blue mountains City Council

Weed Management Strategic Plan 2019

Acknowledgement of Country

The City of the Blue Mountains is located within the Country of the Darug and Gundungurra peoples. Blue Mountains City Council recognises that Darug and Gundungurra Traditional Owners have a continuous and deep connection to their Country and that this is of great cultural significance to Aboriginal people, both locally and in the region.

For Darug and Gundungurra People, *Ngurra* (Country) takes in everything within the physical, cultural and spiritual landscape—landforms, waters, air, trees, rocks, plants, animals, foods, medicines, minerals, stories and special places. It includes cultural practice, kinship, knowledge, songs, stories and art, as well as spiritual beings, and people: past, present and future.

Blue Mountains City Council pays respect to Elders past and present while recognising the strength, capacity and resilience of past and present Aboriginal and Torres Strait Islander people in the Blue Mountains region.

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Prologue

The Weed Management Strategic Plan 2019 has been directly informed by the Blue Mountains Community Strategic Plan 2035, developed in consultation with the community.

This strategic plan falls under Council's Key Directions of :

PROTECT — AN ENVIRONMENTALLY RESPONSIBLE CITY

2.1 The condition, health and diversity of native flora, fauna, habitat, ecosystems, waterways and groundwater are maintained and enhanced.

2.3 The community and all levels of government work together to protect the Greater Blue Mountains World Heritage Area.

2.4 Traditional owners and the broader Aboriginal community are supported to connect to, care for and benefit from Country.

LIVE — A LIVEABLE CITY

4.3 The impact of development on the natural and built environment is well managed.

Ongoing review of its policies, programs and priorities allows Council to ensure that it is prepared and resourced to meet the challenges and opportunities of a changing and contemporary City and community. It will inform Council's 4 year Delivery Program and resource allocation, now and into the future.

The strategic planning focus supports a whole-of-Council approach to delivering services in our local government area.

Glossary

Biosecurity: The protection of the economy, environment and community from negative impacts associated with pests, diseases and weeds.

Community Conservation Program (CCP): Collective program for BMCC supported volunteer community networks which take part in on-ground environmental management of bushland and infrastructure within natural areas.

Biodiversity assets: Lands which are assessed to contain a high diversity of native species and/or significantly contribute to the conservation of unique plants and animals. This includes native vegetation and habitats which are highly valued for their rarity or habitat values.

Bushland: The category bushland is assigned to land that contains primarily native vegetation and that vegetation is:

- The natural vegetation or a remainder of the natural vegetation of the land, or
- Although not the natural vegetation of the land, is still representative of the structure or floristics, or structure and floristics, of the natural vegetation in the locality.

Catchment: The area or region that catches rainfall run-off, encompassing the drainage network which flows into a particular creek, river or lake e.g. Govetts Creek catchment

Conservation assets: Lands that are held to have positive environmental values contributing to the preservation of biodiversity or generating other environmental benefits, includes species and their habitats and vegetation communities listed or proposed for listing in the *Environmental Protection and Biodiversity Conservation Act 1999* or the *Biodiversity Conservation Act 2016*, or which are scheduled for protection in LEPs, or which are locally rare or restricted in distribution

Conservation outcomes: Environmental benefits of conservation works and practices which contribute to the preservation or restoration of conservation assets. Measurable improvements in ecological factors contributing to resilience in response to disturbance and survival into the future, or reducing adverse impacts which are threats to the integrity of conservation assets

Duties of workers (includes volunteers):

Extract from *WHS Act 2011* Part 2, Division 4, 28 Duties of workers
While at work, a worker must:

(a) take reasonable care for his or her own health and safety, and
(b) take reasonable care that his or her acts or omissions do not adversely affect the health and safety of other persons, and
(c) comply, so far as the worker is reasonably able, with any reasonable instruction that is given by the person conducting the business or undertaking to allow the person to comply with this Act, and
(d) co-operate with any reasonable policy or procedure of the person conducting the business or undertaking relating to health or safety at the workplace that has been notified to workers.

Natural area: As defined by the *Local Government (General) Regulation 2005* is land that, whether or not in an undisturbed state, possesses a significant geological feature, geomorphological feature, landform, representative system or other natural feature or attribute that would be sufficient to further categorise the land as bushland, wetland, escarpment, watercourse or foreshore.

Natural assets: Terrestrial and aquatic ecosystems valued for providing habitat and refuge to native species, and contributing to community health and well-being.

Natural systems: Natural systems are those systems that exist in nature consisting of all plants, animals and microorganisms in an area functioning together with all the non-living physical features of the environment.

Primary Duty of care:
Extract from *WHS Act 2011*, Part 2, Division 2, 19 Primary duty of care

(1) A person conducting a business or undertaking must ensure, as far as is reasonably practicable, the health and safety of:
  (a) workers engaged, or caused to be engaged by the person, and
  (b) workers whose activities in carrying out work are influenced or directed by the person, while the workers are at work in the business or undertaking.

(2) A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that the health and safety of other persons is not put at risk from work carried out as part of the conduct of the business or undertaking.

(3) Without limiting subsections (1) and (2), a person conducting a business or undertaking must ensure, so far as is reasonably practicable:
  (a) the provision and maintenance of a work environment without risks to health and safety, and
  (b) the provision and maintenance of safe plant and structures, and
  (c) the provision and maintenance of safe systems of work, and
  (d) the safe use, handling, and storage of plant, structures and substances, and
  (e) the provision of adequate facilities for the welfare at work of workers in carrying out work for the business or undertaking, including ensuring access to those facilities, and
  (f) the provision of any information, training, instruction or supervision that is necessary to protect all persons from risks to their health and safety arising from work carried out as part of the conduct of the business or undertaking, and
  (g) that the health of workers and the conditions at the workplace are monitored for the purpose of preventing illness or injury of workers arising from the conduct of the business or undertaking.

Subcatchment: A division of a catchment, allowing stormwater management as near to the source as is possible.

Sustainable management: Use and management of resources which is able to be maintained at a certain rate or level in the long term; use of resources (environmental, human and economic) which conserves a balance and avoids depletion, thereby ensuring that the resources are able to be maintained and continue to be available into the future.

Tenure blind/cross tenure land management: Management of land in a similar manner regardless of ownership, and the application of practices such as weed management across all land ownership categories.

Urban stormwater runoff: Rainfall that flows over the ground surface. It is created when rain falls on roads, driveways, parking lots, rooftops and other paved surfaces that do not allow water to soak into the ground. Stormwater runoff is the number one cause of stream degradation in urban areas.

Volunteer Association: A group of volunteers working together for one or more community purposes where none of the volunteers (jointly or alone) employs any person to carry out work for the association. For the purpose of the Volunteers Policy, Council has sole liability for management of volunteers working on Council premises, assets or projects, regardless of how they are engaged.

Volunteer Organisation: An organisation which engages volunteers and employs one or more paid workers. For the purpose of the *Workplace Health and Safety (WHS) Act 2011* and the Volunteers Policy a Volunteer Organisation is defined as a Person Conducting Business or Undertaking (PCBU). The PCBU is the main duty holder under the WHS Act.

Context

Weeds in *Ngurra* (Country)

For the Traditional Owners of the area now known as the Blue Mountains, the Darug and Gundungurra peoples, their *Ngurra* lives as a connected whole, present across time and space, physically, culturally and spiritually.

This Country, abundant with natural resources, provided Traditional Owners with a vibrant and productive physical and spiritual existence for millennia, allowing countless generations to grow up healthy, strong and connected to *Ngurra*.

In return, over time beyond counting, Darug and Gundungurra people have cared for, protected and nurtured their *Ngurra*, and the entire myriad of plants and animals, elements, stories and ceremonies which are part of it. Everything was balanced and managed by the Traditional Owners to ensure that their *Ngurra* and was balanced, plentiful, healthy and sustainable for themselves and future generations.

The arrival and occupation of European colonists into the Blue Mountains then the subsequent building of roads, settlements, farms and industry, changed this Ngurra, and the dispossession of Darug and Gundungurra people and colonisation of their lands and waters, has led to many decades of unhealthy and unbalanced *Ngurra*.

Darug and Gundungurra Traditional Owners recognise that the profound changes brought about by colonisation have significantly changed their *Ngurra*.

The clearing of native vegetation, planting of imported species, impacts on rivers and creek systems and infestation of pest plants and animal have all adversely impacted on *Ngurra*.

The Weed Management Strategic Plan 2019 aims to redress the adverse impacts brought about in a relatively short span of time by European colonisation and, with the guidance of Traditional Owners, contribute towards bringing back the health of *Ngurra*. This strategy also seeks to restore balance to *Ngurra* of the Blue Mountains, removing invasive weeds while protecting and promoting the surroundings of local native plants and animals.

Further to this, the continued involvement of Traditional Owners in caring for, nourishing and benefiting from *Ngurra* will be a central principle to the delivery of this strategy.

Restoring the balance supports healthy *Ngurra*.

Healthy Ngurra, healthy people.

Lantana and other weeds establish on urban edges and then invade bushland (Matt Rudge)

Magnitude of the Weed Problem

The weed management issues facing Blue Mountains City Council (BMCC) are unique. The Blue Mountains Local Government Area (LGA) consists of a long, linear development area amid an expanse of World Heritage listed National Park, which is directly affected by nutrient-enriched runoff from urban areas. Weeds are a symptom of this process and consequently one of the biggest threats to biodiversity in the Blue Mountains LGA.

The magnitude of this weed problem is enormous, though not always obvious to the untrained eye. Despite the fact that Council and the Federal and State Governments devote considerable resources to weed management, it is not possible or practical to plan to eradicate all weeds from the Blue Mountains. Council's weed management programs must focus on a long term, strategic approach which protects key assets and involves co-operation with all landowners to achieve high level, sustainable weed control outcomes.

Council has to make difficult choices about how to best use its resources to maximise benefit for the community and meet obligations for the protection of the environment.

A major emphasis that emerges from the discussion is the need to address the causes of the problems not just the symptoms. It is also essential for programs to be implemented in accordance with agreed priorities and cross tenure programs which involve private landowners and other government agencies are crucial to sustained weed control success.

Significance of Weeds

Environmental weeds and their causal agents are considered to be one of the greatest threats to biodiversity and ecosystem function in the Blue Mountains.

Environmental weeds may be defined as those introduced plants, both exotic and non-local native species, which have invaded natural ecosystems in the Blue Mountains. Significant components of emerging weeds in the Blue Mountains are non-local native species.

Weeds have been classified into three distinct classes based upon the level of threat that they pose to ecosystems (Mulvaney, 1997). These terms are used because they are the major criteria for determining the significance of weeds and the level of resources that should be applied in their control.

- **Ecosystem transformers** — can dominate and destroy a native vegetation community very quickly (10 years).
- **Invasive** — are highly mobile within a native vegetation community but do not have the immediate potential to alter it.
- **Naturalisers** — reside mainly on the edge of native vegetation communities and have little potential to be highly invasive or ecosystem transforming.

Some species, such as Radiata Pine, are listed as Naturalisers at shorter time scales (10 years) but could be considered Ecosystem Transformers at longer time scales (100 years).

Environmental weeds are often a symptom of other degrading impacts on bushland such as high nutrient stormwater runoff, erosion and sedimentation and clearing. Some weed species can also invade undisturbed bushland. Once established the weed populations also become a degrading factor which further alters environmental conditions to promote increased native vegetation loss.

Adverse impacts of environmental weeds include:

- Competition with local native plants for sunlight, moisture and nutrients;
- Inhibition of the native plant germination;
- Alteration of the habitat for endangered species;
- Encouraging more frequent and intense fires;
- Changes to soil characteristics such as nutrient cycles, pH, moisture and microbiology;
- Increase nutrient levels in water and lower levels of oxygen to the point that it threatens or kills fish and other aquatic fauna; and
- Degraded landscape values and impeded access which impacts on urban amenity and tourism.

Agricultural weeds are plants that represent a threat to agricultural production. Weed control is a significant component of the running costs of most farmers.

Adverse impacts of agricultural weeds include:

- Competition with crops and pasture to reduce the areas available for grazing and cultivation;
- Reduced quality of produce;
- Interference to access and farm infrastructure;
- Harbour for feral animals;
- Poisoning of stock; and
- Degraded landscape values and impeded access which impacts on amenity and tourism.

For much of the Blue Mountains LGA, weed priorities are targeted at managing threats to natural biodiversity and natural processes. This is particularly relevant given our proximity to the World Heritage listed National Park, and the substantial areas of Sydney water catchment area within the City. In rural areas such as the Megalong Valley, weed priorities are based on threats to agricultural productivity, eco-tourism, and biodiversity.

Birds spread weeds from gardens into bushland (Akos Lumnitzer)

Garden escapes such as Red Hot Poker can transform native ecosystems (Peter Chrismas)

Weed Spread in the Blue Mountains

There are currently over 400 weed species known to occur in the Blue Mountains. Some of these are well established and widespread. Others are relatively recent introductions in small populations which still have the potential to spread into new areas. A substantial proportion of weeds in the Blue Mountains have their origins as garden plants.

The climate of the upper mountains creates a cool temperate environment that occurs in restricted areas in South Eastern Australia. Over the last 130 years the residents of the area have been planting many exotic species to the point that the Blue Mountains have become renowned for its cool climate cottage gardens. A number of these species have now escaped into the neighbouring bushland. In the lower mountains the climate is hotter and drier encouraging a different suite of weed species many of which are also garden escapes.

Some weed species were originally planted for a particular purpose such as soil stabilization. Weed propagules were also likely to have been inadvertently introduced on vehicles, clothing, or soil from areas where an infestation exists.

A major source of weeds is stormwater runoff, which concentrates propagules in moist, disturbed environments. Other species are spread by birds moving between gardens and bushland. Many weeds are also inadvertently spread by landscapers, construction contractors and the community by the introduction of contaminated soils, aggregates, agricultural and horticultural products.

Major causes of weed spread in the mountains are:

- Disturbance, of any form, in natural areas;
- Plants escaping from gardens;
- Dumping of waste, particularly garden and construction waste, in bushland;
- Wind and vehicle transport of seeds along the highway and railway corridors;

Scotch Broom forms thickets in bushland, crowding out native plants and contributing to increased fire intensity (Barbara Harley)

- Use of weed contaminated soil or horticulture products;
- Use of contaminated hay or other stock feed, and spread from faeces or fur of stock;
- Planting of exotic species into public reserves by residents and government authorities;
- Spread of weed seed on clothing, socks, cuffs, jumpers and boots of bushwalkers;
- Nutrient-enriched runoff from sources such as stormwater, septic tanks, sewerage overflows, pet wastes, washing of cars, and fertiliser runoff;
- Utility easements through sensitive areas, associated access roads and slashing, cause disturbance, open up native vegetation, and provide a foothold for weed invasion; and
- Poor vegetation management practices such as over clearing, slashing and trampling by public land management authorities, developers, recreationalists and the community.

The Weed Management Area

Blue Mountains City Council exercises weed control responsibilities over very large areas. The entire Blue Mountains Local Government Area (LGA) is 143,200 ha, including the Blue Mountains National Park which covers 106,100 ha. The remaining 37,160 ha is managed by Council. There is a 342 km of interface between Council managed lands and the National Park, which can be a pathway for weeds into the World Heritage Area.

Within the LGA Council manages:

- 6,000 ha as a direct land manager, including 4,000 ha of bushland reserves;
- 4,435 ha of Crown land in a monitoring, planning and implementation support role; and
- 22,000 ha of private land in a monitoring, planning, assistance and regulatory role.

A significant proportion of this land is zoned Environmental Protection (EP) which denotes environmentally sensitive land managed primarily for the protection of the natural environment. 7,652 ha of EP land is on private property and there is 4,855 ha on Council managed land.

The LGA can be broadly classified into four conservation landscapes which represent distinct vegetation types based on similar geological and climatic conditions:

- Blue Mountains Plateau landscape—Lawson to Mt Victoria/Bell;
- Lower Blue Mountains Shale—Sandstone landscape—Faulconbridge to Lapstone;
- Moist Basalt Cap landscape—Mt Wilson, Mt Irvine and Mt Tomah; and
- Megalong Valley Granite—Sandstone landscape—Megalong Valley.

Each landscape supports distinct flora and fauna conservation values which require protection (see Appendix 2: Conservation Assets in each Landscape Unit). Significant weed species also vary between landscapes in response to the range of vegetation types, land uses and local climates and soils.

Council's weed management priorities focus on protection of the identified biodiversity values and control of the most environmentally and economically significant weed species in each landscape.

Weed Management for Other Outcomes

The Weed Management Strategic Plan provides a framework and direction for protection of the natural environment from the impact of weeds. Council also undertakes control of weeds on lands managed primarily for other reasons which are not covered by this plan.

Examples include:

- Waste management facilities and utilities for operation and compliance;
- Transport corridors to maintain safe sight lines and remove obstructions;
- Sportsgrounds to maintain playing surfaces; and
- Parks and town centres, gardens and playgrounds for aesthetics and public safety.

Policy and Legislation

A hierarchy of weed strategies developed by the Federal and State governments, regional natural resource managers, such as the Greater Sydney Local Land Services (GS LLS), Water NSW and the Blue Mountains Branch National Parks and Wildlife Service (NPWS), and local government informs the allocation of the three tiers of government investment in weed control in the Blue Mountains Local Government Area. It also provides for a consistent framework for co-operative programs across various levels of government and the community.

National and State Weed Management

The Australian Weeds Strategy 20017–2027 provides a framework for weed management across the nation with the vision of protecting Australia's environmental, economic and social assets from the impacts of weeds.

The Australian Weed Strategy identifies four categories of appropriate weed management options based on the stages of invasion, which can be applied at the national, state, regional or local scale. These categories are 1) prevention, 2) eradication, 3) containment, and 4) asset protection.

The strategy calls for co-ordinated actions by all stakeholders to address weed dispersal pathways at relevant scales, in order to effectively prevent new incursions and minimise the impacts of established weeds.

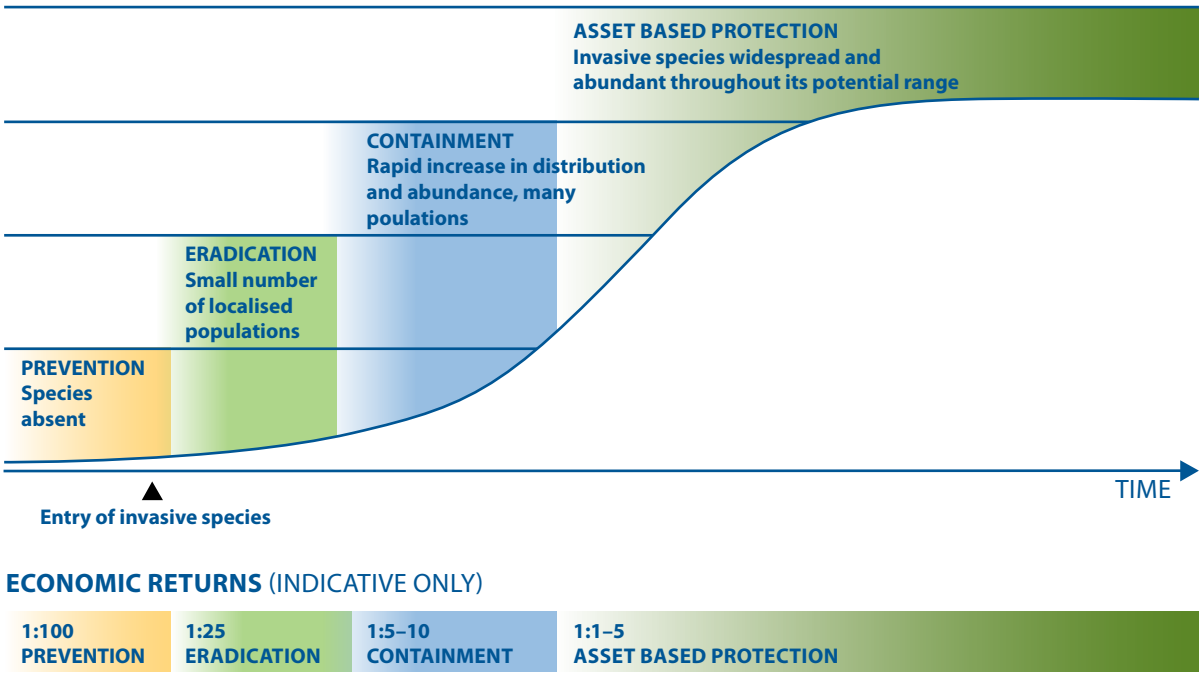


FIGURE 1: **Weed Invasion Curve**
Source: NSW Biosecurity Strategy 2013–21 (adapted from Biosecurity Victoria, Department of Primary Industries)

The emphasis in the NSW Invasive Species Strategy and biosecurity legislation is on prevention of invasive species and early intervention in the invasion process. Early and strategic investment across all tenures to prevent and eradicate invasive species provides more cost effective and successful weed control outcomes, based on the principle that managing weeds earlier in the invasion process is most cost effective.

The NSW Invasive Species Plan 2018–2021 has four goals which expand on the national goals (see Table 1, p.16).

TABLE 1: **SUMMARY OF FEDERAL AND STATE WEED MANAGEMENT GOALS**				
	PREVENTION	**ERADICATION/ CONTAINMENT**	**ASSET PROTECTION**	**CAPACITY BUILDING**
AUSTRALIAN WEED STRATEGY	GOAL 1: Prevention, detection and early intervention		GOAL 2: Minimise the impact of established weeds	GOAL 3: Enhance Australia's capacity and commitment to weed management
NSW INVASIVE SPECIES PLAN	GOAL 1: **Exclude**—prevent the establishment of new invasive species	GOAL 2: **Eradicate or contain**—eliminate or prevent the spread of new invasive species	GOAL 3: **Effectively manage**—reduce the impacts of widespread invasive species	GOAL 4: **Capacity building**—ensure NSW has the ability and the commitment to manage invasive species
OUTCOMES	**1.1** Improved identification and management of high risk species and pathways **1.2** Improved early detection capabilities	**2.1** Improved rapid response capabilities to eradicate or contain new incursions	**3.1** Management programs prioritised to give more targeted effort and greater benefit **3.2** Improved management effectiveness	**4.1** Roles and responsibilities are clear **4.2** Landholders and community are motivated to support biosecurity at all stages of invasion curve **4.3** Skilled workforce **4.4** Improved tools **4.5** Legislation and policy supports effective action at all stages of invasion curve **4.6** Commitment to implement and monitor progress of the Plan
STRATEGIES	Education and enforcement for management of high risk species and pathways Work with industry to mitigate risks Review and improve early detection capability	Develop rapid response plans to respond to invasive species reports Identify transition points from eradication/ containment/ ongoing management	Identify priority invasive species and management areas Prioritise management efforts based on current and potential impacts Programs with clear benchmarks for measurable results	Defined roles Maintain and improve communication tools Maintain & improve staff training Maintain research capacity and links Ensure consistent community engagement Track and review progress against Plan

NATIONAL ENVIRONMENTAL ALERT LIST WEEDS

Under the National Weeds Strategy, 28 environmental weeds were identified as National Environmental Alert Weeds. Alert Weeds are non-native plant species that are in the early stages of establishment and have the potential to become a significant threat to biodiversity if they are not managed.

Two Alert Weeds have been found in the Blue Mountains in recent years. A small population of Orange Hawkweed *(Hieracium aurantiacum)* is being successfully contained, and treated annually aiming for eradication. Common Horsetail *(Equisetum arvense)*, which is particularly hard to control, is being treated and contained at a single location in the Upper Mountains.

WEEDS OF NATIONAL SIGNIFICANCE

Weeds of National Significance (WoNS) are the priority species for sustained nationally coordinated action under the Australian Weeds Strategy. WoNS status brings a weed species under coordinated national management involving various stakeholders including local government, for the purpose of preventing further impacts, reducing or restraining its spread and/or eradicating it from parts of Australia.

There are currently 32 WoNS identified through a weed risk assessment process as having a national impact on Australia's productive capacity and natural ecosystems. These weeds are regarded as the worst weeds in Australia because of their invasiveness, strong potential for further spread, and economic, environmental and /or social impacts.

Each WoNS has a strategic plan that outlines strategies and actions required to prevent spread and reduce impact of the weed and identifies responsibilities for each action. Individual landowners and managers are ultimately responsible for managing WoNS. State and territory governments are responsible for overall legislation and administration. Federal government grant funding for weed control programs is often targeted to achieving WoNS strategic goals.

Fourteen WoNS species occur in the Blue Mountains LGA. These are Alligator Weed, Boneseed, Blackberry, Bridal Creeper, Scotch and Montpelier Broom, Cabomba, Cats Claw Creeper, Gorse, Lantana, Madeira Vine, Salvinia, Serrated Tussock and Willows.

NSW BIOSECURITY STRATEGY

The NSW Biosecurity Strategy 2013–2021 introduces a new framework for managing weeds and other biosecurity risks in NSW. It is based on the principle that biosecurity is a shared responsibility and that all land managers and users of land have a general biosecurity duty to prevent, eliminate and minimise risks.

The focus of the NSW Biosecurity Strategy is on biosecurity risks (pests, diseases and weeds) that affect:

- Animal and plant industries;
- Biodiversity and the natural and built environment;
- Human health;
- Lifestyle, recreation and social amenity; and
- Infrastructure and service industries.

Biosecurity is about risk management. The broad objectives for biosecurity in NSW are to manage pest, disease and weed risks by:

- Preventing their entry into NSW;
- Quickly finding, containing and eradicating any new entries; and
- Effectively minimising the impacts of those pests, diseases and weeds that cannot be eradicated.

The Department of Primary Industries (DPI) takes the lead on biosecurity activities within the NSW Government. Local Land Services provide an important link in the delivery and implementation of this strategy, particularly at a regional level.

Local government will continue to play a significant biosecurity role particularly in the management of pests and weeds and has an important role to play in engaging local communities, managing public lands and assisting with emergency management.

Industry's role is identified as promoting best practice by development and implementation of industry standards, guidelines and codes of practice and managing biosecurity risks associated with their operations.

Members of the community have a general responsibility to be aware of, and manage, biosecurity risks where they occur on their land (e.g. by controlling weeds), reporting significant or unusual pests, diseases and weeds and participating in community programs that build resilience in the natural environment and help reduce the risks.

NSW BIOSECURITY ACT 2015

The *NSW Biosecurity Act 2015* replaces the *Noxious Weeds Act 1993* and introduces changes to how weeds are managed.

Provisions in the new Act:

- Embed the principle of shared responsibility for biosecurity risks (including weeds) across government, community and industry;
- Apply equally to all land in the state, regardless of whether it is publicly or privately owned;
- Are premised on the concept of risk, so that weed management investment and response is appropriate to the risk; and
- Support regional planning and management for weeds.

In keeping with its premise that biosecurity is a shared responsibility, the Act introduces the legally enforceable concept of a general biosecurity duty. All plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. Any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.

The previous regulatory framework, based on regional lists of declared noxious weeds which were classified into 5 classes denoting levels of risk and control measures required, has been replaced under the new Act.

The Act includes a number of regulatory tools to enforce appropriate actions. Priority weeds lists have been developed which identify high risk weeds across the state or in specific regions (see Appendix Two Priority Weeds Lists). Monitoring and compliance in the region, previously limited to plants on noxious weeds lists, will focus primarily on species listed as priority weeds.

The regulatory tools are:

Prohibited Matter: Prohibited matter includes weeds nationally targeted for eradication and presently not in NSW, for the purpose of preventing entry into the state.

Control Order: Weed Control Orders will establish one or more control zones within which specific measures will be implemented, aimed at eradication of a specified high risk weed species.

Biosecurity Zone: specifies the measures that must be taken in the defined area to manage an identified weed species. It aims at containment of that weed and provides for its ongoing strategic management in a defined area of the state.

Mandatory Measures Regulation: requires parties to take certain actions with respect to specified weeds, including WoNS, or the carriers of those weeds (e.g. machinery and equipment moving between properties) aimed at minimising further spread.

General Biosecurity Duty: The purpose of the General Biosecurity Duty is to manage the spread and/or impacts of all weeds that pose a biosecurity risk in any specific situation. Any plant species may pose a biosecurity risk if its spread is having a significant negative impact on the environment or on an economic or community asset.

Priority Weed Lists Process

There is a hierarchy of three priority weeds lists which apply in the Blue Mountains (see Appendix 2 for complete lists). Monitoring and compliance for weed management will focus primarily on the weeds on these lists.

At each level, control categories are assigned to each weed species which require landowners and other relevant parties to take specific weed control actions to comply with their General Biosecurity Duty. These categories are aimed at exclusion, eradication, containment or asset protection outcomes at the relevant scale, based on the Weed Invasion Curve (Figure 1).

Assessment of each weed on these lists was carried out by weed management experts using the NSW Weed Risk Assessment (WRA) system which considers the risk that the weed poses and the feasibility of effective control for that weed within the area being considered. Categorisation using the WRA system ensures that the management actions required for each weed assessed is commensurate with the risk it poses.

STATE PRIORITY WEEDS — high risk weed species across the entire state of NSW, as determined by the Department of Primary Industries.

REGIONAL PRIORITY WEEDS — high risk weed species within the Greater Sydney region, as determined by the Greater Sydney Regional Weeds Committee.

LOCAL PRIORITY WEEDS — high risk weed species within the Blue Mountains Local Control area, as determined by a professional panel within BMCC.

Funding for Biosecurity

The NSW government allocates funds to local control authorities through regional partnership projects to assist in achieving weed management goals. It does this via the NSW Weeds Action Program (WAP). The strategy used to allocate funding is strongly aligned to the NSW Biosecurity Strategy and the NSW Invasive Species Plan.

The program targets the highest risk weeds and supports activities that:

- Prevent new weeds from establishing via inspections and surveillance;
- Eliminate or prevent the spread of new weeds via control and follow-up monitoring;
- Protect significant natural assets (endangered ecological communities, wetlands and major waterways) from invasive weeds through targeted control programs; and
- Improve the capacity of NSW to identify and manage weeds through awareness and education that targets the weed management workforce and the broader community.

As the Lead Agency for the Greater Sydney WAP project, Hawkesbury River County Council devolves grant funds to partner organisations (including BMCC) and coordinates project submissions and reports on behalf of the project partners.

Locally relevant highlights from the 2015–16 report on the Greater Sydney Weeds Action Project 2015–2020 project include:

- Blue Mountains City Council continued its systematic door-to-door inspection program across the four conservation landscapes in the Blue Mountains. 5,460 (37%) of the 14,832 private property inspections conducted in the region were undertaken by this council, with Sutherland Shire Council completing 3,515 (24%) and Hawkesbury River County Council completing 3,383 across its four constituent LGAs (23%).
- Voluntary compliance ranged from 70% to 98% across the region i.e. rate by which landholders responded to inspection outcomes prior to a formal biosecurity direction being issued. (NOTE: BMCC average 95% compliance)
- Effective and comprehensive control of African Olive, Coolatai Grass and Boneseed in the Blue Mountains.

- Blue Mountains City Council developed DL sized cards specifically targeting the key weeds occurring at the local neighbourhood-scale which are proving to better engage the community.

Funding for control of WoNS and regionally significant weeds is also provided to Council through the Greater Sydney Local Land Services (GSLLS).

COUNCIL RESPONSIBILITIES UNDER BIOSECURITY ACT

Council has the same General Biosecurity Duty as other land managers, so must prevent, eliminate or minimise the risk associated with Priority Weeds on land under its management.

BMCC is also a Local Control Authority (LCA) under the *Biosecurity Act 2015*, covering the Blue Mountains local government area.

Local Control Authorities are responsible for enforcing weed legislation. This includes such activities as:

- Conducting weed inspections on public and private property;
- Inspecting and controlling weeds in high risk pathways and sites;
- Providing education, training and resources for the public and staff in relation to weed management;
- Administering and ensuring compliance with any of the regulatory tools;
- Responding to breaches of the Act; and
- Notifying and reporting on weed activities to the Biosecurity Information System (BIS).

Authorised officers in Council's Urban Weeds Team are appointed to enforce the Act and its regulations. In carrying out their duties, Authorised Officers' primary focus is to encourage and work with the community and landholders to achieve weed management objectives. Education, extension and use of biosecurity undertakings (an undertaking to take appropriate action to manage a biosecurity risk, e.g. a weed management plan) reinforce the concept of the General Biosecurity Duty and establish a cooperative approach to local and regional weed management.

Private Property Inspections

Council operates as a Local Control Authority, and this includes the power to delegate staff as Authorised Officers, who inspect all properties regardless of land tenure, offer weed control advice and issue notices for treatment of weeds as appropriate.

Council inspects over 2000 properties per year in a coordinated and strategic approach. Areas designated as 'target landscapes/sub catchments' are systematically inspected to ensure entire precincts are controlling weeds within a similar timeframe. Council also undertakes weed control on public lands in the same area in conjunction with other property inspections taking place under a principle of mutual obligation. This greatly improves the efficiency of weed control for everyone as areas are not being re-infested from uncontrolled parcels of land.

It also allows Council officers the opportunity to protect previous and future investment in high conservation assets downstream of inspection zones. All priority sub-catchments have had a long history of weed control within the public reserves aimed at restoring conservation landscapes. These projects have been performed using a combination of volunteer Bushcare/Landcare hours, State and Federal grant projects and Council's funding. The priority subcatchment process is further explained in Appendix 3: Priority Catchments.

The Inspection and Enforcement Process

The aims of Blue Mountains City Council's Priority Weeds enforcement process is to create a system that initially utilises a co-operative extension style approach focussing on educational material and technical support, but gradually moves to a regulatory approach if non-compliance is apparent.

The processes currently followed by our staff are summarised in Appendix 1: Priority Weeds Enforcement Process. These processes are reviewed annually to meet operational requirements.

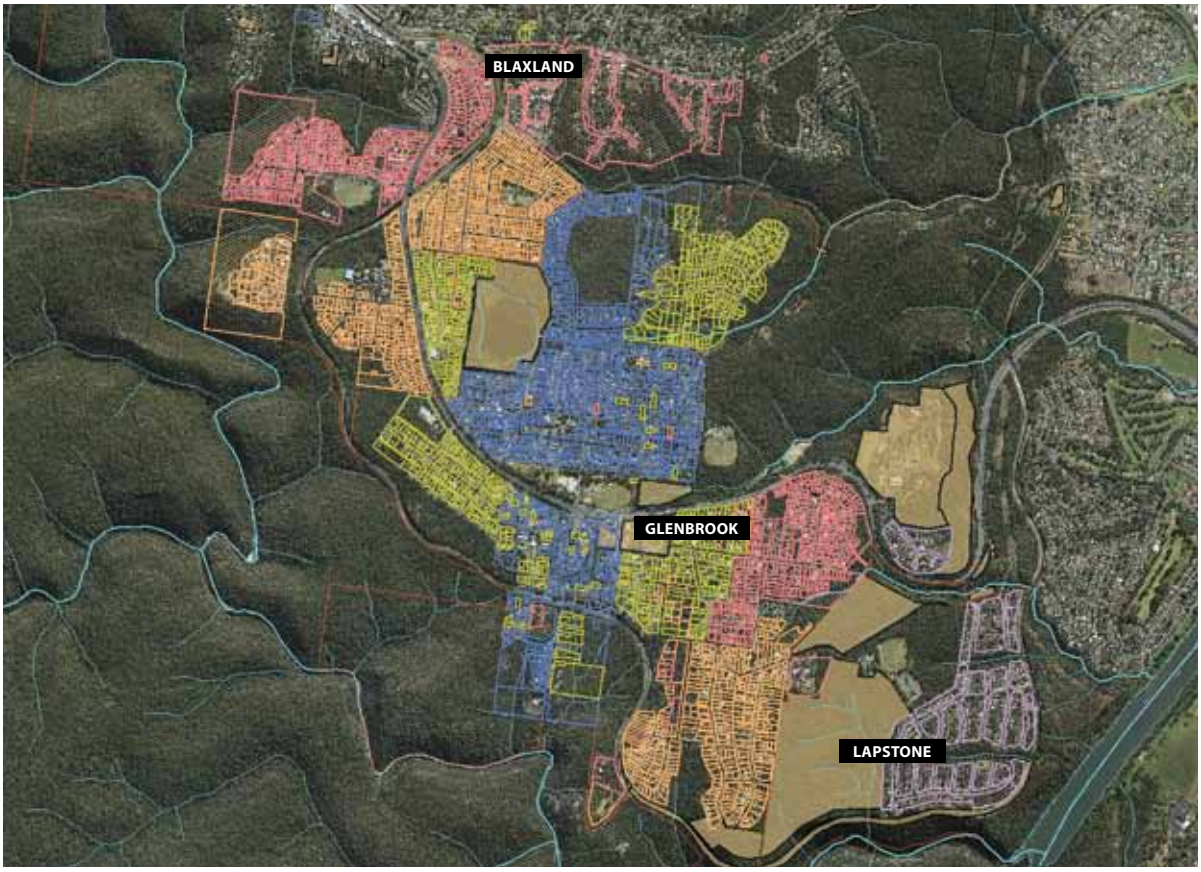


FIGURE 2: **Eastern Escarpment Private Lands Inspection Program**
(Inspection areas mapped over a 5 year period) Yellow = Year 1, Green = Year 2, Blue = Year 3, Red= Year 4, Purple= Year 5)

The process has been developed to achieve the following aims:

- Effective control of weeds on private land;
- Legislative Compliance — adhere to *Biosecurity Act 2015*;
- Efficiency — it is possible for each inspector to complete up to 1000 inspections per annum;
- Consistency — a mutual obligation is maintained within each precinct; and
- Accountability — a full record is kept of every property and action taken.

These processes are annually reviewed by staff and management and changes are made as a result of changes to legislation or opportunities for improvement.

PESTICIDE NOTIFICATION

As a result of the requirements to the *Pesticides Regulation 2009*, the Blue Mountains City Council as a public land manager is required to have in place a Pesticide Use Notification Plan. The plan guides the Council's staff and contractors in how they notify members of the community of pesticide use in public places throughout the Blue Mountains LGA particularly in regards to works in close proximity to sites listed as 'sensitive areas' in the plan.

The Blue Mountains City Council have for some time established what are considered benchmark practices in minimising the community's exposure to pesticides that are applied as part of its pest control programs. These initiatives include:

- The establishment of the Blue Mountains City Council Chemical Sensitive Register;
- The use of the Council Communicator in the Blue Mountains Gazette and the Council's website to alert the community to upcoming components of their weed control programs; and
- Direct landholder notification where appropriate.

These measures allow the Blue Mountains community to make better informed decisions on how they can avoid exposure to pesticides which are utilised as part of pest species control programs in the Blue Mountains Local Government Area.

The plan also identifies a number of operational practices to assist in reducing potential chemical exposures of the broader community when Council applies chemicals in public places These include wherever possible:

- Undertaking the application of pesticides during oval closure periods on sportsgrounds;
- Where work needs to occur on public places in close proximity to schools that these works are completed outside term time or school hours;
- Early morning applications of herbicides for the control of herbaceous weeds in high use public spaces and town centres; and
- Utilising bush regeneration techniques which involve minimal chemical use within bushland areas.

A reviewed version of the 2015 plan was adopted by Council in October 2018.

The plan does not apply to private land holders who are not required to give notification or for other public land management agencies or authorities within the Blue Mountains LGA as they will be covered through the Pesticide Use Notification Plans developed by each individual land management agency.

FEDERAL AND STATE BIODIVERSITY WEED CONTROL TARGETS

Blue Mountains City Council has a statutory obligation to protect threatened species and threatened ecological communities listed under the *NSW Biodiversity Conservation Act 2016* and Federal *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The *NSW Biodiversity Conservation Act 2016* lists a range of weeds in Schedule 4 of the Act as Key Threatening Processes.

A threat may be listed as a key threatening process under the *NSW Biodiversity Conservation Act 2016* if it:

- Adversely affects threatened species, populations of a species or ecological communities.
- Could cause species, populations of a species or ecological communities to become threatened.

Key threatening processes listed under the Act which are relevant to weed issues in the Blue Mountains include:

- Invasion and establishment of exotic vines and scramblers.
- Invasion and establishment of Scotch Broom *(Cytisus scoparius)*.
- Invasion of native plant communities by *Chrysanthemoides monilifera*.
- Invasion of native plant communities by exotic perennial grasses.
- Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants.

BMCC is committed to implementing NSW Biodiversity Conservation Program strategies designed to protect threatened species and ecological communities and actively collaborates with the Save our Species program to implement threatened species recovery actions in the Blue Mountains Local Government Area. The strategic management of weeds at priority threatened species sites and within threatened ecological communities is an important biodiversity management responsibility for both Blue Mountains City Council and the Blue Mountains community.

The Greater Blue Mountains World Heritage Area (GBM WHA) Strategic Plan identifies invasion by pest species as a strategic threat to the ecological integrity and biodiversity of the World Heritage Area (WHA). The Plan states that while their present extent is limited largely to catchments adjacent to or immediately downstream of urban and rural areas, their potential for spread may be a serious threat to biodiversity conservation in the future, particularly in the face of global climate change. It specifically identifies weed control programs in the City of Blue Mountains as important to reduce the spread of pest species in upstream catchments which have the potential to spread into the WHA.

Water NSW Plan of Management for Special Areas in the Sydney Catchment identifies collaborative partnerships with local councils, and other land management neighbours, as important to minimise progressive degradation of the environment and diminished water quality management by pests and weeds. As a regional partner and land manager of catchments upstream of the WHA and Sydney Catchment Special Areas, Council has a responsibility to implement weed control programs which will minimise spread into these significant areas.

Regional Weed Management

GREATER SYDNEY REGIONAL STRATEGIC WEED MANAGEMENT PLAN

The Greater Sydney Regional Weeds Committee is a statutory committee made up of Local Control Authorities, public and private landholders, industry representatives and community members. This committee has developed a five-year Regional Strategic Weed Management Plan to focus on managing weed biosecurity.

The plans articulate how the region's communities and stakeholders will work together to identify, minimise, respond to and manage high-risk weeds, supporting the principle of a shared responsibility under the new biosecurity legislation.

The goals, objectives and outcomes for Greater Sydney Regional Strategic Weed Management Plan align with those of the NSW Biosecurity Strategy 2013–2021 and the Greater Sydney Local Land Services Local Strategic Plan 2016–2021, which provide the overarching policy framework.

The Goals for the Greater Sydney region are that:

1. Responsibility for weed biosecurity is shared by all people including organisations and businesses;
2. Weed biosecurity supports profitable, productive and sustainable primary industries;
3. Weed biosecurity supports healthy, diverse and connected natural environments; and
4. Weed biosecurity is supported by coordinated, collaborative and innovative leadership.

A key part of developing the plans was the review and prioritisation of weeds in the regions using the NSW WRA system. This resulted in the regional priority weed list and other regional weed lists which are documented in the regional plan.

SYDNEY WEEDS COMMITTEES

Sydney Weeds Committees, formed in 2010, is a not for profit incorporated association of organisations, primarily local councils, working together to co-ordinate weed management across all land tenures in Sydney and the Blue Mountains. There are four regional sub-committees: North, South West, Central and West Blue Mountains, comprising of members from local councils and other land managers responsible for controlling weeds and working with the community.

Under the umbrella of this organisation the four sub-committees co-ordinate to facilitate collaboration, resource and information sharing and efficiencies in weed management and education across the region. The sub-regional committees collaborate on local issues and develop sub-region plans and strategic initiatives. These include joint LCA actions for weed control campaigns, such as development of WAP projects or educational resources. They also inform the Greater Sydney Regional Weeds Committee on local issues.

Local Weed Management Framework

In 2001 Council formally adopted its first weed strategy. This was followed by the BMCC Weed Strategy 2010. This has been successfully implemented over the past 8 years as demonstrated by a review of the key performance indicators (Table 2).

TABLE 2: **SUMMARY OF PROGRESS ON KEY PERFORMANCE INDICATORS**		
2010 STRATEGIC OBJECTIVE	**2010 KEY INDICATOR**	**PROGRESS 2010–2018**
1.1 Protect key conservation values in each conservation management landscape.	Cross tenure weed control programs reduce impacts on identified key conservation values in each landscape.	Percentage of properties inspected for weeds annually in each conservation landscape increased as per Figure 2. Increase in reserves being actively managed to improve condition from 155 in 2010 to 175 in 2018. 2018 condition assessments of reserves indicate—43% good; 24% fair; 23% poor.
1.2 Manage widespread weed issues in urban areas to protect identified public and community assets/values.	Updated Council weed list guides management priorities based on objective assessment process Updated Council weed list provides clear guidance to other agencies and community on levels of risk to the environment and public amenity associated with identified weed species.	Better Living DCP & Local Priority Weeds lists—weed lists have been developed to show level of risk for each species based on NSW Weed Risk Assessment process.
	Weed management resources in urban areas are managed to address highest priority infrastructure and public safety and access issues.	Urban weeds program includes control of priority weeds in urban open space, road reserves, laneways and carparks.
2.1 Identify target weed species based on risk and track distributions.	Target weeds programs prioritised according to risk to local ecosystems, agricultural productivity and threats to human health, and distributions mapped.	Target weeds programs based on high risk & high potential for effective control as per the NSW Weed Risk Assessment process. Distribution mapping ongoing.
2.2 Allocate resources to control of target species where costs/benefits are the greatest.	Target species distributions effectively reduced to protect key assets.	Target weeds programs implemented since 2010 for Willows, African Olive, Lantana, Scotch Broom, Gorse, Boneseed and bird distributed weeds are resulting in reduced distributions in target landscapes.
	Weed expansion following unexpected disturbance events reduced.	Flexibility built into annual works programs to provide capacity for response to stochastic events. Improved notification process from Emergency Management to Bushland Operations of occurrence and scale of fires and other disturbance events results in more effective and responsive weed control.
	Transparent, consistent process ensures Customer Service Request resources allocated for highest cost/benefit.	Integrated into urban weeds strategic inspection process and public works program.

TABLE 2: **SUMMARY OF PROGRESS ON KEY PERFORMANCE INDICATORS** (cont.)		
2010 STRATEGIC OBJECTIVE	**2010 KEY INDICATOR**	**PROGRESS 2010–2018**
3.1 Implement Local Weed Alert and Emerging Weeds List to prevent introduction and establishment of new high risk weed species.	Local high risk weeds alert list and emerging weeds identified and documented; lists used to inform monitoring ; Relevant staff/ community skilled in identification of high risk weeds (i.e. potential new weeds).	Co-ordinated response to regional alert weeds as they occur in the LCA. Recent identifications of new occurrences of high risk weeds in LCA include water hyacinth, frogbit and ming fern. Ongoing control programs for emerging weeds such as Orange Hawkweed, Boneseed and Horsetail are successfully preventing further spread and working towards eradication, and for Alligator Weed to reduce population and prevent further spread.
3.2 Mitigate risk of new weed introductions.	Local high risk pathways for introduction of new weeds identified; combination of regulatory processes and education program effectively identifies and manages any new high risk weed introductions.	High risk pathways in LCA mapped. Inspection patterns include high risk pathways. Factsheets for emerging weeds developed.
3.3 Prevent spread of existing populations of emerging high risk weeds.	Effective containment of newly identified and emerging weeds on public and private lands results in no further spread of target species.	Ongoing control programs for emerging weeds as above. Containment programs for other emerging weeds such as Cats Claw Creeper and African Olive well advanced.
4.1 Access increased resources for weed management.	High priority strategic programs are supported by additional external funds.	An annual average of $275,000 in grant funding over the past 8 years matches operational budgets to double available funding for weed control and other bushland management operations.
	Cross tenure projects improve weed control outcomes across LGA.	Cross agency and private land partnerships e.g. co-operative projects in place with Sydney Trains, Sydney Water to control target weeds in priority sub-catchments across tenures. Bush Backyards and Landcare programs support conservation and weed control projects on private lands linked to Council land weed targets. Voluntary compliance with weed control orders from private landowners has increased from 66% in 2010 to 95% in 2018.
4.2 Expand weed management skills of Council staff.	Weeds staff increase skills and keep abreast of current best practice weed management; All staff with some impact on weed management develop increased weed knowledge and skills.	Weed staff regularly attend internal and external training to share best practice weed management knowledge, including workshops delivered under the Sydney Weed Action Plan. Needs further development.
	Plans for weed staff development and succession implemented; Skilled workforce maintained.	Framework introduced for skills and leadership development across Bushland Ops/weeds teams to allow for successional planning and increased capacity to respond to seasonal demands and unforeseen events. Two traineeships in bush regeneration and weed control completed since 2010.

TABLE 2: **SUMMARY OF PROGRESS ON KEY PERFORMANCE INDICATORS** (cont.)		
2010 STRATEGIC OBJECTIVE	**2010 KEY INDICATOR**	**PROGRESS 2010–2018**
4.2 (cont.)	Weed management programs enhanced by continuous improvement process.	Adaptive management framework includes quarterly planning meetings across all weed teams to evaluate outcomes and develop integrated cross team projects leading to efficiency and productivity gains.
5.1. Motivate private landowners to proactively manage weeds.	Increased community understanding of weed issues and management practices results in more effective weed management on private land.	Weed education delivered through traditional and social media campaigns, extension by Council weed and biosecurity officers, development controls in the Better Living DCP. Since 2010 annual private property weed inspections have increased from 1600 (2010) to 2000 (2018). Increase in number of properties inspected with no weeds from 42% in 2010 to 54.5% in 2018.
	Increased support for removal of weed trees results in more effective weed management on private land.	Tree Preservation Policy now includes exemptions for weed trees.
	More effective weed management on private lands in key location.	Landowners engaged in priority areas through targeted grant programs. Ongoing support through Bush Backyards, Resident Weed Support and Landcare. Grants –average $55,481 annually for private lands over past 8 years. 321.75 ha private land being managed for conservation/effective weed management under the Bush Backyards & Landcare programs.
5.2 Identify and develop opportunities for community involvement.	More community involvement in weed management programs. Local projects more effective.	Catchment groups set community priorities for weed targets in their catchments—contribute to Council weeds programs targets and Council supported grants.
5.3 Maintain and build on existing volunteer networks (Bushcare and Landcare program).	Existing networks maintained—Community Conservation programs expanded, increased volunteers/partnerships with other Council programs.	Updated CCP. New models for delivery to allow for expansion within existing resources. Updated Bushcare Manual 2018 completed. Council weeds teams support Bushcare projects.

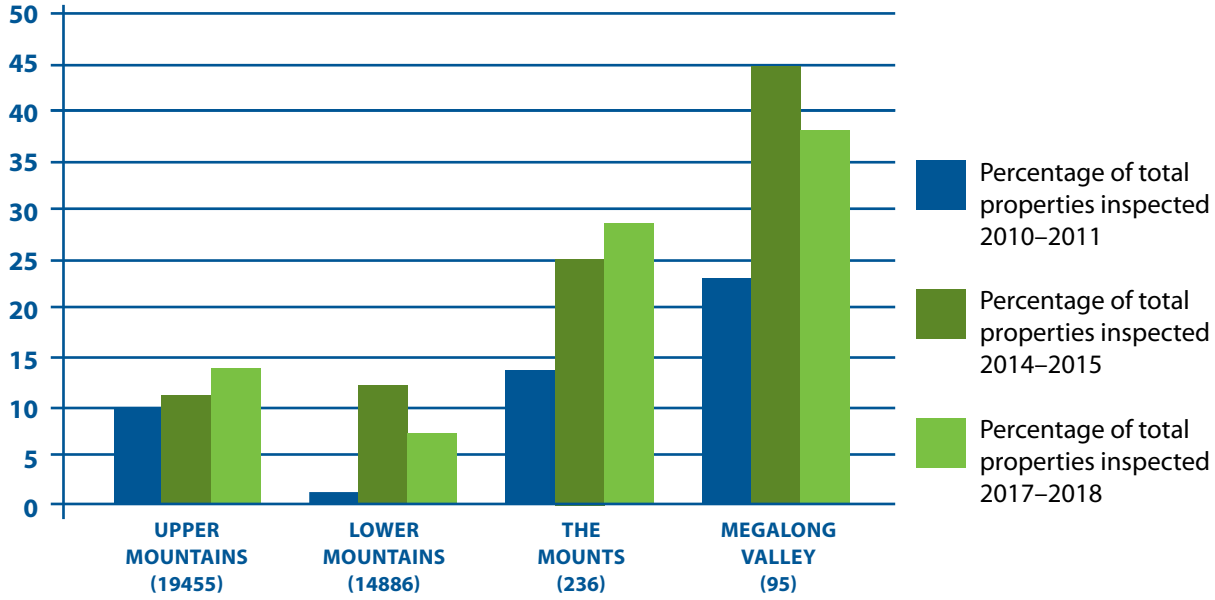


FIGURE 3: **Percentages of total number of properties inspected for weeds annually in each conservation landscape**

COUNCIL PROGRAMS

The Blue Mountains Delivery Program 2017–2021 identifies a range of strategies and actions to protect the natural environment, and maintain a healthy and liveable city in which weed management plays a role.

Natural Area Management, Bushcare and Urban Weed Management are core environmental program areas in which weed control and the management of degrading impacts which affect weed spread are the major component. Endangered Ecological Restoration, Creekline Restoration and Degraded Lands Restoration are sub programs within these programs. Parks and Gardens and Sportsground management also include major weed control components.

Council also delivers engagement, education and extension programs to raise community awareness and develop residents' skills and capacity to contribute to effective weed management and bushland conservation and rehabilitation. These programs include Bush Backyards, Resident Weed Support (includes urban and rural land management support), Bushcare and Landcare, and Environmental Learning and Engagement.

TABLE 3: **BMCC DELIVERY PROGRAM STRATEGIES DIRECT PRIORITIES AND RESPONSIBILITIES FOR WEED CONTROL**			
DELIVERY PROGRAM 4 YEAR PRIORITY ACTION	**PROGRAM**	**RELATIONSHIP TO WEED MANAGEMENT**	**RESPONSIBILITY**
STRATEGY 2.1.A — PROTECT AND MANAGE THE CITY'S NATURAL AREAS AND THE FLORA AND FAUNA, ECOLOGICAL COMMUNITIES AND ECOSYSTEMS THEY SUPPORT			
D2101 Deliver the High Priority Conservation Areas Restoration Program	Endangered Ecological Restoration — Restore rare and threatened ecological communities and species habitat	Controls weeds and improves resilience in rare and threatened vegetation	Environment
D2102 Improve and maintain the condition and connectivity of native vegetation	Natural Area Management — Habitat restoration and weed control to restore key conservation landscapes within priority reserves	Controls weeds and improves resilience in key conservation assets	
D2103 Natural area maintenance	Natural Area Management — bush regeneration in reserves, Urban Weed Management — weed control in urban, rural and peri-urban areas Community Conservation — habitat restoration and weed control in reserves and private lands by volunteer groups Resident Weed Support — provides individual property assistance for weed control and land management for urban, peri-urban and rural landholders.	Controls weeds in bushland, rural and urban areas across private and public lands	
STRATEGY 2.1.B — PROTECT, MAINTAIN AND ENHANCE THE CITY'S NATURAL WATERWAYS, WATER CATCHMENTS AND GROUNDWATER			
D2112 Implement effective catchment planning and deliver priority projects	Creekline Restoration — deliver Streets to Creeks Stormwater Treatment projects in target catchments	Mitigates impacts which encourage weed growth and spread	Environment
D2114 Protect, enhance and monitor the condition of natural waterways and water catchments	Creekline Restoration — manage and remediate riparian vegetation	Controls weeds and mitigates impacts which contribute to weed growth and spread	
STRATEGY 2.1.C — MINIMISE AND MITIGATE THE IMPACTS OF URBAN DEVELOPMENT			
D2121 Manage pest species to reduce impacts on biodiversity and meet statutory requirements	Natural Area Management — bush regeneration in reserves, Urban Weed Management — cross tenure weed control in urban and peri-urban areas	Landscape scale weed control	Environment

TABLE 3: **BMCC DELIVERY PROGRAM STRATEGIES DIRECT PRIORITIES AND RESPONSIBILITIES FOR WEED CONTROL** (cont.)			
STRATEGY 2.1.D — RESTORE AND REHABILITATE DEGRADED AND DISTURBED LAND			
D2131 Implement the Degraded Lands Restoration Program	Degraded Lands Restoration — soil conservation, reserve access and improvements to vegetation connectivity	Mitigates impacts which contribute to weed growth and spread	Environment
STRATEGY 2.3.A — ENSURE THE CITY'S LOCAL ENVIRONMENTAL PLANNING INSTRUMENTS CONTINUE TO PROTECT THE UNIQUE ENVIRONMENTAL VALUES OF THE BLUE MOUNTAINS			
D2301 Protect the unique environmental values of the Blue Mountains through the implementation of the Local Environmental Plan	Land Use Management — implement development controls	Requires weed control and planting of non-weedy landscape in new developments; enforces development controls to mitigate impacts which contribute to weed growth and spread	Development and Building Services
STRATEGY 2.3.C —IMPROVE THE RECOGNITION AND CONSERVATION OF NATURAL AREA HERITAGE ASSETS INCLUDING ABORIGINAL, ENVIRONMENTAL AND BUILT ASSETS IN NATURAL AREAS			
D2121 Manage pest species to reduce impacts on biodiversity and meet statutory requirements	Natural Area Management — bush regeneration in reserves, Urban Weed Management — cross tenure weed control in urban and peri-urban areas	Landscape scale weed control	Environment
STRATEGY 2.4.A — WORK IN PARTNERSHIP WITH TRADITIONAL OWNERS AND OTHER ABORIGINAL COMMUNITIES TO CARE FOR COUNTRY, RESPECTING, SHARING AND INCORPORATING TRADITIONAL KNOWLEDGE			
D2401 Work in partnership with Aboriginal communities for the management of Country	Connecting to Country Program	Develops enhanced understanding of how weeds impact on Country and facilitate knowledge and skills exchange to develop culturally appropriate bushland management strategies	Environment City Planning
STRATEGY 3.1.G — FOSTER AND PROMOTE VOLUNTEERING PROGRAMS THAT SUPPORT THE CITY'S COMMUNITY, CULTURAL, RECREATIONAL AND ENVIRONMENTAL PRIORITIES			
D3161 Strengthen community and Council partnerships that support priority action areas	Community Conservation — Bushcare, Streamwatch, Trackcare, Bush Backyards Environmental Learning and Engagement—environmental education	Programs which engage and educate volunteers, neighbours, children, and visitors re weeds and degrading impacts in bushland	Environment
STRATEGY 4.3.B — REDUCE IMPACTS FROM EXISTING AND NEW URBAN DEVELOPMENT ON THE ENVIRONMENT			
D4311 Deliver Council's Part 5 environmental assessment process to assess the environmental impacts of Council's development proposals to a high quality, professional standard.	Environmental Planning and Assessment	Requires Council projects to follow best practice weed control and weed management and mitigate potential degrading impacts as part of activity delivery	Environment Compliance Specialist Services

WEEDS, PLANNING AND THE DEVELOPMENT ASSESSMENT AND APPROVAL PROCESS

During the development process activities such as soil disturbance occur, which can encourage the spread of existing weed species from the site. Council can control the clearing of vegetation and the disturbance that occurs to sites as part of the development process.

Council can require that weeds on a site are treated as a condition of approval of the development and this approach is now taken on developments where weeds are a significant issue. This is a key means of protecting adjacent properties and downstream ecosystems from further incursions.

The Blue Mountains Environmental Planning Instruments (Local Environment Plans, Development Control Plans) provide for assessment and management of vegetation on private property during the development assessment process, and this may include weed management and rehabilitation of disturbed or degraded portions of the site. There are opportunities for new residents and home owners to be introduced to existing Council networks and resources during this process, and potential for links with neighbourhood or landscape scale programs to be identified and promoted at this stage.

In the implementation of asset protection zones on land in bushfire prone locations, Council requires the removal and ongoing management of weed or potentially invasive species in the first instance. This and other vegetation management requirements may be conditioned by Council in the approval of any development application.

Significant weed control programmes have been undertaken on a number of sites under these approval processes at both the subdivision and individual development level.

New weeds can also be introduced to the area in plantings associated with developments. Identified weed species must not be included in landscape plans and planting with appropriate native species is encouraged particularly at the bushland interface.

The weed list in the BMCC Development Control Plan 2015 is compiled in consultation with local weed experts. Inclusion of weeds on this list is based on a weed risk assessment process developed by the NSW Department of Primary Industries which evaluates invasiveness, impacts and potential distribution. This is a 'live' list which can be regularly updated, as new weeds appear and to reflect new knowledge, through a process requiring ratification by Council.

Together with the biosecurity priority weeds lists this is the Council list used by the community to indicate which weed species are of concern and should not be planted in the LGA. It also the reference for which weed trees are exempt from the Tree Preservation Order.

Strategy

The Weed Management Strategic Plan 2019 vision and outcomes have not substantially changed from the 2010 goals and objectives.

Vision

The impacts of weeds upon the natural environment, economy and human health of the Blue Mountains community is understood throughout the community and minimised by integrated programs across all land tenures.

Outcomes

- Minimise the weed threat to the biological diversity of all bushland;
- Protect at-risk threatened species, threatened ecosystems, endangered habitats;
- Manage weeds in accordance with National and State government targets and legislation and regional and local priorities;
- Adopt an integrated approach and address the cause not just the symptoms;
- Improve the effectiveness and efficiency of weed control programs; and
- Achieve a better alignment between community expectations and planned service levels.

Targets

1. Prevent establishment of new weed species;
2. Reduce impacts of existing weeds; and
3. Enhance Council and community capacity to solve weed problems.

Objectives

Strategic objectives (page: 50), based on these targets, have been established to provide a framework to guide the formulation and implementation of actions (Five Year Action Plan, p.51) that deliver on the outcomes.

Sydney Turpentine Ironbark Forest, Endangered Ecological Community, Deanei Reserve (Ian Brown)

Challenges and Opportunities

ISSUE 1: **Conservation Management**

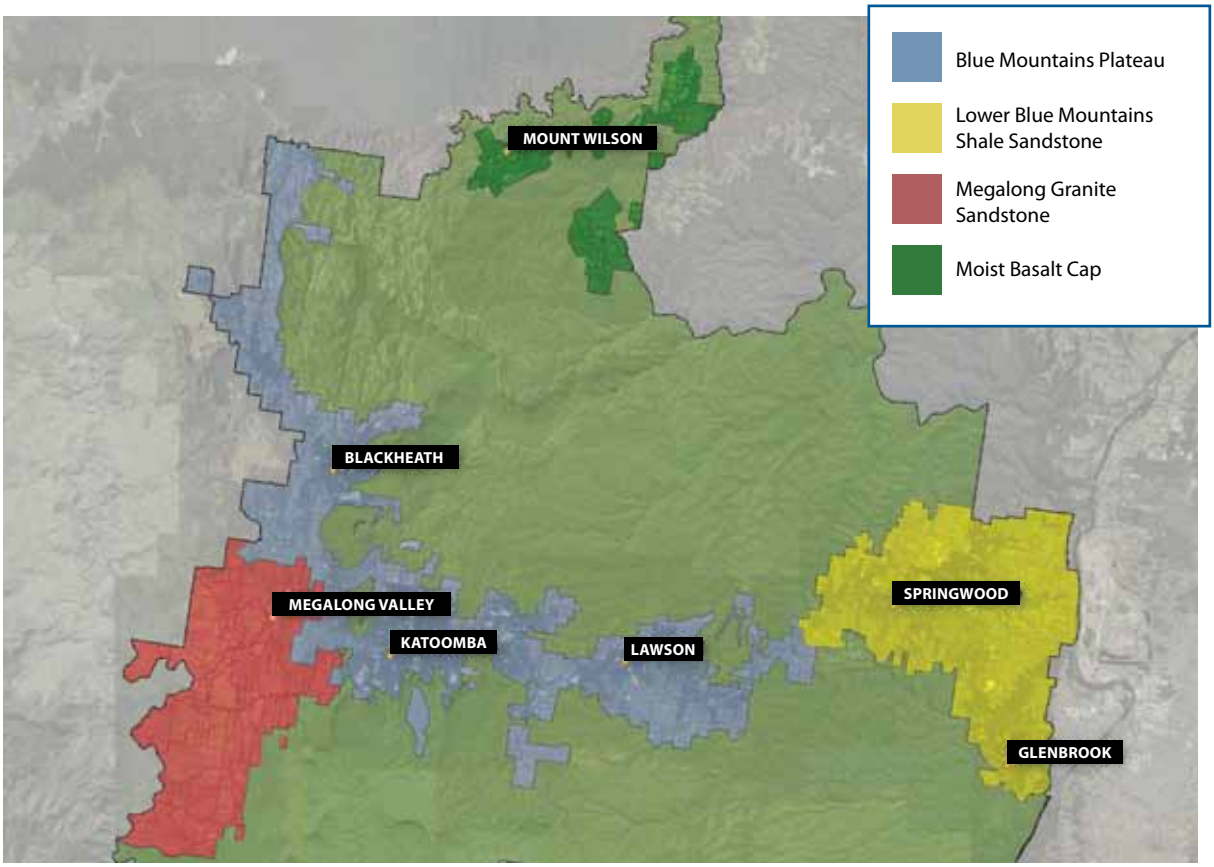
The Blue Mountains Local Government area (LGA) is a biologically rich environment containing many rare and endemic species including eight Endangered Ecological Communities and 86 threatened flora and fauna species. These key conservation assets are linked to the conservation values encompassed by the adjacent World Heritage Area. Council has a responsibility to manage impacts on these assets, including weed invasion, in line with State and Federal biodiversity conservation and weed management targets. This is recognised in the BMCC Community Strategic Plan 2035 by objectives focused on biodiversity protection and management of impacts on the World Heritage Area.

There is significant grant funding available to assist Council and other land managers to contribute to these targets. This funding provides considerable additional capacity to Council's annual weed control and bush regeneration programs to protect target ecosystems and manage strategic weed programs across the City.

There are four conservation landscapes which represent distinct groupings of vegetation types based on similar geological and climatic conditions encompassed within the Blue Mountains LGA.
Each landscape supports distinct conservation values which require protection. The highest priority conservation values are listed in Appendix Four 'Conservation Assets in each Landscape Unit'.

These conservation values are spread across various land tenures including private property, BMCC reserves, reserves managed by adjoining Councils, Crown land and the National Park.
Weed invasion linked to urban runoff and clearing of bushland is a major degrading impact on these assets. A weed strategy which combines comprehensive bush regeneration in high value bushland and target

FIGURE 3: **Conservation Landscape Map**



weed and stormwater control across the wider landscape restores conservation values and minimises on going degrading impacts.

To avoid the different categories of land tenures being an impediment to landscape scale weed control strategies, an integrated program is needed which comprises:

- Community engagement;
- Extension and incentives for target landowners;
- Cooperative works across LGA boundaries, Crown and National Park reserves; and
- Targeting of regulatory programs to control impacts in key areas.

Bushland restoration works target the reserves which represent the highest priority assets in each conservation landscape first. As the condition of these reserves improves to the point of maintenance, new reserves are added to annual works programs. In areas surrounding target reserves, integrated community engagement to conserve connected bushland and regulatory programs to control impacts such as weeds are implemented. This partnership model of integrated, cross-tenure bushland management at a landscape scale is accepted best practice and is favoured by funding bodies.

To be more effective in the Council/community partnership, Community Conservation Program (CCP) volunteers are encouraged to adopt a similar landscape scale focus by working together in catchment or landscape groups.

These groups develop and promote a shared vision for environmental outcomes in a subcatchment. They identify catchment issues and bring together the local Bushcare groups, Council and other local land managers to achieve actions to address these issues. This collaboration empowers the various groups within the target area to influence off site impacts affecting their work and contribute to outcomes beyond their individual sites. Council's urban weeds team works collaboratively with catchment groups to identify common areas of concern and manage weed issues strategically.

ISSUE 2: **Multiple Landowners**

Each sub-catchment in the City is made up of a mix of land tenures in which urban impacts spread from the linear development along the ridgelines downstream into Council reserves and in turn the National Park and Blue Mountains World Heritage areas. Urban density is greatest in the upper catchment around the transport corridor along the main ridgelines. However, every township in the Blue Mountains has extensive areas of private landholdings which interface with bushland.

This interface is another key entry point for weeds into the bushland across the Blue Mountains. Weed issues are primarily generated in the urban areas and spread downslope, along creek systems and through other vectors such as birds (Himalayan Honeysuckle, Boneseed, Lantana and Blackberry) and wind (Pussy Willow) into less intensely developed lands (private properties, Council and Crown reserves) fringing the urban areas and into the National Park. New weed populations then establish wherever suitable conditions exist. In the case of some of the more highly invasive weed species their capacity to establish in near intact systems poses a significant threat to biodiversity and World Heritage values downstream.

In order to provide cost effective weed management, programs need to be integrated across all tenures at a landscape scale to minimise reinfestation and further extension of a range of these highly invasive weed species from untreated areas.

There are several State and Federal Government departments and authorities who manage land within the LGA. Some of these are primarily land managers (National Parks and Wildlife Service (NPWS), Crown lands, Water NSW) who share common land and weed management objectives and responsibilities with Council.

For others land management is only incidental to their primary purpose of providing services and infrastructure (Roads and Maritime Services (RMS) NSW Trains, Integral Energy, Transgrid, Sydney Water, Housing NSW, NSW Department of Education and Department of Defence).

Sixty percent of Environment Protection zoned land is on private property, indicating a significant proportion of the conservation assets of the City are managed by private landowners. One of the largest private landowners in the LGA is the Deerubbin Local Aboriginal Land Council (DLALC) which owns approximately 4000 ha of land within the Blue Mountains Local Government Area.

Council programs encourage private landowners to implement weed control strategies which will reduce impacts on the catchment and protect conservation assets.

As a Local Control Authority under the *Biosecurity Act 2015*, Council has jurisdiction to enforce priority weed control on all these land managers, including State Government Authorities.

Council works with these authorities and others in an ongoing facilitative capacity to maximise weed control outcomes on land under their ownership/management. This collaborative approach has resulted in some positive outcomes for all landholders in recent years. By managing source populations on both private and public land, and ensuring effective weed control along the transport corridor at the top of the catchment, reseeding into clean sites is minimised. As a result, the weed control efforts of all land managers are more effective in the long term.

The Bushland Operations team and individual biosecurity officers working in target sub-catchments are the main vehicles for developing these relationships.

ISSUE 3: **Community Expectations**

The community of the Blue Mountains has a strong interest in the environment which drives Council to place major emphasis on bushland conservation and weed control. Community survey results indicate a high level of concern for protection of the environment and bushland health.

Council is constrained by the limited resources available for bushland and weed management in meeting all weed related Customer Service Requests (CSRs).

Many of these requests indicate a community awareness of weeds, but a tendency is to recognise weed issues only when they directly impact on their property or areas that they access regularly. These easily recognised weed issues are often not a high priority in a strategic sense as they often involve:

- Weed species which will only occur in highly disturbed areas and do not tend to spread far into bushland or have a high impact on public or residential amenity except in an aesthetic sense (i.e. naturalisers);
- Weed populations at the headwaters of creeks and stormwater drainage lines and other disturbed environments on the urban edges of bushland which are absorbing the impacts of urban runoff which would otherwise be penetrating much further into healthy bushland below; and
- Low priority weed species in small remnant patches of bushland which do not represent high value ecological assets, have a low environmental cost/ benefit to treat and weeds are unlikely to spread out of the local area.

Consultation with the Bushcare and conservation community indicates that they expect Council's weed control efforts to be:

- Based on a strategic assessment of conservation assets and weed risk assessment;
- Based on clear priorities with highest priority on key conservation assets in priority subcatchment landscapes, and also provide resource allocation for target weeding across the LGA and responses to community requests;
- Including effective weed education which is focused on addressing key issues and target audiences;
- Responsive to new weeds and unexpected disturbance factors such as fire; and
- Including strategies to reduce obstacles to effective weed management for private landowners.

The major concerns for rural landowners are based on the impacts of specific weeds such as African Lovegrass, Blackberry, Serrated Tussock, Paterson's Curse and St Johns Wort on agricultural production and potential weed spread from neighbouring lands which impacts on their weed control efforts.

Their expectations of Council include:

- Equitable and consistent application of the priority weeds inspection and compliance process;
- Consistent and effective weed control on public land; and
- Access to expert advice and incentive funding to assist with large scale or intractable weed problems on their land.

RESULTS OF BMCC COMMUNITY SURVEYS

Major issues of concern

Results of the 2018 community survey conducted for Council by MICROMEX Research indicate that 'maintaining the natural environment/preservation/ weed control 'is one of the top 5 most important Council services for Blue Mountains residents. The results of all community surveys since the 2010 weed strategy show that these services continue to be key community priorities.

Although the importance of both protection of bushland and weed control has significantly increased, satisfaction with weed control has decreased somewhat since 2010, and since the last survey in 2016. Satisfaction with protection of bushland has increased since both 2010 and the last survey in 2016. This performance gap shows that the level of weed control service in the Blue Mountains is still not meeting community expectations.

It is difficult to determine whether this result is based on community perceptions of Council's weed management alone. It is likely that the community does not differentiate between weeds on Council managed land, private land and public land managed by other agencies, all of which contribute to the weed burden within the LGA (see Figure 5). In fact the level of weed control service being provided by Council has improved significantly over the last 10 years.

The number of properties inspected annually for weeds has increased from 472 properties in 2007–08 to 1706 properties in 2017–18 and the number of Council managed public lands weed control sites has increased from 155 in 2010 to 175 in 2018. Current bushland condition mapping shows that 43% of bushland in reserves is in good condition, 24% is in fair condition and only 23% is in poor condition.

The performance gap may also be a result of increasing community recognition of weeds following weed awareness campaigns implemented by Council and State agencies over the past few years.

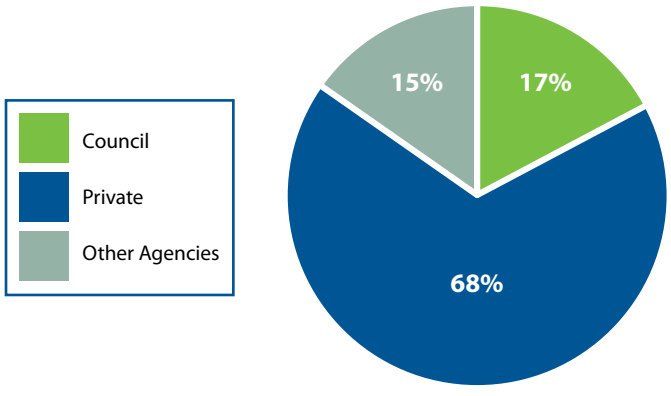


FIGURE 5: **Estimated Breakdown of Land Managed by Various Land Managers Across the Blue Mountains.**

Weeds occur in all these lands, but Council has limited control over weed issues on non-Council managed lands.

CUSTOMER SERVICE REQUEST MANAGEMENT

Over the past five years, Council has received an average of 215 Customer Service Requests (CSRs) directly related to weed control on private and public land annually, which indicates a relatively high level of community concern (average 1.5% of total annual CSRs). A majority of these requests are related to the weeds that are most obvious to people, on road edges and neighbouring properties. Relatively few requests concern the impacts of weeds on bushland health.

ISSUE 4: **Sustainable Weed Management**

Given the limited resources available for weed control in the LGA it is important for Council to maintain the budget focus on strategic, rather than reactive, weed control works, to implement integrated works which will result in long term weed management gains.

Primary weed control, the first stage of clearing weeds from a site, entails high costs for apparently high gains as dense weeds are removed and the site appears to be clean. But if this work is not followed up and maintained in the long term then the weeds quickly re-establish and gains are lost.

Resources can be easily wasted as a consequence of not being strategic in initial investment to target sites where the most benefits can be achieved, or by not allocating on going resources for low level maintenance in the long term (see Case Study : Large scale clearing of weeds).

The level of control gained from the resource input is highly variable. Considerable resources can be channelled into control of a particular weed which is widespread and well established in an area, with no noticeable change in the weed's distribution or environmental impact in the long term.

A high level of long term control can be achieved for the same species, with a substantially lower input of resources, in another area where its distribution is more contained.

For widespread weeds an objective of containment, (i.e. stopping the further spread of the weed) and removal from select areas of high conservation value or public amenity is reasonable.

Widespread species such as Privet and Blackberry often occur in areas that have been heavily modified (not always immediately apparent) by human impacts. As long as these causes of disturbance remain, the weed species will continue to appear and out-compete native species.

Programs to address the causal factors such as stormwater impacts are under way but these programs are expensive and implementation across the whole LGA can only be expected in the long term.

In partnership with local catchment groups and Water NSW, the NSW Environmental Trust and GSLLS, Council's bushland management program has designed and installed several innovative whole of catchment urban stormwater treatments.

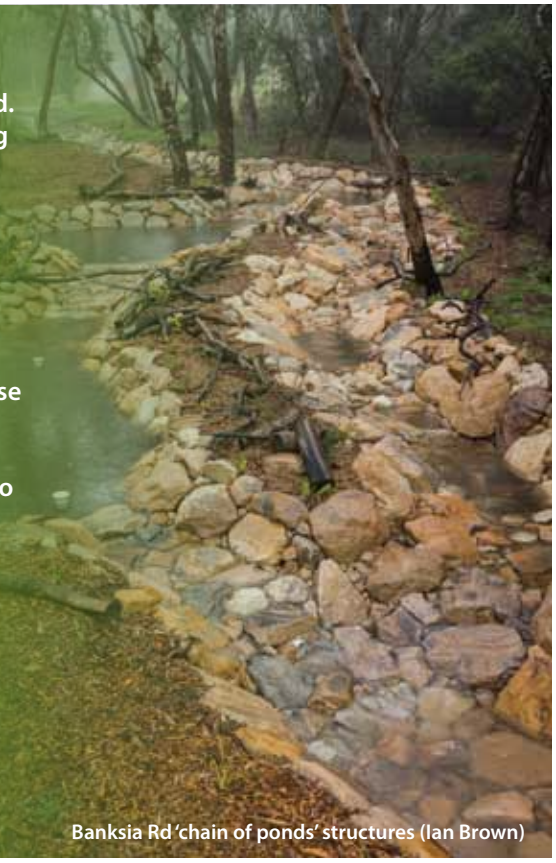
Banksia Road stormwater control structures (Ian Brown). Stormwater exiting pipes onto bushland slopes at high velocity can create erosion gullies which spread sediment downslope. These disturbed areas become ideal weed habitat. Rock lined channels stop the erosion and slow the release of water into downstream bushland. In these conditions native plants can re-establish.

Large volumes of polluted stormwater create weed plumes which can extend many metres into bushland. If these weed plumes are removed without managing the stormwater flows, large scale erosion and further weed spread will follow.

Devices include gross pollutant traps and series of constructed wetlands, pools and rock lined channels which capture and slow runoff, directing flows through the biofiltration systems which mimic the characteristics of natural drainage systems and release clean water back into bushland and creeklines.

The clean water which exits from these structures into bushland does not encourage weed growth as the nutrients have been removed and the volume and velocity which cause erosion have been reduced. Once these structures are in place it is safe to start removing remaining weeds and allow the bushland to re-establish.

These systems help to improve bushland health, reduce weed spread and return creekline environments to pre-disturbance conditions.



Banksia Rd 'chain of ponds' structures (Ian Brown)

Stormwater capture and treatment devices are installed at various source points in the upper catchment in order to slow erosive flows and strip pollutants, such as rubbish, sediment, nutrients, heavy metals and weed propagules from urban stormwater.

Due to the widespread and highly visible nature of common weeds like Privet and Blackberry, Council receives a very high level of customer demand for their treatment. If Council is to ensure that weed control programs maximise the effectiveness of control whilst meeting community expectations, the rationale for strategic targeting of locally significant weeds and sites will need to be effectively communicated.

Council's current weed control programs are funded by a combination of core funds, SV2 funds and grant funding. Council maintains access to grant funding by identifying synergies in our programs with regional government targets to access additional funds for conservation weed control works. It is also important to maintain regional participation in committees and forums to ensure involvement in setting regional targets that can effectively help deliver strong local outcomes. Operational budgets are used as leverage for matching funds provided by State and Federal government programs, thus allowing Council to greatly expand its resource base of environmental funding.

Large Scale Clearing of Weeds

The initial or primary work of controlling weeds currently represents only a small proportion of the total work carried out by Council's Weed Control Teams. This work involves the large-scale removal of mature, usually large, weeds. In bush regeneration this primary work represents as little as 10% of the total works.

The balance and most critical phase of weed control work involves managing the process of secondary succession—or managing plant species that recolonise an area after primary weeds are removed, so that the resultant final stage or climax plant community is representative of and in equilibrium with the surrounding environment.

Privet is a good example. The natural temptation is to cut it down (primary control) on the assumption this is good for the environment, and native plants will recolonise the area. However, the most likely scenario after initial clearing is mass regrowth of more Privet (a dense carpet of up to 800 seedlings/m^2), other aggressive and visually less appealing grasses or weeds, with an occasional seedling native plant.

Secondary weed control involves the long-term process of encouraging these native plant seedlings to dominate the site, whilst controlling the weed species. Primary weed control may take just a few hours, secondary control may take many years, depending on the severity of weed infestations, but will ultimately determine the quantity, quality, and type of vegetation that finally re-establishes itself on a weed-reduced site.

If Council were to invest all of its weed resources in primary control, the Blue Mountains environment would look very different to what we see today. In the short term, up to six months depending on the season and location, the visual impact would be enormous and deceptively positive. Four to five times the area currently managed could be given primary treatment, and the"walls of weeds" seen around the City could be removed.

In the medium term, three months to three years, the 'walls of weeds' would return. Many of the most common weeds such as Privet have seed viability of two or three years. Some weeds such as Scotch Broom have seed viability of up to 80 years. These seeds will remain in the soil after primary weed control and germinate rapidly. Without secondary control these weeds will re-infest the area, often more thickly than the original infestation. In addition, through a process known as weed succession, other aggressive weeds will move in. Bird and wind spread species such as Holly and Lantana and exotic grasses and annual weeds will quickly colonise these disturbed areas.

The long-term impacts of a 'primary work only' approach would be to:

- Promote the further spread of many weed species;
- Increase the density of weed infestations;
- Reduce natural biodiversity of the Blue Mountains, particularly close to houses;
- Reduce the efficacy of priority weeds control programs;
- Reduce Council's capacity to maintain areas in which it has invested years of work;
- Limit Council's ability to respond to Customer Service Requests on a priority weed basis; and
- Increase community expectations on Council to control all weeds.

1. Privet thicket (Paul Vale)

2. Mass Privet seedlings after primary control (Jane Anderson)

3. Native regeneration after 5 years of follow up (Paul Vale)

ISSUE 5: **Weed Management Budgets/Resourcing**

Budgets are the main mechanism that Council uses to translate strategic planning into operational outcomes. Council sources its income from a number of areas which include rates, fees, grants, interest on investments plus a variety of other streams. These revenues are then allocated between Council services via the Council's Resourcing Strategy and the Council's Delivery Program (incorporating the Operational Plan). Budgets are set and voted on by Council each financial year.

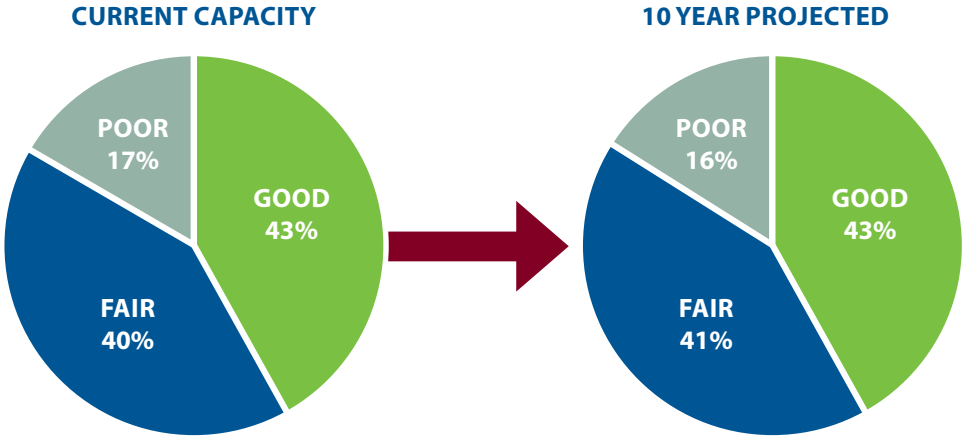
The 10 year Council Resourcing Strategy, including an Asset Management Strategy, was adopted by Council in 2017. It analyses the Councils current and projected financial position and the condition and capacity of council assets to provide the services needed by the City and community. Projected changes in service levels are based on affordable and acceptable levels of service within available resources.

Capacity in Council's natural assets relates to the condition of the ecosystem and its ability to support recreational and environmental services to the community. The better the condition, the greater the capacity in terms of resilience and the ability to act as an environmental sink for stormwater and other urban impacts and to respond to anthropogenic change such as increased frequency of bushfires or other environmental conditions associated with climate change.

Weed invasion is a degrading factor which reduces capacity, as well as a symptom of other threats such as urban stormwater impacts. Weed control and related projects to mitigate stormwater impacts on the natural environment, represent a significant component of natural assets expenditure.

The allocated budget for management of all Council assets over the next 10 years is $1,322,172/year of which $79,708/year is dedicated specifically to Natural Asset management. This is 55% of the funding required to maintain all natural assets in good condition. The average of required funding available for all Council services is 89%. (BMCC Resourcing Strategy 2014–2024). Grants can serve to reduce the funding gap, but are not a guaranteed income source.

FIGURE 6: **Natural Assets Capacity**
Natural Assets Services (wildlife habitat, creeks and drinking water) currently have an annual funding shortfall of $38,172. This is a 45% gap in the funding rrequired to have a healthy, resilient natural environment (resourcing Strategy 2014–2024, BMCC 2014)



GRANT FUNDING

Council natural asset programs achieve significantly greater outcomes than core funding can provide by accessing external grant funding. Various State and Federal government grant programs provide funds to deliver specific environmental outcomes aligned with their natural resource management targets. It is generally a requirement that these funds are matched with cash or in kind contributions from the applicant.

Council applies for grants or enters into grant partnerships with other organisations where grant program targets align with Council's core program outcomes. In this way Council manages to extend its delivery of environmental programs within the Blue Mountains and increase the value of return for rates collected. As these funding sources are dependent on broader political climates, they cannot be relied upon to deliver core Council functions, but are an effective means of building capacity when an opportunity presents itself.

In the past five years (2013–2018) a total of $1,458,019 has been received from external grant programs for noxious weed support and weed/stormwater projects in Council reserves and private lands across the City. In 2006–2010, the five years preceding the previous weed strategy, Council received $1,433,331 in external grants for natural asset management. This record indicates continuing success in accessing grant funds despite a shrinking pool of funds available from funding bodies.

Council's ongoing ability to provide matching funds from its natural assets budgets is critical to this success. The contribution made by Community Conservation volunteers, more than 6,700 hours per year valued at over $268,000 annually, to support public and private weed and bushland management is also a significant factor in Council's success in procuring and delivering grant funded projects'

ISSUE 6: **Priority Weeds**

Council has statutory obligations as a Local Control Authority under the *Biosecurity Act 2015*, to survey, inspect and control priority weeds in order to prevent, eliminate or minimise the risk that these weeds pose. Council follows a strategy which aligns the focus on priority weeds with pre-existing significant projects and sites across the city. In this way the program responds in a supportive role to protect and conserve existing investment in managing high conservation areas and assets from potential Biosecurity Risks that priority weeds can impose, rather than being a sole focus in itself.

PRIVATE PROPERTY INSPECTIONS

Under the *Biosecurity Act 2015*, Council will undertake systematic inspections of properties in targeted localities each year and require particular control actions in relation to any weeds found which are categorised as either State Priority Weeds, Regional Priority Weeds or Local Priority Weeds (see Appendix 2), which have been recognised as a potential risk to human health, the economy or environment for the Blue Mountains LGA. These inspections are carried out at a precinct level in targeted sub-catchment areas with the aims of coordinating landholders to work in unison to control weeds within a similar timeframe. Council will also develop a Weed Management Plan/Biosecurity Undertaking for individual larger or complex sites if required. The Urban Weeds Team currently carries out approx. 3000 inspections annually.

TENURE NEUTRAL PROPERTY INSPECTIONS

Advantages:

- Relatively low cost to Council;
- Reduction of weed spread from private onto public lands;
- Improved amenity and appearance of townships;
- Ability to clean up absentee-landholder properties;
- Applicable to any weed that poses or has the potential to pose a biosecurity risk;
- Ability to specify approved control method to protect Endangered Ecological Communities; and
- Community education and awareness benefits, as landholders receive substantial information booklet (currently equivalent of 10 x A4 pages of information) on weed identification, controls, herbicides, sensitive vegetation communities and a list of professional weed control contractors.

Limitations:

- High administrative inputs as part of the inspection process;
- For purposes of equity, Council land must be relatively weed free or have control programs in place before Council can issue notices to residents to control weeds in the targeted locality;
- Cost and time impost on residents; and
- Possible hazard and minimal control of techniques or chemicals actually used by residents or contractors to control weeds.

	2013/14	2014/15	2015/16	2016/17	2017/18
Total number of inspections	1840	2091	3716	4674	3331
Percentage of voluntary compliance	89.5%	91.3%	94.8%	91.7%	95.2%

ISSUE 7: **Climate Change**

Limited data is available on the specific impacts climate change will have on invasive species. All plants are restricted within climate envelopes, so any shift in climate will affect the distribution of that plant. This will clearly have an effect on our agricultural lands, gardens, native ecosystems and of course weeds. It is therefore crucial to continue seeking a better understanding of the relationship between climate change and the impact on long term vegetation management.

As a rough guide, species living in warmer climates are expected to move southward or upwards in altitude, and cooler climate species are likely to contract. Within the Blue Mountains this may see species such as Lantana moving up to higher parts of the mountains where it currently does not exist. Conversely we may see a reduction in the range of typical upper mountains weeds such as Holly.

Species which are currently classed as naturalised in the area but not invasive may become an emerging threat as changing habitat conditions favour their dispersal and establishment. South-east Australia, including our region, has been identified as a potential hotspot for this sort of transformation. (Duursma et al, 2013).

The Blue Mountains City Council Climate Change Risk Assessment (2009) considers that the area will experience an increase in extreme weather events such as bushfires, droughts and flash flooding. The disturbance to ecosystems that these events will create is likely to encourage weed species, which are often much better colonisers than their native counterparts. Weeds may become an even greater threat to biodiversity in more stressed and vulnerable natural systems.

Climate change may also increase the threat of species not yet present in the Blue Mountains. The area is located between the Sydney basin and the western slopes farming land. This places our LGA in a strategic location to halt the spread of weeds potentially moving in either direction.

Patterns of weed distribution and expansion are based on the location of source populations and suitable dispersal mechanisms. Council's weed control programs have a high focus on location and control of emerging or limited distribution weeds which have the potential to expand under predicted climate change scenarios. The methodology locates source populations of high risk emerging weeds, maps potential dispersal pathways, and applies intensive control to all populations in the target area to prevent spread into expanding suitable habitat (see Case Study—African Olive, an emerging climate change invader).

African Olive—An Emerging Climate Change Invader

African olive is an aggressive woody weed that invades native bushland, creating a dense shady canopy that excludes the growth of native understorey plants and can affect the local fauna by changing the vegetation structure and fruit availability. It is also a vigorous invader of pasture.

The rapid expansion of African Olive in the Camden/Campbelltown area from the 1980s has resulted in a 78% reduction in native understory plant richness in the endangered Cumberland Plains Woodland community.

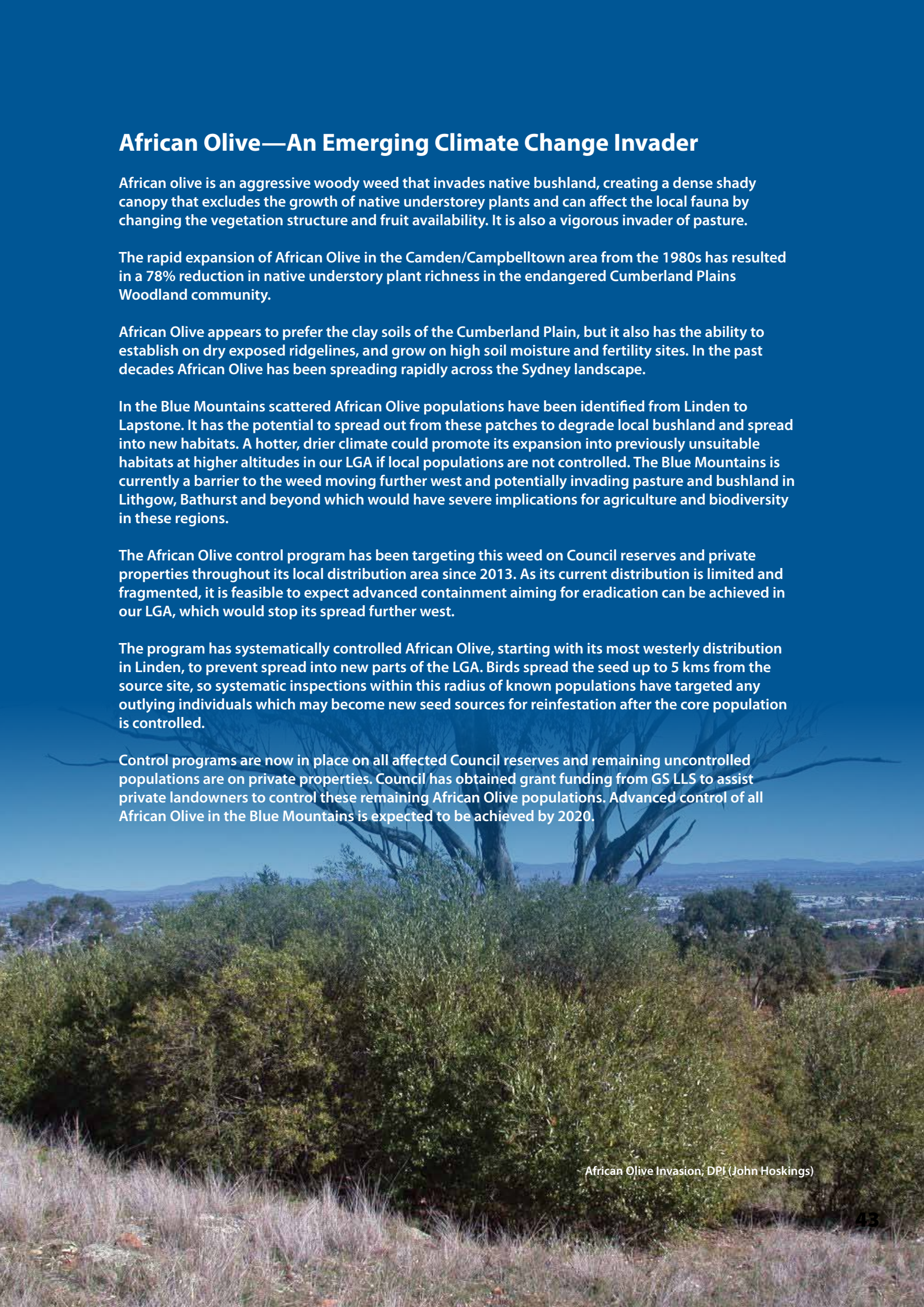
African Olive appears to prefer the clay soils of the Cumberland Plain, but it also has the ability to establish on dry exposed ridgelines, and grow on high soil moisture and fertility sites. In the past decades African Olive has been spreading rapidly across the Sydney landscape.

In the Blue Mountains scattered African Olive populations have been identified from Linden to Lapstone. It has the potential to spread out from these patches to degrade local bushland and spread into new habitats. A hotter, drier climate could promote its expansion into previously unsuitable habitats at higher altitudes in our LGA if local populations are not controlled. The Blue Mountains is currently a barrier to the weed moving further west and potentially invading pasture and bushland in Lithgow, Bathurst and beyond which would have severe implications for agriculture and biodiversity in these regions.

The African Olive control program has been targeting this weed on Council reserves and private properties throughout its local distribution area since 2013. As its current distribution is limited and fragmented, it is feasible to expect advanced containment aiming for eradication can be achieved in our LGA, which would stop its spread further west.

The program has systematically controlled African Olive, starting with its most westerly distribution in Linden, to prevent spread into new parts of the LGA. Birds spread the seed up to 5 kms from the source site, so systematic inspections within this radius of known populations have targeted any outlying individuals which may become new seed sources for reinfestation after the core population is controlled.

Control programs are now in place on all affected Council reserves and remaining uncontrolled populations are on private properties. Council has obtained grant funding from GS LLS to assist private landowners to control these remaining African Olive populations. Advanced control of all African Olive in the Blue Mountains is expected to be achieved by 2020.



African Olive Invasion, DPI (John Hoskings)

ISSUE 8: **Community Engagement and Partnership**

Weed control programs cannot be successful unless the majority of landowners and managers in the target landscape participate to protect native habitats, reduce urban runoff and prevent reinfestation from uncontrolled weed populations. Community engagement and education programs inform and train the community to build this capacity.

ENVIRONMENTAL LEARNING AND ENGAGEMENT PROGRAMS

A key focus of the program is on healthy waterways and catchments. The team is working collaboratively across Council to help deliver on the Water Sensitive Strategic Plan.

Environmental Education has a general overview about environmental protection, and also runs targeted and specific programs about waterways restoration and biodiversity protection including weed management.

Information is made available via Council's website and social media channels, brochures, posters, events, advertisements and articles in local media and the Bushcare newsletter.

The program includes:

- Connecting Kids, Creeks and Catchments is a hands-on environmental learning program, developed by Council and run in partnership with local schools and Early Years Learning Centres (EYLCs). Through hands on, experiential learning tailored to schools needs and the curriculum, students learn about what's special about their local area, threats to the local environment, and kids come up with plans to protect their local area; and
- Connect with Nature program designed to get children and young people outside.

Bushcare and Landcare volunteers working together to improve creekline habitats in South Leura (BMCC Bushcare)

COMMUNITY CONSERVATION PROGRAM

In 1992, BMCC introduced a Bushcare program to support volunteer groups regenerating bushland in public reserves. Since 2001 a range of other Council supported community conservation programs have developed in which volunteers monitor water quality in creeklines, restore bushland on private land and rehabilitate tracks in natural areas.

Under the collective program area of the Community Conservation Program (CCP), these community networks take part in on-ground environmental management of natural and built assets throughout the City. CCP represent a significant investment in social capital, returning substantial economic and environmental benefits to the Blue Mountains community and the Council organisation through the collective actions of conservation volunteer networks in partnership with Council.

A summary of CCP contributions from 2009–2014 indicates that together CCP contributes over 11,000 hours annually, valued at $330,000, to land management in natural areas within the City.

Bushcare and Landcare

Bushcare is our program for the restoration of bushland reserves (Bushcare) and bushland on private lands (Landcare) by groups of volunteers, under the guidance of a Bushcare Officer. The primary focus of the program is weed control based on bush regeneration principles, but Bushcare and Landcare groups also participate in stormwater control works, erosion control works, track maintenance and improvement, seed collection, plant propagation, public education, and other bushland management activities.

The BMCC Bushcare program has been supporting community volunteers working in bushland on Council land since 1992. In 2001 the program was expanded to include groups working on high value bushland on private land (Landcare). Remote Bushcare events were added to the program in 2003 and regular Swampcare groups started in 2007.

There are currently 58 Bushcare and Landcare groups supported by Council. This is a significant expansion from 37 groups in 2001. This is the result of continuing high demand from the community to start new Bushcare groups on Council managed land and the expansion of the program to encompass Landcare groups working on high conservation value private lands. There is at least one Bushcare or Landcare group in 20 of the 27 towns in the LGA.

Each year an average of 5,500 hours are spent on Bushcare projects by our 340 active volunteers. An additional 1,200 registered volunteers receive regular Bushcare communications and participate in some Bushcare activities. As well as on-ground hours, many volunteers contribute additional time photographing and monitoring their sites, assisting with grant project management and reporting, conducting fauna and flora surveys and other services which add value to Council bushland management programs.

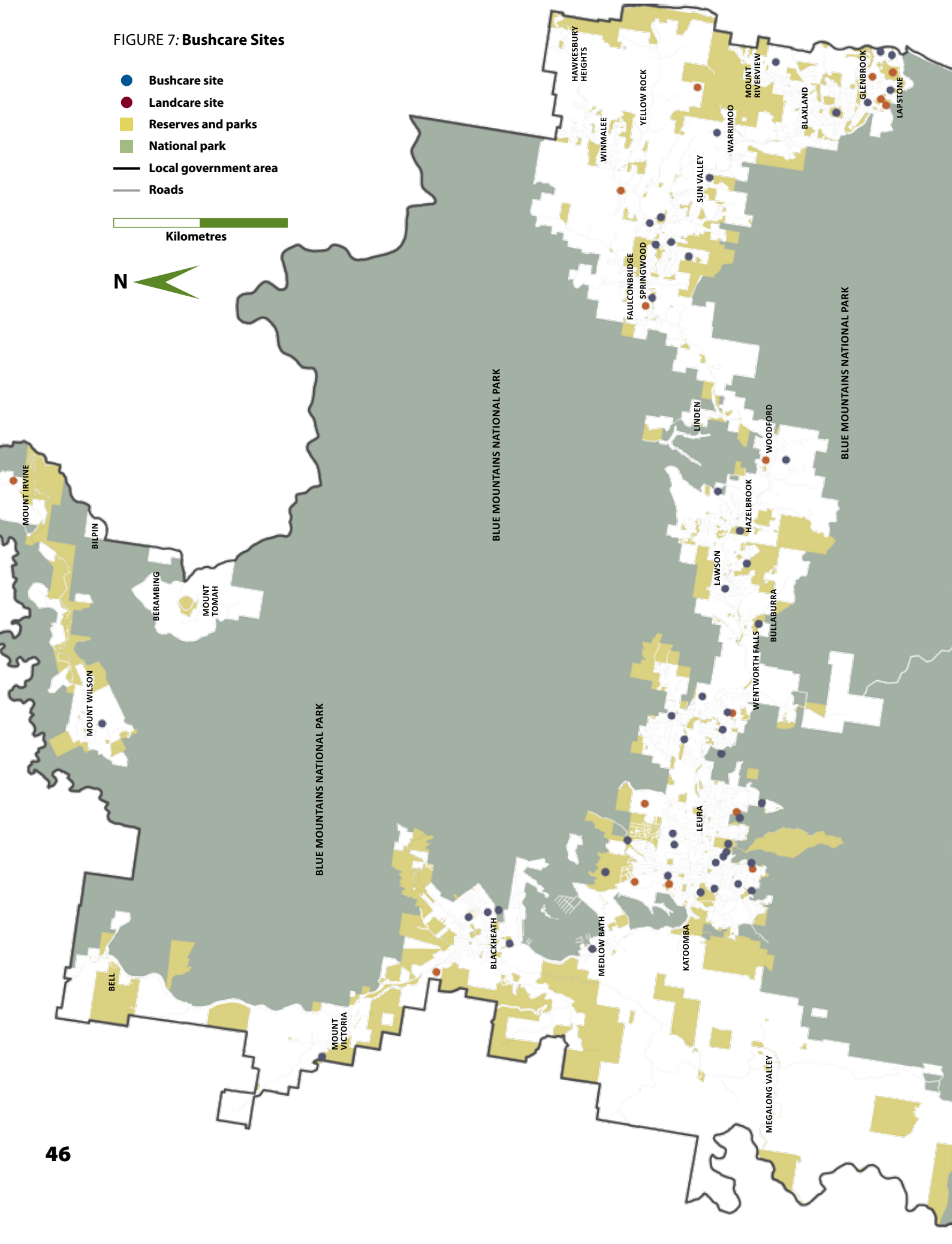
Benefits to Council and the community include:

- Achieving conservation outcomes by site remediation;
- An increased level of awareness of bushland management issues among the community;
- Sharing the responsibility of bushland management between Council and the community;
- A pathway for community views to be effectively fed back into Council;
- Improved quality of community life through increased social interaction and sharing of information; and
- The development and implementation of bushland management strategies which have strong community commitment and content.

As well as supporting the on ground work of volunteers the Bushcare program delivers a range of educational tools to increase weed awareness and support sustainable weed management. These include:

- Gecko, Bushcare newsletter;
- Weeds website;
- Weeds book; and
- Social media re weeds etc.

FIGURE 7: **Bushcare Sites**



Bush Backyards

Bush Backyards is a habitat conservation network for individual landowners who have made a commitment to manage their property to protect, enhance and improve native plant and animal habitat. An underlying principle is that people manage their own properties. Participants may include schools, commercial properties, farmland, residential landowners and others.

Bush Backyards participants receive support from Council to assist with developing and implementing strategies to deal with land management problems, such as weeds and stormwater. They may also be provided with material support such as local indigenous plants, erosion control materials and assistance to access State or Federal grant funding to deal with large or intractable problems where appropriate.

By controlling weeds and other degrading impacts on their land, Bush Backyards participants contribute to reducing the weed burden in urban areas and protecting their catchment.

In 2017–18 there were 52 Bush Backyards members in the City, managing 233 ha of bushland for conservation.

Open Space and Recreation Services

City Presentation runs a number of Park and Town Centre volunteer groups who receive ad-hoc support from Council for volunteer activities to conduct improvement works such as weed control and planting in their local parks. These groups are set up under Councils Volunteers policy as either a Volunteer Association or Volunteer Organisation.

The groups generally provide their own equipment, tools and materials. Council supports their activities by picking up rubbish generated by the volunteer groups and providing mulch when requested. These groups are not supported with an officer present during their working activities, although all work activities are reviewed and a risk assessment conducted prior to entering into an agreement. On occasion Council has also provided staff to support larger organised events, but these are not a common occurrence.

MANAGING *NGURRA* (COUNTRY)

The Council in partnership with Traditional Owners and the Aboriginal community is developing innovative programs to continue holistic approaches to managing their *Ngurra* inclusive of parts within Country, considered as natural areas. This management approach also gives priority to the management of area in *Ngurra* considered to hold high cultural significance to local Aboriginal communities.

Looking after *Ngurra* is a central matter for Traditional Owners and the Aboriginal Community in the Blue Mountains Local Government Area which is reflected throughout 'Pathways' the Aboriginal Advisory Council Strategic Plan and Gundungurra *Ngalaa-manyan Ngurra*, The Gundungurra ILUA Strategic Plan.

Through these key Traditional Owner and Aboriginal community led strategies and the objectives of the Councils Community Strategic Plan (CSP) a number of important initiatives have been identified that seek to restore the health and balance of *Ngurra* that align with this strategy.

Connecting to Country Program

The Connecting to Country program has been developed to enable opportunities for Darug and Gundungurra People, as well as other Aboriginal people living in the Blue Mountains, to continue their holistic relationship to *Ngurra* (Country). This holistic approach aims to assist Traditional Owners and the Aboriginal community with physical, social, cultural, economic and importantly spiritual outcomes 'On-Country'.

'On Country' activities that may occur in natural areas could include:

- Facilitating Bushcare or similar groups focused specifically on looking after Country;
- Educational events with a focus on Traditional Owner/Aboriginal culture and their continuous relationship to Country;

Council facilitates Traditional Owners and the Aboriginal community working on Country through support of Bushcare groups such as the Garguree Swampcare group winners of the Rio Tinto NSW Indigenous Land Management Award in 2017.

- Education/capacity building events to build awareness and inclusive relationships between Traditional Owners and Council staff managing Country (e.g. Visiting Country program);
- Facilitating agreements on sustainable natural resource collection for traditional practice and/or replacement of traditional economies; and
- Agreed mutual activities and or co-management agreements that focus on the management of Country including protecting significant tangible and in-tangible Aboriginal Cultural Heritage therein.

It must be noted that any activities that occur 'On-Country' through the Connecting to Country program will be undertaken in close consultation with and agreement of the Traditional Owners and the Aboriginal Advisory Council.

The Gundungurra Indigenous Land Use Agreement (ILUA) and Co-management

The Gundungurra Indigenous Land Use Agreement (ILUA) is a binding, contractual agreement between the Gundungurra Traditional Owners, the State Government and the Council under the *National Native Title Act 1993*. More than this though, the Gundungurra ILUA is a formal recognition of the Gundungurra Traditional Owners deep ongoing relationship with their *Ngurra* within the ILUA Agreement Area including south of the Great Western Highway in the Blue Mountains LGA.

The ILUA is delivered through an alternate and consultative regime which provides Council with a clear, practical, transparent and functional mechanism for meetings its obligations under the *National Native Title Act 1993*. BMCC managed Crown Land in the ILUA (Schedule G) includes over 167 portions of land, ranging from community buildings, sports ovals, parks and bushland areas. Though weed management generally is addressed through the alternative regime, there are opportunities through the Gundungurra ILUA Consultative Committee to consider activities that address culturally based responses to weed management.

The Gundungurra ILUA Consultative Committee have also developed *Gundungurra Ngalaa-manyan Ngurra* (We remain on Gundungurra Country) a strategic plan which considers the management of *Ngurra* by the Gundungurra Traditional Owners with Land and Water Management Parties to the ILUA. *Gundungurra Ngalaa-manyan Ngurra* considers ways to assist Gundungurra Traditional Owners to continue their relationship with *Ngurra* and achieving beneficial outcomes for Gundungurra People and their Country. Through seeking to restore the health and balance to *Ngurra*, the Weed Management Strategic Plan aligns with the actions of *Gundungurra Ngalaa-manyan Ngurra*.

As recognised in the CSP, the Council is further seeking to engage with and build the opportunity for co-management arrangements with the Darug Traditional Owners to manage their Country in the LGA. It is envisaged that weed management to restore the health of *Ngurra* would also be considered through co-management relationships.

Aboriginal Places

Aboriginal Places (APs) provide legal protection under the *NSW National Parks and Wildlife Act 1974*, in places deemed to hold significant cultural values to Aboriginal people and determined by the NSW State Minister, on public and private land. Plans of Management are required for APs that ensure longer-term cultural, access and management needs are met while also enhancing the values of the site and mitigating potential adverse impacts.

There are a number of APs on or adjacent to Council managed land including The Gully, part of Kings Tableland and The Three Sisters next to Echo Point, being a world famous tourist destination managed by Council.

The Gully was the first site to be gazetted as an AP in the Blue Mountains and is now managed through a Co-operative Management Agreement between the Council and the Gully Traditional Owners (GTO). Through the Gully Cooperative Management Committee (GCMC) a range of land management matters are considered for the Country in the Gully, seeking to restore that part of Country while upholding cultural values. Weed management also features as a key aspect of work undertaken in The Gully as endorsed by the GCMC.

ISSUE 9: **Integration with Relevant National and State Targets**

Coordination of Councils weed strategy with national and state targets ensures that our weed control efforts fulfil our statutory responsibilities and are integrated with regional priorities to facilitate participation in cooperative weed control projects and access to funding.

TABLE 3: **INTEGRATION OF BMCC WEED STRATEGY WITH NATIONAL AND STATE TARGETS**

	PREVENTION	ERADICATION/ CONTAINMENT	ASSET PROTECTION	CAPACITY BUILDING
AUSTRALIAN WEED STRATEGY	GOAL 1: Prevention, detection and early intervention		GOAL 2: Minimise the impact of established weeds	GOAL 3: Enhance Australia's capacity and commitment to weed management
NSW INVASIVE SPECIES PLAN	GOAL 1: **Exclude** — prevent the establishment of new invasive species	GOAL 2: **Eradicate or contain** —eliminate or prevent the spread of new invasive species	GOAL 3: **Effectively manage** — reduce the impacts of widespread invasive species	GOAL 4: **Capacity building** — ensure NSW has the ability and the commitment to manage invasive species
BMCC WEED STRATEGY	TARGET 1: Prevent establishment of new weed species		TARGET 2: Reduce impacts of existing weeds	TARGET 3: Enhance Council and community capacity to solve weed problems
OBJECTIVES	OBJECTIVE 1: Prevent introduction and establishment of high risk weeds **1.1** Implement Local Weed Alert and Emerging Weeds monitoring **1.2** Mitigate risk of new weed introductions **1.3** Prevent spread of existing populations of emerging high risk weeds		OBJECTIVE 2: Protect high value assets and community values from the impacts of widespread weeds **2.1** Protect key conservation values in each conservation landscape **2.2** Manage wide-spread weeds in urban areas to protect public and community assets	OBJECTIVE 4: Expand Council's capacity to manage weed issues **4.1** Access increased resources for weed management **4.2** Expand weed management skills of Council staff **4.3** Increase effectiveness of Council weed management programs
			OBJECTIVE 3: Reduce the impacts of high impact wide-spread weeds where benefits of control are the greatest **3.1** Identify target weed species based on risk and tracked distribution **3.2** Allocate resources to control target species where costs/ benefits are greatest	OBJECTIVE 5: Maintain and expand community motivation and capacity to contribute to weed management **5.1** Motivate private landowners to proactively manage weeds **5.2** Develop opportunities for community involvement **5.3** Maintain and expand on existing volunteer networks **5.4** Work in partnership with Traditional Owners and Aboriginal communities to care for Country

Implementing this Strategic Plan

This Action Plan will guide Council implementation of the Weed Management Strategic Plan over the next five years. Actions will be regularly monitored against performance indicators and a final report will be provided to Council and the community in 2024.

TABLE 4: **FIVE YEAR ACTION PLAN 2019–2024**

STRATEGIC OBJECTIVE	ACTION	RESPONSIBILITY	PERFORMANCE INDICATOR	SOURCE
THEME: **PREVENT** TARGET 1: Prevent establishment of new weed species OBJECTIVE 1: Prevent introduction and establishment of new weeds				
1.1 Implement Local Weed Alert and emerging weeds monitoring				
a) Maintain currency of high risk weed list	Keep list current based on Regional Alert list and local emerging weeds identified Implement process to verify and map new sightings	Urban Weeds	Local high risk weed list reflects current information and distributions	Existing program
b) Ensure relevant staff and community have access to list and necessary identification skills	List circulated to relevant staff, industry and community networks Training on identification and reporting provided to staff		Relevant staff and community skilled in identification and reporting of high risk weeds	Existing program
1.2 Mitigate risk of new weed incursions				
a) Identify high risk pathways	Review/update high risk pathways	Urban Weeds	Local pathways identified and current	Existing program
b) Implement barriers to mitigate risks	Review as required and implement processes to target high risk pathways Review as required and implement education program for relevant industry, community and staff (media, industry and staff workshops/meetings) Review and implement appropriate hygiene protocols and circulate current protocols to relevant staff and industry		Combination of regulatory processes and education program effectively identifies and manages any new high risk weed introductions	

TABLE 4: **FIVE YEAR ACTION PLAN 2019–2024** (cont.)				
STRATEGIC OBJECTIVE	**ACTION**	**RESPONSIBILITY**	**PERFORMANCE INDICATOR**	**SOURCE**
1.3 Prevent spread of existing populations of emerging high risk weeds				
a) Prioritise and map distribution in LGA	Maintain and update existing mapping	Urban Weeds		Existing program
b) Implement integrated control programs	Continue control of known populations & monitor for efficacy Ensure staff capacity to respond to new incursion in a timely manner	Natural Area Management		Existing program + grants
	Review priority weed lists for inclusion of high risk weed species to ensure control can be enforced on non-Council lands	Natural Area Management/ Urban Weeds		Existing program
THEME: **PROTECT** TARGET 2: Reduce impacts of existing weeds OBJECTIVE 2: Protect high values assets and community values from the impacts of widespread weeds				
2.1 Protect key conservation values in each conservation landscape				
a) Identify and prioritise key flora and fauna values in each landscape which are impacted by widespread weeds	Identify and prioritise scheduled vegetation units in each landscape impacted by widespread weeds Primary focus of annual weed control programs is on high priority subcatchments	Natural Area Management	Cross tenure weed control programs reduce impacts on identified key conservation values in each landscape	Existing program (in place)
b) Implement subcatchment programs for control of widespread weeds focused on the locations of identified high priority conservation values.	Co-ordinate subcatchment programs with other land owners to protect conservation values	Natural Area Management		Existing programs + grants
c) Protect land zoned for conservation (E2) from weed invasion	Prepare BMCC Encroachment Policy	Environment Planning	Policy adopted	Existing program
	Consider mechanisms to prevent clearing and planting of exotics in E2 on public land	Compliance and Specialists Services	Mechanism identified and appropriate work response in place	
2.2 Manage widespread weeds in urban areas to protect public and community assets				
a) Identify and prioritise weed issues affecting key public safety and access issues and infrastructure for control of widespread weeds	Determine key issues and rank priorities	Natural Area Management	Urban weed issues identified and appropriate work responses determined	Existing program (in place)

TABLE 4: **FIVE YEAR ACTION PLAN 2019–2024** (cont.)				
STRATEGIC OBJECTIVE	**ACTION**	**RESPONSIBILITY**	**PERFORMANCE INDICATOR**	**SOURCE**
2.2 Manage widespread weeds in urban areas to protect public and community assets (cont.)				
b) Allocate CSR resources to control of widespread weeds in urban areas based on identified priority issues	Determine work response allocation based on priorities Listed priorities to be used as basis for CSR responses and weed related infrastructure maintenance	Urban Weeds/ Natural Area Management	Weed management resources in urban areas are managed to address highest priority infrastructure and public safety and access issues	Existing program
Allocate weed management resources related to urban infrastructure maintenance based on identified priorities		Natural Area Management		
OBJECTIVE 3: Reduce the impacts of high impact widespread weeds where benefits of control are the greatest				
3.1 Identify target weeds species based on risk and track distribution				
a) Identify and prioritise target weeds based on impacts on local ecosystems, agricultural productivity and threats to human health	Use NSW Weed Management System to prioritise weed species based on risks and feasibility of control	Natural Area Management/ Urban Weeds	Target weeds programs prioritised according to risk and feasibility of control, and distributions mapped	Existing program (in place)
b) Maintain and update weed mapping to track distributions of widespread target weeds	Regularly update distribution mapping of selected target weeds and locations	Natural Area Management/ Urban Weeds		Existing program
3.2 Allocate resources to control of target species where costs/benefits are the greatest				
a) Maintain primary focus on strategic landscape-scale weeding programs for most effective outcomes and conservation benefits	Maintain primary weed management budget allocation to subcatchment programs	Natural Area Management	Target species distributions effectively reduced to protect key assets	Existing programs + grants
b) Prioritise other target weeding programs outside priority subcatchments according to distribution and impacts in specific catchments	Prioritise target weeds programs to species and locations where NSW Weed Risk Management system scores indicate highest priority Utilise WoNS decision support tools (e.g. The Lantana Plan) where available to inform priorities	Natural Area Management/ Urban Weeds		
c) Respond to changed conditions —Allocate resources to respond to unexpected disturbance events resulting in high risk weed issues	Create contingency to respond to unexpected disturbance events by identifying lowest priorities in annual weed programs that can be delayed and resources reallocated	Natural Area Management/ Urban Weeds	Weed expansion following unexpected disturbance events reduced	Existing program (in place)
d) Prioritise CSR responses (Weeds categories) based on weed risk, feasibility of control and biosecurity responsibilities	Process formulated to guide Weeds CSR responses based on categories of weed risk assessment and biosecurity responsibilities	Natural Area Management/ Urban Weeds	Transparent, consistent process ensures CSR resources allocated for highest cost/ benefit	Existing program (in place)

TABLE 4: **FIVE YEAR ACTION PLAN 2019–2024** (cont.)				
STRATEGIC OBJECTIVE	**ACTION**	**RESPONSIBILITY**	**PERFORMANCE INDICATOR**	**SOURCE**
THEME: **CAPACITY BUILDING** TARGET 3: Enhance Council and community capacity to solve weed problems OBJECTIVE 4: Objective: Expand Council's capacity to manage weed issues				
4.1 Access increased resources for weed management				
a) Maintain Council participation in grant programs to maintain investment in public and private land across the City.	Maintain and develop regional participation and partnerships Identify synergies between Council programs and biodiversity and weeds grantprogram targets to maximise opportunities to source existing funds	Natural Area Management/ Community Conservation	High priority strategic programs are supported by additional funds	Existing program (ongoing)
b) Develop cross-agency relationships to expand co-operative projects which increase investment in weed control across LGA and direct flow on benefits to management of Council land	Maintain and develop partnerships with key agencies (National Parks, RMS, Sydney Trains, Sydney Water, Water NSW) through weeds committees and personal contact Involve agencies in cross tenure subcatchment projects	Natural Area Management/ Community Conservation	Cross tenure projects improve weed control outcomes across LGA	Existing program (ongoing)
4.2 Expand weed management skills of Council staff				
a) Facilitate staff participation in industry training and workshops	Identify skill development opportunities in staff performance reviews (PPRS) Budget for staff skills development	All staff	Weeds staff increase skills and keep abreast of current best practice weed management	Existing program
b) Encourage skills and knowledge exchange between relevant teams to reduce degrading impacts and weed spread and improve weed management across all Council branches with land management responsibility	Define internal target audience and knowledge gaps Conduct internal workshops/ training for staff as required	All staff	All staff with some impact on weed management develop increased weed knowledge and skills	Existing program
c) Plan for weed staff development and succession	Maintain conservation-based traineeships Staff mentoring in strategic program design & implementation	Natural Area Management/ Urban Weeds	Skilled workforce maintained	Existing program
4.3 Increase effectiveness of Council weed management programs				
a) Monitor outcomes	Staff training in Monitoring, Evaluation, Reporting and Improvement (MERI)	Natural Area Management	MERI processes in place, and used to inform and improve current and future work plans	Existing program
b) Improve flexible delivery/ adaptive management to address emerging issues	Monitoring outcomes used to inform future works programs	Natural Area Management		

TABLE 4: **FIVE YEAR ACTION PLAN 2019–2024** (cont.)				
STRATEGIC OBJECTIVE	**ACTION**	**RESPONSIBILITY**	**PERFORMANCE INDICATOR**	**SOURCE**
OBJECTIVE 5: Maintain and expand community motivation and capacity to contribute to weed management				
5.1 Motivate private landowners to proactively manage weeds				
a) Increase community awareness of local weed issues	Review and assess weed education and communication strategy Implement target weed education activities to address local issues and demographics (e.g. Bushcare and Swampcare special events; Garden Club attendance) Maintain and develop communication tools—Weeds of Blue Mountains Bushland booklet, Bushcare and Weeds websites and social media	Community Conservation/ Healthy Waterways/ Communications and Public Relations	Increased community understanding of weed issues and management practices results in more effective weed management on private land	Existing program
b) Increase community understanding of Council's strategic weed management programs and resource allocation priorities	Implement Weeds Communication Plan 2018 (see Appendix 5) Publicity & education programs to explain Council's strategic weed management & resource allocation priorities and highlight successes Explain Council strategies on Council/Weeds website Publicise progress on weed management in regular bulletins to media/interest groups Inform residents of relevant sections of this strategy	Community Conservation/ Healthy Waterways/ Communications and Public Relations	Increased community understanding of weed issues and management practices results in more effective weed management on private land	Existing program
c) Address obstacles to landowner weed control	Maintain resident weed support service to improve weed management skills	Community Conservation/ Urban Weeds	Improved landowner skills and support results in more effective weed management on private land	Existing program
	Investigate pilot program to provide assistance to private landowners to manage impacts of stormwater easements on their land	Environment Planning Natural Area Management	Improved management of erosion and weeds in easements on private property	Grant funding
d) Effective application of biosecurity regulation	Private land biosecurity inspections include extension to improve landowner weed management skills Equitable enforcement of regulatory process	Urban Weeds	Increased effectiveness of landowner weed management efforts Improved cross tenure weed management Effective control of target species (all landowners treat target weeds in focus areas)	Existing program (in place)
	Implement inspection and education program with nurseries in LGA		No priority weeds for sale in local nurseries	

TABLE 4: **FIVE YEAR ACTION PLAN 2019–2024** (cont.)				
STRATEGIC OBJECTIVE	**ACTION**	**RESPONSIBILITY**	**PERFORMANCE INDICATOR**	**SOURCE**
5.1 Motivate private landowners to proactively manage weeds (cont.)				
e) Development and implementation of incentive programs to encourage sustainable weed and biodiversity outcomes	Provide targeted extension and support services to private landowners (Resident Weed Support/ Bush Backyards) Facilitate private landowner access to State and Federal weed management grants	Community Conservation/ Urban Weeds	More effective weed management on private lands in key locations	Existing program
f) Utilise the development assessment process to identify and control existing and future weeds on development sites	Require weed control as part of development consent conditions Emphasise the use of local native and non-invasive species in landscaping plans	Development & Building Services	Increased community understanding of weed issues and management practices results in more effective weed management on private land	Existing program
5.2 Identify and develop opportunities for community involvement				
a) Target beyond traditional volunteer base	Targeted workshops to engage wider community Weed focus in Environment Events	Community Conservation/ Healthy Waterways	More community involvement in conservation and weed manage-ment programs	Existing program + grants
b) Incorporate weed themes into regular City-wide Events				
c) Encourage community partner-ships in relevant projects	Identify opportunities for community partnerships in relevant projects	Community Conservation/ Healthy Waterways		
d) Involve community experts in consultation to inform local control targets	Develop catchment group model to provide opportunities for volunteer groups and experienced individuals to provide input into design and implementation of local programs	Community Conservation	Local projects more effective	Existing program (in place)
	Review Megalong Valley Weed Management Operational Plan in consultation with rural landowners			Existing program
e) Support the formation of new Bushcare and Landcare groups	Implement revised Bushcare and Landcare model (CCP Plan 2014) to resource support of new groups	Community Conservation		Existing program
5.3 Maintain and build on existing volunteer networks (Bushcare, Bush Backyards etc.)				
a) Continue Council's com-mitment to the CCP program	Provide sufficient resourcing to sustain the CCP program	Environment Branch	Existing networks maintained	Existing program
b) Implement CCP Plan to expand opportunities to increase participation in the Bushcare program	Implement CCP Plan 2014 and Bushcare Manual 2018 to allow organisation to facilitate additional groups and capacity building	Community Conservation		

TABLE 4: **FIVE YEAR ACTION PLAN 2019–2024** (cont.)				
STRATEGIC OBJECTIVE	**ACTION**	**RESPONSIBILITY**	**PERFORMANCE INDICATOR**	**SOURCE**
5.4 Work in partnership with the Torres Strait and Aboriginal community to care for Country				
a) Facilitate knowledge and skills exchange	Develop new approaches to weed management in Country with Traditional Owners that combine contemporary and traditional land management practice (e.g. Consider culturally based methods to address weeds such as Traditional Fire Management practices in suitable locations). Facilitate knowledge exchange between Council staff and Traditional Owners through meetings and workshops	Environment Branch/ Aboriginal Community Development Officer	Traditional Owners management perspectives and practices for managing Country is incorporated into bushland management strategies where appropriate Traditional Owners gain greater awareness about Council approaches to weed and bushland management	Existing program
b) Develop partnership projects between Council bushland management and Traditional Owners	Develop joint projects to restore the health and balance of Country, particularly areas of high cultural significance, including management of weeds and other associated impacts	Environment Branch/ Aboriginal Community Development Officer	Joint projects implemented	Existing program + grants
c) Engage with Traditional Owners to incorporate cultural outcomes into bushland management strategy	Include Traditional Owners and understanding of Country in communications around weed and bushland management	Environment Branch/ Aboriginal Community Development Officer	Cultural outcomes included in bushland management strategy	Existing program
d) Develop opportunities for economic engagement with Traditional Owners and the Aboriginal community in bushland management activities	Investigate access to resources generated during weed management and other bushland management activities for use by Traditional Owners and the Aboriginal community Facilitate the engagement of local and regional Aboriginal owned and operated suppliers to deliver bushland management actions, within legal permissibility Facilitate training opportunities for Traditional Owners and Aboriginal community members in bushland management roles	Environment Branch/ Aboriginal Community Development Officer	Opportunities for increased economic engagement of Traditional Owners and the Aboriginal community	Existing program + grants
e) Ensure relevant staff and contractors develop respect and understanding of Traditional Owner values when working on Country	Develop cultural site induction processes for working on Country guided by Traditional Owners	Natural Area Management Environment Planning Aboriginal Community Development Officer	Relevant on-Country induction process developed and appropriate work responses in place	Existing program

APPENDIX 1: **Priority Weeds Enforcement Process**

BACKGROUND

Council operates as a Local Control Authority, and this includes the power to delegate staff as inspectors (Authorised Officers), who in turn inspect all properties regardless of land tenure, offer weed control advice and issue notices as appropriate.

Council inspects over 2000 new properties per year in a coordinated and strategic approach. Areas designated as "target sub catchments" are systematically inspected to ensure entire precincts are controlling weeds within a similar timeframe. Council also undertakes weed control on public lands in the same area in conjunction with other property inspections taking place. This greatly improves the efficiency of weed control for everyone as areas are not being re-infested from uncontrolled parcels of land.

It also allows Council officers the opportunity to protect previous and future investment in high conservation assets downstream of inspection zones. All priority sub-catchment areas have had a long history of weed control within the public reserves aimed at restoring conservation landscapes. These projects have been performed using a combination of volunteer Bushcare/Landcare hours, State and Federal grant projects and Council funding.

A typical summary of a full inspection of a property would follow a path as follows:

NEW WEED ENFORCEMENT PROCESS

Prior to areas being inspected, Council endeavours to letterbox drop the area with DL Cards which informs residents that an Authorised Officer will be inspecting their properties in the near future.

'Notice of Entry' letter sent to all residents within a sub-catchment (non-legal). This letter gives residents information about why their property is being inspected and outlines Council's strategy for their local area. All entry to properties is under Section 98, *Biosecurity Act 2015*. The letter has a range of dates that inspectors will potentially enter the property and a contact number to arrange an appointment if residents wish to be present at the time of inspection.

APPROXIMATELY 1 MONTH
Property Inspection/Communication with owner if possible.

If priority weeds are present, a Presence of Priority Weeds Letter (non-legal) is issued. This letter informs the resident that priority weeds were found, it identifies the weeds, their priority either State, Regional or Local and the mandatory outcome required for their control. It also advises the resident of the date by which weeds are expected to be controlled voluntarily.

This is the first opportunity for the Authorised Officer to offer advice on the most effective weed control techniques and identify any related environmental issues (e.g. protected native vegetation). If the weed issue is of a large scale or impacts on an area of high conservation value, Council will prepare a staged Weed Management Plan which allows weed control to be completed in sections of the property over an extended time period.

The landowner will be asked to sign off on the plan and consequently implement the plan accordingly, continuing to meet the outcomes required under the plan within the timeframes specified.

Agapanthus (BMCC)

APPROXIMATELY 6 WEEKS
Property Inspection/Communication with owner.

Where the resident has not completed 95% of weed control voluntarily by the re-inspection dates provided in the Presence of Priority Weeds Letter, a Biosecurity Direction will be issued (under Section 128 of the Act).

APPROXIMATELY 6 WEEKS
Property Inspection/communication with owner if possible.

If the landholder has completed a substantial proportion of the weed control but not met the 95% benchmark, the inspector may amend the Biosecurity Direction (non-legal). This gives the resident one last chance to discharge their General Biosecurity Duty.
OR
If no substantial attempt has been made to control weeds after the initial Biosecurity Direction (under Section 128) has been issued.
OR
If non-compliance continues after the issuing of an Amended Direction, Council will issue a Show Cause Letter (non-legal). Issuing of this letter incurs a fee for non-compliance of a Biosecurity Direction.

APPROXIMATELY 1 MONTH
Council will then issue a Notice under Section 133 of the Act, which informs the resident that Council will organise for a contractor to complete the required work. This notice incurs an additional administrative fee ($545.00 in 2018–19) and the costs associated with the weed control will also be invoiced to the property owner (at cost to Council).

COMPLIANCE AND FINALISATION
At any point in the above process should a property complete 95% of weed control work the property will be deemed as compliant, the process will cease and a "Letter of Appreciation" will be sent to the property owner.

However the property owner should continue management of weeds on the property after the notice process has ceased.

APPENDIX 2: **Priority Weeds Lists**

Weeds found in the Blue Mountains are identified with *. The following lists show the level of weed control required to be implemented by land owners and land managers in the Blue Mountains Local Control Area.

TABLE 1: STATE PRIORITY WEEDS

CONTROL MEASURE: The plant must be eradicated from the land and be fully and continuously suppressed and destroyed; and the land must be kept free of the plant.		**CONTROL MEASURE:** If the weed is part of a new infestation of the weed on the land, notify the Local Control Authority as soon as practicable.	
COMMON NAME	**SCIENTIFIC NAME**	**COMMON NAME**	**SCIENTIFIC NAME**
African Boxthorn	*Lycium ferocissimum*	Alligator Weed*	*Alternanthera philoxeroides*
Asparagus Weeds*	*Asparagus spp.*	Bitou Bush	*Chrysanthemoides monilifera subsp. rotunda*
Athel Pine	*Tamarix aphylla*	Cabomba*	*Cabomba caroliniana*
Bellyache Bush	*Jatropha gossypiifolia*	Cats Claw Creeper*	*Dolichandra unguis-cati*
Blackberry*	*Rubus fruticosus agg.*	Salvinia*	*Salvinia molesta*
Boneseed*	*Chrysanthemoides monilifera ssp. monilif*	Water Hyacinth*	*Eichhornia crassipes*
Bridal Creeper*	*Asparagus asparagoides*		
Cape Broom*	*Genista monspessulana*		
Chilean Needle Grass*	*Nassella neesiana*		
Fireweed*	*Senecio madagascariensis*		
Flax-leaf Broom*	*Genista linifolia*		
Gorse*	*Ulex europaeus*		
Lantana*	*Lantana camara*		
Madeira Vine*	*Anredera cordifolia*		
Mesquite	*Prosopis spp.*		
Mouse-eared Hawkweed*	*Hieracium pilosella*		
Opuntia (Prickly Pear)*	*Opuntia spp.*		
Orange Hawkweed	*Hieracium aurantiacum.*		
Sagittaria	*Sagittaria platyphylla*		
Scotch/English Broom*	*Cytisus scoparius*		
Serrated Tussock*	*Nassella trichotoma*		
Silver-leaf nightshade	*Solanum eleagnifolium*		
Tropical Soda Apple	*Solanum viarum*		
Willows*	*Salix spp.*		

TABLE 2: **REGIONAL PRIORITY WEEDS**

CONTROL MEASURE: The plant should be eradicated from the land and the land kept free of the plant.		**CONTROL MEASURE:** The plant should be fully and continuously suppressed and destroyed.	
COMMON NAME	**SCIENTIFIC NAME**	**COMMON NAME**	**SCIENTIFIC NAME**
African Olive*	*Olea europaea subsp.cuspidata*	Giant Reed*	*Arundo donax*
Black Willow	*Salix nigra*	Green Cestrum*	*Cestrum parqui*
Chinese knotweed	*Persicaria chinensis*	Holly-leaved Senecio	*Senecio glastifolius*
Climbing Asparagus*	*Asparagus africanus*	Pampas Grass*	*Cortaderia jubata*
Glory Lily	*Gloriosa superba*	Senegal Tea	*Gymnocoronis spilanthoides*
Horsetails*	*Equisetum spp.*	Serrated Tussock*	*Nassella trichotoma*
Hygrophilla	*Hygrophilla costata*	Singapore Daisy	*Sphagneticola trilobata*
Kei Apple	*Dovyalis caffra*	Water Poppy	*Hydrocleys nymphoides*
Kidney leaf mud plantain	*Heteranthera reniformis*	Willow-leaf Primrose*	*Ludwigia peruviana*
Kudzu	*Pueraria lobate*		
Leaf cactus	*Pereskia aculeate*		
Ming Fern*	*Asparagus macowanii var. zuluensis*		
Mysore Thorn	*Caesalpinia decapetala*		
Sea Spurge	*Euphorbia paralias*		
Sicilian Sea Lavender	*Limonium hyblaeum*		
Sicklethorn	*Asparagus falcatus*		
Skunk Vine	*Paederia foetida*		

TABLE 3: **LOCAL PRIORITY WEEDS**

CONTROL MEASURE: The plant should be fully and continuously suppressed and destroyed.

COMMON NAME	**SCIENTIFIC NAME**	**COMMON NAME**	**SCIENTIFIC NAME**
African Lovegrass*	*Eragrostis curvula*	Paterson's Curse*	*Echium plantagineum*
Barberry*	*Berberis aristata*	Portuguese Laurel*	*Prunus lusitanica*
Box Elder*	*Acer negundo*	Privet* European	*Ligustrum vulgare*
Butterfly Bush*	*Buddleia davidii*	Privet* Large-leaf	*Ligustrum lucidum*
Cassia/Senna*	*Senna pendula*	Privet* Small-leaf	*Ligustrum sinense*
Cherry Laurel*	*Prunus laurocerasus*	Rhizomatous Bamboo* — Black	*Phyllostachys nigra*
Coolatai Grass*	*Hyparrhenia hirta*	Rhizomatous Bamboo*	*Phyllostachys aurea*
Cootamundra Wattle*	*Acacia baileyana*	Rhus Tree*	*Toxicodendron succedaneum*
Cotoneaster*	*Cotoneaster spp.*	St. John's Wort*	*Hypericum perforatum*
Crofton Weed*	*Ageratina adenophora*	Spanish/Portuguese Heath*	*Erica lusitanica*
English Holly*	*Ilex aquifolium*	Sycamore*	*Platanus orientalis*
Evergreen Dogwood*	*Cornus capitata*	Tree Lucerne/Tagasaste*	*Chamaecytisus palmensis*
Firethorn*	*Pyracantha spp.*	Tree of Heaven*	*Ailanthus altissima*
Himalayan Honeysuckle*	*Leycesteria formosa*	Tutsan*	*Hypericum androsaemum*
Mickey Mouse Plant/ Ochna*	*Ochna serrulata*	Viper's Bugloss*	*Echium vulgare*
Mistflower*	*Ageratina riparia*	White Poplar*	*Populus alba*
Mother of Millions*	*Bryophyllum spp.*	Wild Black Cherry*	*Prunus serrotina*
Mt Morgan Wattle/ Queensland Silver Wattle*	*Bryophyllum spp. Acacia*	Wild Tobacco Bush*	*Solanum mauritianum*
		Yellow Bells*	*Tecoma stans*

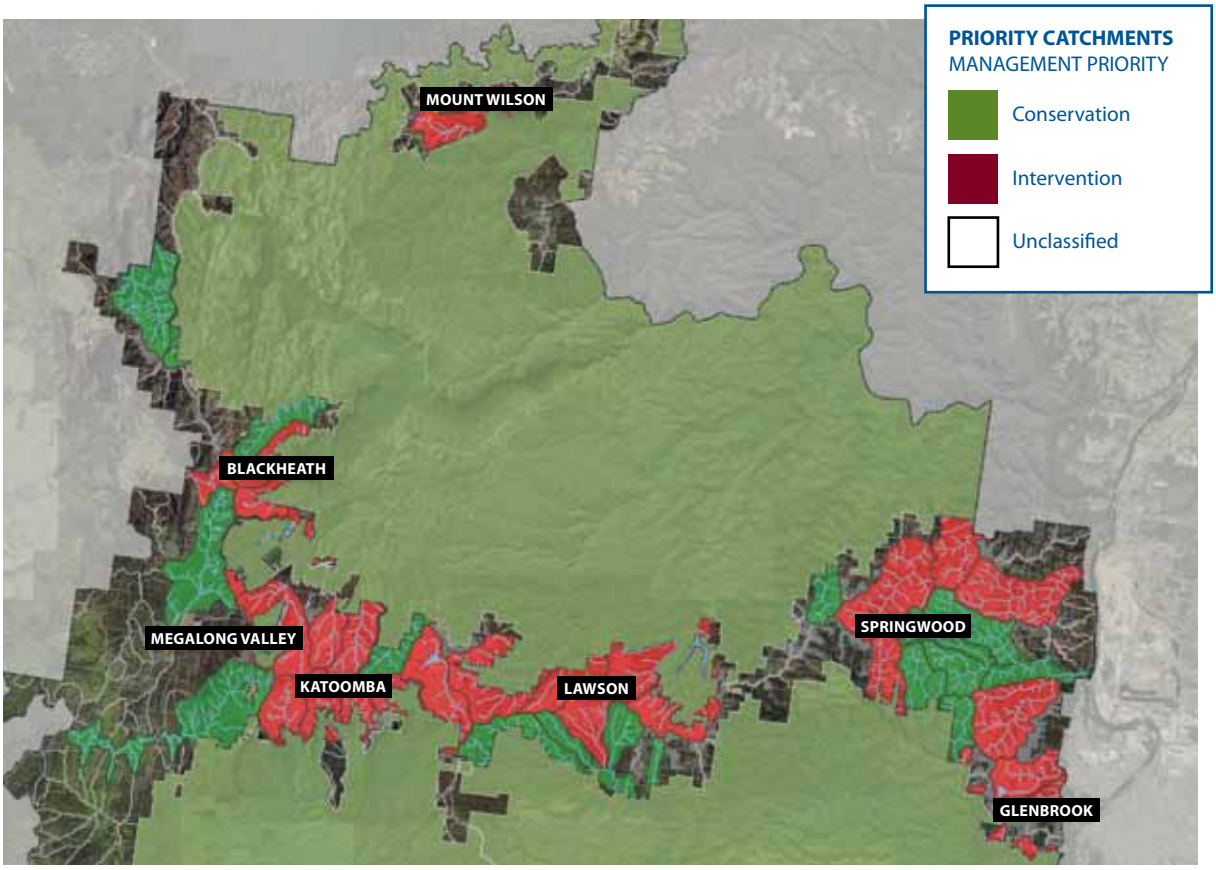
TABLE 3: **LOCAL PRIORITY WEEDS** (cont.)			
CONTROL MEASURE: Plants under 4 metres in height should be fully and continuously suppressed and destroyed.		**CONTROL MEASURE:** The spread of this plant should be adequately contained to prevent spread impacting on a priority asset.	
COMMON NAME	**SCIENTIFIC NAME**	**COMMON NAME**	**SCIENTIFIC NAME**
Black Locust*	*Robinia pseudoacacia*	Agapanthus*	*Agapanthus praecox subsp.orientalis*
Camphor Laurel*	*Cinnamomum camphora*	Arum Lily*	*Zantedeschia aethiopica*
Honey Locust*	*Gleditsia triacanthos*	Balloon Vine*	*Cardiospermum grandiflorum*
		Banana Passionfruit*	*Passiflora tarminiana*
		Blue Morning Glory*	*Ipomoea indica*
		Blue Periwinkle*	*Vinca major*
		Cape Ivy*	*Delairea odorata*
		Castor Oil Plant*	*Ricinus communis*
		English Ivy*	*Hedera helix*
		Evergreen Alder*	*Alnus jorullensis*
		Japanese Honeysuckle*	*Lonicera japonica*
		Montbretia*	*Crocosmia x crocosmiiflora*
		Moth Vine*	*Araujia sericifera*
		New Zealand Cabbage Gum*	*Cordyline australis*
		Scotch Thistle*	*Onoporum acanthium*
		Sweet Briar*	*Rosa rubiginosa*
		Sweet Vernal Grass*	*Anthoxanthum odoratum*
		Trad/Wandering Jew*	*Tradescantia fluminensis*
		Turkey Rhubarb*	*Acetosa sagittata*
		Watsonia*	*Watsonia meriana*
		White Jasmine*	*Jasminum polyanthum*
		Yorkshire Fog*	*Holcus lanatus*

APPENDIX 3: **Priority Catchments**

Healthy waterways programs are based on whole of catchment restoration projects. Target catchments are prioritised based on risk and biodiversity values.

In 'intervention' catchments significant biodiversity values are at high risk of degradation from catchment activities so are high priorities for catchment improvement works. 'Conservation' catchments contain high biodiversity values and catchments are in good condition. These are high priority catchments to maintain in good condition.

Current selection of priority catchments for intensive, integrated works is based on a combination of this aquatic catchment assessment, evaluation of local community interest and activity and previous investment for which additional works will return high cost benefits.



APPENDIX 4: **Conservation Assets in Each Landscape Unit**

FLORA AND FAUNA CONSERVATION VALUES BEING PROTECTED IN THE GRANITE—SANDSTONECONSERVATION LANDSCAPES OF THE MEGALONG VALLEY

- *Callistemon megalongensis*
- *Callistemon purparescens*
- *Melaleuca styphelioides—M. linariifolia* Forest
- *Ceratopetalum apetalum—Doryphora sassafras* Rainforest
- Megalong Granite Dry Rainforest
- *Casuarina cunninghamiana* River Oak Forest
- Megalong Riparian Granite Slopes Forest
- Megalong Footslopes Forest Complex
- Megalong Granite Forest/Woodland
- Kowmung Wilderness Complex
- Redgum Swamp Woodland
- Blue Mountains Heath and Scrub
- Blue Mountains Riparian Complex
- Blue Mountains Escarpment Complex
- Localised threatened species habitats

FLORA AND FAUNA CONSERVATION VALUES BEING PROTECTED IN MOIST BASALT CAP CONSERVATION LANDSCAPES

- *Ceratopetalum apetalum—Doryphora sassafras* Rainforest
- *Eucalyptus viminalis—E. blaxlandii—E. radiata* (Moist Basalt Cap Forest)
- Pagoda Rock Complex
- Blue Mountains Riparian Complex
- Blue Mountains Escarpment Complex
- Localised threatened species habitats

FLORA AND FAUNA CONSERVATION VALUES BEING PROTECTED IN THE BLUE MOUNTAINS SANDSTONE PLATEAU CONSERVATION LANDSCAPE

- *Ceratopetalum apetalum—Doryphora sassafras* Rainforest
- *Eucalyptus deanei—E. piperita* Tall Open Forest
- *Eucalyptus cypellocarpa—E. piperita* Tall Open Forest
- *Eucalyptus oreades* Open Forest
- *Eucalyptus dalrympleana—E. piperita* Tall Open Forest
- *Eucalyptus radiata ssp. radiata—E. piperita* Open Forest
- Montane Gully Forest
- *Eucalyptus gullickii* Alluvial Woodland
- Blue Mountains Swamps
- Blue Mountains Heath and Scrub
- Blue Mountains Riparian Complex
- Blue Mountains Escarpment Complex
- Localised threatened species habitats

FLORA AND FAUNA CONSERVATION VALUES BEING PROTECTED IN THE LOWER BLUE MOUNTAINS SHALE—SANDSTONE CONSERVATION LANDSCAPES

- *Backhousia myrtifolia—Ceratopetalum apetalum* Rainforest
- Blue Mountains Shale Cap Forest
- Shale/ Sandstone Transition Forest
- Turpentine—Ironbark Forest
- *Eucalyptus amplifolia* Tall Open Forest
- Blue Gum *(E. deanei)* Riverflat Forest
- *Melaleuca linariifolia* Low Open Forest
- *Eucalyptus sclerophylla* Bench Woodland
- Blue Mountains Swamps
- Blue Mountains Heath and Scrub
- Blue Mountains Riparian Complex
- Lagoon Vegetation (Glenbrook Lagoon)
- Localised threatened species habitats

APPENDIX 5: **Weeds Management Campaign Plan 2018**

DELIVERY PROGRAM ACTION Engage the community in partnerships that contribute to the natural environment

OPERATIONAL PLAN ACTION Implement a communication and engagement strategy that promotes environmentally aware communities and healthy bushland

GOAL To protect high conservation value assets with targeted weed control and community engagement

COMMUNICATION ISSUE OR NEED	LEVEL OF RISKS	BUDGET & RESOURCES	SMART OBJECTIVES Specific, measurable, achieve-able, realistic, time-bound	GOAL BEHAVIOUR (What do we want them to do)	TARGET AUDIENCE
Need to protect high conservation value assets with targeted weed control and community engagement through group actions (Landcare, Bushcare, Swampcare) and individual actions We get the biggest gain and highest value for money if residents join in to manage priority and environmental weeds on their properties because they value the bushland. Residents more likely to engage and change behaviours if they understand issues and Council investment in strategic approach to weed control across landscape	The local environment is subjected to multiple threats which are all the result of human behaviours. Highly invasive species spread. Council required to fulfil statutory requirements as the Local Control Authority under the *Biosecurity Act 2015*. Bushland degradation through weed invasion of Threatened species habitat and TECs/ EECs listed under the *NSW Threatened Species Conservation Act 1995* and Federal Government's *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) Native flora and flora and TECS/EECs are not valued by community (or community is unaware of the value/ significance of their local natural environment) Lack of awareness leads to further loss of biodiversity Residents and landowners unaware of how their behaviour impacts on the natural areas Degradation of bushland—particularly Blue Mountains Swamps, Shale-based and Basalt-capped EECs)		Engage community to conserve high value natural assets Building community capacity to understand and undertake weed management, avoiding unnecessary costs and friction caused through compliance being met largely through a regulatory environment. Connect people to the value of their natural environment, the threats to their natural environment and actions they can take—everyday behaviours people can adopt to protect and restore their local environment. Develop quality materials about weeds, our place in the landscape to support current communication Medium to long term reduction in costs to Council, ratepayers and community Increased community understanding & buy in to Council strategy & programs	Increased voluntarily compliance with weed removal—Residents utilise the technical extensions services rather than just the regulatory framework (>70% of residents comply with weed management because they come into the compliance through a values process Protect high conservation value assets Engage in direct actions to help protect and conserve bushland and EECs, individually as a landowner and collectively through community conservation programs Higher level participation in community conservation actions	**Primary target audiences:** • Residents and businesses in the Blue Mountains • Specifically target new residents? • Schools • Bushcare, Landcare and Swampcare groups • Visitors **Sales force:** DPI, funding bodies, Regional Weeds Committees etc.
Current weed fact sheets and websites need to be updated with current and consistent messaging New Biosecurity Act -Weed Strategy and other publications need to be updated			Refresh all existing messaging to include current fact sheets, weeds booklet and websites; add variations Develop DL weed cards specifically targeting individual townships Develop extension service for fire recovery? Revise Weed Strategy Publicise successes stories		
High quality print-ready images High quality display material developed to be consistent in look and branding			Source high quality images Develop high quality display material with consistent messaging, style and design		

BARRIERS	BENEFITS	MESSAGES	CHANNELS	PERFORMANCE INDICATORS	RESPONSIBILITY	RESULTS
We don't know what the community really thinks: What motivates people to manage weeds on their property? What do people know about weed management What do they care about? Do we know what brings about early stage compliance?	Better informed and supported ratepayers are able to take more effective actions Reduced costs to Council Increased community satisfaction from clear understanding of Council weed/bushland management programs	Control of priority weeds is everyone's responsibility • Conservation values • Threats to natural environment • Everyday actions people can adopt to protect and restore their local environment **Weed fact sheets for priority and environmental weeds include:** • Classification • Scientific name • Description • Dispersal • Alerts • Impact on bushland • Current distribution • Control • Plant this instead **Linked programs and projects:** • Urban Weeds program • Bushland Management program • Bush fire recovery • Community weeds program • Bushcare/Landcare programs • Bush Backyards Program • Schools program • Bush Trackers • Wildlife protection, EECs and Threatened Species • Visitor Facilities promotion	Noxious weeds letters, notices to residents Weeds website Council, noxious weeds website Libraries and hubs Events and displays Garden clubs Seniors week Neighbourhood centres Schools via Bush Trackers and Bioblitz programs Individual schools and early years learning centres Gecko Rates newsletters Local shops Local markets Weed of the Month Rates Notices Local Media **Products:** • Weed DL cards • Weed fact sheets • Noxious Weed Banner • Calendars of weed growth and control times • (Biodiversity narratives for towns) • (Our place in the Landscape narratives) • Updated noxious weed website and information kit • Fact sheets for fire recovery—managing weeds after the bushfire	Reduction in costs to Council and community X% increase in the number of community members engaged in direct action to help conserve and protect bushland and EECs—through Bush care, Landcare, Bush Backyards, Swampcare Higher levels of voluntary compliance for weed removal—data from noxious weeds team Weeds website click rates Number of events and displays Rate of brochure and fact sheet use Stakeholder feedback	EC&E Officer in consultation with NAR, Noxious Weeds, Bushcare, Bush Regen team Weed Website—Bushcare and EC&E officers Noxious weed website—Noxious weeds team and EC&E officer Weeds booklet—Bushcare and Community weeds officers	50% photos sourced

COMMUNICATION TOOLS												
	TEAMS											
	URBAN WEEDS						BUSHCARE					
CHANNELS (identifies specific channels for which teams have lead responsibility for management & maintenance)	'WEED MANAGEMENT' BMCC WEBSITE	FACT SHEETS & BROCHURES	EVENTS stalls/street meetings	FACE TO FACE ADVICE	CAMPAIGNS highway banners/DL cards/ pull up banner	MARKET STALLS	EVENTS bushland tours/Bcare activities/ catchment working days/expert presentations	CATCHMENT BROCHURES	REGULAR BUSHCARE GROUPS BO/VOLUNTEER COMMS	FACEBOOK/INSTAGRAM	GECKO/MONTHLY BCARE BULLETINS	BUSHCARE AND WEEDS WEBSITE
	x	x	x	x	x	x						
	x		x			x						
	x	x	x		x	x		x	x			x
		x	x	x		x	x		x	x		x
		x	x	x	x	x	x		x	x	x	x
		x	x	x		x	x		x			x
		x				x	x	x	x			
							x	x	x	x	x	
				x		x	x		x			
				x			x		x			
							x	x	x	x	x	x
							x	x	x	x		x
							x		x			x
							x	x	x	x	x	x
				x		x	x	x	x	x		x

COMMUNICATION TOOLS											
TEAMS											
COMMUNITY CONSERVATION				SUSTAINABILITY EDUCATION				GENERAL COUNCIL COMMS.			
RESIDENT WEED SUPPORT queries and site visits	WEED STRATEGY	WMPS/SITE VISITS	PRESENTATION GARDEN CLUBS etc	SCHOOLS PROGRAM	MEDIA local newspaper and radio	RESIDENT WORKSHOPS	CAMPAIGNS Catchment events/DL cards	RATES NEWSLETTER	COUNCIL WEBSITE	FOYER & LIBRARY DISPLAYS	MESSAGES
	x	x	x	x		x		x	x		**Implementation of Biosecurity Act** landowner responsibilities
	x		x			x			x		**Implementation of Biosecurity Act** Council landscape approach focused on collective action not targeting individuals
	x	x	x	x		x	x	x	x	x	**What are priority weeds and why**
x		x	x	x		x	x	x	x	x	**How to effectively control weeds**
x		x	x	x	x	x	x	x	x	x	**Seasonal target weeds**
x		x	x	x		x	x	x	x	x	**How to identify weeds**
x	x	x	x			x	x		x		**How is Council managing weeds on its land** Strategic landscape approach
					x	x			x		**Council is making progress/highlight outcomes of private and public land programs**
	x	x	x	x		x	x	x	x		**What are high conservation value assets?**
x		x	x			x	x		x		**How can Council help me to control weeds on my property?**
	x	x		x		x	x	x	x	x	**Values of bushland**
		x	x	x		x	x	x	x	x	**Threats/impacts on bushland** Weeds and links to stormwater
		x	x	x		x	x	x	x		**How do weeds degrade bushland?** Fire/habitat etc
			x	x		x	x		x	x	**How can I help?** CCP/ Bushcare etc
x		x	x	x		x	x		x		**How can I help?** Actions on my property

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