



REGIONAL WEED MANAGEMENT PLAN

1.1 PLAN TITLE: Sydney Regional Privet Management Plan

1.2 PLAN PROPONENTS

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

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1.3 NAME OF PLANT(S)

WONS N

Botanical names: *Ligustrum sinense* Common names: Narrow-leaf Privet, Small-leaf Privet
Ligustrum lucidum Broad-leaf Privet, Large-leaf Privet

NB: For the purposes of this plan, the term 'Privet refers to both *Ligustrum sinense* and *Ligustrum lucidum*.

1.4 PLAN PERIOD (not to exceed five years)

Starting date: **July 2005**

Completion date: **June 2010**

1.5 AREA OF OPERATION:

This plan extends over the Local Control Authorities (LCAs) represented on the Sydney Central, South West Sydney, Sydney North and Sydney West ~ Blue Mountains regional weeds committees.

1.6 AIM:

To reduce the occurrence of Privet within the Sydney region on both public and private land, so reducing its environmental and human health impacts.

1.7 OBJECTIVES:

1. The declaration of Privet as a Class 4 noxious weed throughout the Sydney region.
2. A reduction in the presence of Privet on private property, with formal hedges prevented from flowering and fruiting.
3. Privet on public land strategically controlled and prevented from spreading.
4. Increased awareness of Privet and its identification, impacts and control methods.
5. A significant reduction in the propagation and sale of Privet plants and seed heads for floral displays.

2.0 STAKEHOLDERS

*LCAs, *Department of Environment and Conservation (DEC), Department of Infrastructure, Planning and Natural Resources (DIPNR), Hawkesbury Nepean Catchment Management Authority (HNCMA), Sydney Metropolitan Catchment Management Authority (SMCMA), *Department of Lands (DOL), *Department of Housing (DOH), *Sydney Water Corporation (SWC), *RailCorp, Dept of Primary Industry (DPI), *Roads and Traffic Authority (RTA), *Department of Defence (DOD), Department of Health, Asthma Foundation, Cowan Catchment Weeds Committee, Nursery Industry Association.

* Key land managers who are critical to the success of this Plan

3.0 BACKGROUND and GENERAL FACTS

3.1 Plan Justification and Description of the Problem

This plan has been developed to coordinate a regional, strategic approach to managing Privet in the Sydney region, in an effort to reduce its environmental and human health effects. One of the main objectives is to achieve the declaration of Privet as a noxious weed across the entire Sydney region. This will facilitate more consistent control and management and prevent its propagation, sale and distribution. This plan has been developed to support this, and to demonstrate what actions will be undertaken once it is declared in new areas.

In the Sydney region, Privet is one of the worst environmental weeds in bushland areas. It poses a significant ecological threat through its progressive and permanent domination of indigenous vegetation, especially in disturbed areas and the more fertile soils of gullies, creeklines and rainforest edges where moisture and nutrient levels are often elevated due to stormwater pollution and sewage overflows. In higher rainfall areas with shale soils it is also known to infest relatively undisturbed bushland.

Threatened species and endangered ecological communities are also at threat from Privet invasions. For example, Privet is threatening *Persoonia mollis* habitat and the Blue Gum High Forest in the Sydney North region.

Privet propagates easily from seed where suitable conditions exist. Small-leaved Privet seedlings can form a dense carpet of over 600 per square metre after a site is initially cleared (Buchanan, R. 1989). The young plants grow aggressively, have no natural enemies and are capable of displacing most native understorey species, forming dense thickets and competing heavily with native plants for light, water and nutrients - casting heavy shade under which little else can grow. An indirect impact of Privet and other fruit bearing exotic trees is that they support artificially high currawong populations, thus affecting other native bird populations.

Privet pollen and perfume is also recorded as having significant human health impacts, being highly allergenic and a major contributor to asthma, allergic rhinitis and hayfever. Councils receive numerous complaints every year from residents reporting individual flowering specimens which they feel are exacerbating their condition. However, it has also been reported that these allergic reactions are actually related to the strong, sickly perfume of the flowers rather than the pollen. The leaves and fruit are also poisonous and dangerous to children.

If Privet is kept pruned as a hedge with all flowers removed before full development, and thus eliminating the seed source, it does not pose a great environmental or human health risk. However with unchecked growth it will flower and fruit prolifically and spread to other areas.

Privet is declared a noxious weed in the Sydney North region and in most LCAs in the Sydney West ~ Blue Mountains region, however it is currently only declared in 6 LCAs in the Sydney Central and South West Sydney regions. Where it is not declared, councils are unable to act on complaints received, except by recommending that the resident discuss the matter with the landholder concerned. If this is unsuccessful, the only recourse is to seek legal advice as a civil matter. Also, these councils are unable to act on the propagation, sale and distribution of Privet.

Privet is now widespread throughout the Sydney region, as well as in other parts of south-eastern Australia. The resources required to sustainably reduce current infestations on public land alone are enormous. Consequently, in bushland areas it is usually controlled or eradicated along with other environmental weeds at bush regeneration sites where follow-up maintenance can be undertaken. Having the authority to prevent the sale of Privet and enforce its control on private property, through its declaration as a noxious weed, greatly enhances these efforts.

Under this plan, each LCA will be required to complete a Local Control Plan detailing how it will strategically manage Privet in its area of responsibility. This will include, for example:

- how it will encourage/enforce Privet control on private land;
- what priorities and measures will be undertaken on public land to control and reduce infestations (such as gradual removal in target areas like contract sites, Bushcare groups, designated sub-catchments, areas of high conservation significance etc.); and
- allowance for sufficient maintenance of sites after initial removal, which is essential.

This plan has also been developed to assist the Weeds Committees members in applying for grants for strategic Privet control and management projects.

3.2 The 'do nothing' option

If Privet is not declared a Class 4 noxious weed Sydney wide and is not controlled, it will:

- continue to spread prolifically, especially in fertile and moist areas of private and public land via mature trees and garden hedges
- continually be sold in markets for floral displays (based on demand and floral trends)
- pose a greater human health risk as the infestations and numbers of flowering trees increase
- councils will continue to receive increasing complaints from residents
- where it is not declared, councils will continue to be powerless to act regarding private property infestations

3.3 Distribution of the infestations

Privet infestations are often found in neglected yards and vacant land, and now occur in almost every bushland reserve, especially along creeklines, drainage lines and where the natural vegetation or soil has been disturbed such as along the bushland/urban interface.

Privet is widely distributed across the entire Sydney region and as such no specific mapping has been carried out. Instead, general descriptions of privet infestations are provided for each LCA and government agency.

Sydney Central Region:

Ashfield

Privet is widespread on private property in Ashfield and is present on RTA and RailCorp land. Very little remains on council land

Botany

Being more open and dry than other areas, low levels of Privet are distributed across the entire LGA, with higher concentrations found to the south within Sir Joseph Banks Park.

Burwood

Canada Bay

Privet occurs in residences across the City of Canada Bay Council LGA. Privet is also found in small numbers in bushland and some natural areas along the foreshore of Parramatta River and its estuaries. These infestations, along with other environmental weeds, are being eradicated by Bushcare volunteers and professional bush regeneration contractors.

Canterbury

Privet is distributed across the entire Local Government Area with the highest concentrations adjacent to Wolli Creek along the southern boundary of the LGA.

Hurstville

Privet is widespread across all residential areas, with higher concentrations around the eastern/northern parts of the LGA, in the older more developed suburbs.

Privet has become established within bushland areas at the following locations:

- Evatt Park, Lugarno
- Tallowood Avenue Reserve, Lugarno
- Oatley Heights Park, Mortdale
- Bay Road Reserve, Oatley
- Freeman Avenue Reserve, Oatley
- Lime Kiln Bay Bushland Sanctuary, Oatley
- Miles Dunphy Reserve, Oatley
- Oatley Park, Oatley
- Jinna Road, Peakhurst

Kogarah

Leichhardt

There are several significant infestations of Privet on public land in the Leichhardt Municipality, as well as individual specimens located on private property and in a small number of Council Parks.

Infestations occur in:

- Whites Creek Valley Park, Annandale
- Callan Park (Rozelle Hospital), Lilyfield
- Birrung Park & the adjoining container terminal, Balmain
- Leichhardt Park, Leichhardt

Privets located on private properties are scattered throughout the LGA, and tend to be either isolated individuals or forming well maintained hedges. Unfortunately, less well kept gardens, vacant blocks and development sites also support small infestations of Privet (along with various other weeds).

Parks such as Origlass Park in Balmain East contain a small number of old Broad-leaf Privets as feature canopy trees.

Marrickville

It has been reported that there are a few big broad-leaf Privets in back gardens around South Marrickville.

Randwick

Privet is scattered across all residential areas, however is in greater abundance in the more northern, older suburbs where there is greater protection from the salt laden winds and higher nutrient levels in the soils. Privet is generally found in the more established gardens, where it is often used as a formal hedge, or in poorly maintained gardens where it has been allowed to establish after seed dispersal.

Fred Hollows Reserve has the highest infestation of Privet within Council's care and control. Bush regenerators have been contracted on this site for the past 11 years to eradicate both Privet and other noxious and environmental weeds.

Rockdale

Strathfield

Privet is widespread across all residential areas, particularly in areas with older, more established gardens, where it is often used as a formal hedge (usually *Ligustrum sinense*), or in poorly maintained gardens where it has been allowed to establish after seed dispersal.

Privet has been identified as being present within the following bushland and parkland locations:

- Freshwater Park, Strathfield (considerable infestation along Cook's River)
- Chain of Ponds, Strathfield (considerable infestation running through golf course)
- Cox's Creek, Greenacre (moderate infestation)
- Airey Park, Flemington (moderate infestation)
- Edward's Park, Concord (beside Library, saplings only)
- Dean Reserve, Strathfield South (along creekline)
- Cook Park (mainly *Ligustrum lucidum*)

Sydney City

Waverley

Woollahra

Privet is scattered throughout Woollahra, generally as occasional plants in back gardens. Infestations of significance are generally restricted to three bushland parks, Cooper Park, Parsley Bay Reserve and Trumper Park.

South West Sydney Region:

Bankstown

Privet is a widespread garden plant on private properties throughout the Bankstown LGA, with large infestations on older central Bankstown residences and commercial areas. It is a big issue for the entire Bankstown community. Privet is Bankstown's most frequently occurring environmental weed on public land (found in approximately 63% of sites surveyed for council's noxious weed strategy). Levels of infestation generally range from medium to high levels with the majority of sites containing mature plants. Privet is found in all sub-catchments throughout LGA, with the problem being most severe along the Georges River and its tributaries in the south of the LGA.

Camden

Privet is found everywhere throughout the Camden LGA, especially along creeklines and riverbanks.

Campbelltown

Privet is found everywhere throughout the Campbelltown LGA, especially along creeklines and riverbanks.

Fairfield

Many creek areas on public land contain Privet infestations and are being treated by bush regeneration contractors:

1/ Upper Prospect Creek – Widemere Rd to Gipps Rd, Wetherill Park.

2/ Prospect Creek – The Horsley Drive, Fairfield.

3/ Burns Creek – Tangerine St, Villawood.

- 4/ Cabramatta Creek - National St, Cabramatta.
- 5/ Cabramatta Creek - Hume Hwy, Lansvale.
- 6/ Orphan School Creek - Stuart St, Canley Vale.

There are scattered plants in residential areas on private property, particularly in older areas ie. Fairfield, Cabramatta, Mount Pritchard and Villawood. Not so common in the western part of the city.

Liverpool

Both species of Privet are found throughout Liverpool on both public and private property, usually as scattered populations rather than dense infestations.

Sutherland

Both species of Privet are widespread on private and public land in the Sutherland Shire. Moist areas and drainage lines almost without exception have infestations ranging from scattered infestations to complete monocultures.

Wollondilly

Sydney North Region:

Hornsby

Both species of Privet are widespread in bushland gullies and creek lines throughout the Shire, extensively in the urban bushland areas. Generally *Ligustrum sinense* is more prevalent in the urban areas and *Ligustrum lucidum* in the rural areas (on both private and Council managed lands). In residential areas, privet is often found in well established, abandoned or poorly maintained gardens, more frequently in areas with fertile soils.

Ku-ring-gai

Ku-ring-gai has a widespread occurrence of both species throughout the LGA on both private and council managed land. Privet has especially established a strong hold along all creek lines. It is being controlled in areas undergoing bush regeneration by both council staff and bushcare volunteers.

Warringah

Both species of privet are widespread in Warringah LGA. *Ligustrum sinense* is more prevalent in the urban residential properties while *Ligustrum lucidum* is widespread in many different situations in bushland reserves, especially drainage lines and watercourses. Council's private property inspection program deals with privet found on private property backing onto bushland reserves that are under bush regeneration contracts. The heaviest areas of *Ligustrum lucidum* occur in the sub catchments of Narrabeen Lagoon through the Oxford Falls Valley.

Pittwater

Privet is found all over Pittwater, in many backyards and along creeklines.

Manly

Privet is spread throughout the Manly area. Scattered mature plants occur on private land, particularly in older or poorly maintained gardens. Privet has been recorded in two thirds of council's bushland reserves, ranging from dense stands to individual plants.

Mosman

Both species of privet are found on private and public land in Mosman LGA. Privet is limited to a few unmamanged moist shaded areas and drainage lines within public owned bushland. Some fill slopes also contain privet or areas where stormwater is discharged into bushland. On private land, privet is limited to a few neglected building sites or individuals scattered throughout the residential area.

North Sydney

Privet is found in nearly every reserve in North Sydney in moderate concentrations. It is mainly concentrated along creeklines and areas where stormwater paths have been altered. The problem is being exacerbated by the proliferation of large berry eating birds such as the currawong and common mynah.

Lane Cove

A significant amount of Privet has been removed in Lane Cove's bushland reserves over the last 20 years through bush regeneration. However, some localised heavy infestations still exist along creeklines, steep banks and drainage lines. These areas have been left to date due to environmental reasons and limited resources for followup. As a result, Privet is being managed and is now not a major weed. In open space parks and gardens, Privet is removed as required. On private property, Privet is scattered all over the council area, especially in overgrown gardens.

Ryde

Surveys in 1996 & 2001 show a very high occurrence of *Ligustrum lucidum* on private properties that adjoin bushland, even in areas where the Privet in the bushland has been controlled in the past. *L.Lucidum* is also commonly found in gullies. The soils in Ryde are fairly uniform and *Ligustrum sinense* is found everywhere in the LGA.

Hunters Hill

Infestations of Privet in Hunters Hill are found on the edges of bushland and in bushland that has been disturbed - eg through stormwater or due to past inappropriate activities - dumping etc. Individual specimens are bird dropped throughout all bushland - disturbed or otherwise pristine, and must be constantly removed to ensure further infestations do not occur. Privet also occurs along creeklines where increased nutrient loads are perfect for germination. On private property they often occur at the interface with bushland and when they are not recognised and/or reported in private gardens. Wherever they occur, they are a costly weed to deal with, and all open space requires ongoing maintenance to keep them under control.

Willoughby

Both species of Privet can be found growing in residential , commercial and open space areas throughout the Willoughby City area. Privet plants are flourishing along stormwater and creek lines. It is also prevalent in bushland interface areas adjoining neighbouring properties.

Sydney West ~ Blue Mountains Region:

Hawkesbury River County Council

Privet is found on public and private land all throughout the local government areas of Blacktown, Hawkesbury, Penrith and Baulkham Hills.

Parramatta

Densities vary from suburb to suburb however higher densities occur where properties are poorly maintained for example Department of Housing areas in Ermington/Dundas and larger properties with declining maintenance in Eastwood/Epping. Widespread low densities occur of both species across the other suburbs in the LGA. Parramatta has seven (7) Endangered Ecological Communities under the TSC Act 1995 with Privet being a ready coloniser and modifier of these communities in our open space reserves.

Densities of both Privets in modified localities or environments are indicated below:

High

- Quarry Branch Creek Catchment
- Terrys' Creek Catchment
- Vineyard Creek Catchment
- Ponds Creek Catchment

Moderate

- Toongabbie Creek Catchment
- Hunts Creek Catchment

Low

- Duck River Catchment

Blue Mountains

Small leaf privet (*Ligustrum sinense*) is widespread throughout the Blue Mountains while large leaf privet (*Ligustrum lucidum*) is widespread but more populous in the lower Blue Mountains. In residential areas, privet is often found in well established, abandoned or poorly maintained gardens, more frequently in areas with fertile soils. Some disturbance is required for the establishment of privet and it is therefore common in creeklines and on the urban/ bushland interface.

Privet has been treated and successfully controlled on a number of sites. However it remains the major ecosystem transformer in most disturbed creeklines in the Council area.

Auburn

Privet is common across much of the LGA, although the highest concentrations are on private land. Large mature specimens can be found on many of the older/ poorly maintained unit blocks and industrial areas through Auburn and Silverwater. It is not generally found as a hedge plant associated with heritage items. Public land, including creek banks are generally free of Privet as a result of previous control programmes.

Holroyd

Privet is widespread across residential properties and public lands with the highest concentration along creek-lines. Older, larger specimens are common in residential yards where they are grown / kept for screening purposes.

Bushland areas affected by Privet populations include:-

- Lower Prospect Canal (Merrylands to Prospect).
- Alpha Park Bushland Corridor, Greystanes – seedling and sapling growth.
- Munro Creek / Hyland Road Reserve, Greystanes.
- Prospect Creek (Prospect to Lansdowne).
- Nelson's Ridge Remnant Bushland / Conservation Areas.
- All creek lines / open waterways.

Other Agencies:

Department of Environment and Conservation - Parks and Wildlife Division - Sydney Central region

- Sydney Harbour National Park, south side (Woollahra LGA): Low levels of both species in Nielsen Park, South Head and Gap Bluff.
- Botany Bay National Park (Randwick LGA): Low levels of both species.
- Wollie Creek Regional Park (Canterbury and Rockdale LGAs): Widespread and very dense infestations of both species along the creek line. Widespread but less dense infestations of both species invading the surrounding bush remnants.

Department of Environment and Conservation - Parks and Wildlife Division - Sydney North region

- *Ligustrum* spp. are widespread along riparian areas and boundaries of Garigal and Lane Cove National Parks and Dalrymple Hay Nature Reserve
- Low to medium infestations of *Ligustrum* spp. occur along riparian areas and boundaries of Kuring-gai Chase National Park within the upper Cowan Catchment
- Scattered infestations of *Ligustrum* spp. occur at cleared areas within Muogamarra Nature Reserve & Marramarra National Park

Department of Environment and Conservation - Parks and Wildlife Division - Sydney Harbour North Area

- *Ligustrum lucidum* and *L. sinense* are widespread in mesic and riparian areas on Middle, Bradley's, Dobroyd and North Head in Sydney Harbour National Park. Dense infestations occur adjacent to the Park's boundaries with residential properties.
- *Ligustrum* infestations on North, Middle and Dobroyd Heads may impact habitat of the endangered plant, *Acacia terminalis* subsp. *terminalis*.

Department of Environment and Conservation - Parks and Wildlife Division – Cumberland Area North region

Privet is widespread in Cattai National Park. In Scheyville National Park, Privet tends to be concentrated in the shadier sections (southern facing slopes) in upper part of catchment around Old Pitt Town Road, along creek lines and on the NE side of Longneck Lagoon close to Cattai Road. IN general, Privet tends to be found in the moister vegetation that has had the longest time since a fire. Regenerating areas from past fires tend not to have as much Privet regrowth and infestation.

3.4 Weed Biology/Ecology

Broad-leaf Privet (*Ligustrum lucidum*) is a large evergreen shrub or small tree growing to 10m, with a broad-domed canopy spreading to 8-10m. Its leaves are oval shaped and opposite, shiny dark-green above and dull and pale underneath, with a smooth margin and pointed tip 10-20mm long and 5cm wide. Abundant small, white, and strongly scented tubular flowers are produced in clusters at branch tips in summer. Heavy sprays of 50 to 200 small round purple-black berries persist into winter. It is easily confused with the natives Lilly Pilly (*Acmena smithii*) which has oil glands in its leaves, and Pittosporum (*Pittosporum undulatum*) which has larger, orange berries and an alternate leaf arrangement.

Small-leaf Privet (*Ligustrum sinense*) is an evergreen shrub that grows to around 3-4m tall. Its leaves are opposite, oval to narrow in shape, sometimes with a pointed tip, often with wavy margins, pale green in colour, and up to 6cm long and 2cm wide. Masses of heavily scented (sickly sweet) tiny white tubular flowers occur in drooping sprays in spring. Bunches of small round purple-black berries persist into winter. It may be confused with the native Grey Myrtle (*Backhousia myrtifolia*). They grow in similar habitats, but the native myrtle has oil glands in its leaves (clearly visible when the leaf is held up to the sun) with a eucalyptus smell when crushed.

Both Privet species are native to China and Japan, but were introduced to Australia from England for use as garden ornamentals, hedges and windbreaks. They are vigorous and fast growing and generally commence flowering 4 years from germination. They are particularly fond of moist, nutrient rich sites such as creeklines and gullies, but can tolerate a variety of soil types and growing conditions. The viability of seed stored in the soil is quite short – very few are capable of germination after one year (Buchanan, R. 1989)

3.5 Method and Rate of Spread

Privet readily reproduces by seed, suckers from damaged stems and roots, and regrows from cut stumps. Each shrub can produce more than 10 000 seeds a year, with seed viability up to 98%. The seeds are spread widely by water, fruit-eating birds such as currawongs, bats, and dumped garden

waste. Exacerbating this, ripe Privet seedheads are regularly sold at the Sydney Markets to florists for floral arrangements, and Privet seedlings are commonly found for sale at various retail outlets and market stalls. Often this can be as various cultivars but these are prone to revert to the wild type, and most seedlings produced are similar to the wild type.

4.0 LEGISLATIVE and REGULATORY SITUATION

4.1 Current Declaration

In the Sydney region, Privet is currently a declared Class 4 noxious weed under the Noxious Weeds Act 1993 in the following LCAs:

Sydney Central region:

- Ashfield
- Hurstville
- Kogarah
- Rockdale

South West Sydney region:

- Camden
- Campbelltown

Sydney North region:

- Ku-ring-gai
- Hornsby
- Warringah
- Willoughby
- Lane Cove
- North Sydney
- Ryde
- Hunters Hill
- Mosman
- Manly
- Pittwater

Sydney West/Blue Mountains

- Parramatta
- Hawkesbury River County Council (includes Baulkham Hills, Hawkesbury, Penrith and Blacktown LGAs)
- Blue Mountains

The definition of a Class 4 weed is “*the growth and spread of the plant must be controlled according to the measures specified in a management plan published by the local control authority and the plant may not be sold, propagated or knowingly distributed.*”

4.2 Declaration Changes

It is proposed that Privet be declared as a Class 4 noxious weed under the Noxious Weeds Act 1993 in the following LCAs. This would result in Privet being declared noxious and strategically managed across the entire Sydney region.

Sydney Central region:

- Botany
- Burwood

- Canada Bay
- Canterbury
- Leichhardt
- Marrickville
- Randwick
- Strathfield
- Sydney City
- Waverley
- Woollahra

South West Sydney region:

- Bankstown
- Fairfield
- Liverpool
- Sutherland
- Wollondilly

Sydney West ~ Blue Mountains region:

- Holroyd
- Auburn

It is expected that the new declarations will result in increased workloads and pressure to control Privet for the agencies involved, however, community support and demand is already increasing for such measures to be undertaken. In addition, one of the actions within this plan is for each LCA to develop and implement its own Local Control Plan which will prioritise and target Privet control programs according to available resources, and which can be used to justify inaction in other areas. For example, some larger councils may propose that Privet initially only be declared noxious in one subcatchment area. It is also anticipated that the Local Control Plans may assist in attracting additional funding from both within agencies and external funding sources.

It is also proposed that the measures for controlling Privet on private land stipulate that unless maintained as a formal hedge where all flowering and fruiting is prevented, that all plants must be removed/destroyed. This will help to streamline enforcement and achieve complete removal of trees not maintained as a hedge.

5.0 CONSIDERATIONS and OPPORTUNITIES

5.1 Opportunities to be exploited

To assist in the implementation of this plan, funding will be sought from various state and federal government agencies for on-ground works and developing education and awareness raising programs. The Asthma Foundation and the Department of Health will also be approached for assistance and collaboration.

A great deal of work is already being undertaken by councils and other agencies in the Sydney region to control Privet and effective control techniques are available. This huge contribution could be used to seek further funding, improve strategic coordination of projects and provide models for further work in other areas. For example, the Cowan Catchment Riparian Action Plan which has been undertaken for some years now in northern Sydney, which targets Privet along with other riparian weeds on a catchment basis.

Incentives programs will also be investigated and implemented. For example, Wollondilly Shire Council has been successfully implementing a Privet incentives project, assisted with funding from the Hawkesbury Nepean Local Government Advisory Group. This project, covering the Stone Quarry

Creek sub-catchment, involves Privet removal on council land and the distribution of Privet removal incentive packs to private landholders. The packs include Privet fact sheets, small bottles of glyphosate, vouchers for native plants from the council nursery, bags for privet seeds, and free tip vouchers. Senior and disabled citizens are also offered free Privet removal. This inspirational project has been an excellent lead-up to declaring Privet a noxious weed in Wollondilly and has resulted in a significant reduction in Privet in the sub-catchment. Baulkham Hills Shire Council is undertaking a similar project focussing on Privet removal in the Cattai catchment. It is envisaged that similar projects will be carried out in other council areas across the Sydney region in the future.

5.2 Species Management

Small Privet plants and seedlings can be manually removed, digging up as much of the main root system as possible to discourage suckering. Over large areas, seedlings can be sprayed using a Glyphosate-based herbicide. Large specimens can be controlled using either the cut and paint, or frilling methods using an undiluted Glyphosate-based product.

In bushland areas, Privet should only be controlled where follow-up maintenance and replacement native regeneration/planting can be undertaken, whether by agency staff, contractors or volunteers. Special care needs to be taken along creeklines and in areas at high risk of erosion, where control works should be undertaken with a catchment management focus and possibly with the selective use of the frilling method only. Care should also be exercised where Privet provides habitat for threatened birds, for example the Powerful Owl (*Ninox strenua*) habitat in Lane Cove National Park.

Privet is often found in very degraded areas with many other noxious and environmental weeds. In these areas, the ad-hoc target weeding of Privet is not appropriate, as other (and sometimes worse) weeds will replace it. Large scale clearing is also not recommended for similar reasons.

The Cowan Catchment Riparian Action Plan is a good model for a more strategic approach. In this project, Privet management has been broken into two zones - the Bushland Zone and the Urban Zone, with two different management strategies for each. The objective for the Bushland Zone is "to progressively reduce the area infested by riparian weeds by working from satellite infestations in healthy bushland towards degraded bushland, to encourage native regeneration". One action is to undertake inspections of weed free creeks and undertake immediate action if weeds are found present.

To appropriately maintain a formal Privet hedge, it must be pruned each year before full development of the flowers, to prevent the impacts on human health and the development of seed heads at times observed to flower and fruit after pruning within the hedge in some cases. Maybe viable

It is commonly recommended that Privet on private property be replaced with another non-invasive species – some native tree alternatives include Blueberry Ash (*Elaeocarpus reticulatus*), Lilly Pilly (*Acmena smithii*), Water Gum (*Tristaniopsis laurina*) or Cheese Tree (*Glochidion ferdinandi*). For hedging, Lilly Pilly (*Acmena smithii*), Syzigium sp. and Photinia (*Photinia glabra*) are good alternatives.

5.3 Extension and Education

The main focus for education and extension activities will be to increase skills in the identification and control of Privet by both residents and local and state agency staff. This will be achieved through numerous means such as:

- local media articles when this plan is endorsed by councils.
- Media blitz when Privet is declared in new LCAs. Local newspapers, SMH, gardening magazines, gardening TV shows will all be approached to do articles.
- Articles in ratepayer newsletters, especially during flowering season.
- Articles in Mayoral columns.
- Distribute information to agency staff on Privet identification and management, especially regulatory officers, health and building / development control officers and parks staff.

- Contact with local nurseries and florists when Privet declared – in mean time, education of same.
- Including Privet in weed displays.
- Including Privet in regional weed brochures, WEEDeck and the committees' website.

5.4 Links to other Strategies

This plan 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. This can be achieved through monitoring river systems and wetlands to identify aquatic weed problems at an early stage so that they can be controlled with minimal environmental damage, and implementing control programs for weeds which cause major environmental problems;
- The implementation and monitoring of weed control programs on public and 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.

It also 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'.

This plan falls within the Sydney Metropolitan and Hawkesbury Nepean Catchment Management Authority (CMA) regions and assists in the implementation of the following 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 actions 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 measureably 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).

5.5 Barriers and Contingencies

The effective management of Privet at a regional level can be achieved by implementing the Action Plan detailed in Section 6.0 and thus overcoming the following barriers:

1. Inconsistent management - Privet only declared in half (20 from 38) of the LCAs in the Sydney region (Actions 6.1 & 6.2)
2. Reluctance of landholders to control Privet (Action 6.3 & 6.4)
3. Significant extent of Privet infestations – common, widespread across region, difficult to map, significant resources required for control (Actions 6.3 to 6.5);
4. Control is often not coordinated with neighbouring landowners, which reduces effectiveness (Actions 6.3 & 6.5);
5. Cost of control can be significant for residents, especially large trees (Action 6.4)
6. Cost of control on public land is significant due to large extent of infestations (Action 6.5)
7. Limited resources and the need to prioritise Privet control (Action 6.5);
8. Lack of awareness and skills in Privet identification and control, and its impacts to the environment and human health (Action 6.6);
9. Privet easily spread by birds and need for control before it seeds (Action 6.4);
10. Privet plants being sold by some nurseries and markets (Action 6.6);
11. Some markets and florists selling ripe Privet seed for floral arrangements (Action 6.6).

6.0 ACTIONS and PERFORMANCE INDICATORS - **PRIVET**

| ACTION PLAN FOR CONTROL: | PERFORMANCE INDICATORS | WHO | ADDRESSES WHICH OBJECTIVES |
|--|---|---------------------------|---|
| 6.1 Seek individual Council endorsement of this Regional Weed Plan and proposed Privet Class 4 declaration, in all LCAs where Privet is not yet declared. | Plan and proposed Class 4 declaration endorsed by all relevant councils by June 2005. | LCAs | 1. The declaration of Privet as a Class 4 noxious weed throughout the Sydney region. |
| 6.2 Send submissions to DPI / NWAC for Privet Class 4 declaration in all relevant LCAs across the region. | Privet declared throughout the Sydney region by June 2006.xdvRTG b b b b b c | Regional Weeds Committees | 1. The declaration of Privet as a Class 4 noxious weed throughout the Sydney region. |
| 6.3 Strategically coordinate the control and reduction of Privet on private land through inspections, notifications and enforcement of Noxious Weeds Act, 1993. This will be integrated where appropriate with control works on public land. | <ul style="list-style-type: none"> • The number of inspections and notifications per annum will be recorded and compared to previous years. • The number of follow up complaints will also be recorded. • Increase in Privet enquiries. • Proactive inspection programs implemented annually during flowering season. • Formal hedges monitored during the flowering season for appropriate control. | LCAs, private landholders | 2. A reduction in the presence of Privet on private property, with formal hedges prevented from flowering and fruiting. |
| 6.4 Implement incentives programs to encourage proactive private property control of Privet (eg. Wollondilly Privet Project) | <ul style="list-style-type: none"> • Evaluation of the programs and participation (no. landholders involved, pre & post surveys to determine participants knowledge, skills, behaviour changes and their verbal feedback on the incentives program) • Programs will be undertaken in accordance with specific project timeframes. | LCAs, private landholders | 2. A reduction in the presence of Privet on private property, with formal hedges prevented from flowering and fruiting. |
| 6.5 Strategically manage Privet on public | • The production and implementation of | LCAs, DEC, | 3. Privet on public land strategically controlled |

| | | | |
|--|--|--|---|
| land according to Local Control Plans for each LCA, working in cooperation with other land management agencies when required. | <p>Local Control Plans for each LCA.</p> <ul style="list-style-type: none"> • Increase in coordination of control between landowners. | DOL, Bushcare volunteers, RTA, RailCorp, DOH, SWC, DOD | and prevented from spreading. |
| 6.6 Provide information and increase technical skills for the community and authority staff, in Privet identification and appropriate control. | <ul style="list-style-type: none"> • One local media article when this plan is endorsed by each council. • Media blitz when Privet is declared. Local newspapers, SMH, gardening magazines, gardening TV shows approached to do articles. • Articles in ratepayer newsletters, 1 or 2 times annually (esp. during flowering season) • Mayoral column (once or twice annually) • Training of agency staff in Privet ID (at start of Privet season each year) • Weed displays include Privet – annually in October during Weedbuster Week and at other times in conjunction with local festivals, tree giveaways, etc. • Privet included in regional brochures, WEEDeck and on committees’ website. | LCAs, DEC, DPI, Regional Weeds Committees | 4. Increased awareness in the region of Privet and its identification, impacts and control methods. |
| 6.7 Reduce the propagation and sale of Privet at markets, nurseries and florists. | <ul style="list-style-type: none"> • Make contact with all markets, nurseries and florists in each LGA during the life of the plan, followed by regulatory inspections and action as required. • Prepare and distribute Privet information to markets, nurseries and florists. | LCAs, DPI | 5. A significant reduction in the propagation and sale of Privet plants and seed heads for floral displays. |

7.0 MONITOR and REVIEW PROCESS

All participants in this plan will monitor and review the progress of the plan against the performance indicators in annual reports. The plan will also be reviewed as required to allow for any additional/new information.

Twelve months following the declaration of Privet as a noxious weed, all participating LCAs will be surveyed to determine the outcomes of the declaration, the progress of their Local Control Plans and whether any alterations are required.

8.0 BENEFITS

It is envisaged that the implementation of this regional plan will reduce the significant environmental and health impacts caused by Privet in the Sydney region and reduce its spread.

Controlling Privet will assist in the conservation of biodiversity in natural areas, particularly riparian environments, as well as improve the environmental, scientific, recreational and heritage values of bushland.

Human health benefits will be achieved through the reduction in the prevalence of Privet in suburban backyards, and the creation of a regulatory avenue through which people with respiratory difficulties triggered by Privet can seek relief.

9.0 RESOURCES

Identification and information

Blood, K (2001). *Environmental Weeds – A Field Guide for SE Australia*. CRC Weed Management Systems.

Buchanan, R (1989). *Bush Regeneration – Recovering Australian Landscapes*. TAFE, NSW. (Privet Case Study Page 67).

Ermert, S (2001). *Gardener's Companion to Weeds*. New Holland Publishers, Sydney.

Sainty & Associates Pty Ltd (2001). *WEEDeck - Weeds of Concern in the Sydney Region*. Produced by Sydney Weeds Committees.

Websites

www.dpi.nsw.gov.au

www.sydneyweeds.org.au

www.weeds.org.au