



REGIONAL WEED MANAGEMENT PLAN

1.1 PLAN TITLE: Sydney Wide Green Cestrum Regional Management Plan

1.2 PLAN PROPONENTS

Regional Weeds Advisory Committee:

Sydney West ~ Blue Mountains Regional Weeds Committee, South West Sydney Regional Weeds Committee, Sydney North Regional Weeds Committee and Sydney Central Regional Weeds Committee.

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Name:

Signature: Date:

1.3 NAME OF PLANT(S)

WONS No

Botanical name(s): *Cestrum parqui*

Common name(s): Green Cestrum, Green Poisonberry

1.4 PLAN PERIOD (not to exceed five years)

Starting date: June 2006

Completion date: June 2011 (5 years)

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 protect the ecological and recreational values of natural areas, protect economic values of rural land and reduce health impacts to humans and livestock, through controlling, reducing, preventing the spread and where it is realistic, eradicating Green Cestrum on public and private land in the Sydney region.

1.7 OBJECTIVES:

1. Strategically reduce high priority infestations and contain the spread on public land within 5 years.
2. Enforce control and containment of Green Cestrum on private land
3. Increase awareness, identification and control skills of LCA staff, state agency staff, and contractors.
4. Increase awareness, identification and control skills of Bushcare/Landcare volunteers and private landholders.

2.0 STAKEHOLDERS

2.1 SIGNATORIES

All Councils, state and federal government agencies represented on the four Regional Weeds Committees in the Sydney region.

2.2 STAKEHOLDERS

** Stakeholders who are critical to the success of this Plan

Sydney West~Blue Mountains Regional Weeds Committee ** Parramatta, Blue Mountains, Hawkesbury River County Council (includes Penrith, Blacktown, Hawkesbury, Baulkham Hills LGA's), Auburn and Holroyd Councils	South West Sydney Regional Weeds Committee ** Camden, Bankstown, Campbelltown, Sutherland, Wollondilly, Fairfield, Liverpool and Campbelltown Councils.
Sydney North Regional Weeds Committee** Hornsby, Hunters Hill, Ku-ring-gai, Lane Cove, Manly, Mosman, North Sydney, Pittwater, Ryde, Warringah and Willoughby Councils.	Sydney Central Regional Weeds Committee** Ashfield, Burwood, Canada Bay, Strathfield, Leichhardt, Marrickville, Hurstville, Kogarah, Rockdale, Sydney City, Woollahra, Waverley, Randwick, Botany and Canterbury Councils
Department of Environment and Conservation (DEC) – National Parks & Wildlife **	Department of Primary Industries **
Department of Planning and Natural Resources	Hawkesbury Nepean Catchment Management Authority
Department of Lands **	Sydney Metropolitan Catchment Management Authority
Sydney Water **	Department of Defence
Railcorp**	Rural Lands Protection Board
Roads and Traffic Authority **	Sydney Harbour Federation Trust
Department of Housing **	Bushcare and Landcare groups **
	Private landholders – urban and rural **

3.0 BACKGROUND and JUSTIFICATION

3.1 Plan Justification

Green Cestrum was originally introduced as a garden ornamental plant and has become a serious weed in agricultural, urban and bushland areas.

In rural, semi-rural and urban areas throughout the Sydney region, Green Cestrum has been present for many years. It has increased in distribution due to the declining numbers of productive agricultural properties. Many of these areas are now colonised by Green Cestrum and birds disperse the seed into surrounding bushland and creek line vegetation. Co-ordinated effort and ongoing funding resources are required by Local Control Authorities (LCA) and private landowners to control Green Cestrum infestations.

Since 1995, Green Cestrum has become an increasing concern in parts of the Sydney region due to the absence of regular flooding, which has promoted the establishment of large infestations along riparian zones.

In urban areas throughout the Sydney region, Green Cestrum commonly occurs in gardens from original plantings or from seed introduced by birds. The plant is often cultivated in this instance and public awareness needs to be raised with regards to its noxious weed classification.

Control of Green Cestrum has been carried out through bush regeneration and/or revegetation works. This is often local and without a regional focus. Due to the weed's high dispersal potential by birds and water, a regional focus needs to be adopted by LCA's to contain and control Green Cestrum populations.

It is the responsibility of all land managers and landholders to ensure that reasonable and effective measures are taken to control infestations. This plan aims to manage Green Cestrum and its impacts on a regional basis through coordinated on-ground control and education.

Description of the Problem

In warm-temperate and subtropical regions, Green Cestrum is commonly found on alluvial soils along streams. Often promoted as a garden plant, it has become naturalised as a weed of towns and higher rainfall rural areas in eastern Australia (Parsons & Cuthbertson, 2001). The alluvial soil provides an excellent growing medium for Green Cestrum and the available water ensures continued spread downstream.

Green Cestrum is a major problem because all parts of the plant are highly toxic to stock. The Rural Lands Protection Board considers Green Cestrum to be the worst noxious weed in western Sydney (A. Glover, *pers.comm* 2005). Poisoning is most commonly seen in cattle which eat Green Cestrum when there is a shortage of available green feed. Death is usually rapid and painful when cattle eat small quantities of leaves, twigs or fruit, and even dry leaves from plants which have been cut down or sprayed. The plant is also known to be toxic to other livestock and humans.

In the rural areas of the Sydney Region, Green Cestrum infestations affect agricultural industries and alluvial floodplains. It is often found along watercourses and in non-crop areas where it grows in small to medium-sized thickets.

Green Cestrum seed is readily spread along watercourses during floods. The plant suckers profusely from the base if the stumps are not treated correctly with herbicide after cutting. It also propagates vegetatively from sections of the fleshy root which remain after a plant has been partly dug or pulled-out.

Green Cestrum out competes and replaces native vegetation in remnant bushland areas. The plant's habitat and soil preference invades understorey in several types of Endangered Ecological Communities listed in the *Threatened Species Conservation Act 1995* and the *Environment Protection and Biodiversity Conservation Act 1999*.

3.2 The “Do Nothing” option

If nothing is done to address the co-ordination of control, Green Cestrum will:

- further colonise vacant agricultural land, vacant Crown Land, Rail and RTA corridors, creek lines, riparian zones, National Parks and Council bushland reserves
- encroach into remnants of Endangered Ecological Communities and out-compete native understorey species and individual threatened species.
- be a risk to human health through contact with the plant in home gardens, and
- form dense thickets, restricting access to water courses and road reserves.
- continue to be a risk for poisoning livestock , and
- reduce the economical values of remaining agricultural land in Sydney.

3.3. Distribution of Infestations

Green Cestrum is widespread in the Sydney region in the following habitats:-

- Road verges near bushland in urban and rural areas
- Rural roadsides and road reserves
- Riparian areas including drainage lines
- Creeks in areas with alluvial and shale based soils are especially vulnerable to infestation.
- Natural areas also invaded by Small Leaf Privet, Large Leaf Privet and African Olive
- Vacant blocks, and
- Suburban gardens.

Green Cestrum occurs extensively across the Sydney Region in the following vegetation communities which are classified as Cumberland Plain Woodland or Sydney Coastal River Flat Forest. These communities are listed as endangered ecological communities under the *Threatened Species Conservation Act, 1995*:

- Shale Plains Woodland (CPW)
- Shale Hills Woodland (CPW)
- Alluvial Woodland (SCRF)
- Riparian Woodland (SCRF).
- Sydney Coastal River Flat Forest
- Sydney Turpentine Ironbark Forest (STIF) DEC-National Parks has mapped these vegetation types.

In some areas Green Cestrum is infesting the fringes of Swamp-Oak Forest and grows in close proximity to saltmarsh communities.

Green Cestrum is widely distributed across the entire Sydney region therefore, no specific mapping has been carried out. Locations of Green Cestrum infestations are provided for most of the LCA's in Sydney.

Sydney West-Blue Mountains region

Parramatta

There are scattered infestations throughout bushland in the LGA. Council's control program has been focussing on a large infestation at the confluence of Coopers and Toongabbie Creeks, including the bushland toward Windsor Road.

Blue Mountains

An infestation has been detected along the train line at Lawson (railway land). It is also found at Frazers Creek and Blaxland Tip. It is not considered common in the LGA.

Hawkesbury River County Council

Green Cestrum is spread throughout 25,000ha of parkland across Western Sydney. Some of the major infestations are located at:

- Richmond Lowlands
- Punt Road, Ebenezer
- Nurrungingy Reserve, Doonside
- South Creek Park, St Marys
- Kingsway Playing fields, St Marys
- Many other sites

Auburn

Green Cestrum plants are commonly detected in gardens on private property. Councils noxious weed control program has controlled the Green Cestrum in reserves and parks.

Holroyd

Green Cestrum occurs in residential properties and public lands with the highest concentration along creek lines in the south western area of Holroyd City Council. Bushland areas affected by Green Cestrum populations include

- Lower Prospect Canal (Guildford to Prospect).
- Alpha park Bushland corridor, Greystanes – mature plants controlled seedling and sapling growth only from surrounding corridor and creek line links.
- Munro Creek, Hyland Road Reserve, Greystanes.
- Prospect Creek (Prospect Reservoir to Council Boundary with Fairfield City Council).
- Nelson's Ridge Remnant Bushland Conservation Areas, Greystanes (Conservation Areas to be handed to Holroyd City Council upon completion of residential development).

South West Sydney region

Camden

Scattered infestations are present in and around waterways and adjacent bushland in rural areas, with isolated plants occurring on rural road verges. As of October 2005, a total area of 202m² of Green Cestrum had been found on 21 properties - out of 398 properties inspected (total area of 910.45 Ha) since July 2004. Outbreaks have also occurred in the past in urban areas, including Camden CBD.

Campbelltown

There is not a lot of Green Cestrum in the LGA. There are a few scattered infestations in bushland on the urban fringes of Ruse and Glenfield. These infestations are usually controlled by annual bushfire hazard reduction works and they are therefore well contained.

Sutherland

The majority of Green Cestrum infestations in Sutherland Shire are located in and around the suburbs of Maianbar and Bundeena within the Royal National Park. Infestations occur in all areas and plant communities with heavier infestations occurring in drainage lines and riparian zones. In Bundeena and Maianbar and surrounding areas of the Royal National Park Green Cestrum is known to occur in the following EEC's: Littoral Rainforest, Swamp Sclerophyll Forest, Sydney Freshwater Wetland, Swamp Oak Floodplain Forest and Kurnell Dune Forest.

There are occasional rare and isolated plants occurring in other areas of the Shire. These are treated as they are discovered.

DEC – National Parks

Royal & Botany Bay (Kurnell) National Parks & Towra Point Nature Reserve

Most infestations occur along road verges and adjacent areas where horse stables/pens are maintained. Locations include Polo St Kurnell, Captain Cook Drive. In Royal National Park adjacent the township of Bundeena there is approximately 1km² of infestation, much of it in EEC's around the township of Bundeena. These EEC's include Littoral Rainforest, Kurnell Dune Forest, Sydney Freshwater Wetland, Swamp Oak Floodplain Forest and Swamp Sclerophyll Forest.

Wollondilly

There are small known infestations at Menangle, and Mt Hunter. Some has also been reported along Stonequarry Creek at Picton. At this stage it is not considered common in the LGA.

Fairfield

The main remaining infestations of Green Cestrum in Fairfield (on Council Land) are located at:
Upper Prospect Creek (Hassall St to Gipps Rd, Wetherill Park)
Lower Prospect Creek (Ace Ave to Fairfield Street, Fairfield)
Lower Orphan School Creek (East Parade to Ada Street, Canley Vale)
Burns Creek (Hercules St to The Horsley Dr, Fairfield)
Cabramatta Creek (Antonietta St to Jasmine Cres, Cabramatta)

All of Council's designated bushland reserves and many waterways are under a regular maintenance program (Creek Care Program). Green Cestrum is targeted as a priority weed.

Liverpool

The infestations are widely distributed throughout the LGA, mainly along creek lines. Some of the main infestations are at:

- Jacqui Osmond Reserve, Warwick Farm, along Cabramatta Creek.
- Elouera Nature Reserve, Liverpool along Cabramatta Creek.
- George's River, Casula.
- Mc Girr Park, Miller, Cabramatta Creek.
- South Creek, Rossmore.

Bankstown

Green Cestrum is common and widespread throughout the Bankstown LGA, with frequent small isolated infestations along canals, creeks, road verges and railway lines. It also occurs in generally isolated stands on industrial land and private land throughout the LGA. Green Cestrum is the most common noxious weed along the Cooks River, with notable infestations in Greenacre and Chullora. There are also notable infestations in the upper reaches of Salt Pan Creek and at Deepwater Park.

Sydney North region

Hornsby

Upper Devlin's Creek and Ray Park at Beecroft.
Waitara Creek near Valley Road Hornsby
Roadsides and former agricultural areas in Arcadia and Glenorie

Hunters Hill

Green Cestrum in small patches notably Kellys Bush (mostly removed), Boronia Park, Tarban Creek Buffalo Creek. Yes it is in private gardens overhanging fences to reserves. Mostly occurs on fill slope edges.

Ku-ring-gai

The main infestations are located in
Bushland area between Ku-ring-gai Community Nursery and St Ives Showground
Bushland area behind Ku-ring-gai Community Nursery
Blue Gum High Forest ecological communities in Browns Forest/Dalrymple Hay and Sheldon Forest
Other isolated infestations identified.

Lane Cove

No major infestations. Plants are occasionally spotted and treated.

Manly

There is a limited distribution of Green Cestrum in the Manly LGA. Scattered populations are found mainly in drainage lines that enter into and run through bushland reserves, on vacant blocks and road reserves etc. The limited occurrence of Green Cestrum and the relatively small plant size, has allowed effective control when Green Cestrum is located, with only minimal impact on the surrounding areas. Control has been accompanied by bush regeneration or revegetation where appropriate, preventing other weed species becoming established in these cleared areas. There is also a limited distribution of Green Cestrum on private land and this is targeted as part of the noxious weed inspection program.

Mosman

North Sydney

Pittwater

Ryde

Green cestrum very sporadic on edges of bushland generally very minor infests however one relatively large infest at Field of Mars ex Parks Depot site on Wellington Rd has been hit hard by Terra Australia over last 12 months and under control.

Warringah

Very small amounts in the LGA, that area under control and not posing a problem.

Willoughby

None known to be in bushland reserves. Occasionally plants are found growing in backyards.

Sydney Central Regional Weeds Committee

Ashfield

Infestations are found all throughout the municipality.

Canada Bay

In the City of Canada Bay, Green Cestrum infests remnant natural areas, bushland revegetation sites and unmanaged public open space. Cestrum also occurs sporadically in poorly maintained private properties and vacant industrial sites. Infestations for priority treatment occur along the bushland foreshore areas of Sisters Bay and Half Moon Bay in Drummoyne. Cestrum is also present around the remnant estuarine vegetation complex in Brays Bay, Concord. Large infestations that occur in unmentioned public space are also a priority for treatment, particularly those that are in close proximity to Council remnant bushland areas.

Other high priority infestations that occur on public land not under Council's care, control and management are situated in the NSW Department of Health managed Yaralla Estate and Thomas Walker Hospital grounds in Concord. Both these properties provide habitat for the remnant EEC's Sydney Turpentine Ironbark Forest and Estuarine Saltmarsh/Swamp-Oak Forest. Green Cestrum has the potential to out-compete native plant species in these endangered communities, which will likely result in a decline in local biodiversity.

Strathfield

Within the LGA, Green Cestrum is liberally distributed throughout, in approximately one in three older backyards. It can be identified growing along the back fence and entering boundary properties. Other prominent infestations within the LGA are occurring along The Cooks River Clay Plain Forest, which is significant and remnant forest within Freshwater Park, Strathfield. These infestations can be seen from Madeline Street Corner of Cleveland St, Strathfield.

Waverley

Throughout Council's reserves, there are patchy infestations:

The main infestation is at Bronte Gully, and the Council parks staff have been working on controlling this for some time using cut and paint methods. There is also some Cestrum along the Cliff Walk, in Diamond Bay and Eastern Reserve, but none as yet in Tamarama.

Sydney City

Green cestrum is present mostly in the southern suburbs of the Council area in particular along Sheas Creek and unmaintained pockets of land adjoining industrial premises. It is also regularly present on vacant land and occasionally in residential gardens.

Woollahra

Green Cestrum has a scattered presence throughout the municipality in bushland areas and along some road verges. Numbers of individual plants are limited and do not constitute major infestations at this point in time. This may have something to do with its more common association with alluvial landscapes and shale soils rather than the predominant sandstone derived soils of the Woollahra municipality.

Randwick

Infestations are common, with major infestations found in the southern areas of the LGA, particularly along drainage lines within market gardens, pony clubs and areas of disturbed vacant land (Council managed, private and crown owned). Green Cestrum is also commonly found within private properties throughout the LGA, and examples can be seen where the plant has been grown for formal hedging.

Canterbury

The majority of Cestrum occurs on private land along the Cooks River corridor. It also occurs sporadically throughout the rest of Canterbury on vacant private land. It has also been recorded in the Wolli Creek Valley.

Department of Environment and Conservation (DEC) – National Parks & Wildlife

Present and expanding in Botany Bay (North) National Park, (Randwick Council area).

Present and controlled in Sydney Harbour National Park (Harbour South), (Woollahra Council area).

Centennial Park and Moore Park Trust

Green Cestrum is interspersed throughout the Parklands and has been specifically targeted over the last five years as infestations were significant. Currently, the infestation could be described as 'low', with localised infestations under large trees (predominantly *Ficus* spp) and around water bodies. In the past there was a major infestation which has been specifically targeted through the noxious weeds management program and has been reduced through land use changes e.g. mowing under trees.

Burwood

Cestrum infestations occur sporadically in private dwelling situations. There is no remnant bushland within the LGA. It also occurs in large private open spaces such as school ovals and playgrounds.

Leichhardt
Marrickville
Hurstville
Kogarah
Rockdale
Botany

3.4. Weed biology

Green Cestrum, a native of Chile and Peru, is an erect woody perennial shrub growing up to 3 metres tall. Its stems are whitish and mottled, with one or more stems emerging from the crown. Leaves are dark green, alternate, lanceolate, entire and glabrous up to 12cm long and 1-2.5cm wide. The leaves produce a pungent, foul smell when crushed. Seeds germinate in autumn and plants are at least 2 years old before flowering. Seeds from these plants can remain dormant in the soil for many years. The flowers are greenish-yellow, sessile, tubular up to 2.5cm long with 5 small terminal lobes. Flowers are produced over several months through summer and autumn and have unpleasant odour by day, sweet smelling by night. Black berries are produced with dark green or brown seeds. Green Cestrum plants are frost hardy and long-lived. The plants become semi deciduous in winter and produce new growth each spring. (Parsons & Cuthbertson, 2001).

3.5. Method and rate of spread

Initially, Green Cestrum was spread as a result of deliberate plantings in gardens. More recently, it is widely spread by:

- Birds eating the fruit and excreting viable seeds.

- Water
- Cut root sections, and
- Prolific coppicing from roots.

Water is an effective method of dispersal and accounts for most of the distribution. Pieces of cut root are also dispersed by cultivation equipment which in turn infest clean areas with the weed. (Parsons & Cuthbertson, 2001).

3.6. Species management

Effective management and control of Green Cestrum requires the following management techniques:-

Physical control

- Hand pulling or digging of seedlings and immature plants ensuring all main roots are removed.
- Repeated cutting down with herbicide treatment.
- Excavation with machinery (where appropriate).

Chemical control

- Apply herbicide either foliar, basal bark or cut stump depending on location and site sensitivity. Basal bark treatments are highly effective and can be easier and faster for treating large areas of Cestrum.
- Scrape the phloem layer of the bark and paint with 100% glyphosate herbicide. Scrapes must extend at least half way up the main leader. Main leaders that are more than 30mm in diameter will need two scrapes and herbicide treatment on either side of the leader. Green Cestrum responds poorly to glyphosate unless the plant is scraped effectively.
- Retreat herbicide treatment as necessary.
- Check for regrowth and new seedlings and follow up treatment.
- Vigorous regrowth, which will often come from stumps or roots not removed, must be controlled by a follow-up program until total eradication is achieved.
- Prevent contamination of watercourses near clumps of Green Cestrum
- Prevent herbicide spray drift from affecting desirable plants nearby.

Replanting (where appropriate)

- Encouragement of native replacement species in bush regeneration situation
- Replant competitive native species to stabilise river banks and bare areas.

Temporary fencing

The risk of stock poisoning can be eliminated by ensuring livestock do not have access to Green Cestrum. Good fencing around infestations is a temporary solution which will prevent stock losses until the plants can be killed. (Source: NSW Agfact)

Control of Green Cestrum will be undertaken in accordance with the *NSW Noxious Weeds Act 1993*, *Protection of the Environment Operations Act (1997)*, and the *Pesticides Act (1999)*.

4.0 LEGISLATIVE and REGULATORY SITUATION

4.1 Current declaration

Green Cestrum is declared a **Class 3 noxious weed** throughout the Sydney region.

4.2. Declaration changes

None required.

5.0 CONSIDERATIONS and OPPORTUNITIES

5.1. Financial support to carry out this Plan

To assist in the implementation of this Plan, specific funding will be sought for on-ground control from the Department of Primary Industries annual noxious weed funding. On ground control will also be funded through existing weed control and bush regeneration programs in Councils and agencies, which are undertaken by staff, contractors and volunteers. Funding for Crown Lands will also be sought.

Education and awareness programs will be funded through existing Council programs and grants received from state and federal programs such as Natural Heritage Trust and Environmental Trust. Incentive projects will also be investigated to encourage voluntary eradication on private property.

5.2 Links to other Strategies

This plan 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: to "*encourage the development of strategic plans for weed management at all levels*".

This plan also meets several 'Desired Outcomes' of the **NSW Weeds Strategy**:

- The development and implementation of programs to reduce environmental degradation and the loss of biodiversity through weed invasions.
- The implementation and monitoring of weed control programs on public, State-owned and Crown Land to ensure that objectives are achieved in an efficient and cost effective manner;
- An effective and efficient system for delivery of noxious weeds control and the enforcement of weeds legislation.

This plan falls within the Sydney Metropolitan and Hawkesbury Lower Nepean Catchment Management Authority (CMA) regions and assists in the implementation of their Catchment Blueprints:

- The **Hawkesbury Lower Nepean Catchment Blueprint**, in particular:

Management Target 12: Weeds and Pests:

By 2006 implement adequately funded and closely linked strategies and effective action plans for all major and potential terrestrial and aquatic weed/pest species; and

Prioritised Management Actions for Biodiversity 6:

Resource and implement closely linked strategies and effective action plans developed on a catchment basis for all major aquatic and terrestrial weeds and pests using environmentally appropriate management practices, and develop contingency plans for potential invasive weeds and pests.

- The **Southern Sydney Catchment Blueprint**, in particular:

Management Target 14:

By 2012 the threats posed to aquatic and terrestrial ecosystems by pest species are measurably reduced; and,

Management Action 4:

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.

- The **Sydney Harbour Catchment Blueprint**, in particular:

Management Action 33: Develop and implement integrated pest/weed/pathogen management plans for the Board area (aquatic and terrestrial).

5.3 Barriers and contingencies

Contingencies – future events that are likely to occur:

- Ongoing demand for private property inspections and community education
- Greater awareness of the toxicity of Green Cestrum and the desire to remove it from private property
- Less damage to stock, as awareness increases (a high profile issue due to past stock losses)
- Increased spray program (if funds are available)
- Ease of spread of the weed, continual reinfestation and demand for follow up control work
- Discovery of new infestations across Sydney – public and private land
- Commonly found along transport corridors
- Funding for weed control is spread thinly, and
- Continued drought conditions will hinder herbicide control of the weed. Green Cestrum is capable of surviving drought conditions through leaf drop and dormancy. After periods of rainfall, semi and mature dormant plants re-sprout and continue to grow. This adaptation may prolong project control time-tables.

Barriers – what could get in the way of effective control?

- Inconsistency of effective weed management between land managers
- Ease of spread of the weed and reinfestation
- Difficulty in positive identification between *Cestrum nocturnum* and *Cestrum auranticum*
- Sale in nurseries as a garden plant
- Backyard plantings in established gardens, in older suburbs
- Periodic flooding
- High cost of mechanical removal
- Physical removal is labour intensive
- Incorrect application of glyphosate in stem scrape method of control
- Funding for weed control is reduced
- Limited ability to do large scale control in habitat sensitive areas.
- Disinterest of private landholders
- Difficulty to control in certain areas.
- Dense thickets of Green Cestrum limits access for scraping and painting of stems and main leaders. In this instance the thickets (where appropriate) need to be mechanically slashed to allow access. This requires repeated follow up herbicide treatments over a longer period of time.
- Less commitment or resources to control from some LCA's, than others.

6.0 ACTION PLAN The effective management of Green Cestrum at a regional level will be achieved by implementation of the Actions detailed in this Table.

OBJECTIVE	ACTION	PERFORMANCE INDICATOR	BY WHOM
1. Strategically reduce high priority infestations and contain the spread on public land within 5 years	<ul style="list-style-type: none"> • Inspect at risk areas, record outcomes and determine priority areas for control and containment • Undertake control of large infestations gradually, providing for growth of native habitat. • Control small infestations, when possible, as part of existing bush regeneration programs. • Judicious use of herbicides for large infestations, taking particular care to not poison native species. • Use basal bark treatments as the preferred effective treatment of large infestations where high volume herbicide application cannot be used. • Calculate and report on the % reduction of small marginal infestations each year. 	<ul style="list-style-type: none"> • Highest priority infestations are identified each year • High priority core infestations are contained within the life of the Plan • Marginal infestations are contained within 1 year and eradicated, within the life of the plan. • There is a measurable % reduction in marginal Green Cestrum populations (The % amount will depend on the extent of infestations in each LCA and available resources). 	All participating LCA's and state agency land managers
2. Enforce control and containment of Green Cestrum on private land.	<ul style="list-style-type: none"> • Ensure landowners control Green Cestrum on their properties by providing information and enforcing the Noxious Weeds Act. • Follow up with Section 18 Notices if no action is taken within 3 months 	<ul style="list-style-type: none"> • Control of infestations on private property / enforcement procedures have commenced within 6 months of detection and notice. • No. of private landholders who have undertaken Green Cestrum control. • Follow up with s.18 notices if no action taken within 3 months. • Large infestations are contained within 3 years of notice • Small infestations are controlled within 1 of notice. 	All LCA's responsible for enforcement of Noxious Weeds Act Private Landholders and occupiers
3. Increase awareness, identification and control skills of LCA staff, state agency staff, and contractors.	<ul style="list-style-type: none"> • Update and distribute information about identification and the most effective control • Teach identification skills to natural area and parks staff as part of in house training. • Co-ordination meetings/ regular communication between Councils and land management agencies 	<ul style="list-style-type: none"> • Review Identification and control information on Sydney Weeds website in first year of the plan. • Distribute Id and control information to LCA staff, state agency staff and contractors in the second year the plan. • In house training held by Councils and agencies within the first 2 	All participating LCA's and state agency land managers Contractors

OBJECTIVE	ACTION	PERFORMANCE INDICATOR	BY WHOM
		years of commencement of the plan	
4. Increase awareness, identification and control skills of Bushcare/Landcare volunteers and private landholders.	<ul style="list-style-type: none"> • Target education about control of Green Cestrum at landowners of vacant, rental properties and hobby farms. • Train landholders to check and maintain their bushland areas and properties • Distribute fact sheets/Stop the Spread brochures with all letters of Presence and Notices • Distribute educational material and show live specimens at field days, agricultural shows and info stalls. • Target education at agricultural industries in Sydney outer areas – Beef, Dairy, Alpaca, Pigs, Poultry and Orchards 	<ul style="list-style-type: none"> • Conduct a number of training workshops annually throughout Sydney to teach identification skills (incorporate into existing plant Id and Bushcare training workshops) • Community and Bushcare news articles are published each year, throughout the life of the plan. • Educational material targeting agricultural industries and hobby farmers is collated and distributed in first two years of the Plan. • Educational material is distributed at field days, agricultural shows and info stalls conducted across Sydney region annually. Utilise Weedbuster week to promote awareness and distribute information 	Bushcare/L'care volunteers Private Landholders

ACTION PLAN FOR CONTINGENCIES

Implementation of the <i>Noxious Weed Amendment Act 2005</i>	<ul style="list-style-type: none"> - Assessment of amendments and weed categories. - LCAs' documents to be amended to incorporate amendments and categories. 	Amended documents	All participating LCA's
Ongoing demand for private property inspections and community education	<ul style="list-style-type: none"> - Liaison and additional resources for Compliance and Environmental Education. 	Properties inspected, notices issued. Education activities / events.	All participating LCA's.
Greater awareness of the toxicity of Green Cestrum and the desire to remove it from private property	<ul style="list-style-type: none"> - Promote Community Awareness 	Events / brochures.	All participating LCA's / Community.

Less damage to stock, as awareness increases (a high profile issue due to past stock losses)	- Monitor incidents over time.	Reduced damage to stock.	Private Landholders
Increased spray program (if funds are available)	- Where appropriate increase across region area in km2 treated.	Monitoring and recording of area in km2.	All participating LCA's.
Ease of spread of the weed, continual reinfestation and demand for follow up control work	- Reduce overall volume of weed to decrease its ease of spread.	Monitoring and recording of area in km2 / ha Green Cestrum has been reduced.	All participating LCA'S
Discovery of new infestations across Sydney – public and private land	- Assess private and public lands. - Mapping of new infestations.	Assessment results. Recording of weed present.	All participating LCA's.
Commonly found along transport corridors	- Eradicate / Control.	Document areas where weed eradicated / controlled along transport corridors.	RTA / All participating LCA's
Funding for weed control is spread thinly	- Coordinate and combine resources to treat areas in common – example boundary creek-lines and reserves.	No. of Partnerships formed to combine resources to treat boundary areas.	All participating LCA's.
Continued drought conditions will hinder herbicide control of the weed.	- Adjust project time-tables to suit seasonal variations. - Monitor areas to be controlled and time treatment of weed to improve herbicide control.	Areas controlled following rainfall.	All participating LCA's.
ACTION PLAN FOR BARRIERS			
Inconsistency of effective weed management between land managers	- Coordinated control. - Form Partnerships with neighbouring LCA's.	Areas targeted. Partnerships formed.	All participating LCA's.
Ease of spread of the weed and reinfestation	- Monitor and follow-up treatment to prevent reinfestation.	Number follow up sessions. Hours spent on sessions.	All participating LCA's.
Incorrect application of glyphosate in stem scrape method, leading to ineffective control	- Use basal bark treatments as the preferred effective treatment of large infestations.	Success rate of control, monitored and reported to Weeds Committee.	

Difficulty in positive identification between <i>Cestrum nocturnum</i> and <i>Cestrum auranticum</i>	- Staff, contractor, volunteer and community training	Increased identification skills.	All participating LCA's.
Sale in nurseries as a garden plant	- Promote industry awareness with regards to category, toxicity and environmental impacts. - Develop educational material.	Eradication of plant from nurseries. Distribution of documentation.	
Backyard plantings in established gardens, in older suburbs	- Issue educational material and/or control notices.	No. of control notices issued.	
Periodic flooding	- Monitor. - Follow up control.	Areas controlled after flooding.	All participating LCA's.
High cost of mechanical removal	-		
Physical removal is labour intensive	- Scrape & paint with herbicide and leave on site to reduce labour.	Photographs over time of areas treated. Areas controlled.	All participating LCA's.
Funding for weed control is reduced	- Re-prioritise - Seek alternative sources of funding - Pool funding and resources with other agencies and landholders	Other funding acquired	
No bio control agent available. Less agricultural returns therefore less put back into land management.			
Limited ability to do large-scale control in habitat sensitive areas.	- Allow extra time and funding for manual control to protect habitat.	Amount / areas controlled. Habitats protected.	All participating LCA's.
Disinterest of private landholders	- Encouragement / enforcement through compliance.	No. of private properties where weed eradicated / controlled.	
Difficulty to control in certain areas.	-		

Dense thickets of Green Cestrum limits access for scraping and painting of stems and main leaders.	<ul style="list-style-type: none"> - Slash to allow access. - Ensure follow up treatment to eradicate / control. 	Area and amount of thickets eradicated / controlled.	All participating LCA's.
Less commitment from some Councils and agencies, than others.	<ul style="list-style-type: none"> - Encourage participation and involvement in planning and group funded projects. 	Number of participating organisations and partnerships.	All participating LCA's.

7.0 MONITOR and REVIEW PROCESS

The performance of key stakeholders will be monitored through:

- Agency Roundtable reports in quarterly Regional Weed Committee meetings
- Noxious weed group project co-ordination meetings twice annually
- Information provided for noxious weed funding annual reports to DPI

This Plan will be reviewed in 2010.

8.0 BENEFITS

Who will benefit from the control of Green Cestrum?

- Natural area managers
- Community – the public will be more aware and responsible.
- Agricultural landowners
- Live stock
- The threat to biodiversity and bushland values will be reduced.
- The financial burden imposed on agriculture by reduced stock losses (and associated costs) will be reduced.
- With co-ordination and information sharing among Councils, funding and staff resources can be better utilised.

9.0 RESOURCES

Brochures

AgFact Factsheets

“Stop the Spread” regional brochures

WEEDeck

Websites

www.weeds.org.au

www.agric.nsw.gov.au/weeds

www.sydneyweeds.org.au

Books:

Noxious Weeds of Australia, Parsons & Cuthbertson, 2001

Weeds: An Illustrated Botanical Guide to the Weeds of Australia, Auld & Medd