Rare
- Kingsgrove Rare
- Lakemba Rare
- Narwee Rare
- Punchbowl Rare
- Riverwood Rare
- Roselands Rare
- Wiley Park Rare

### Hurstville Council

- Beverly Hills Isolated or no known
- Carlton Isolated or no known
- Hurstville Isolated or no known
- Kingsgrove Isolated or no known
- Lugarno Isolated or no known
- Mortdale Isolated or no known
- Narwee Isolated or no known
- Oatley Isolated or no known
- Peakhurst Isolated or no known
- Penshurst Isolated or no known
- Riverwood Isolated or no known

## Kogarah Council

### Leichhardt Council

- Birchgrove Core
- Balmain Core
- Balmain East Core
- Rozelle Core
- Lilyfield Core
- Leichhardt Core
- Annandale Core
- Forest Lodge Core
- Glebe Core

### Marrickville Council

- Camperdown Rare
- Dulwich Hill Marginal
- Enmore Rare
- Lewisham Rare
- Marrickville Core
- Newtown Rare
- Petersham Rare
- St Peters Marginal
- Stanmore Rare
- Sydenham Marginal
- Tempe Core

## Randwick City Council

- Chifley Rare
- Clovelly Core
- Coogee Core
- Kensington Marginal
- Kingsford Marginal
- La Perouse Rare
- Little Bay Rare
- Malabar Rare
- Maroubra Marginal
- Matraville Rare
- Phillip Bay Marginal
- Randwick Core

## Rockdale City Council

### Strathfield Council

- Strathfield Isolated or no known
- Homebush Isolated or no known
- Homebush West Isolated or no known
- Strathfield South Isolated or no known
- Greenacre Isolated or no known
- Flemington Isolated or no known

### Sutherland Shire Council

- Alfords Point Isolated or no known
- Bangor Isolated or no known
- Barden Ridge Isolated or no known
- Bonnet Bay Isolated or no known
- Bundeena Rare
- Burraneer Rare
- Caringbah Rare
- Como Rare
- Cronulla Marginal
- Dolans Bay Rare
- Engadine Rare
- Grays Point Rare
- Gymea Isolated or no known
- Heathcote Isolated or no known
- Illawong Isolated or no known
- Jannali Rare
- Kangaroo Point Isolated or no known
- Kareela Isolated or no known
- Kirrawee Rare
- Kurnell Rare
- Lilli Pilli Isolated or no known
- Loftus Isolated or no known
- Lucas Heights Isolated or no known
- Maianbar Rare
- Menai Isolated or no known
- Miranda Rare
- Oyster Bay Isolated or no known
- Port Hacking Rare
- Sandy Point Isolated or no known
- Sutherland Rare
- Sylvania Rare
- Sylvania Waters Rare
- Taren Point Marginal
- Waterfall Isolated or no known
- Woolooware Rare
- Woronora Isolated or no known
- Woronora Heights Isolated or no known
- Yarrawarra Isolated or no known

- Yowie Bay Isolated or no known

### Sydney City Council

- Alexandria Marginal
- Beaconsfield Marginal
- Camperdown Marginal
- Centennial Park Rare
- Chippendale Rare
- Darlinghurst Marginal
- Darlington Marginal
- Elizabeth Bay Marginal
- Erskineville Marginal
- Eveleigh Marginal
- Kensington Marginal
- Kings Cross Isolated
- Moore Park Rare
- Newtown Marginal
- Paddington Rare
- Potts Point Rare
- Redfern Marginal
- Rosebery Marginal
- Rushcutters Bay Rare
- St Peters Marginal
- Surry Hills Marginal
- Ultimo Rare
- Waterloo Marginal
- Woolloomooloo Rare
- Zetland Marginal

### Waverley Council

- Bondi Junction Core
- North Bondi Core
- Bondi Core
- Queens Park Core
- Bronte Core
- Tamarama Core
- Waverley Core
- Dover Heights Marginal
- Vaucluse Marginal
- Rose Bay Marginal

### Woollahra Council

- Vaucluse Marginal
- Rose Bay Marginal
- Double Bay Marginal
- Bellevue Hill Core
- Edgecliff Core
- Woollahra Core
- Paddington Core
- Darling Point Rare
- Point Piper Rare

(Note: Infestation levels for Botany Bay, Canada Bay, Kogarah, Rockdale City and Sydney City LCA's are to be collated prior to February 2004).

## **4.0 LEGISLATIVE and REGULATORY SITUATION**

### **4.1 Current Declaration**

Asthma Weed is a gazetted noxious weed throughout the Sydney Central region where it is declared a W3 noxious weed under the Noxious Weeds Act (1993). A W3 weed is one that *must be prevented from spreading and their numbers and distribution reduced*

All Asthma Weed control will be undertaken in accordance with the Protection of the Environment Operations Act (1997) and the Pesticides Act (1999).

## **4.2 Declaration Changes**

No changes to the declaration are required.

## **5.0 CONSIDERATIONS and OPPORTUNITIES**

### **5.1 Opportunities to be exploited**

Councils will be encouraged to continue and increase Asthma Weed control on land under their management using best management practices, as well as undertake regular local resident education and regulatory enforcement activities for the control of Asthma Weed on private land.

To assist in the implementation of this plan, funding will be sought from state and federal government departments including NSW Agriculture, the NSW Health Department and the various regional funding programs for Catchment Blueprint implementation through the Department of Land and Water Conservation.

### **5.2 Species Management**

It is generally agreed that hand weeding (wearing gloves and face mask) combined with spot treatment of glyphosate is the most effective means of control.

Hand weeding is strongly recommended as the first method of choice. The plant itself is relatively easy to remove by hand, however some plants can be more difficult to remove, especially older ones where the roots are in pavements or between rocks. Hand weeding early in the day when the soil is moist can assist in the removal of the root system. All collected weed material should be stored in a dark airtight container (eg. a garbage bag tied in a knot) then disposed of when the seeds are no longer viable.

Follow-up treatment approximately 3-4 weeks later when new growth emerges is critical. Three or four regular follow-up treatments, before any new plants flower and seed, are generally needed to exhaust the seed bank. Follow-up treatments can be undertaken by hand or herbicide application, however the former is once again recommended.

Great care must be taken when using herbicide to avoid spraying onto soil, other desirable plant species and hard surfaces such as roads and footpaths where there is a risk of runoff into waterways.

Alternative methods to the use of herbicides for Asthma Weed control will continue to be investigated and tested as part of this plan, including the 'Hot Water' method and the 'Flame Weeder'.

### **5.3 Extension and Education**

This plan has identified education of landholders as a key component to the success of regional Asthma Weed management. Education activities will be delivered through a number of media, including:

- Asthma Weed alerts, released in local newspapers throughout participating LCAs;
- Asthma Weed displays to be regularly placed at local libraries, Council chambers, shopping centres, hospitals, field days/workshops and other major regional events in each LCA area.
- Development of an Asthma Weed profile sheet specific to the Sydney Central region. (perhaps delivered to all households?)
- a free Asthma Weed ID service offered by participating Councils.
- Asthma Weed alerts released on Council websites.
- Asthma Weed picture and information attached to LCA's annual rate notices, newsletters and annual reports

- Sponsor the development of a Asthma Weed Weedeck card to be added to the Sydney region Weedeck
- Support the development of an Asthma Weed Agfact information sheet
- Distribution of Asthma Weed alerts to relevant state government authorities to be displayed in areas dealing with large numbers of residents (eg. local offices of the Dept of Housing).

The aim of these activities will be to raise awareness of Asthma Weed's environmental and health implications, improve its identification and treatment by land occupiers, and make absentee and other landowners aware of their legal obligations to control Asthma Weed.

#### **5.4 Links to other Strategies**

This plan supports the desired outcomes, goals and objectives of the National Weeds Strategy and the NSW Weeds Strategy. The plan also supports and complements the Regional Weed Management Plan for Asthma Weed in Sydney North.

This plan falls within the Sydney Harbour and Southern Sydney Catchment Management Boards (CMBs) regions, and as such, assists in the implementation of the following Catchment Blueprints:

#### **Draft Southern Sydney Catchment Blueprint (dated April 2002):**

- Management Target 14: By 2012 the threats posed to aquatic and terrestrial ecosystems by pest species are measurably reduced.
- Management Target No. 18: Implement closely linked strategies and effective action plans, supported by government for all major aquatic and terrestrial weeds, pests and pathogens using environmentally appropriate management practices, and develop contingency plans for potential invasive weeds and pests.

#### **Draft Sydney Harbour Catchment Blueprint (dated April 2002):**

- Management Action 40: Develop and implement integrated pest/weed/pathogen management plans for the Board area (aquatic and terrestrial).

#### **5.5 Barriers and Contingencies**

Effective control of Asthma Weed will be achieved by overcoming the following barriers through the implementation of the respective Actions detailed in Section 6.0:

- Inconsistencies of approach in weed management for privately owned land, council managed land, and other lands managed by statutory authorities as a result of a lack of co-ordination between LCAs (Action 6.1)
- Ease of spread of the weed and the need to control it before it seeds (Action 6.1);
- Limited resources available for councils to achieve effective control (Action 6.2);
- Lack of awareness of the weed's effect on human health and the environment (Actions 6.3, 6.4, 6.5 and 6.6)
- Landowner complacency (Actions 6.3 and 6.4);



## 6.0 ACTIONS and PERFORMANCE INDICATORS

ACTION PLAN FOR CONTROL:	Performance indicators	Who	Addresses which objectives.
<p>6.1 Implement a coordinated and strategic Asthma Weed control program on council land, using best management practice techniques, according to the following priorities:</p> <p>1/ rare and isolated infestations 2/ marginal infestation 3/ core infestations</p>	<p>100 Asthma Weed infestations to be treated by participating LCA's during 2003/04.</p>	<p>All LCAs</p>	<p>1. Contain and where possible locally eradicate Asthma Weed infestations in rare and isolated infestations on council land within 5 years. 2. Contain and reduce Asthma Weed in marginal areas on council land within 5 years, and prevent from becoming core infestations. 3. Contain and reduce Asthma Weed infestations in core areas on council land within 5 years.</p>
<p>6.2 Investigate various avenues of funding and alternative control techniques for Asthma Weed.</p>	<p>Alternative avenues of grant funding, such as the Asthma Foundation, explored by June 2004.</p> <p>Alternative treatments for Asthma Weed control, such as the 'Hot Water' treatment and the 'Flame Weeder' investigated by June 2004.</p>	<p>All LCAs RTA, RIC, Dept of Housing, NPWS, NSW Agriculture, DLWC</p>	<p>4. Facilitate more effective and efficient control and eradication of Asthma Weed.</p>
<p>6.3 Undertake property inspections, notifications and enforcement of the Noxious Weeds Act 1993 for Asthma Weed control. This will be integrated with the control programs on public land wherever possible.</p>	<p>Total number of private property inspections and notifications issued by participating LCA's to exceed 200 during 2003/04.</p>	<p>All LCAs, private landholders</p>	<p>4. Facilitate the control and eradication of Asthma Weed on private and other public authority lands</p>
<p>6.4 Undertake community education, awareness and incentives projects to ensure landowners/occupiers can identify Asthma Weed and undertake appropriate control and eradication.</p>	<p>Asthma Weed alerts released in local newspapers and on council websites prior to November 2004 by participating LCAs.</p> <p>Asthma Weed profile sheets distributed to all residents in all</p>	<p>All LCAs, NSW Agriculture</p>	<p>5. Increase community awareness of the identification and need for appropriate control of Asthma Weed by private landholders</p>

	<p>LCAs by November 2004.</p> <p>Asthma Weed included in council displays, eg. Weedbuster Week each year for the duration of the plan.</p> <p>Asthma Weed incentives kits distributed to local residents.</p> <p>2 Asthma Weed media articles prepared per council in the 2003 – 2004 financial year.</p> <p>Asthma Weed leaflets attached to council rate notices, newsletters and annual reports in 2004 - 2005 financial year.</p>		
6.5 Implement training programs throughout all participating LCAs	<p>1 regional training workshop per year.</p> <p>20 staff and volunteers trained per year.</p> <p>Asthma Weed Weedeck card developed by June 2004.</p>	All LCAs, NSW Agriculture	6. Increase the knowledge and skills of relevant indoor and outdoor LCA staff and community volunteers on the correct identification of, and appropriate control techniques for Asthma Weed
6.6 Implement awareness raising activities with relevant public authorities to facilitate appropriate control of Asthma Weed.	<p>Asthma Weed alerts distributed to relevant state government authorities on an annual basis.</p> <p>Asthma Weed controlled on land managed by public authorities.</p>	All LCAs, RTA, RIC, Dept of Housing, NPWS, DLWC,	4. Facilitate the control and eradication of Asthma Weed on private and other public authority lands.
6.7 Undertake suburb inspections to identify and report on current Asthma Weed infestation levels.	Annual maps produced showing changes in suburb infestation levels.	All LCAs	8. Monitor plan implementation and success.

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## 7.0 MONITOR and REVIEW PROCESS

All participants in this plan will monitor and report on the progress of the plan in their area, against the performance indicators, in quarterly and annual group project reports. The plan will also be reviewed annually to allow for any additional/new information.

All suburbs in the region will be mapped and colour coded according to their current infestation levels. This will be done on an annual basis to show changes over time and monitor the success of the plan.

## 8.0 BENEFITS

The implementation of this regional plan will reduce the spread, distribution and severity of Asthma Weed infestations within the Sydney Central region and prevent the spread to adjoining regions, such as the South West Sydney region, where it is currently rarely found.

This will be achieved through the education of Council staff and the community, which will significantly raise the profile of Asthma Weed, thus increasing its identification, and effective control. This will be combined with monitoring and follow up treatment of infestations to provide sustainable long-term benefits. This is expected to lead to greater control on private land, as well as further monitoring and control of Asthma Weed on council and other government managed lands

Such a reduction of this noxious weed will have a positive impact upon the natural environment and, although difficult to quantify, human health and the incidence of respiratory illnesses of the population who live and work in the region.

## 9.0 RESOURCES

**Census of Population and Housing** (2001) Australian Bureau of Statistics, Commonwealth of Australia.

NSW Health Surveys (HOIST) (1997 and 1998). **Asthma**. Epidemiology and Surveillance Branch, NSW Health Department.

**Leading the Attack against Asthma - Asthma and Food Fact File** (2002). National Asthma Council Australia

Parsons, W. T. and Cuthbertson, E. G. (1992). **Noxious Weeds of Australia**. Melbourne Inkarta Press.

NSW Agriculture (1990) **Weeds and Human Health**. Agnote DPI/16

NSW Agriculture (1990) *Parietaria judaica* - Pellitory. Agnote DPI/19