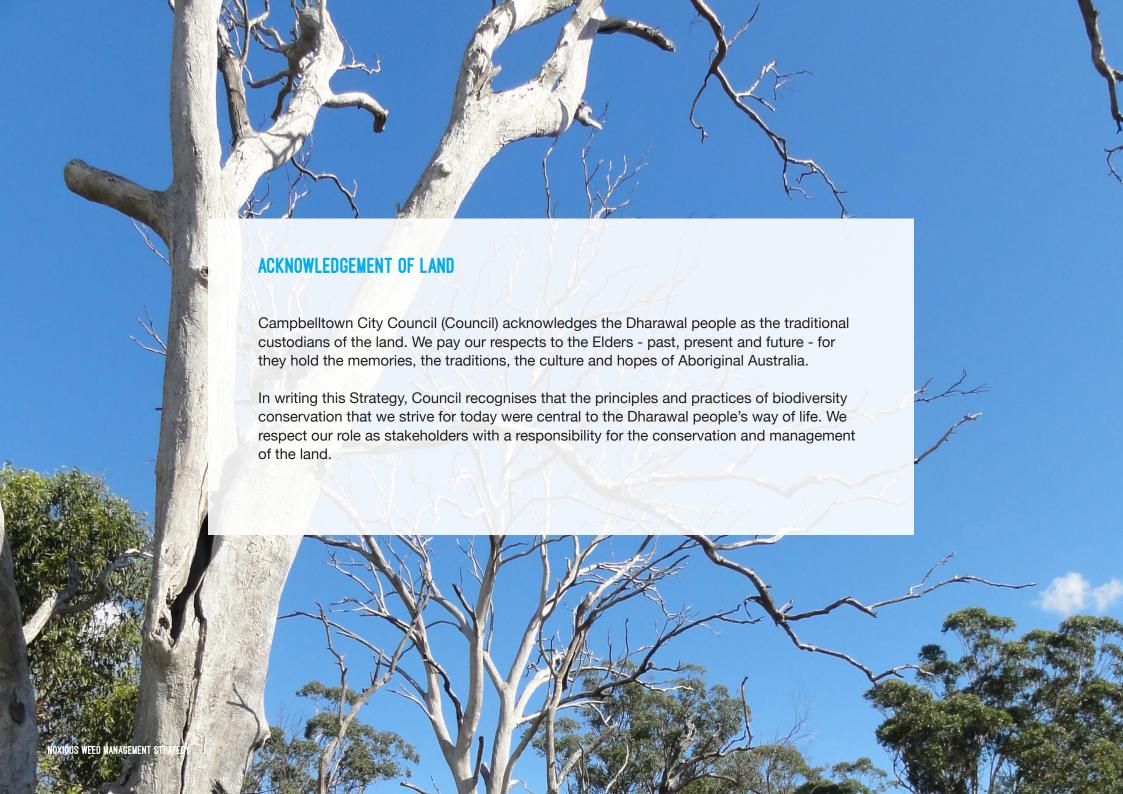
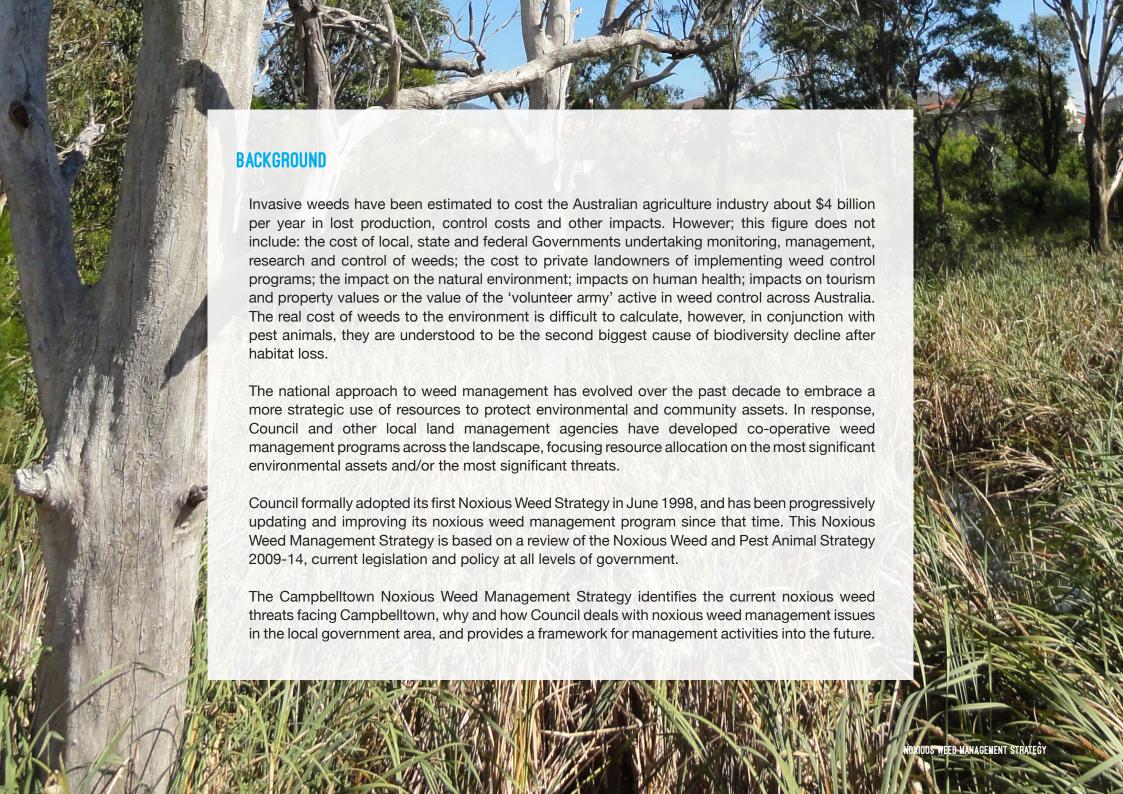




# NOXIOUS WEED MANAGEMENT STRATEGY





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# Section One WHAT IS A NOXIOUS WEED?



# 1 1 IMPACTS OF NOXIOUS WEEDS

# 1.2 SOURCES OF NOXIOUS WEEDS

Many noxious weeds are considered to be among the greatest threats to biodiversity and ecosystem function and pose a huge threat to waterways and bushland areas in the Campbelltown Local Government Area (LGA). Adverse impacts of noxious weeds on the environment and agriculture include:

- competition with local native plants for sunlight, moisture and nutrients
- inhibition of native plant germination
- alteration of Endangered Ecological Communities as well as habitat for threatened species
- encouraging more frequent and intense fires
- changes to soil characteristics such as nutrient cycles, pH, moisture and microbiology
- increased nutrient levels in water and lower levels of oxygen, which threaten or kill fish and other aquatic fauna
- degraded landscape values and impeded access impacting on urban amenity and tourism
- harbor for feral animals.

Major sources and causes of noxious weed spread in the environment are:

- disturbance in natural areas
- plants escaping from gardens
- dumping of waste, particularly garden and construction waste, in bushland
- wind and vehicle transport of seeds along highways and railway corridors
- use of weed contaminated soil or horticulture products
- transmission by fauna, eg through bird droppings
- planting of exotic species into public reserves by residents and government authorities
- spread of weed seed on clothing of bushwalkers
- nutrient-enriched runoff from sources such as stormwater, septic tanks, sewerage overflows, pet wastes, washing of cars, and fertiliser runoff
- poor vegetation management practices such as over clearing, slashing and trampling by public land management authorities, developers, recreationalists and the community.







# 2.0 PURPOSE OF STRATEGY

The Campbelltown Noxious Weed Management Strategy provides clear principles and guidelines for Council and the community on how noxious weeds within the Campbelltown LGA are to be managed and the mechanisms available to facilitate control or removal.

This strategy will assist with the numerous requests that Council receives from the public every year for noxious weed management. It provides direction for how requests will be prioritised and actioned according to their significance, importance and alignment with this strategy and its objectives. The strategy aims to foster strategic noxious weed management practices to drive effectiveness, provide long term cost savings and create long term sustainability in programs to benefit the community and local environment.

ON AVERAGE, MORE THAN 700 NOXIOUS WEED INSPECTIONS ARE UNDERTAKEN EACH YEAR IN THE CAMPBELLTOWN LGA





# 3.0 CAMPBELLTOWN'S LOCAL ENVIRONMENT

The Campbelltown LGA is located on the south-western edge of the Sydney metropolitan area, approximately 53 kilometers from the Sydney CBD, and occupies an area of approximately 312 square kilometres. The LGA extends from Glenfield in the north to Menangle Park in the south. It comprises 38 suburbs and is surrounded by five other LGAs - Liverpool, Camden, Wollondilly, Sutherland and Wollongong. Campbelltown has a population of approximately 155,915 (Forecast ID 2015), with urban development predominately situated within a linear urban corridor that follows the alignment of the M5 Motorway/Hume Highway and the Main Southern Railway line.

Topography within the LGA is generally flat, with the exception of the Scenic Hills in the west and the riparian areas particularly along the Upper Georges River; the majority of land within the LGA lies approximately 200 metres above sea level.

The LGA is located within the catchments of two principal Sydney waterways, the Georges and Nepean River systems. These waterways support a diverse variety of plants and animals, as well as provide for community amenity and recreation opportunities.

Cumberland Plain Woodland and Shale-Sandstone Transition Forest are the two main native vegetation communities within the LGA and are both listed as Critically Endangered Ecological Communities under the *Threatened Species Conservation Act 1995* and the *Environment Protection and Biodiversity Conservation Act 1999*. The Dharawal National Park is situated (in part) within the south east of the LGA and contains relatively pristine bushland. Campbelltown also supports many threatened flora and fauna species, along with potential habitat for these, including environmentally significant areas such as the Georges River Corridor.

<sup>&</sup>lt;sup>2</sup>http://forecast.id.com.au/campbelltown/population-summary

# 3.1 NOXIOUS WEEDS IN CAMPBELLTOWN

Noxious weed declarations are made by the NSW Department of Primary Industries (NSW DPI) on a Local Government Area basis. Many weeds that are significant on a statewide basis are declared noxious for a range of areas, even if they are not identified in an area, such as Senegal tea plant (*Gymnocoronis spilanthoides*), which is not known to exist within the LGA. The declaration of species not known to exist in an area provides higher levels of surveillance as well as prompt action and funding for treatment through the NSW DPI.

In the Campbelltown LGA, 125 noxious weed species are declared, however, only 44 of these species are known to currently exist or have previously been recorded in the area (refer to NSW DPI website for a full list: http://weeds.dpi.nsw.gov.au/WeedDeclarations Some of these species are well established and widespread, while others are relatively recent introductions in small isolated populations.

A substantial proportion of weeds declared

noxious within NSW have their origins as garden plants. Many weed species within the Macarthur area were originally planted for a particular purpose, such as hedges, wind breaks, shade trees and for soil stabilisation. Other species were likely to have been inadvertently introduced through stormwater, vehicles, clothing, or soil from areas where an infestation exists.

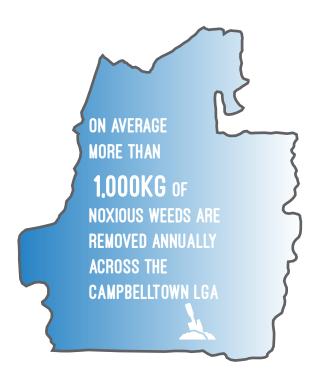




# Section Four MANAGEMENT FRAMEWORK

# 4.1 STAKEHOLDERS

There are a number of key stakeholders associated with noxious weed management in the Campbelltown LGA, ranging from local residents managing noxious weeds on urban or rural properties, to larger businesses and organisations such as Sydney Trains, Roads and Maritime Services (RMS) and Sydney Water, with large land holdings. The activities that this strategy recommends directly or indirectly affect these stakeholders, and as such, will often require partnership to ensure the best outcomes for management of noxious weeds in the area. The stakeholders and their roles are outlined in Table 1.





### TABLE 1: LIST OF STAKEHOLDERS AND THEIR ROLES IN NOXIOUS WEED MANAGEMENT

STAKEHOLDER	ROLE					
	Funding	Governance	Enforcement	Partnerships	Landholder	Legislation and policy
Campbelltown City Council	•	•	•	•	•	
Local control authorities  – Sydney Water, Roads and Maritime Services, Transport for NSW		•		•	•	
Local residents and landowners					•	
Georges River Combined Councils Committee		•		•		
Sydney Weeds Committee		•		•		
Sydney South-West Regional Weeds Committee		•		•		
Greater Sydney Local Land Services	•	•		•		•
Tharawal Local Aboriginal Land Council				•	•	
Adjoining councils – Wollondilly, Camden, Liverpool, Sutherland	•	•	•	•	•	
Department of Primary Industries	•	•	•	•		•
Department of Planning				•	•	
Office of Environment and Heritage	•	•		•	•	•
Department of Lands	•	•		•	•	
Crown Lands Department	•			•	•	FEN MANAGEMENT STRATEGY 13

# 4.2 LEGISLATION AND POLICY

## Legislation

Noxious weed management is informed and regulated by various state and commonwealth legislation relating to planning, protection and management of the environment. Key pieces of legislation are outlined below.

### Noxious Weeds Act 1993

The objectives of the *Noxious Weeds Act 1993* are:

- a. to reduce the negative impact of weeds on the economy, community and environment of this State by establishing control mechanisms to:
  - i. prevent the establishment in this State of significant new weeds, and
  - ii. prevent, eliminate or restrict the spread in this State of particular significant weeds, and
  - iii. effectively manage widespread significant weeds in this State,
- b. to provide for the monitoring of and reporting on the effectiveness of the management of weeds in this State.

Under the Act, the Minister for Primary Industries has the power to make orders declaring plants as "noxious weeds". Weeds can be declared "noxious" if they pose a threat to agriculture, the environment or community health, and there is a public benefit from such declaration.

#### NOXIOUS WEED CLASSIFICATIONS

Under this Act, noxious weeds are classified into five categories based on their perceived threat (see Table 2). Each classification has different control requirements which specify levels of control or management required to be undertaken by the responsible landowner or authority. They range from Class 1 to Class 5, where Class 1 is seen as the highest control priority. Species are classified noxious in specific Local Government Areas. Some species may be declared noxious across the state, while others may only be noxious in one specific area. Classifications for species may also differ across local area boundaries. A list of species for each LGA can be found on the Department of Primary Industry's website at <a href="http://weeds.dpi.nsw.gov.au">http://weeds.dpi.nsw.gov.au</a>

### TABLE 2: NOXIOUS WEED CLASSES WEED TYPES AND CONTROL REQUIREMENTS

CONTROL CLASS	WEED TYPE	CONTROL REQUIREMENTS
CLASS 1	Plants that pose a potentially serious threat to primary production or the environment and are not present in the State or are present only to a limited extent.	The plant must be eradicated from the land and the land must be kept free of the plant.  The weeds are also "notifiable" and a range of restrictions on their sale and movement exist.
	Plants that pose a potentially serious threat to primary production or the environment of a region to which the order applies and are not present in the region or are present only to a limited extent.	The plant must be eradicated from the land and the land must be kept free of the plant.  The weeds are also "notifiable" and a range of restrictions on their sale and movement exist.
	Plants that pose a potentially serious threat to primary production or the environment of a region to which the order applies, are not widely distributed in the area and are likely to spread in the area or to another area.	The plant must be fully and continuously suppressed and destroyed.*
	Plants that pose a potentially serious threat to primary production, the environment or human health, are widely distributed in an area to which the order applies and are likely to spread in the area or to another area.	The growth of the plant must be managed in a manner that reduces its numbers, spread and incidence and continuously inhibits its reproduction.*
	Plants that are likely, by their sale or the sale of their seeds or movement within the State or an area of the State, to spread in the State or outside the State.	There are no requirements to control existing plants of Class 5 weeds.  However, the weeds are "notifiable" and a range of restrictions on their sale and movement exists.

NOTE: All Class 1, 2 and 5 weeds are prohibited from sale in NSW.

<sup>\*</sup> In some cases the following wording has also been inserted "the plant may not be sold, propagated or knowingly distributed"

# Threatened Species Conservation Act 1995

The primary objective of the *Threatened Species Conservation* Act (TSC Act) is to conserve biological diversity. The Act provides for the listing of threatened species populations and ecological communities. The Act also provides for the preparation of recovery plans for rare or endangered species and vegetation communities and the designation of areas as habitat critical to the survival of those listed as endangered.

Under the Act, threats that can potentially impact on the survival or evolutionary development of a species, population or ecological community can be determined as key threatening processes. The proliferation of some species of weeds such as African olive and Bitou bush have been identified as key threatening processes, meaning that their management is of a high priority.

# Policy

There are various strategies, plans and documents that guide the management of noxious weeds within the Campbelltown LGA, these are outlined in Figure 1. While many of these documents are developed on a regional or state-wide basis, implementation at the local government level is essential for effective noxious weed management.

# Other relevant legislation relating to noxious weeds includes;

- Environment Protection and Biodiversity Conservation Act 1999
- Biological Control Act 1985
- Environmental Planning and Assessment Act 1979
- The Local Government Act 1993
- Pesticides Act 1999
- Local Land Services Act 2013
- National Parks and Wildlife Act 1974.



# Figure 1: Policy framework across the three levels of government

### **FEDERAL**

#### **The Australian Weed Strategy**

- Prevent new weed problems Goal 1
- Goal 2 Reduce the impact of existing priority weed problems
- Goal 3 Enhance Australia's capacity and commitment to solve weed problems

### STATE

#### **NSW Invasive Species Plan 2008-2015**

#### God | Exclude (prevent the establishment of new invasive species)

- God 2 Eradicate or contain (eliminate or prevent the spread of new invasive species)
- God 3 Effectively manage (reduce the impacts of widespread invasive species)
- God 4 Capacity (ensure NSW has the ability and commitment to manage invasive species).

#### **NSW Alligator Weed Strategy 2010-2015**

Aims to prevent new incursions, ensure the early detection of any new incursions and actively manage existing infestations.

#### **Key Threatening Processes and Threat Abatement Plans**

The proliferation of some weed species are listed as key threatening processes, for example, the invasion, establishment and spread of Lantana camara, and invasion of native plant communities by African olive (Olea europaea Cuspidate), meaning that they must be considered during a development assessment process. Threat Abatement Plans may also be developed to prescribe actions to address the threat.

#### **NSW New Weed Incursion Plan**

Aims to guide the achievement of goals 1 and 2 of the NSW Invasive Species Plan, coordinating the surveillance and identification of weeds and weed pathways, risk assessment of species and implementation of effective barriers to prevent their establishment.

#### **Sydney Metropolitan Catchment Action Plan**

Target B5 - By 2016, the impact of invasive species on biodiversity is reduced by decreasing the number. distribution and impact of terrestrial and aquatic invasive weeds and pest animals; and by promoting a better understanding of invasive pathogens.

#### LOCAL

#### **Upper Georges River Strategic Environmental Management Plan**

A guiding framework that focuses on the past, present and future health of the Upper Georges River catchment, through the analysis of four key themes: management, land use, community engagement and on-ground projects including weed management.

#### Pesticide Use Notification Plan 2015

The plan guides Council's staff and contractors in how they notify members of the community of pesticide use in public places throughout the Campbelltown LGA particularly in regards to works in close proximity to sites listed as "sensitive areas" in the plan.

#### **Community Strategic Plan, Operational Plan** and Delivery Plan

A 10 year plan that outlines the aspirations and objectives of the community and sets out the strategies to achieve them.

Strategy 1.2: Protection of the natural environment The Operational and Delivery Plans detail specific actions to achieve the strategies of the Community Strategic Plan including the review and implementation of the Noxious Weed Management Strategy.

# 4.3 WEEDS OF NATIONAL SIGNIFICANCE

Weeds of National Significance (WoNS) are the priority species for sustained nationally coordinated action under the Australian Weeds Strategy. Species declared as WoNS will be targeted for coordinated national management involving various stakeholders, including local government, for the purpose of preventing further impacts, reducing or restraining their spread and/or eradicating them from parts of Australia.

A total of 32 WoNS have been identified by Australian governments, based on their invasiveness, potential for spread, and environmental, social and economic impacts. Each WoNS has a strategic plan that outlines strategies and actions required to prevent spread and reduce impact of the weed, as well as identifying responsibilities for each action.

Individual landowners and managers are ultimately responsible for managing WoNS. Federal government grant funding for weed control programs is often targeted to achieving WoNS strategic goals. Of the 32 WoNS species, 18 occur in the Campbelltown LGA. These include: Alligator weed, Boneseed, Blackberry, Prickly pear, Bridal creeper, Lantana, Serrated tussock and Willows.

Unlike declared noxious weeds, there is no legal obligation to control WoNS with exception for those that are also declared noxious.

18 OF THE 32
WEEDS OF
NATIONAL
SIGNIFICANCE
OCCUR IN THE
CAMPBELLTOWN
LGA



# 4.4 GOVERNANCE

Weeds don't recognise borders - what is a problem in one Council area is quite often also a problem in the next. The state government has helped to establish a governance framework to assist Local Control Authorities (LCAs)<sup>3</sup> in working together, obtaining funding and effectively using resources.

### Weed Action Program

The NSW Weeds Action Program 2015-2020 (WAP) is a NSW Government initiative to reduce the impact of weeds, guided by the NSW Biosecurity Strategy 2013-2021 and the NSW Invasive Species Plan 2015-2020.

The WAP aims to ensure consistent and coordinated regional planning and local delivery of weed management approaches through 11 statutory regional weed committees comprising LCAs, public and private landholders, and community members as sub committees to Local Land Services (LLS)<sup>4</sup>. The committees are aligned with LLS borders and are legislatively obligated to develop regional plans and priorities for weeds and surveillance.

Funding is provided under the WAP by the NSW Government for weed control projects (see section 10 – Funding).

# Sydney Weeds Committees

Weeds Advisory Committees are formed by groups of stakeholders across LLS regions of NSW (see figure 2). The Sydney Weeds Committee provides a platform for discussion regarding weed management issues across the different land holdings and to facilitate potential partnerships across land tenures.

The Sydney Weeds Committee was established in 2010 with the aim of improving weed management across all land tenures in the Sydney Region and Blue Mountains Region. The committee is comprised of four regional weeds committees with representatives from government and non-government agencies and practitioners across the broader Sydney region.

### South-West Regional Weeds Committee

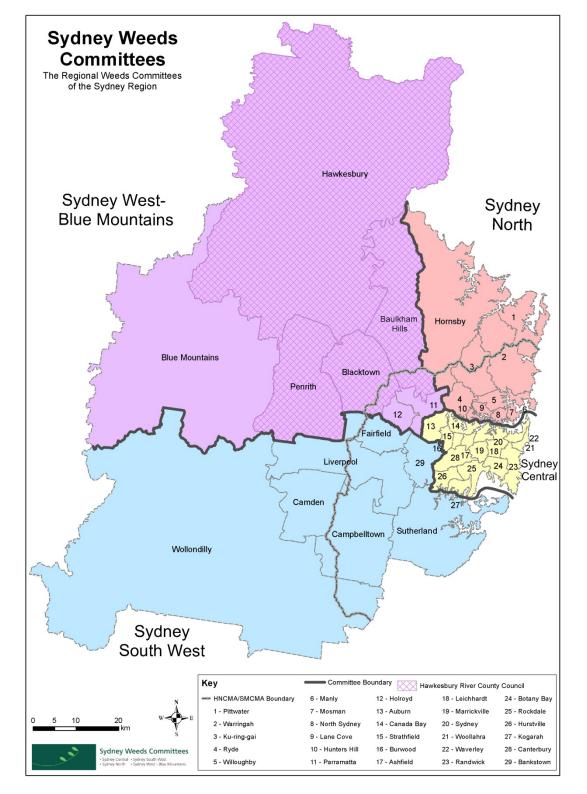
The South-West Regional Weeds Committee is a sub-committee of the Sydney Weeds Committee. It is comprised of technical officers from Campbelltown, Wollondilly, Sutherland, Fairfield, Bankstown and Liverpool Council's as well as representatives from other government organisations such as NSW National Parks and Wildlife Service and Sydney Trains. The Regional Weeds Committee acts to address more localised issues, provide local support and identify partnership opportunities.

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<sup>&</sup>lt;sup>3</sup>Local Control Authorities – are the body responsible for noxious weed control functions under the *Noxious Weed Act 1993* for an area. For a local government area these are generally councils.

<sup>&</sup>lt;sup>4</sup>An amalgamation of previous Catchment Management Authorities, Livestock Health and Protection Authorities and certain aspects of the NSW Department of Primary Industries

Figure 2: Regional Weeds Committees of the Sydney Region





# 5.1 COUNCIL AND NOXIOUS WEED MANAGEMENT

# 5.2 PRIORITISING NOXIOUS WEED MANAGEMENT

Under the *Noxious Weeds Act 1993*, there are many different obligations and requirements for different land owners and managers across NSW. In NSW, local government agencies (councils) are responsible for the implementation of the *Noxious Weeds Act 1993* and are referred to as Local Control Authorities (LCAs). The role of a LCA also includes enforcement of the *Noxious Weeds Act 1993* to ensure that noxious weeds are controlled and prevented from spreading across their own land holdings and private land holdings. Council also undertakes noxious weed control and management on its own lands based on strategic priorities as outlined below.

NSW government organisations (such as Roads and Maritime Services, Sydney Water and Sydney Trains) are also recognised as LCAs and are obligated to control noxious weeds on their lands.

Noxious weed management requires strategic direction and a coordinated approach to ensure that management activities are targeted to produce long term sustainable and cost-effective outcomes for both the community and the environment.

Noxious weeds and the way in which they are managed can be very different, depending on infestation size and density, the type of weed, its location and by the impacts it is having on land use, the community or the environment. Noxious weed management can be targeted to eradicate an individual plant, contain an infestation to stop its further spread, or can be a part of a larger bush regeneration program which is implemented over many years.

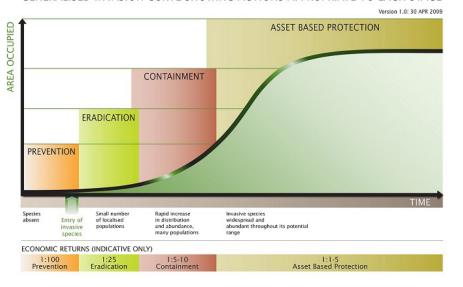
Control of noxious weeds can be achieved by hand removal, using machinery, spraying with herbicide or by changing conditions and promoting growth of a more desirable species. These different methods are implemented to control various species of noxious weeds in many different situations with protection of our high value environmental areas at the forefront of Council's actions.

Council undertakes weed management on lands under its care and control, these lands are managed for a variety of uses including conservation, tourism and recreation uses. Each of these land uses has its own particular and unique suite of weed problems and priorities. No single weed management approach can be applied equally to all areas.

Council's management programs and corresponding works will conform to Council's responsibilities under the relevant legislation and are often bound by strict guidelines for associated grant funding such as those prescribed within the Weed Action Program. These depict priority areas and significant noxious weed species for treatment. Council's strategic direction for weed control is broadly based on the NSW DPI weed invasion curve (as shown in Figure 3).

## Figure 3: NSW Department of Primary Industries weed invasion curve

#### GENERALISED INVASION CURVE SHOWING ACTIONS APPROPRIATE TO EACH STAGE



Based on the actions recommended through the weed invasion curve, Council as a LCA prioritises and focuses its works to:

- conduct routine private property and high risk pathway inspections to prevent weeds from becoming established in the environment
- assess sources of weed infestation
- eradicate high risk weeds from the environment
- contain high risk weeds within their current locations
- protect assets such as endangered ecological communities, waterways, parks and reserves
- integrate pest control (harbor removal, weed dispersal) where practical
- ensure all works undertaken are cost effective.

In developing programs, Council will determine the level of action required through the NSW Weed Risk Management system (see appendix 1) and the priority rankings for specific noxious weed species (see appendix 2). Noxious weed infestations that are determined to be a low priority may be considered for removal, however, budget allocations will be directed to higher priority issues. In undertaking noxious weed removal, Council will also assess existing habitat requirements for native fauna to ensure that impacts upon wildlife at the site are appropriately managed.



# Weed Action Program

The NSW Weed Action Program (WAP) aims to reduce the impact of noxious weeds on the environment, agriculture and the community based on the four goals listed within the NSW Invasive Species Plan 2008-2015. Under the auspice of the WAP, the NSW Government (via the various weeds committees) provides key funding to LCAs for noxious weed management.

Council receives significant funding each year through the WAP to undertake specific projects, inspections of private properties and of high risk pathways (such as main artillery roads, railway corridors, nurseries and aquariums) for weed distribution.

Council is obligated to monitor and report on its actions under the WAP.

# Aquatic weed control

During the 1990s, it was evident that aquatic weed growth was affecting many waterways within NSW, in particular the Sydney Basin. Aquatic weed growth was impacting on local business, agriculture, recreational activities and the environment. In 2006, a significant salvinia outbreak choked sections of the Georges River, highlighting the issue and prompting swift action. Aquatic weeds continue to be a problem in the Campbelltown LGA, with many waterways still affected. Aquatic noxious weeds are considered to be a high priority for treatment and control as they have the potential to devastate local ecosystems and spread quickly if left untreated.

In 2008, the Sydney Weeds Committee held discussions with various stakeholders to investigate the most cost efficient, strategic and sustainable control of aquatic weeds. As a result, regional weed management plans have been developed for Ludwigia spp (*L. peruviana*, *L. longifolia* and *L. repens*) and Alligator weed.

Since 2003, Council has undertaken annual mapping of aquatic weeds within key waterways across the LGA (see Figure 4). In 2011, commensurate treatment of aquatic noxious weeds was incorporated into the mapping project to ensure a more cost efficient and effective mapping and treatment program. Mapping of all infestations is undertaken on an annual basis with treatments of identified aquatic noxious weeds undertaken on a bi-annual basis. Treatment methods for aquatic noxious weed include hand removal and disposal offsite to prevent further spread and herbicide application in accordance with Australian Pesticide Veterinary Medicines Authority (APVMA) permits for off label use of herbicide.

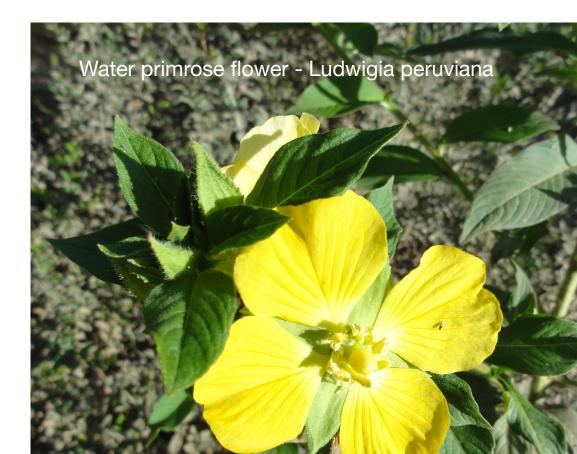
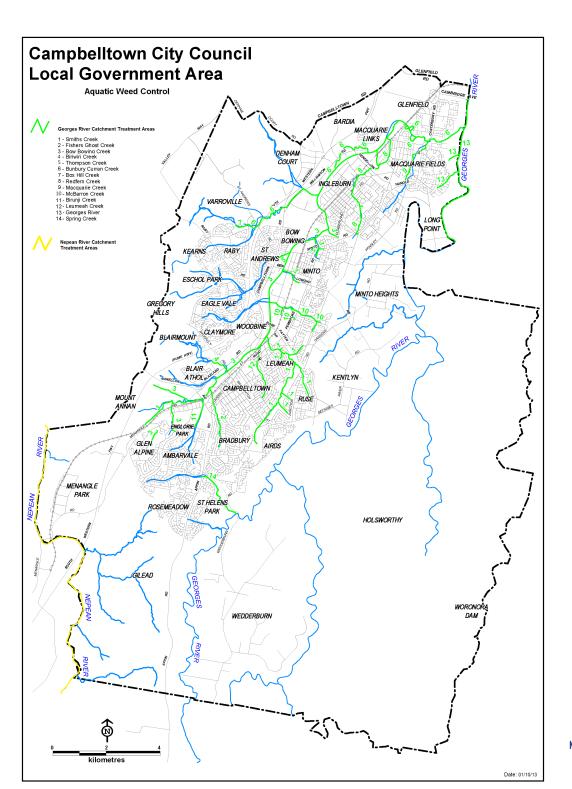


Figure 4: Waterways covered under Council's Aquatic Weed Control and Mapping Project



### African olive control and containment

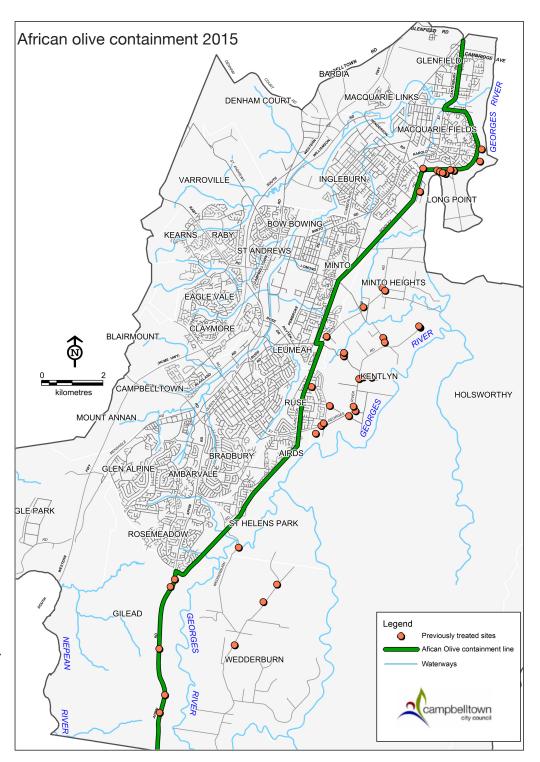
African olive was first noted as a potential problem weed in the Sydney Basin in the mid-1970s, by which time it had formed shrubby thickets on the steeper slopes and hills in the Camden–Cobbitty area, particularly on the Razorback Range. By the 1980s it was described as a major invading weed of grazing and park lands in the Macarthur area.

African olive predominantly exists in the western part of Campbelltown, on undulating clay soils found within Cumberland Plain Woodland. Infestations have rapidly spread east through urban areas, affecting many high value environmental assets while slowly encroaching on the sandstone soils of the Georges River Corridor. Invasion of native plant communities by African olive is listed as a key threatening process under the *Threatened Species Conservation Act 1995*.

In recognition of the fact that the species has become overwhelmingly established in some areas, the Sydney Weeds Committee hasrecommended prioritising the protection of highest value environmental assets and establishing containment lines within the Macarthur region to contain the species where possible. Consequently, Council has established an African olive containment line in an attempt to prevent the further spread of African olive into the Georges River Corridor and neighbouring council areas (see Figure 5).

African olive infestations found on the eastern side of the containment line are strategically managed by targeting scattered occurrences along roadsides and in public reserves. On private land, enforcement actions under the *Noxious Weed Act* 1993 are implemented.

Figure 5: African Olive containment line and Council work sites



# Terrestrial weed control program

In accordance with priorities set out in section 8.2, Council's terrestrial weed program is focused on Threatened Ecological Communities (TEC) sensitive environmental areas such as waterways, high risk weed species and expanding on further opportunities to promote natural regeneration. These works often form part of externally funded grant programs that focus on using bush regeneration techniques to remove weeds and promote regeneration of native species to ensure long term, sustainable environmental outcomes. Grant funding comes with strict guidelines focused on the eradication or containment of specific noxious weed species or improvement of certain areas such as; regional wildlife corridors, TECs or conservation of threatened species. These programs are often focused on primary or initial weed control with minimal funding available for follow up or maintenance weed control, hence the need for a strategic approach to treat areas that can be maintained and where long-term sustainable benefits can be realised. 5

Past programs have targeted high risk noxious weeds such as Kei apple (Dovyalis caffra) or key strategic sites such as Fishers Ghost Creek in Bradbury, Smiths Creek Reserve in Ruse/Leumeah, Noorumba Reserve in Rosemeadow and many areas throughout the Georges River Corridor.

### Regional weed management

Regional weed management programs continue to be developed and implemented by various government and non-government land managers to address weed issues that are not confined to local government or catchment boundaries. Many of the programs have involved the development of regional weed management plans to guide strategic onground works, often targeting prevention, eradication and containment of specific species or protection of vegetation communities.

Over the years, regional weed management plans have been produced for species including Ludwigia, Alligator weed, Boneseed and African olive. A regional approach to weed management ensures the best outcomes by providing commitment to a consistent system, method and increased cost-effectiveness through consolidation of resources. Council continues to work in partnership with the other MACROC councils (Camden and Wollondilly) on common weed management issues such as the alligator weed management program along the Nepean River and the Acer control program (targeting removal of Acer Negundo along the foreshores of the Nepean River).

<sup>&</sup>lt;sup>5</sup> While many urban streams are impacted by noxious weed infestations such as balloon vine, works in these areas may be viewed as not cost-effective due to the significant ongoing financial investment required to maintain them.

### Council inspection and compliance program

Under the *Noxious Weed Act 1993* private land holders or managers of private land are required to control noxious weeds according to the species control class for their area. It is their responsibility to be aware of the weeds declared noxious in the area and take the appropriate action to notify, control and prevent their spread.

As a Local Control Authority for noxious weeds, Council has powers under the *Noxious Weeds Act 1993* to enter private property, inspect, collect any plant material, and enforce control of noxious weeds. Council undertakes a pro-active strategic inspection program each year based on identifying high risk weeds to prevent further spread and reduce impacts on the community, agriculture and our local environment. Inspections are generally targeted at specific weed species in areas where weeds have been identified, high biodiversity assets such as TECs, significant waterways or high risk pathways such as main roads, nurseries and aquariums where weeds could be imported into the area. Inspections are guided by requirements under the WAP, which specify state-determined priorities and numbers of inspections.

Council also responds to customer requests for weed inspections, such as neighbourhood concerns over allergy-causing species and weed spread. Where properties are found to contain noxious weeds, Council will act in accordance with the procedure for enforcement of the *Noxious Weeds Act 1993*, as set out in Appendix 3.



<sup>&</sup>lt;sup>6</sup>See Table 2 for list of classifications and control requirements and http://weeds.dpi.nsw.gov.au for list of noxious weeds and their classes for the LGA.





# 6.1 COUNCIL FUNDS

# 6.2 GRANT FUNDING

Council employs a full time Environmental Project Officer (Ecological Protection) to coordinate its noxious weed management program, including weed control works on Council land, inspections and enforcement, monitoring and reporting. Council also coordinates a bushcare volunteer program. Activities under the program include bush regeneration and weed control at sites determined by community interest and environmental value. Council provides funds to assist in the delivery of these programs, which is supplemented by grant funding.



Grants are funds generally provided by other levels of government, which are obtained through a competitive application process. Grant funding may be for specific programs or projects and is generally associated with strict conditions regarding works, outcomes and expenditure. A summary of recognised potential grant opportunities is provided below;

# Weed Action Program (WAP)

The WAP is delivered through the NSW DPI, with funding distributed among councils and agencies within the Sydney Weeds Committee Inc. These funds come with strict guidelines and follow specific procedures to achieve prescribed weed control objectives, which are often targeted across a broad regional basis. The WAP is a five year program, with applications for funding required on an annual basis prior to the next round of funding. The program is based around the goals of the NSW Invasive Species Plan and the actions recommended under the weed invasion curve (see Figure 3).

### Local Land Services

NSW Local Land Services is a NSW Government department which offers various avenues of grant funding for environmental restoration projects, education programs, feral animal management and weed control. These projects are available on an annual basis and are often targeted at local councils, landcare groups or trust groups.

### NSW Environmental Tryst

The NSW Environmental Trust is an independent statutory body established by the NSW Government to fund a broad range of organisations to undertake projects that enhance the environment of NSW. The Trust's main responsibility is to facilitate and supervise the expenditure of grant funding for a wide range of environmental based programs including community education, restoration and rehabilitation, land acquisition, research and waste management. The Trust is administered by the Office of Environment and Heritage (OEH).

### Fisheries Habitat Grants

The NSW Department of Primary Industries - Fishing and Aquaculture provides grant funding for local councils, environmental and community groups and private landholders to enhance and rehabilitate degraded recreational fish habitat. This is undertaken through a range of on-ground works including removal or modification of structures that effect fish passage, rehabilitation of riparian lands and removal of exotic vegetation from waterways.

### Australian Biodiversity Fund

The Australian Biodiversity Fund is an ongoing program under the Australian Government's Land Sector Package of the Clean Energy Future plan. The overall objectives of the Biodiversity Fund are to help land managers establish, manage and enhance native vegetation on their land, increase stores of carbon in the landscape and, in so doing, maintain ecosystem function and improve the resilience of ecosystems to the impacts of climate change. Funding is available on a yearly basis and requires the project to be implemented over a 10 year period, with only the first six years funded under the program.

# Crown Land Public Reserve Management Funding Program

The NSW Department of Primary Industries – Crown Lands is responsible for the sustainable and commercial management of Crown land throughout NSW. Crown Land is comprised of public facilities such as parks, heritage sites, community halls and bushland reserves. Each year the Crown Lands Department provides funding for works on crown lands (some of which may be under Council's care and control) through the Public Reserve Management Funding Program, for weed and pest animal management, reserve improvement and infrastructure projects that will benefit the community or the local environment.

### Federal Government Green Army Program

In 2014, the Federal Government commenced its Green Army Program, whereby paid work teams undertake environmental improvement programs across Australia. The teams are made up of up to ten 18-25 year old participants, with each being employed by service providers for a period of six months. During this time, participants develop skills in bush regeneration while obtaining qualifications in WHS, First Aid and Conservation and Land Management. Land holders requesting works can apply to have teams work on their lands. The works must meet certain criteria such as achieving quantifiable environmental outcomes and long term benefits.

### Federal Government Work for the Dole Program

The Work for the Dole program provides work experience for job seekers in activities where they can gain skills, experience and confidence to move from welfare to work, while giving back to their community. Each project is six months in duration, and programs can be implemented for individual participants or groups, with funding provided for project consumables such as supervision and personal protective equipment. The works can be implemented for a wide range of tasks, including bush regeneration, and must set out clear aims and objectives with the focus on providing the job seeker with a real life work experience.





## 7.0 OBJECTIVES

#### 1. IMPROVE COUNCIL'S CAPACITY TO EFFECTIVELY MANAGE NOXIOUS WEEDS

- Establish and maintain cross-divisional partnerships within Council to better manage noxious weeds
- Increase knowledge of Council staff to identify noxious weed management issues, understand impacts and implement management practices to control

#### 2. INCREASE LANDHOLDER COMMITMENT TO NOXIOUS WEED MANAGEMENT

- Educate the community on the effects of noxious weeds on the environment and effective management practices
- Increase voluntary noxious weed control and community stewardship of bushland assets
- Improve the natural appearance and visual amenity of land within the Campbelltown LGA

#### 3. EFFECTIVELY MANAGE THE IMPACT OF NEW AND EXISTING INVASIVE SPECIES INCURSIONS UPON THE CAMPBELLTOWN ENVIRONMENT

- Prevent new incursions of noxious weed species from becoming established in the environment
- Understand and address noxious weed threats and associated impacts.

#### 4. UNDERTAKE NOXIOUS WEED MANAGEMENT IN A STRATEGIC, COORDINATED AND COST EFFECTIVE MANNER

- Deliver cost-effective noxious weed management works within prescribed budgets
- Collaborate resources across Council and work in partnership with key stakeholders
- Identify and secure additional funding to address noxious weed issues within Campbelltown
- Effectively monitor and report on noxious weed distribution and Council's management programs

#### 5. IMPROVE BIODIVERSITY WITHIN KEY ENVIRONMENTAL AREAS SUCH AS THE GEORGES RIVER CORRIDOR

Ensure all works are undertaken in a strategic manner to increase long term environmental benefits

#### 6. ACTIVELY PARTICIPATE IN AND PROMOTE AN EFFECTIVE GOVERNANCE FRAMEWORK FOR NOXIOUS WEED MANAGEMENT IN CAMPBELLTOWN

- Ensure consistent and effective policies and procedures are in place
- Achieve strategic, equitable and feasible outcomes through governance platforms

# Section Eight STRATEGIC ACTION PLAN

## 8.0 STRATEGIC ACTION PLAN

IN ORDER TO ACHIEVE THE OBJECTIVES SET OUT IN THIS STRATEGY COUNCIL HAS DEVELOPED A SUITE OF ACTIONS TO GUIDE PROGRAMS AND WORKS. THESE ACTIONS ARE OUTLINED BELOW. IN ADDITION, COUNCIL WILL PREPARE AN ANNUAL SCHEDULE OF WORKS AND ACTIVITIES TO BE IMPLEMENTED TO ACHIEVE THESE ACTIONS

#### Goal 1.1

Establish and maintain cross-divisional partnerships within Council to better manage noxious weeds

- Endorse and communicate the Noxious Weed
   Management Strategy as a corporate document
- Continue to ensure that all relevant development applications, planning proposals, design plans and Reviews of Environmental Factors are referred to Council's Environment Unit for review
- Develop and deliver training to Development Officers to identify noxious weed issues and opportunities for their management in development applications
- Address noxious weed issues through internal working groups, eg Sustainable Land Working Party
- Develop and deliver noxious weed awareness and management training for Council staff including: project managers, horticulturalists, landscapers and drainage maintenance teams

#### Goal 1.2

Increase knowledge of Council staff to identify noxious weed management issues, understand impacts and implement management practices to control noxious weeds

- Council Officers attend external training regarding noxious weed management
- Develop and deliver noxious weed awareness and management training for Council staff including: project managers, horticulturists, landscapers and drainage maintenance teams
- Provide resources and support to assist Council field staff in identifying and managing noxious weed issues

#### Goal 2.1

Educate the community on the effects of noxious weeds on the environment and effective management practices

- Provide information to residents on noxious weed issues through Council's established communication forums, educational programs and events
- Develop and distribute information to rural/ semi-rural properties addressing noxious weed identification and management issues
- Provide advice and support to residents through noxious weed inspection program
- Provide information and training to Bushcare volunteers on noxious weed issues
- Respond to noxious weed enquiries
- Assist in the preparation of weed management plans for private land holders where required

#### Goal 2.2

Increase voluntary noxious weed control and community stewardship of bushland assets

- Promote and deliver Council's Bushcare program
- Provide information to residents on noxious weed management through Council's established communication forums, educational programs and events
- Provide information and training to Bushcare volunteers on noxious weed management
- Provide advice and support to residents through noxious weed inspection program established communication forums, educational programs and events
- Provide information and training to Bushcare volunteers on noxious weed management
- Provide advice and support to residents through noxious weed inspection program

ON AVERAGE,
BUSHCARE
VOLUNTEERS WORK
MORE THAN
1.000 HOURS EACH
YEAR IN THE
CAMPBELLTOWN LGA

#### Goal 2.3

Improve the natural appearance and visual amenity of land within the Campbelltown LGA

- Promote and deliver Council's Bushcare program
- Prepare and deliver an annual noxious weed management program in accordance with adopted operational plan, budget and annual schedule of works
- Provide advice and support to residents through noxious weed inspection program
- Develop Vegetation Management Plan guidelines to ensure a consistent and best practice approach to noxious weed and vegetation management
- Monitor and enforce conditions of consent relating to noxious weed management eg. Vegetation Management Plans
- Investigate biobanking opportunities for Council lands
- Incorporate noxious weed control into environmental asset management plans

#### Goal 3.1

Prevent new incursions of noxious weed species from becoming established in the environment

- Deliver Council's noxious weed inspection program, prioritising high risk pathways and high value environmental assets
- Identify and report new noxious weed incursions to the NSW DPI
- Prioritise management of new incursions

#### Goal 3.2

Understand and address noxious weed threats and associated impacts

- Prepare and deliver an annual noxious weed management program in accordance with adopted operational plan, budget and annual schedule of works
- Develop and/or review regional action plans for high risk species
- Develop and/or review regional action plans for high priority environmental and social assets
- Undertake mapping and monitoring of noxious weed distribution across the LGA
- Develop Vegetation Management Plan guidelines to ensure a consistent and best practice approach to noxious weed and vegetation management
- Monitor and enforce conditions of consent relating to noxious weed management, eg Vegetation Management Plans
- Assist in the preparation of weed management plans for private land holders where required

#### Goal 4.1

#### Deliver cost-effective noxious weed management works within prescribed budgets

- Allocate prescribed budgets and monitor expenditure regularly through the financial year
- Prepare and deliver an annual noxious weed management program in accordance with adopted operational plan, budget and annual schedule of works
- Seek partnerships to support training and employment opportunities for community members in the management and control of weeds including the use of the Green Army Program and the Work for the Dole Program

#### Goal 4.2

#### Collaborate resources across Council and work in partnership with key stakeholders

- Develop and/or review regional action plans for high risk species
- Develop and/or review regional action plans for high priority environmental and social assets
- Investigate and pursue regional cost effective and environmentally beneficial noxious weed control projects

- Investigate grant funding opportunities in collaboration with key stakeholders
- Address noxious weed issues through internal working groups, eg Sustainable Land Working Party
- Develop and deliver noxious weed awareness and management training for Council staff including: project managers, horticulturists, landscapers and drainage maintenance teams
- Provide resources and support to assist Council field staff in identifying and managing noxious weed issues
- Assist in the preparation of weed management plans for private land holders where required
- Seek partnerships to support training and employment opportunities for community members in the management and control of weeds including the use of the Green Army Program and the Work for the Dole Program

#### Goal 4.3

#### Identify and secure additional funding to address noxious weed issues within Campbelltown

- Seek grant funding opportunities
- Investigate biobanking opportunities for Council lands
- Establish an offsetting fund to assist with maintenance and management of noxious weeds at offsetting sites

#### Goal 4.4

## Effectively monitor and report on noxious weed distribution and Council's management programs

- Undertake ongoing monitoring of Council's bush regeneration works to evaluate effectiveness and guide future works
- Investigate opportunities for improved monitoring and recording of information on noxious weed distribution and management
- Report on Council's activities through the annual State of the Environment Reporting
- Review Council's Noxious Weed Management Strategy based on performance measures and in response to changes in policy and legislation frameworks

#### Goal 5.1

Ensure all works are undertaken in a strategic manner to increase long term environmental benefit

- Incorporate noxious weed control into environmental asset management plans
- Develop and/or review regional action plans for high priority environmental and social assets
- Prepare and deliver an annual noxious weed management program in accordance with adopted operational plan, budget and annual schedule of works
- Investigate biobanking opportunities for Council lands
- Deliver Council's noxious weed inspection program, prioritising high risk pathways and high value environmental assets
- Review Council's noxious weed management program to ensure consistency with Council's policy and procedure framework, eg Biodiversity Strategy
- Prepare Site Management Plans under Council's Bushcare program to address site issues strategically

#### Goal 6.1

Ensure consistent and effective policies and procedures are in place

- Review and develop relevant policies and procedures in accordance with priorities set out in this strategy
- Review Council's Noxious Weed Management Strategy based on performance measures and in response to changes in policy and legislation frameworks

#### Goal 6.2

Achieve strategic, equitable and feasible outcomes

- Actively participate in the Sydney Weeds Committee and Sydney South West Weeds Committee
- Advocate for support from key stakeholders and other levels of government for Council's noxious weed management programs and priorities

BUSH 38 HECTARES OF





## 9 0 REVIEW. EVALUATION AND REPORTING

#### THE IMPLEMENTATION OF THIS STRATEGY WILL BE UNDERTAKEN THROUGH AN ANNUAL SCHEDULE OF WORKS, AS OUTLINED IN THE PREVIOUS SECTION. THE EFFECTIVENESS OF THESE WORKS IN ACHIEVING THE GOALS AND ACTIONS PRESCRIBED IN THIS STRATEGY WILL BE MEASURED **AGAINST THE FOLLOWING INDICATORS:**

- Number of inspections undertaken
- Number of high risk sites inspected
- Area of bush regeneration and weed treatment
- Number of alligator weed and ludwigia infestations reported
- Number of new weed incursions reported to NSW DPI
- Number of noxious weed enquiries from the community
- Number of educational activities including reference to noxious weed issues and management
- Number of weed advice letters issued
- Number of weed control notices issued.

Council's performance against these indicators will be reported through its annual State of the Environment report. Where Council is determined not to be performing, that is, where indicators are consistently demonstrating a decrease in achievements or there are significant changes in related policy or legislation from any level of government, a review of the strategy will be undertaken.

### **APPENDICES**



## APPENDIX 1 WEED RISK ASSESSMENT (NSW DPI)

The NSW Weed Risk Management (WRM) system is a tool developed by the NSW DPI to evaluate noxious weed declarations in NSW and to assist weed managers in NSW to determine priorities for weed management at state, regional and local levels.

The system uses a series of questions to arrive at a score for weed risk based on invasiveness, impacts, potential distribution and a score for feasibility of coordinated control, including control costs, persistence and current distribution (see Table 3). The scores are cross-referenced using the matrix to determine what level of action is appropriate. This assists land managers in determining management priorities and the associated level of resources required.

TABLE 3: WEED RISK ASSESSMENT MATRIX

	FEASIBILITY OF COORDINATED CONTROL					
WEED RISK	Negligible (113+)	Low (56-113)	Medium (31-55)	High (14-30)	Very high (<14)	
Negligible (<13)	LIMITED ACTION	LIMITED ACTION	LIMITED ACTION	LIMITED ACTION	MONITOR	
Low (13-38)	LIMITED ACTION	LIMITED ACTION	LIMITED ACTION	MONITOR	MONITOR PROTECT PRIORITY SITES	
Medium (39-100)	MANAGE SITES	MANAGE SITES	MANAGE SITES	PROTECT PRIORITY SITES	CONTAIN SPREAD	
High (101-192)	MANAGE WEED	MANAGE WEED	PROTECT PRIORITY SITES	CONTAIN SPREAD	DESTROY INFESTATIONS	
Very high (192+)	MANAGE WEED	MANAGE WEED  PROTECT PRIORITY SITES	CONTAIN SPREAD	DESTROY INFESTATIONS	ERADICATION	

## APPENDIX 2 PRIORITY RANKINGS FOR NOXIOUS WEED SPECIES WITHIN THE CAMPBELLTOWN LGA

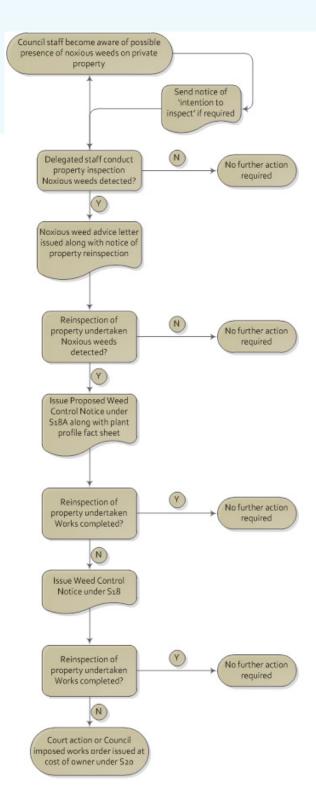
<b>Priority Ranking</b>	Actions	Species
Prevention	Aim to prevent new incursions of weed species into the Campbelltown LGA, actions include:  ongoing inspections of all high risk pathways eg road and rail corridors ongoing inspections of all high risk sites eg markets, aquariums and nurseries	Any species not known to exist in the Campbelltown LGA
Eradication of Weed	Aim to eradicate the weed species from the Campbelltown LGA, actions include: detailed surveillance and mapping to locate all infestations  destruction of all infestations including seed banks  prevention of entry to geographic area, and movement and sale within  must not grow and all cultivated plants to be removed  monitor progress towards eradication	Boneseed - Chrysanthemoides monilifera ssp. monilifera Bitou bush - Chrysanthemoides monilifera ssp. Rotundata Cat's claw creeper - Dolichandra unguis-cati (syn. Macfadyena unguis-cati) Water hyacinth - Eichhornia crassipes Salvinia - Salvinia molesta
Containment of Weed	Aim to contain and reduce the extent of the weed species in the Campbelltown LGA, actions include:  • detailed surveillance and mapping to locate all infestations  • control of all infestations, aiming for a significant reduction in weed density  • prevention of entry to geographic area, and movement and sale within  • must not allow to spread from cultivated plants  • monitor change in current distribution	Alligator weed - Alternanthera philoxeroides Coolatai grass - Hyparrhenia hirta Green cestrum - Cestrum parqui Madeira vine - Anredera cordifolia Serrated tussock - Nasella trichotoma Water primrose - Ludwigia peruviana Yellow bells - Tecoma stans

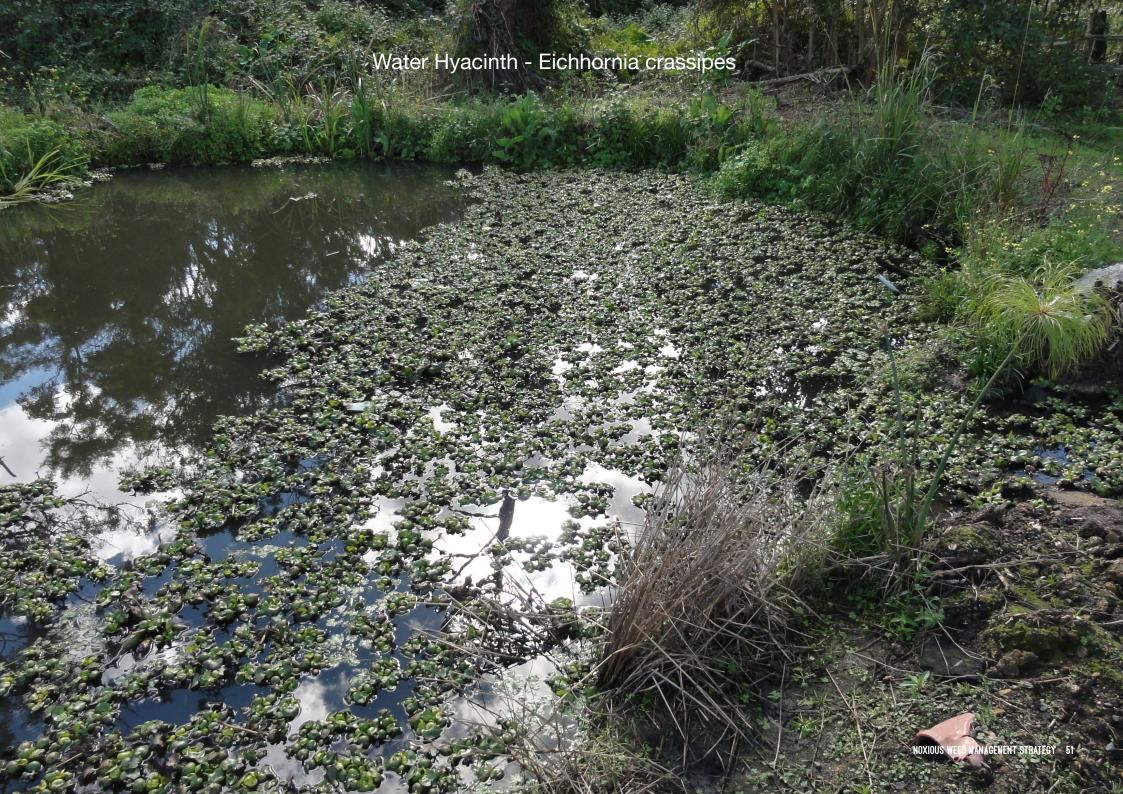
Priority Ranking	Actions	Species
Manage Assets and/or Priority Sites (EECs)	Aim to manage assets reduce the overall economic, environmental and/or social impacts of the species and to maintain the overall economic, environmental and/or social value of key sites/assets through targeted management, actions include:  • research and develop weed management plans for the species, including herbicides and biologic control where feasible  • promote weed management plans to private landholders  • monitor decrease in species impacts with improved management  • identify key sites/assets in the geographic area and ensure adequate resourcing to manage the species	African boxthorn - Lycium ferocissimum African olive - Olea europaea ssp. cuspidata African lovegrass - Eragrostis curvula Bathurst/Noogoora/Hunter/South American/Californian/ cockle burrs - Xanthium spp Balloon vine - Cardiospermum grandiflorum Blackberry - Rubus fruticosus aggregate Bridal creeper - Asparagus asparagoides Castor oil plant - Ricinus communis Chilean needle grass - Nasella neesiana Chinese celtis - Celtis sinensis Fireweed - Senecio madagascariensis Giant reed / Elephant grass - Arundo donax Ground asparagus - Asparagus aethiopicus (syn. Protasparagus aethiopicus) Honey locust - Gleditsia triacanthos Harrisia cactus - Harrisia species Lantana - Lantana camara Mother of millions - Bryophyllum delagoense Morning glory (Purple) - Ipomoea indica Morning glory (Coastal) - Ipomoea cairica Patterson curse - Echium plantagineum Prickly pear - Opuntia and Cylindropuntia spp Privet (Broad and Small-Leafed) - Ligustrum lucidum and Ligustrum sinese Scotch broom / English broom - Cytisus scoparius subspecies scoparius Sagittaria - Sagittaria platyphylla (syn. Sagittaria graminea variety platyphylla) St Johns wort - Hypericum perforatum

Priority Ranking	Actions	Species
Limited Action	The weed/pest species would only be targeted for coordinated control in the LGA if its presence makes it likely to spread to land uses where it ranks as a higher priority.	Includes but not limited to: Crofton weed - Ageratina adenophora Bamboo - Phyllostachys spp Giant reed - Arundo donax Wandering jew - Tradescantia fluminensis Firethorn - Pyracantha spp Moth vine - Araujia sericifera Coral tree - Erythrina spp Cobblers peg/Farmers friend - Bidens pilosa Mist flower - Ageratina riparia Fishbone fern - Nephrolepis cordifolia Arum lilly - Zantedeschia aethiopica Spider plant - Chlorophytum comosum Whiskey grass - Andropogon virginicus Rhodes grass - Chloris gayana Paspalum - Paspalum dilatatum Kikuyu - Pennisetum clandestinum Clover - Trifolium spp Plumbago - Plumbago auriculata Asthma weed - Parietaria judaica



## APPENDIX 3 PROCEDURE FOR ENFORCEMENT OF THE NOXIOUS WEEDS ACT 1993





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