

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ENVIRONMENT

EN1

Wollondilly Shire Council Noxious Weeds Strategy 2016 – 2018

225

TRIM 2571

EXECUTIVE SUMMARY

- The purpose of this report is to update the Wollondilly Weed Management Strategy (May 2007) to be in accordance with changes in the Noxious Weeds Act 1993 and to assist Council in its delivery of weed control program within the Shire.
- It is recommended that the new Wollondilly Weed Management Strategy 2016 – 2020 be adopted.

REPORT

BACKGROUND

Weeds are invasive terrestrial and aquatic plants that are harmful to biodiversity, agricultural production and local industries such as tourism and recreation. Weed invasion has detrimental impacts on native plants, animals and their habitats, land productivity, livestock and human health through poisonous or irritating plants.

In the Greater Sydney region there are over 140 recorded species of weeds and many of these are found in Wollondilly Shire. Some of the weeds are widespread across Wollondilly and others occur in low distributions. Weed spread is often caused by human activities. With the increasing pressure of population growth and housing development comes more demand for infrastructure corridors, clearing of native vegetation, soil disturbance, nutrient rich stormwater runoff and associated impacts that encourage the establishment of weed growth in the landscape.

Wollondilly is rich in a variety of natural landscapes, native species and ecological communities mostly located within public open spaces and high conservation reserves including part of the Greater Blue Mountains World Heritage Area.

The headwaters of three major river catchments (the Wollondilly, Nepean and Georges Rivers) are located in Wollondilly as well as the Special Protection Area surrounding Lake Burragorang which is the main reservoir for Sydney's water supply. Over half of Wollondilly is either within a conservation reserve or sensitive water catchment land. In other parts of Wollondilly productive agricultural land provides locally grown food for the Sydney basin.

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

These natural areas, waterways and agricultural lands are some of Wollondilly's most precious and significant "assets". Effective management of weeds is an important element in maintaining these assets for our current and future communities.

REPORT

The need for the effective management of weeds in the Shire for the protection of our natural assets and economically important lands is the guiding rationale behind this strategy to prioritise and effectively control weeds.

Wollondilly Council's role is to effectively manage weeds on public land and waterways as well as advising the community how to control weeds in areas of private ownership. Council also works in cooperation with neighbouring councils and relevant government agencies to manage weeds along the boundaries of national parks reserves, water catchment lands, waterways and transport corridors.

The Weed Management Strategy has been reviewed and amended to reflect changes in State reporting models as well as amendment to the Amendments to the Noxious Weeds Act 1993.

The draft Weed Management Strategy articulates Wollondilly Council's approach to managing priority weeds and working with other landholders across all land tenures.

CONSULTATION

Consultation undertaken with the Sydney Regional Weeds Committee.

FINANCIAL IMPLICATIONS

There are no direct financial implication of adopting the Strategy as it sets out the priorities, actions and programs that Council will undertake for the management of weeds within existing budget allocations.

Budget considerations will be managed as a part of the annual budgeting cycle.

ATTACHMENTS

1. Wollondilly Shire Weed Management Strategy 2016 - 2020

RECOMMENDATION

That the Wollondilly Shire Weed Management Strategy 2016 - 2020 be adopted.

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

**Wollondilly
Weed Management Strategy
2016 – 2020**

FINAL DRAFT

28th January 2016

DRAFT

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Document Review

This strategy was adopted by Wollondilly Shire Council on {insert meeting date}.

Minor text alterations will be done internally by Council's Environmental Services Team as any relevant names, legislation, plans, policies and other strategies are changed.

Major alterations to the content of this document will go to Council's Executive for endorsement and to the community for comment.

DRAFT

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Contents

| | |
|-----------------------------------|---------|
| Background | Page 4 |
| Planning and Statutory Framework | Page 5 |
| Strategic Approach and Priorities | Page 8 |
| Management Actions | Page 12 |

DRAFT

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Background

Weeds are invasive terrestrial and aquatic plants that are harmful to biodiversity, agricultural production and local industries such as tourism and recreation. Weed invasion has detrimental impacts on native plants, animals and their habitats, land productivity, livestock and human health through poisonous or irritating plants.

In the Greater Sydney region there are over 140 recorded species of weeds and many of these are found in Wollondilly Shire. Some of the weeds are widespread across Wollondilly and others occur in low distributions. Weed spread is often caused by human activities. With the increasing pressure of population growth and housing development comes more demand for infrastructure corridors, clearing of native vegetation, soil disturbance, nutrient rich stormwater runoff and associated impacts that encourage the establishment of weed growth in the landscape.

Wollondilly is rich in a variety of natural landscapes, native species and ecological communities mostly located within public open spaces and high conservation reserves including part of the Greater Blue Mountains World Heritage Area.

Wollondilly is located at the headwaters of three major river catchments (the Wollondilly, Nepean and Georges Rivers) as well as the Special Protection Area surrounding Lake Burragorang which is the main reservoir for Sydney's water supply. Over half of Wollondilly is either within a conservation reserve or sensitive water catchment land. In other parts of Wollondilly productive agricultural land provides locally grown food for the Sydney basin.

These natural areas, waterways and agricultural lands are some of Wollondilly's most precious and significant "assets". The guiding rationale behind this strategy is to prioritise and effectively control weeds for the purpose of protecting and enhancing these assets.

Wollondilly Council's role is to effectively manage weeds on public land and waterways, and assist the community with how to control weeds in areas of private ownership. Council also works in cooperation with neighbouring local councils and relevant government agencies to manage weeds along the boundaries of national parks reserves, water catchment lands, waterways and transport corridors.

This weed management strategy articulates Wollondilly Council's approach to managing priority weeds and working with other landholders across all land tenures.

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Planning and Statutory Framework

Wollondilly Council operates within a hierarchy of statutes, plans and other strategic documents which guide its functions, responsibilities and obligations for managing land, waterways and weeds, and protecting biodiversity. The most relevant in relation to weed management include:

Wollondilly Community Strategic Plan 2033

The Community Strategic Plan outlines community values for the natural environment, scenic amenity and agricultural viability of Wollondilly. This weed management strategy reflects the following vision statements and outcomes outlined in the *Wollondilly Community Strategic Plan 2033*:

Community Vision 4 - Diverse Environment

The Shire's diverse environmental assets, including its waterways and catchments, riparian land, groundwater and dependent ecosystems natural areas, biodiversity and agricultural lands are valued and protected because of their environmental significance. Degraded natural resources are enhanced and maintained.

Sustainability principals

Regeneration: We work to protect and restore the earth's ecological integrity, biological diversity and natural processes.

Engagement: We recognise that sustainability will happen faster if local communities become champions of sustainability and are involved in the decisions affecting sustainability.

Participation: We will encourage and provide opportunities for the people to take part in decision making processes that impact on their quality of life.

Environmental Outcomes – What We Want

Our local environment that is valued and protected.

A community that interacts with and cares for their environment.

Strategies

EN1 Biodiversity Resilience

- *Protect and conserve biodiversity and natural resources, including waterways riparian lands and groundwater dependent ecosystems.*
- *Facilitate improvement in nature biodiversity through community participation.*

EN4 Environmental Responsibility

- *Educate and promote legislative environmental responsibilities to the community.*

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Wollondilly Biodiversity Strategy 2004

This weed management strategy forms part of the Wollondilly Biodiversity Strategy which recognises weed control as one of the key components to preserving biodiversity. Wollondilly contains a wide variety of landscapes that provide habitat for a diverse range of native plants and animals. The landscape as a whole contributes to the ecological value and biodiversity of the region. This weed management strategy will contribute towards achieving the broader conservation outcomes of the Wollondilly Biodiversity Strategy.

NSW Noxious Weeds Act 1993

This weed management strategy aligns with Council's statutory role under the *Noxious Weeds Act* as a local weed control authority responsible for the implementation of noxious weed control.

Noxious weeds are listed under the Act as plants that pose a threat to agriculture, the environment or community. The list of the gazetted noxious weeds for Wollondilly and the requirements for their control is found at <http://weeds.dpi.nsw.gov.au>

Under the Act, Council's responsibilities involve effective management of Class 1-5 noxious weeds in areas of private and public ownership through on ground weed control, regulation and community education.

NSW Invasive Species Plan

This weed management strategy aligns with goals of the *NSW Invasive Species Plan*:

*Goal: Eradicate or contain
Eliminate or prevent the spread of new invasive species.*

*Goal: Effectively manage
Reduce the impacts of widespread invasive species.*

*Goal: Capacity building
Ensure NSW has the ability and the commitment to manage invasive species.*

The plan encompasses all invasive plants including noxious and environmental weeds. Environmental weeds are not gazetted as noxious (in the Noxious Weeds Act) but still present serious threats to the environment. Often they are horticultural species that have escaped from cultivation and invaded natural bushland, wetlands and waterways. These invasive plants require voluntary management and monitoring by Council and the community to also minimise their impacts on Wollondilly's significant assets.

NSW Biosecurity Strategy 2013 – 2021

Biosecurity is the protection of our economy, environment and community from the negative impacts of pests, diseases, contaminants *and* weeds. The *Biosecurity Strategy* outlines how government, industry and the community need to work together to identify, prevent, eradicate, minimise, respond to and manage biosecurity risks. This weed management strategy promotes co-operation among Wollondilly Council, local industry and landholders to manage priority weeds across the landscape.

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

NSW Biosecurity Act 2015

The new *Biosecurity Act* streamlines 14 separate pieces of legislation into a single Act to manage biosecurity risks. The NSW *Biosecurity Act* was assented to in September 2015 and is expected to come into effect in 2017 after a period of consultation and planning. Once the *Biosecurity Act* is in force the *NSW Noxious Weeds Act* will be repealed. This weed management strategy aligns with Council's statutory role under the Biosecurity Act 2015 to continue managing priority weeds on public land and working with landholders and other agencies such as Local Land Services to manage weeds on private land.

This weed management strategy will be reviewed once the *Biosecurity Act* and its regulations come into force.

Ongoing regional weed management strategies and partnerships

Noxious and environmental weeds are often spread by wind, water, birds, vehicles or machinery and do not stay within invisible local government boundaries. Many weeds that are a problem in Wollondilly are also a problem in neighbouring local government areas and conservation reserves. Addressing weed management issues at a broader regional level requires coordination and cooperative efforts from multiple government organisations, non-government organisations and environment groups, landholders, community and industry.

Wollondilly Council is an active member of the Sydney South West Regional Weeds Committee and the Sydney Weeds Committees network which comprise several government and non-government organisations that manage land and have a responsibility to control weeds. The purpose of the weeds committee and network is to share technical expertise on best practice, participate in collaborative regional initiatives to concentrate weed control efforts and community education, and, contribute to the development and review of legislation and strategies to reduce the impact of weeds in NSW.

Wollondilly Council is a partner in the Sydney Region Weeds Action Program 2015-2020 which is a regional project to eradicate regional high risk weeds, prevent the emergence of new weeds and build community awareness. The Weeds Action Program is a NSW Government grant funding initiative to implement the *NSW Invasive Species Plan*.

On a regular basis Wollondilly Council works cooperatively with neighbouring local councils (Camden, Campbelltown and Wingecarribee) and other government agencies to effectively manage weeds along land management boundaries: Water NSW, National Parks and Wildlife Service, Roads and Maritime Services, Australian Rail Track Corporation, Endeavour Energy, Rural Fire Service, Department of Primary Industries, Crown Lands and Greater Sydney Local Land Services.

Wollondilly Council also works in liaison with the Tharawal Aboriginal Land Council to strategically manage weeds on properties that are within environmental and culturally significant areas.

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Strategic approach and priorities

The aim of this strategy is to minimise the adverse effects of weeds using the available resources within Wollondilly Council, and to prioritise weed management efforts for optimum benefits to the community and environment. Council's approach to the appropriate management of noxious and environmental weeds is both:

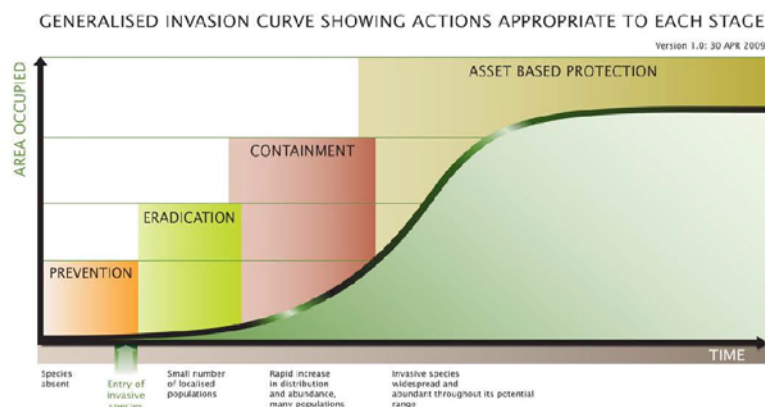
- Reactive; in responding to community enquiries and customer requests, and,
- Proactive; in planning ahead, working strategically to protect assets, working cooperatively at the regional level, preventing spread of new weeds and responding to emerging weed problems.

Council works to maintain a balance between community expectations and the contribution to broader weed management priorities in the region and NSW.

Council's prioritisation of weed management is based on what is achievable and where the benefits of weed control will be greatest. This approach is best explained using the curve diagram (below) showing stages of weed invasion and their implications for effort and monetary investment over time.

Many weeds are already widely established in Wollondilly and complete eradication of all plants across a large area is not achievable with the existing control methods and available resources. Therefore on ground control and community education about these weeds is concentrated in strategic locations to protect important environmental and agricultural assets ie. "Asset based protection". Some level of weed infestation for these species needs to be tolerated and control is necessary when there will be a high environmental, economic or health impact.

At the other end of the spectrum are new and emerging weeds. Once these weeds get into a new area they often have the ability to establish rapidly. Successful weed control of all plants requires a rapid response after their moment of entry into the landscape ie. "Eradication" and "Containment". The costs associated with eradication and containment while weed distribution is low are typically less than the cost of widespread weed control.



Acknowledgement: Agriculture Victoria <http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/protecting-victoria-from-pest-animals-and-weeds>

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Using current knowledge about weed behaviour and the stages of invasion, Wollondilly Council has set the following priorities for weed management:

1. Eradicate and prevent the spread of new weeds

New weeds are terrestrial or aquatic weeds that have been detected in Wollondilly for the first time, often referred to as “new incursions”. Even the best prevention efforts will not stop the arrival of weed seeds and vegetative material which can be easily spread by wind, water, machinery, a person’s boots etc.

Once a new weed has been detected it is correctly identified and assessed for its level of risk to the environment, economy and human health. Individual plants and populations are controlled immediately while they are in still in small numbers and localised. Depending on the weed species, control efforts can have immediate success or can take time and regular follow up of regrowth until the plant is completely eradicated.

An example of a new incursion in Wollondilly is Long Leaf Water Primrose (*Ludwigia longifolia*), an aquatic weed found in a rural property dam. Wollondilly Council is working with the private landholder to eradicate the weed. If left untreated it has the potential to spread into the local creek and downstream towards Burragorang State Conservation Area and Warragamba Dam.

2. Eradicate or contain weeds with limited distribution

Some weeds occur in isolated and scattered populations throughout Wollondilly. Eradication or containment is achievable to prevent the weed from spreading further into bushland, waterways or agricultural land. These weeds are known to have detrimental impacts and therefore have a high priority for control on public and private land. They also include some Class 1 and 2 noxious weeds that are identified as a high risk across NSW and occur in low numbers within Wollondilly.

The distribution of these weeds is recorded and weed control sites are prioritised based on available resources and the protection of assets. At times other issues will also determine widespread weed control priorities such as controlling aquatic weeds in waterways for public safety and access, and controlling large woody weeds along roadsides to maintain visibility. Weed control programs include frequent and regular follow up of regrowth until the weed is eradicated or sufficiently contained.

An example of a weed with limited distribution in the rural parts of Wollondilly is Green Cestrum (*Cestrum parqui*), a woody weed that is poisonous to livestock. Council is controlling isolated infestations on public land and educating rural property owners to identify and destroy plants on their land.

3. Reduce the impacts of widespread weeds

Widespread weeds occur in large populations across all landscapes in Wollondilly. Effective control relies on high levels of funding over many of years and extensive cooperation between public and private land managers. In reality what is achievable to is to reduce further spread and harmful impacts on significant assets such as: bushland and conservation reserves; endangered ecological communities; threatened species; habitat corridors and linkages across public and private land; native vegetation in road reserves; rivers and creeks; riparian zones; water catchment land; catchment headwaters; and productive agricultural land.

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Widespread weed control is prioritised based on the available resources in Council and where concentrated efforts can have most benefit in protecting significant assets and the health of humans and animals.

Examples of strategic programs in Wollondilly to reduce the impacts of widespread weeds on significant assets are: Box Elder (*Acer negundo*) and Honey Locust (*Gleditsia triacanthos*) control along the Upper Nepean River riparian zone; Lantana (*Lantana camara*) control along Silverdale Road adjacent to water catchment and national park lands; and the Alligator Weed (*Alternanthera philoxeroides*) suppression and community education program for the Nepean River and tributaries.

4. Landscape surveillance and private property inspections

Weeds will always have the potential to show up and spread across the landscape, in all land uses and all land tenures. Surveillance of key sites and a private property inspection program enables Wollondilly Council to detect new weeds, monitor weed spread around significant assets and work directly with the community.

The surveillance also includes checking for Class 1 and 2 noxious weeds, regional and NSW weed alerts, and high risk plants (including hybrids) being grown, sold and distributed.

The rate of property and site inspections each year depends on the available resources within Council and external grant funding. Incidental checks for weeds are often done when a Council officer is already at a site or property for other issues such as tree inspections, bushfire management and development approvals. Wollondilly Council's preferred approach is to build capacity, relationships and cooperation with private landholders and industry. Legal enforcement of weed control is used as the last resort.

Private property inspections provide an opportunity to inform landowners of their legal and environmental responsibilities to control weeds. Landowners are given technical information and taught basic skills for controlling weeds. Large rural landholders are mentored to deal with more complex weed management and land management issues on their properties.

High risk pathways and sites that are heavily trafficked (ie. main roads and rail corridors, major waterways, tourism and recreational areas) are checked for new incursions and weed spread that will impact on nearby significant assets.

Other high risk sites are checked for weed spread and the sale of invasive plants that have potential to become weeds in the landscape (this is part of the "Prevention" stage in the weed invasion curve diagram). These sites include: dams; boat launch areas; rural community event venues and livestock holding areas; nursery and garden landscape suppliers; aquariums and pet stores; florists, retail homemaker centres; waste disposal sites; goods and machinery depots; fresh produce markets; and development sites.

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

An example of landscape surveillance in Wollondilly is checking weed infestations in the Southern railway line which traverses areas of high ecological significance. Weeds typically grow and spread in rail corridors due to vehicle movement, use of machinery and regular soil disturbance. Regular checks of the rail corridor by looking through the fence, from the train and permitted access into the corridor enables Council to work cooperatively with the Australian Rail Track Corporation to control the highest risk weeds before they spread into the adjacent bushland.

5. Assist the Wollondilly community to control weeds

Effective weed management relies on the combined effort of land managers and community support to address weed problems on private as well as public land. Wollondilly Council encourages the community to appreciate, care for and protect the natural environment which includes controlling weeds on private properties.

Council is committed to supporting landowners and occupiers who are motivated and active in managing priority weeds in cooperation with Council and their neighbors. In addition to property inspection programs and landholder mentoring, Council encourages participation in Bushcare and Landcare volunteer activities as opportunities to learn weed management skills and assist with the restoration of natural areas.

6. Build capacity of council staff to control weeds and support the community

Effective weed management and community engagement relies on the capability of Wollondilly Council's workforce and contractors.

Council supports professional development and educational opportunities that will enable staff to provide high quality services and programs for Wollondilly's residents.

Information about weeds is distributed across all relevant Council operations to assist with identification and prevention of weed spread when working on site and making decisions about planning and development approvals.

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Management Actions

Specific management actions are outlined in the following tables. The implementation of these actions is prioritised according to the availability of Wollondilly Council's resources and external funding.

1. Eradicate and prevent the spread of new weeds

| Council's approach | Critical Actions | Performance Indicators |
|--|---|---|
| Rapid response when new a weed incursion is detected | <ul style="list-style-type: none"> Follow the procedures outlined in the <i>Sydney Weeds Committees Weed Incursion Plan</i> and <i>Sydney Weeds Committees Rapid Response Plan</i>. | New weed incursions are controlled and contained immediately |
| Mapping | <ul style="list-style-type: none"> Record distribution and density of new incursion site/s. Record locations of any new infestations and plants found at other sites. | Site/s and extent of new incursions are recorded on GIS |
| Education | <ul style="list-style-type: none"> Distribute information to other council staff, contractors, volunteers and community members that encourages them to look out for and report other infestations. Notify neighbouring landholders, councils, government agencies and local media when there is risk of further weed spread. | <p>Stakeholders and community are notified</p> <p>Information about new incursions is shared with other relevant land managers in the region</p> |
| Source funding | <ul style="list-style-type: none"> Seek available internal funds. Seek cost sharing arrangements with other landholders. Seek emergency grant funds and regional grant applications. | Funds are acquired for immediate weed control |
| On ground weed control and prevent spread | <ul style="list-style-type: none"> Seek landholder cooperation if the site is not council land. Implement an immediate eradication program using best practice weed control methods. Implement weed spread prevention and hygiene protocols. | <p>Area (ha) of targeted weed control</p> <p>Length (km) of targeted weed control</p> <p>Technical information about weed spread prevention is distributed to lanholders.</p> |
| Monitoring and follow up | <ul style="list-style-type: none"> Monitor site regularly and treat all regrowth until eradication is achieved. | Evidence showing success of eradication program (photos, maps) |
| Update records | <ul style="list-style-type: none"> Annually record distribution and density of new incursion site/s during the eradication program. Maintain records of all treated locations after eradication is achieved. | <p>New incursion records are updated annually</p> <p>Historical records are kept on file once the weed is eradicated</p> |

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Specific actions for recorded infestations of new weeds

| Common Name | Botanical Name | Status in Wollondilly | Weed control objective | Critical Actions | Recorded localised infestations |
|--------------------------|-----------------------------|---------------------------------------|------------------------|---|--|
| Angels Trumpet | <i>Maurandya barclayana</i> | Environmental Weed | Eradication | <ul style="list-style-type: none"> Inspect sites annually in Spring and treat all regrowth. Continue eradication program using a range of control techniques including foliar sprays with various herbicides, manual removal and scrape and paint. | Council land in Glenrock Reserve (end of Hill Street, Picton), and, Former Picton landfill on Wonga Road. |
| Kei Apple | <i>Dovyalis caffra</i> | Environmental Weed | Eradication | <ul style="list-style-type: none"> Inspect site annually and treat all regrowth on the roadside. Continue eradication program using basal bark spraying. Continue to work with with landholder to gain property access and authorisation for weed control work. Assist landholder with technical advice about control and preventing spread. Assess if the weed is growing in surrounding properties. | Rural private property on corner of Bobs Range Road and Werombi Road, Werombi. Extent of the weed distribution is determined. |
| Kudzu | <i>Pueraria lobata</i> | Class 3 Noxious Regionally Controlled | Eradication | <ul style="list-style-type: none"> Inspect site annually in summer and treat all regrowth. Continue eradication program on regrowth using scrape and paint method. Continue to work with the private landholder to gain access and authorisation for weed control work. Assist landholder with technical advice about control and preventing spread. | Rural property in Jumbunna Place, Buxton. |
| Long Leaf Water Primrose | <i>Ludwigia longifolia</i> | Class 3 Noxious Regionally Controlled | Eradication | <ul style="list-style-type: none"> Inspect sites three times per annum to monitor and treat all new plants detected in three adjacent rural dams. Continue eradication program using spraying and hand removal removal of fruit. Check downstream for weed spread. Immediately notify Water NSW and National Parks and Wildlife Service if infestations are found downstream of Monkey Creek to prevent spread into Warragamba Dam and Burragorang State Conservation Area. Continue to work with the landholders to gain access | Two private properties on corner of Silverdale Road and Popes Lane, Werombi. |

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

| Common Name | Botanical Name | Status in Wollondilly | Weed control objective | Critical Actions | Recorded localised infestations |
|-------------------------|---------------------------|---------------------------------------|------------------------|---|--|
| Peruvian Water Primrose | <i>Ludwigia peruviana</i> | Class 2 Noxious Regionally Prohibited | Eradication | <ul style="list-style-type: none"> Inspect site three times per annum to monitor and treat all new plants detected in the basins and downstream channel. Continue eradication program using hand removal, foliar spraying and cut/scrape/paint methods. Continue to check for weed spread in downstream waterways. | Council managed stormwater basins and channel in Cubbich Barta Reserve, Camden Park. |

DRAFT

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

2. Eradicate or contain weeds with limited distribution

| Council's approach | Critical Actions | Performance Measures |
|---|---|--|
| Identify priority sites | <ul style="list-style-type: none"> Identify priority sites where isolated and scattered infestations can be eradicated to protect significant assets. Identify priority sites where large infestations can be contained to protect significant assets. | Priorities sites for weed control are identified |
| Mapping | <ul style="list-style-type: none"> Record distribution and density of priority sites. | Locations and extent of priority sites are recorded |
| Education | <ul style="list-style-type: none"> Distribute information to other council staff, contractors, volunteers and community members that encourages them to look out for and report other sightings/infestations. | Information is distributed to other Council operations and community |
| Source funding | <ul style="list-style-type: none"> Seek available internal funds. Seek cost sharing arrangements and cooperation with other government agencies, councils and landholders. Seek regional grant applications. | Funds are acquired for weed control |
| On ground weed control and prevent spread | <ul style="list-style-type: none"> Work with neighbouring landholders, councils and government agencies to eradicate or contain weed spread. Implement weed control using best practice methods. Implement weed spread prevention and hygiene protocols. | <p>Area (ha) of targeted weed control</p> <p>Length (km) of targeted weed control</p> <p>Technical information provided to landholders to prevent further spread</p> |
| Monitoring and follow up | <ul style="list-style-type: none"> Monitor sites regularly and treat all regrowth until eradication or containment is achieved. | <p>Reduced distribution of the weed</p> <p>Evidence showing success of eradication or containment program (photos, mapping)</p> |
| Update records | <ul style="list-style-type: none"> Every 2 years record distribution and density of priority sites to monitor success of weed control programs. | Council records are updated to show progress of weed eradication/containment programs |

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Specific actions for weeds with limited distribution

| Common Name | Botanical Name | Status in Wollondilly | Weed control objective | Critical Actions | Priority locations |
|---------------|---|---|---|---|---|
| African Olive | <i>Olea europaea</i> subsp. <i>cuspidata</i> | Class 4 Noxious Locally Controlled | Reduce extent outside of core areas to protect assets Containment to protect assets. Control along large roads for visibility and safety. | <ul style="list-style-type: none"> Reduce number and distribution of mature and immature olives outside of the core infestation and containment lines, working in cooperation with landholders, neighbouring councils and other government agencies. Educate and support rural landholders to strategically reduce number and distribution of olives on private properties. Promote use of best practice control methods of basal bark spraying, regrowth spraying and trittering dead woody material. Work in cooperation with Roads and Maritime Services and Greater Sydney Local Land Services to prioritise treatment sites within core areas to protect bushland assets and maintain visibility on roadsides. | East of the Southern Freeway |
| Boneseed | <i>Chrysanthemoides monilifera</i> subspecies <i>monilifera</i> | Class 1 Noxious State Prohibited | Eradication as part of Sydney-wide Boneseed eradication program | <ul style="list-style-type: none"> Inspect all known sites annually before seeding period in late Winter. Immediately remove all single trees and small plants when found. Continue eradication program and treat all regrowth of adult plants using the cut and paint method. Hand pull all seedlings. Use limited foliar spraying where plants are not surrounded by native vegetation. Record locations of all new infestations and single plants found and add to database of mapped sites recorded since 2009. Work in cooperation with with Australian Rail Track Corporation to effectively treat and monitor a minor infestation in the rail corridor approximately 300 metres on either side of the Wellers Road bridge over the main Southern railway line at Bargo. | Recorded scattered sites throughout Wollondilly Shire Southern railway line at Bargo |

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

| | | | | | |
|--------------------|--------------------------------|---------------------------------------|--|---|---|
| | | | | <ul style="list-style-type: none"> Work with ARTC staff to gain safe access into the rail corridor to monitor infestations. | |
| Cat's Claw Creeper | <i>Dolichandra unguis-cati</i> | Class 4 Noxious Locally Controlled | Eradication of isolated infestations to protect assets | <ul style="list-style-type: none"> Continue eradication program and treat all regrowth at two known sites where infestations are spreading. Monitor infestations and follow up treatment if the weed continues to spread. | Mt Hunter Rivulet and the Nepean River (Brownlow Hill) |
| Climbing Asparagus | <i>Asparagus plumosus</i> | Class 2 Noxious Regionally Prohibited | Eradication of isolated infestations to protect assets | <ul style="list-style-type: none"> Continue eradication program at sites of small slow growing infestations using foliar spray method. When doing weed control nearby, opportunistically monitor infestations and treat regrowth. | Approximately 12 small scattered sites across Wollondilly Shire |
| Gorse | <i>Ulex europaeus</i> | Class 3 Noxious Regionally Controlled | Eradication of only known infestation in Wollondilly | <ul style="list-style-type: none"> Monitor annually a small infestation along 500 metres of rail corridor on both sides of Remembrance Drive Bridge and in two adjacent properties owned by Council and a private landholder. Continue to work with landholders to eradicate small infestation at Darkes Forest. Continue eradication program using foliar and basal bark spraying Follow up treatment of regrowth. Work in cooperation with with Australian Rail Track Corporation to ensure effective treatment within the rail corridor. Work with ARTC staff to gain safe access into the rail corridor to monitor infestations. Work with private property owners to gain access as required. | <p>Southern rail line and neighbouring properties at Tahmoor</p> <p>Approximately 5 private properties at Darkes Forest</p> |
| Green Cestrum | <i>Cestrum parqui</i> | Class 3 Noxious Regionally Controlled | Eradication of isolated infestations to protect assets | <ul style="list-style-type: none"> Strategically control the two main infestations using basal bark spraying and scrape/paint methods. Educate rural landholders about the harmful impacts to cattle and build skills in identification, reporting and how to destroy plants and roots. Eradicate isolated infestations (including creeks and waterways) to prevent spread into rural areas of Oakdale, Mt Hunter, Tahmoor, Werombi and Picton. | Areas bordering catchment land including rural properties that manage livestock and horses |

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

| | | | | | |
|-------------------|-------------------------------|---------------------------------------|--|--|--|
| Italian buckthorn | <i>Rhamnus alaternus</i> | Environmental Weed | Eradication of isolated infestations to protect assets | <ul style="list-style-type: none"> Mentor private property owners to eradicate isolated infestations along roadsides. Continue to monitor and treat any new isolated infestations on council land using basal bark spraying. | Isolated infestations at The Oaks and around Razorback |
| Pampas Grass | <i>Cortaderia selloana</i> | Class 3 Noxious Regionally Controlled | Eradication of isolated infestations to protect assets | <ul style="list-style-type: none"> Control isolated infestations to prevent spread in the Georges River headwaters. Build capacity of scout guides and volunteers to do follow up control. Search and control any other isolated infestations throughout Wollondilly. | Crown Land in Cataract Scout Park, Appin Other sites found in Wollondilly |
| Salvinia | <i>Salvinia molesta</i> | Class 3 Noxious Regionally controlled | Eradication | <ul style="list-style-type: none"> Eradicate all new infestations found Monitor previous sites and follow up treatment as required | Previous sites: private land in Wilton (pond) and private land in Werombi (dam) |
| Sagittaria | <i>Sagittaria platyphylla</i> | Class 4 Locally Controlled Weed | Monitoring and trial new weed control methods | <ul style="list-style-type: none"> Continue to monitor the one known infestation which remains static. Trail new weed control methods as they become available to contain future spread. | Redbank Creek |
| Serrated Tussock | <i>Nassella trichotoma</i> | Class 3 Noxious Regionally controlled | Prevent northward spread to protect assets | <ul style="list-style-type: none"> Continue landscape surveillance to identify high priority locations where continued spread threatens agricultural assets. Mentor rural landholders in weed identification, weed control practices and hygiene practices to prevent further spread. Check in regularly with the landholders to ensure consistent follow up work is done. Work in cooperation with Australian Rail Track Corporation and Roads and Maritime Services to encourage control within their corridors and reduce northward spread. | Rural properties and major transport corridors across Wollondilly Shire |
| Water Hyacinth | <i>Eichhornia crassipes</i> | Class 3 Noxious Regionally Controlled | Eradication | <ul style="list-style-type: none"> Continue eradication program Monitor and follow up treatment annually | Private property dams at Yanderra and Silverdale |

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

3. Reduce the impacts of widespread weeds

| Council's approach | Critical Actions | Performance Measures |
|---|---|---|
| Identify priority areas for strategic control of widespread weeds to protect most significant environmental and agricultural assets | <ul style="list-style-type: none"> Identify priority areas for weed control - core infestations, isolated outlying infestations, linear pathways, containment lines and buffer zones. | Priority areas for widespread weed control are identified |
| Source funding | <ul style="list-style-type: none"> Seek available internal funds. Seek external grant funds and sponsorship. Seek cost and resource sharing arrangements with other landholders, councils and government agencies. | <p>Funds acquired for weed control</p> <p>Cost and resource sharing arrangements in place</p> |
| Terrestrial weed control | <ul style="list-style-type: none"> Targeted strategic control of priority widespread weeds Start from isolated patches and work towards dense infestations Use best practice weed control methods Implement bush regeneration programs in areas of high resilience Revegetate recovering sites with indigenous native species (when appropriate) | <p>Area (hectares) of targeted weed control</p> <p>Length (km) of targeted weed control</p> <p>Area (hectares) of bush regeneration</p> <p>Success of widespread weed control programs</p> |
| Aquatic weed control | <ul style="list-style-type: none"> Targeted strategic control of selected widespread weeds Chemical treatments and manual harvesting to suppress weeds and contain spread. Co-ordinate timing of works with other property owners and land managers. | <p>Area (hectares) of targeted weed control</p> <p>Length (km) of targeted weed control</p> <p>Success of widespread weed control programs</p> <p>Cooperative arrangements with other land managers</p> |
| Integrated weed management | <ul style="list-style-type: none"> Utilise bushfire management and post burn land management programs to control widespread weeds. Incorporate weed control into broader ecological approaches that integrate management of multiple invasive and other threats to protect biodiversity eg. feral animal control, revegetation etc | Success of integrated land management programs |
| Biological control | <ul style="list-style-type: none"> Trial use of biocontrols as long term weed control solutions (when available). | Success of biocontrol programs |

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

Main widespread weeds of concern

| Common Name | Botanical Name | Status in Wollondilly |
|---|--|---------------------------------------|
| African Olive (Note: widespread distribution west of the Southern Freeway and east of Silverdale Road) | <i>Olea europaea</i> subsp. <i>cuspidata</i> | Class 4 Noxious Locally Controlled |
| African Daisy | <i>Osteospermum</i> species | Environmental weed |
| Alligator Weed | <i>Alternanthera philoxeroides</i> | Class 3 Noxious Regionally Controlled |
| Blackberry | <i>Rubus fruticosus</i> species aggregate | Class 4 Noxious Locally Controlled |
| Box Elder | <i>Acer negundo</i> | Environmental weed |
| Camphor Laurel | <i>Cinnamomum camphora</i> | Environmental weed |
| Coolatai Grass | <i>Hyparrhenia hirta</i> | Class 4 Locally Controlled |
| Cotoneaster | <i>Cotoneaster glaucophyllus</i> | Environmental weed |
| Fireweed | <i>Senecio madagascariensis</i> | Class 4 Noxious Locally Controlled |
| Honey Locust | <i>Gleditsia triacanthos</i> | Class 4 Noxious Locally Controlled |
| Japanese Honeysuckle | <i>Lonicera japonica</i> | Environmental weed |
| Lantana | <i>Lantana camara</i> | Environmental weed |
| Madeira Vine | <i>Anredera cordifolia</i> | Class 3 Noxious Regionally Controlled |
| Privet - broad leaf | <i>Ligustrum lucidum</i> | Environmental weed |
| Privet - narrow leaf | <i>Ligustrum sinense</i> | Environmental weed |
| St Johns Wort | <i>Hypericum perforatum</i> | Class 4 Noxious Locally Controlled |
| Willows | Selected <i>Salix</i> species | Class 4 Locally Controlled |

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

4. Landscape surveillance and private property inspections

| Council's approach | Critical Actions Consistent with the <i>Sydney Weeds Committees Regional Inspection Plan</i> and the <i>Sydney Weeds Committees High Risk Pathway Sites Management Plan</i> | Performance Measures ie. Annual targets |
|---|--|--|
| Non-regulatory inspections of private properties to detect weeds. Educate, mentor and teach skills to landholders. | Private property inspections and landholder education – property size under 2 hectares | 200 inspections per annum |
| | Private property inspections and landholder education – property size over 2 hectares | 20 inspections per annum |
| Non-regulatory inspections of high priority sites to check for new incursions and monitor weed spread. Educate land managers and business operators. | High value conservation reserves / endangered ecological communities | 12 inspections per annum |
| | Large agricultural properties | 1 inspection per annum |
| | Tourism / recreational areas | 5 inspections per annum |
| | Periphery around high risk sites | 5 inspections per annum |
| Surveillance and checks of high risk pathways to monitor spread of priority weeds along roads and rail corridors. | Southern Freeway (main road) | 80 kms checked per annum |
| | Main Southern railway line | 80 kms checked per annum |
| | Rural roads throughout the Shire | 400 kms checked per annum |
| Surveillance and checks for spread of priority weeds in waterways. | Nepean River and tributaries | 64 kms checked per annum |
| Non-regulatory inspections of other high risk sites to check for new incursions and weed spread. Educate land managers/property managers/stallholders/business operators. | Public dams | 9 inspections per annum |
| | Boat ramps / boat launch areas | 4 inspections per annum |
| | Showground / event venues | 2 inspections per annum |
| | Nursery, garden and landscape supplier | 3 inspections per annum |
| | Backyard nursery | 1 inspection per annum |
| | Aquarium | 1 inspection per annum |
| | Pet store | 1 inspection per annum |
| | Retail homemaker centre and large hardware | 1 inspection per annum |
| | Tip / waste disposal site | 3 inspections per annum |
| | Council depot | 2 inspections per annum |
| | Development site | 10 inspections per annum |
| | Stock and produce outlet | 2 inspections per annum |
| | Fresh produce market / other market | 2 inspections per annum |
| | Other – as required | 4 inspections per annum |

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

5. Assist the community to control weeds

| Council's approach | Critical Actions | Performance Measures |
|---|--|--|
| Resident enquiries | <ul style="list-style-type: none"> Promptly respond to customer enquiries about weeds | Customer requests regarding weeds are responded to within 14 working days |
| Resident education and raising awareness | <ul style="list-style-type: none"> Distribute publications and educational material via community events, information stalls and the council foyer. Circulate information through local newspapers and radio. Refer to the <i>Sydney Weeds Committees Communication Strategy</i> as a guide for engaging external stakeholders and media publicity about weed management issues. Distribute new weed alerts through council newsletters, website and social media. Promote good news and success stories about Council and the community successfully controlling weeds. Design educational material and programs to also engage people from culturally and linguistically diverse communities. | Number of awareness raising events and information stalls Number of residents engaged Number of media articles and stories published Feedback and interest received as a result of media articles and stories |
| Assist landholders with weed control methods and hygiene practices to prevent weed spread | <ul style="list-style-type: none"> Mentor and teach skills to assist landholders with weed control on private property. Hold rural landholder information days, field days, seminars and site tours that assist landholders to build knowledge and technical skills. | Number of landholders assisted/mentored Number of educational events held |
| Environmental volunteering and school programs | <ul style="list-style-type: none"> Continue to support environmental volunteering and community participation in Bushcare, Landcare, Wollondilly Community Nursery and Environment Resource Centre, youth training programs (eg Green Army) and corporate work days. Work with local environment groups to share knowledge and distribute information through community networks. Work with scout groups and schools to engage children in environmental education programs that promote the values of natural areas. | Number of volunteers engaged Number of school students engaged Number of environment/ community groups involved |

EN1 - Wollondilly Shire Council Noxious Weeds Strategy 2016 - 2018

ATTACHMENT 1 – 2571 – 18 APRIL 2016

6. Build capacity of Council staff to control weeds and assist the community

| Council's approach | Critical Actions | Performance Measures |
|--|--|---|
| Build knowledge of Council staff and contractors | <ul style="list-style-type: none"> Support professional development and peer sharing opportunities for Council staff to build knowledge in best practice weed management eg. weed identification, control techniques, high volume spraying, understanding new weeds, using herbicides in accordance with guidelines, industry standards and product labels. Build staff capacity across all relevant Council operations responsible for land management and planning – outdoor operations, parks and gardens, construction, development assessment etc Distribute information about emerging weeds, new weed alerts and weed seed spread hygiene to Council staff and contractors working outdoors. | <p>Number of staff participating in training opportunities</p> <p>Relevant information distributed to staff and contractors</p> <p>Positive feedback from community</p> |
| Development assessment | <ul style="list-style-type: none"> Continue to promote development consent conditions for weed control and landscaping plans that use non-invasive plants. Promote the inclusion of "prohibited species" lists in Council's development control planning documents (as required). | Development consent conditions routinely require weed control and landscaping with non-invasive plants |
| Regional collaboration | <ul style="list-style-type: none"> Participate on the Sydney South West Regional Weeds Committee to exchange technical information and stay up to date with regional weed management priorities, new weeds and changes in government legislation. Participate in regional initiatives, grants and projects that are mutually beneficial for Wollondilly and neighbouring government land managers - national parks, roads, rail corridors, catchment lands and Crown lands. | <p>3 regional weeds committee meetings attended by Wollondilly staff per annum</p> <p>Success of working partnerships with other public land managers</p> |