Weed Management Strategy

2020 – 2025

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Version Control

Version	Date	Brief Description of Changes	Revised by
1.0	XX/02/2020	Document creation	Natural Reserves Department

Acknowledgements

Baw Baw Shire Council would like to acknowledge Cardinia Shire Council for providing the template for this plan.

The Baw Baw Shire Council has made every effort to ensure the accuracy of the information contained within this strategy.

Any inaccuracies or omissions should be notified to:

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Foreword

The Baw Baw Shire *Weed Management Strategy 2020-2025* was developed to provide strategic direction for the management of weeds across the shire. It documents the roles and responsibilities of landowners in weed management, provides legislative context and explores options for increasing community awareness and strengthening partnerships. The strategy details the importance of a strategic approach to weed management, one that ensures the protection of biodiversity assets, and the efficient use of resources.

Executive summary

Weeds are a nationally significant problem. Weeds pose one of the biggest threats to the natural environment and change the balance of Australia's ecological biodiversity by displacing native plants and animals. Controlling weeds is everyone's responsibility. Under the *Catchment and Land Protection Act 1994,* Council has an important legislative role to play in planning, coordinating and monitoring weed control actions. Various strategies and policies require Council to operate in a manner inclusive of community and other land managers.

The Baw Baw Shire Council *Weed Management Strategy 2011 - 2015* advocated for increased community awareness and capacity and the strengthening of inter-agency partnerships. The strategy detailed the importance of implementing an integrated approach to weed management to ensure the efficient use of local resources and achievement of goals.

The primary focus of the new strategy is goal setting for collaborative action on weed control in bushland reserves and rural roadsides across Baw Baw Shire for the next 5 years. The strategy sits under the *Environmental Sustainability Strategy 2018 - 2022* and aligns with the objectives of the *Council Plan 2017 - 2021*.

Council's vision is that Council, agencies and the community work collaboratively to protect Baw Baw Shire's landscapes, biodiversity and agriculture from the negative impacts of weeds. To achieve this vision, the *Weed Management Strategy 2020-2025* is framed around the themes of protect, manage and engage. These themes focus on preventing new weeds arising, while strategically allocating resources to those that already exist. The themes also recognise the need to work in a collaborative manner and the significance of community involvement in managing weeds throughout the landscape.

The strategy adopts a risk assessment approach to weed management, where actions are prioritised based on the ecological values of a site and the risk that weeds pose to those values. This approach is used by several municipal Councils and varies from past approaches that were typically species-based. This approach aligns with State and Federal policy and enables the establishment of long-term management priorities.

Implementation of this approach will occur in Council's bushland reserves as a priority. Incorporation of this approach into roadside weed management will also be explored and inform future applications for State Government funding under the Roadside Weeds and Pests Program.

The strategy sets priorities for weed management in Baw Baw Shire over the next 5 years. A detailed action plan is provided which guides Council's investment in weed management over this time frame.

Progress of the actions in this strategy will be reviewed annually. A more detailed review of the entire strategy, including progress towards the objectives outlined under each of the goals, will take place after its conclusion in 2025.

Purpose and scope

Weeds pose a serious threat to economic, environmental and social values in Baw Baw Shire. The threats and associated costs of weed invasion are numerous, with impacts seen in natural landscapes, agricultural land, waterways and urban environments. *The Australian Weeds Strategy 2017-2027* recognises that the extent, persistence and impacts of weeds presents an on-going challenge that requires a continual and coordinated response (Invasive Plants and Animals Committee 2016).

The purpose of this strategy is to describe the vision, goals and priorities for the management of weeds within Baw Baw Shire from 2020 to 2025. It is relevant to all land managers, service delivery agencies and community members involved in, or interested in, the management of weeds. The strategy adopts a biosecurity approach, which employs risk management principles to determine appropriate management actions. This approach supports the national goals of prevention, detection, early intervention, minimising impact and enhancing capacity (IPAC 2016). Using this approach, new and emerging weeds are given highest priority due to the long-term return on investment, while established weeds are managed as part of asset-based protection, where the impact of weeds on assets is assessed and ranked.

State and federal policy direction has progressively moved towards a biosecurity approach to address existing and potential invasive species. The *Biosecurity Strategy for Victoria* (Department of Primary Industries 2009) and *Invasive Plants and Animals Policy Framework* (DEPI 2010) are key documents that describe the Victorian Government's approach to pest management. Council's new strategy aligns with these documents to provide clear direction in weed management and rationale for the allocation of investment. The strategy also clarifies roles and responsibilities and identifies opportunities for effective partnerships.

Baw Baw Shire Council has long recognised the importance of strategic weed control and in 2011 developed the *Weed Management Strategy 2011-15* to formalise weed control programs, direct future management and ensure efficient use of resources. The focus of the strategy was the control of declared noxious weeds on Council owned and managed land, and the provision of information and assistance to the community on environmental and agricultural weeds. While aspects of the strategy are still relevant, the Baw Baw Shire *Environmental Strategy 2018-2022* identified the need to review and update the strategy. This update provides Council with the opportunity to review past programs, set new priorities and align more closely with National and State objectives.

Strategy goals and objectives

The strategy has three goals, each including priorities that aim to focus on-ground action, resource allocation and collaboration (Table 1).

Table 1 - Goals and objectives

Vision:	Council, agencies and community working collaboratively to protect Baw Baw Shire's landscape, biodiversity and agriculture from the negative impacts of weeds
Goal 1:	Protect Baw Baw Shire's landscape, biodiversity and agriculture from the threat of invasive weeds
Objective 1.1:	Deliver on-ground weed management works consistent with Victorian and Australian government strategy and legislation.
Objective 1.2:	Adopt a consistent risk assessment and prioritisation approach to ensure appropriate management of weed populations on Council land.
Objective 1.3:	Provide support to landowners to protect biodiversity assets from weed invasions on private land and adjoining roadsides.
Goal 2:	Manage - Strategically allocate resources to local weed priorities consistent with regional, state and national priorities
Objective 2.1:	Demonstrate best practise weed management on Council-owned and managed land, ensuring that Council land is not the source of invasion to neighbouring properties.
Objective 2.2:	Develop annual weed programs in collaboration with relevant agencies and community stakeholders to achieve a landscape scale approach.
Goal 3:	Engage and empower our community to motivate them to collectively address weed issues
Objective 3.1:	Provide leadership and support to the community for strategic and cost-effective weed management.
Objective 3.2:	Develop partnership programs with land managers, including private landholders, and volunteer groups such as Landcare, and Friends groups, to collectively reduce the impact of weeds.

Community consultation

To ensure the strategy aligned with community priorities, a survey was undertaken in October 2019 to gauge community perception of the previous strategy and to ascertain priorities for the future. The previous strategy listed nine goals for declared noxious weed management, seven of which were identified as still being high priority. These include:

1. Promote and improve partnerships for coordination of weed management;
2. Enhance community awareness and capacity to respond to weeds;
3. Improve enforcement and accountability for declared noxious weed control;
4. Prevent new and emerging weeds;
5. Reduce the impact of weeds on roadsides and rail reserves;
6. Ensure resources are available to respond to weeds adequately on public land;
7. Implement effective monitoring and evaluation.

Participants were also asked to rate nine priorities for weed control (all weeds, not strictly noxious) within the municipality. The following table ranks these priorities according to the results. Priorities 3 and 4, and 8 and 9, ranked the same but have been separated arbitrarily for the purpose of this document. Priorities 8 and 9 have been highlighted as they ranked significantly lower than all other items, consistent with feedback about the goals of the former strategy.

Table 2 - Community Priorities for Weed Control

Rating	Priority
1	Protection of wetlands and waterways
2	Managing noxious weeds on Council managed land including roadsides
3	Protection of biodiversity
4	Partnering with other agencies and community for coordination of weed management
5	Community engagement and education on weed identification and control
6	Managing environmental weeds on Council managed land including roadsides
7	Protection of agricultural land
8	Amenity weed control in Council's urban gardens
9	Maintenance of urban parks and gardens

These priorities informed the vision, goals and objectives of the strategy and supported the need for distinction between the management of natural areas and urban parks and gardens. As such, management of weeds in urban parks and gardens will continue to be informed by the *Open Space Maintenance Standards October 2015* (OSMS). This strategy will describe the prioritisation of weed control on Council owned/managed bushland reserves, wetlands and rural roadsides.

Weeds in context

For the purpose of this strategy a clear definition of what constitutes a weed is essential. The Australian Weeds Strategy defines a weed as:

"*a plant that requires some form of action to reduce its negative effects on the economy, the environment and human health or amenity*" (IPAC 2016).

Weeds can destroy habitat, out-compete native plants, choke waterways, reduce farm productivity, harm livestock and reduce amenity value of public parks and gardens. Bushland, open space and agricultural land are not only under threat from non-native weeds, but also from weedy non-indigenous (non-local) natives introduced as garden plants such as Sweet Pittosporum.

Classifying weed species identifies particular traits that influence how they are controlled and managed. This includes the threat they currently or potentially pose to a region. Weeds can be significant at a property, local, regional, state or national level, based on their impact or potential impact. A number of listings of weeds are relevant to Baw Baw Shire Shire.

Nationally significant weeds

At a national level, the following three weed classifications are recognised (lists are included in Appendix A).

Weeds of National Significance (WONS) – The Australian Government has identified 32 WONS based on an assessment process that prioritises weeds based on invasiveness, potential for spread, and environmental, social and economic impacts. Consideration is also given to their ability to be successfully managed. National weed management guides and strategies are available for 20 of the 32 WONS. State and territory governments are responsible for legislating and administering the control of WONS.

National Environmental Alert List (the Alert List) – The Alert List identifies plant species that are in the early stages of establishment and have the potential to become a significant threat to biodiversity. The list contains 28 non-native weeds that have established naturalised populations in the wild. Weed management guides are available for each of the 28 species.

Sleeper weeds – These weeds appear benign for many years but may suddenly spread rapidly following certain natural events. Seventeen species have been identified as sleeper weeds.

Noxious weeds

The Victorian Government is responsible for administering Victoria's primary legislation relating to the control of invasive plants, the *Catchment and Land Protection Act 1994* (CaLP Act). The Act provides for the declaration of plants as noxious. These plants cause environmental or economic harm or have the potential to cause harm. They can also present risks to human health. Responsibility for the control of noxious weeds is outlined in the CaLP Act and varies according to the category in which the weed is declared.

The CaLP Act defines four categories of noxious weeds (species listed in Appendix B) as defined below.

State prohibited weeds – these weeds either do not occur in Victoria but pose a significant threat if they invade or, occur in Victoria but it is reasonable to expect that they can be eradicated. It is the responsibility of the Victorian Government to take all reasonable steps to eradicate State prohibited weeds on all land in Victoria. In circumstances where eradication cannot be undertaken in a timely manner, an Authorised Officer may direct a landowner to control State prohibited weeds for a designated time period. It is an offence to fail to comply with such direction.

Regionally prohibited weeds – these weeds are not widely distributed in a region but are capable of spreading further. It is reasonable to expect that they can be eradicated from a region and they must be managed with that goal. Landowners, including public authorities responsible for crown land management, must take all reasonable steps to eradicate regionally prohibited weeds on their land.

Regionally controlled weeds – these weeds are usually widespread in a region. To prevent their spread, ongoing control measures are required. Landowners have the responsibility to take all reasonable steps to prevent the growth and spread of regionally controlled weeds on their land.

Restricted weeds – this category includes plants that pose an unacceptable risk of spreading in Victoria and are a serious threat to another state or territory of Australia. The sale or trade of these weeds and their propagules is prohibited.

Environmental Weeds

In 2018 the Department of Environment, Land, Water and Planning (DELWP) published the *Advisory list of environmental weeds in Victoria* (White., M., *et al* 2018). This list provides advice to land managers on the risks posed by environmental weeds and the urgency of managing them within natural ecosystems. The list ranks environmental weeds to indicate the priority for control or management in native vegetation. This ranking is based largely on the stage of invasion, the impact of the species on native ecosystems and the species rate of spread.

No legal requirements flow from inclusion of a species in the advisory list, unless the species is already listed under other legislation where legal requirements apply.

Environmental weeds of Baw Baw Shire (Appendix C) lists environmental and noxious weeds found in Baw Baw Shire. The list is incorporated into Baw Baw Shire's Planning Scheme under schedule 3 to Clause 42.01 Environmental Significance Overlay. The overlay applies to a small area in Trafalgar, known as the Trafalgar Sands. The overlay provides limited capacity in regard to weed control, but it does allow for the removal of listed weeds without the need to obtain a planning permit e.g. Sweet Pittosporum may be removed on land covered by the overlay but it cannot be removed elsewhere within municipality.

In addition to the environmental weeds listed in the planning scheme, there are a significant number of weeds that pose a threat to biodiversity values in Baw Baw Shire. Several of these weeds are described in the *Common Weeds of Baw Baw Shire* booklet. Development and maintenance of a comprehensive weed list, including control priorities, is recommended as part of this strategy review.

Declared Noxious Aquatic Species

The *Fisheries Act 1995* has declared some species as noxious aquatic plants. It is an offence to bring them into Victoria or possess, sell, transport or release them.

Managing weeds in Baw Baw Shire

Weeds are a significant problem in Baw Baw Shire. Of the 128 declared weeds listed under the Victorian *Catchment and Land Protection Act 1994*, 45 occur within Baw Baw Shire and seven are listed as WONS. There are also significant populations of environmental weeds.

This section clarifies the roles and responsibilities of Council, agencies, community and landholders in weed control, according to land type. It highlights the importance of working collaboratively on weed management across the landscape and details the process of weed control program development.

Appendix E outlines Australian and Victorian government legislation and policies, along with Council policies relevant to managing weed species.

Roles and responsibilities

Under the CaLP Act the obligations of landowners for weed control takes into consideration all landowners, including Councils, private landowners and other land management bodies. The Act states that landowners must take reasonable steps to:

- Eradicate regionally prohibited weeds;
- Prevent the growth and spread of regionally controlled weeds; and
- Prevent the spread of, and as far as possible eradicate, established pest animals.

The Act also states that a person person must not (without a permit from the Secretary) transport within Victoria a noxious weed or any part of a noxious weed capable of growing.

Crown land management may differ in regard to the responsible agency. Crown land can be the responsibility of a Committee of Management or Council or may have no designated land manager. The following describes the legislative responsibility of landowners according to land types within the shire.

Council land

Council is responsible for managing regionally controlled and regionally prohibited weeds on Council owned or managed land. The Department of Economic Development, Jobs, Transport and Resources (DEDJTR) is responsible for the control of state prohibited weeds. While Council may lease land for a variety of reasons, if lease agreements do not include enforceable clauses designating weed control, then weed control remains the responsibility of Council. In some instances, Section 86 committees of management are established by Council with delegated responsibilities under Section 86 of the *Local Government Act 1989* to directly manage facilities and grounds, for example recreation reserves, on behalf of Council.

Rail reserves

Vic Track is responsible for the maintenance of railway reserves. Under the CaLP Act, Vic Track is responsible for the control of regionally controlled and regionally prohibited weeds occurring in

railway reserves. DEDJTR is responsible for the control of state prohibited weeds occurring in railway reserves.

Crown land

Under the *Crown Land (Reserves) Act 1978*, designated public land managers are responsible for managing regionally controlled and regionally prohibited weeds on reserved Crown lands. This responsibility for weed control may also reside with established committees of management. DEDJTR is responsible for the control of state prohibited weeds.

Waterways

Melbourne Water is responsible for managing regionally controlled and regionally prohibited weeds along riverbanks and beds within the Port Phillip and Westernport region. Council commonly owns freehold land along waterways and is therefore responsible for managing regionally controlled and regionally prohibited weeds on this land. Private landowners are responsible for managing both regionally controlled and regionally prohibited weeds along waterways within private land. DEDJTR is responsible for controlling state prohibited weeds in all areas.

Catchment Management Authorities

West Gippsland Catchment Management Authority (WGCMA) and Port Phillip and Westernport Catchment Management Authority (PPWCMA) are responsible for regional strategic planning, coordination of effort and raising community awareness. Catchment Management Authorities (CMA's) do not own any land and are not designated land managers therefore they are not directly responsible for the management of weeds. Subject to project funding however, CMA's will work in partnership with others to address weed issues impacting on regional ecological priorities.

Flora and fauna reserves, state forests and state parks

The Department of Environment, Land, Water and Planning (DELWP) is responsible for controlling all noxious weeds on Crown land managed under the *Forests and Lands Act 1987* such as state forests. Parks Victoria often fulfils this responsibility in its role as the appointed land manager in land areas managed under the *National Parks Act 1975* such as state and national parks.

Roadsides

Managing invasive plants and animals on roadsides is regulated in principal by the CaLP Act. Other legislation affecting the control of pest species on roadsides is the *Road Management Act 2004* and the *Local Government Act 1989.*

The responsibility for roadside weed control depends on both the classification of roads under the *Transport Act 1983* and the classification of weeds under the CaLP Act. In relation to roadsides on Crown land, the State Government must take all reasonable steps to eradicate regionally prohibited weeds. This, however, does not apply to a freeway or arterial road, crown land under lease or the roadside of a municipal road.

VicRoads (or local government acting as its agent) is responsible for managing all noxious weeds on the declared road network. Under the *Road Management Act 2004,* the declared road network includes freeways, highways, and arterial roads. Roads that have not been declared under the act are known as 'undeclared' or local roads. In 2013, the CaLP Act was amended to clarify that municipal councils are responsible for controlling declared species on roadsides if the land is a municipal (local) road. These amendments introduced the opportunity for the Minister for Environment to require municipal councils to prepare a Roadside Weed and Pest Control Plan. Under the CaLP Act, a weed and pest animal management plan must have regard to:

- Any information provided by the Minister; and
- Any regional catchment strategy applying to the declared municipal district.

The Roadside Weeds and Pests Program (RWPP) provides funding support to Councils to plan and implement weed and pest animal control activities on rural roadsides. To receive funding, Councils must produce a Roadside Weeds and Pests Control Plan outlining the approach to be undertaken and identifying the weeds and pest animals to be treated. The plan must be endorsed by DEDJTR. Noxious weeds (regionally prohibited, regionally controlled and restricted) are eligible for treatment under the RWPP, with councils required to report their progress against the plans and seek variations where required.

While RWPP's are primarily funded for noxious weed control, the Roadside Weed and Pest Working Party recommend that roadside weed plans should be considered in the context of the IPAPF, which incorporates new approaches for managing threats from invasive species and recognises the cost-effectiveness of preventing entry and establishment as well as early intervention (Agriculture Victoria 2020).

The current Baw Baw Shire RWPP targets noxious weeds (e.g. blackberry, ragwort, thistles) and rabbits on rural roadsides. The success of the roadside weed program means there is potential to expand the program in the future to incorporate additional weeds. This could be considered using an asset-based approach, where high conservation roadsides are prioritised to achieve the greatest biodiversity outcomes.

Volunteer groups

Volunteers are important to achieving sustainable weed management outcomes. Whether it be on private or public land, volunteer groups play an important role in the detection and treatment of weed management issues. This compliments Council's weed control programs and the key element to success is communication and collaboration between Council and the groups.

Numerous natural reserves in Baw Baw Shire have associated volunteers ('Friends' groups and committees of management) that assist with weed control activities and work with Council on other reserve-related matters.

Other volunteer groups include those under the Landcare program. Landcare supports the management of natural resources on private land and in some cases public land, with a focus on sustainable land use practises both on farmland and in bushland areas.

Baw Baw Shire has 10 Landcare groups and more than 6 'Friends' groups working across the shire to provide and promote responsible land use practices, including weed control and revegetation works and associated native vegetation monitoring.

Private Landowners

Landowners are key stakeholders in weed management. Under Section 20 of the CaLP Act, a landowner must take all reasonable steps to:

- Avoid causing or contributing to land degradation which causes or may cause damage to land of another landowner
- Eradicate regionally prohibited weeds
- Prevent the growth and spread of regionally controlled weeds

The Act also states that a person must not (without a permit from the Secretary) transport within Victoria a noxious weed or any part of a noxious weed capable of growing. This has implications for treatment methods and the removal of treated materials for both public and private land managers.

Under the CaLP Act landowners are responsible for managing regionally controlled and regionally prohibited weeds on their land. DEDJTR is responsible for controlling state prohibited weeds on all land, including private land. Council engages with landholders regarding managing weeds on private land in order to achieve cross-tenure weed control outcomes, rather than focusing only on Council land.

Enforcement

The DEDJTR has responsibility for enforcing provisions of the CaLP Act. In practice, enforcement and application of penalties is discretionary with the focus being limited to high priority species and in areas where there is a strong community agreed action.

Baw Baw Shire Council has enforcement powers under the *Community Local Law 2016 3.12 Declared Noxious Weeds*

(1) An owner or occupier of land in a residential, commercial or industrial area must not allow any noxious weed to be present on that land.

In addition, under Section 45E of the *environment Protection Act (1970)*, Councils compliance officers can enforce against the dumping of soil and garden waste. Section 45U allows Council to require the covering of trailer and utility loads when soil and green materials are being carried.

Program development

Planning

Planning and developing weed prevention programs needs to be coordinated in conjunction with relevant land managers, for example government agencies, community groups and landowners. Program outcomes are reliant on this collaborative effort as it ensures that cross-tenure

outcomes are achieved. This approach also has the added benefit of pooling funding, resources and knowledge.

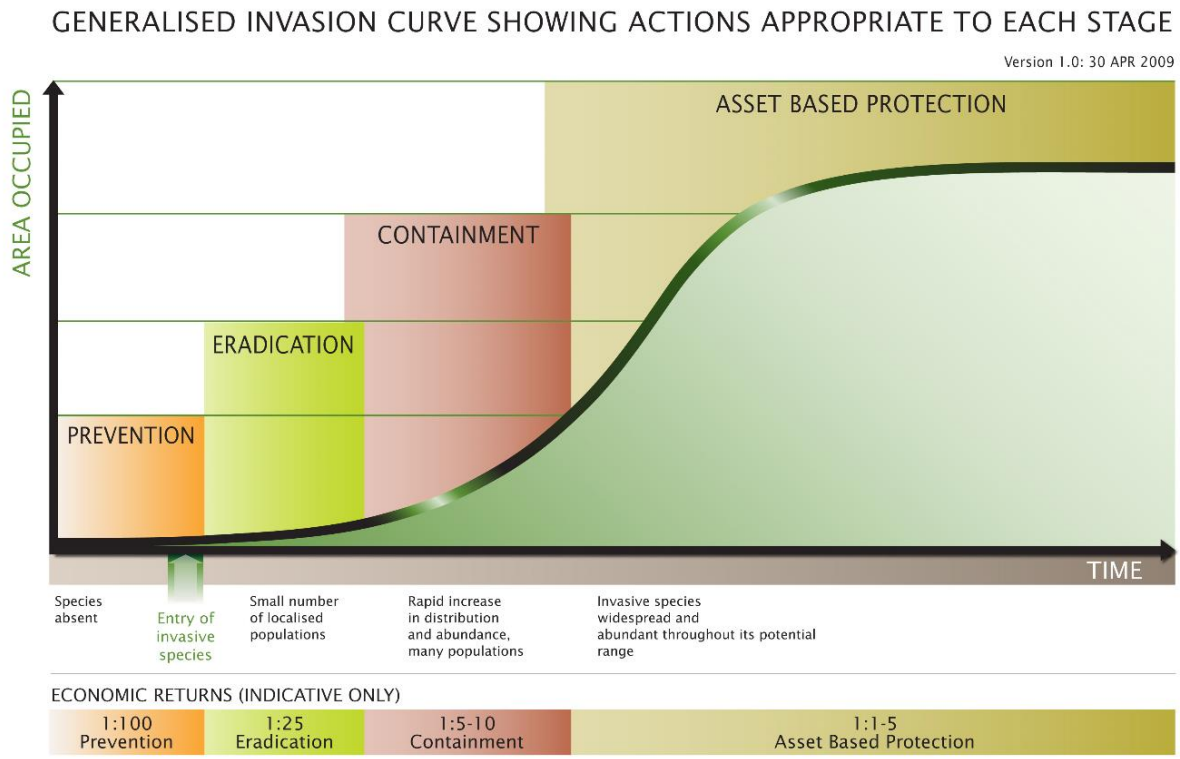
By strategically prioritising assets and targeting specific weeds, control measures are tailored to sites and treatment frequency is built into a rolling program. This asset-based program aligns with State and National policy and enables Council to ensure that the protection of critical natural resources continues to be a priority.

Biosecurity approach

Invasive plants have the potential to threaten the biodiversity, agricultural and amenity values of Baw Baw Shire. It is impossible to eradicate them all, and so it is necessary to focus on the high threat species and apply an appropriate level of management to attempt to eliminate or reduce the threat. This biosecurity approach acknowledges that economic returns for managing pest species are much higher when infestations are new or small compared to the cost of managing widespread, established species. Using this approach, intervention actions come in the form of prevention, eradication, containment or asset-based protection, depending on threat levels. The generalised invasion curve (Figure 1) shows that the economic returns of preventing weed outbreaks is far greater than trying to eradicate, contain or protect. It is important to note that this invasion curve is generalised and that good and bad investments at both ends of the spectrum will affect economic returns.

Given the rapid growth within Baw Baw Shire, and the proximity of rural zones to townships, the importance of prevention and early intervention cannot be underestimated. This must be balanced with an emphasis on the ongoing management of many naturalised weeds in Baw Baw Shire that pose a threat to biodiversity and other high value assets.

Figure 1. Generalised invasion curve showing actions appropriate to each stage (State of Victoria 1996 -2020)



Prioritisation Process

To ensure a consistent approach to Baw Baw Shire's annual weed programs, Council has developed a prioritisation process (see **Appendix D**): a tool that guides resourcing and the development of short, medium and long-term weed programs.

The process consists of two parts:

1. Site prioritisation – identifying and ranking biodiversity assets based on a number of criteria that establish the environmental values contained or potentially contained in that parcel of land
2. Weed assessment – identifying the weeds that pose the greatest risk to the assets at a site, using criteria based on the biology of the weed and population, its significance and impact, and ease of removal. This assessment is derived from the *Advisory List of Environmental Weeds in Victoria* (White *et al.* 2018)

While this system prioritises sites with the highest ecological value, it is important that not all resources are used in these areas, or there will be some sites that never get managed. This problem may be addressed by including one or a combination of the following:

- Visit all sites on a rolling roster (1-3 years), but vary the intensity of weed control at each site to be proportional to how they rank;
- Divide up weed control resources so that a large proportion (i.e. 60%) goes to sites of 'high' value, 30% to 'medium' value and 10% to low value sites;
- Prioritise certain works e.g. removal of Tree Tobacco, and carry out these works across all sites in order as prioritised;
- Use a combination of all three options.

Weed control in reserves and roadsides

Council manages 71 bushland reserves across the municipality and maintains approximately 1770 kilometres of rural roadsides.

Council must be highly strategic in distributing finite resources to manage weed threats in bushland areas and roadsides. Actions must also be directed to build ecosystem resilience as a priority, rather than simply targeting the removal of a particular species. In practice, directing strategic weed management and building ecosystem resilience will mean focusing on high quality environmental areas where indigenous species will recolonise the treated site. This will also increase the extent of native vegetation in the reserve – a key goal of the Victorian Government's *Victoria's Native Vegetation Management – A Framework for Action* (2011).

Roadsides are vulnerable to weed invasion as they are subject to disturbance and the spreading of weeds by impacts such as machinery, slashing, neighbouring properties, drains and the dumping of garden refuse. They are a major area for concern for government and private landholders in terms of the potential serious effect on agricultural production, the natural environment and rural communities.

The significance of vegetation on roadsides is widely recognised and many roads are dominated by largely undisturbed remnant vegetation. This provides habitat for flora and fauna, landscape character and provides important corridors to larger areas of indigenous vegetation.

Responsibility for the operational management of roadside invasive plants is complex in nature despite legislation and has been debated for some years. Council's current roadside weed program primarily targets Declared Noxious Weeds as required under the Victorian Government's Roadside Weeds and Pests Program. This program provides an annual funding allocation to Victorian Councils for control of weeds and pests on Council managed roadsides.

Council manages approximately 1770 kilometres of roads, with an average of 350 kilometres targeted annually for blackberry control. A rotational three-year program for blackberry control has seen the infestations and the cost of treatment per kilometre reduce. Other Declared Noxious weeds targeted which are easily spread by slashing and roadworks include – Gorse, Cape Broom, Flax-leaved Broom, English Broom. Ragwort is targeted in the hill areas to support local farmers and Landcare groups who have ragwort control as a focus.

Environmental weeds growing in high conservation roadsides (as described in Baw Baw Shire Council's Roadside Conservation Management Plan) have been targeted in partnership with local Landcare groups. These weeds have included – Sweet Pittosporum with Springsure Hill Landcare group and English Ivy and Blue Bell Creeper with Tanjil Valley Landcare group. There is the potential to increase work on the control of environmental weeds along roadsides with high conservation value with a more targeted approach.

Partnership program

Partnering with government agencies and community provides opportunities for more effective weed control across land tenures and opportunities to access funding. Existing partnerships include:

- DELWP Central Highland Eden Project, which focuses on control of high threat weeds through high biodiversity assets in the Central Highlands area of Victoria. Partners include DELWP, Parks Vic, Melbourne Water, Regional Roads Victoria, Shire of Yarra Ranges.
- Melbourne Water through their Corridors of Green program, which provides funding for the control of high threat weeds along waterways in the Melbourne Water catchment area. Recent projects involved Blackberry and Black Elder control along the Tarago River in Rokeby Flora Reserve.

Community led programs and empowerment

For effective invasive weed control programs, it is important for all levels of government to strengthen community capacity and confidence to take action on weeds. Agriculture Victoria supports community led programs such as the Victorian Blackberry Taskforce (VBT). These groups are led by active Victorian community members who are concerned about the impact of Victoria's worst invasive weeds.

Further opportunities exist for improvements to weed control including knowledge sharing, particularly through digital mechanisms, understanding the role of demographics and investigating the effectiveness of enforcement to support community led action (Agriculture Victoria, 2017).

Inappropriate land management practices on privately owned land can be a major cause of habitat loss and weed invasion. A change in these practices requires education and engagement. Changing human behaviour can be difficult and engaging landowners in making changes is no exception. Many possible factors influence landowner decisions, and these vary according to each landowner and each property context. Effecting change in landowner behaviour is problematic because the private benefits of action by landowners are often uncertain. Commitment by government to enforce compliance or directly fund on-ground work is also limited. These challenges highlight the need for continued community engagement and the provision of support.

Community education

Education is vital for increasing the community's understanding of weed issues and empowering individuals to take action to control weeds. Local government plays an important role in weed and environmental education for the community. Landholders in our shire have positively received the following weed management initiatives:

- Rural Weed Control Grants scheme;
- New landowner property visit;
- Weed Identification Guide – Common Weeds of Gippsland
- Provision of information to assist landholders to identify and control Declared Noxious and Environmental Weeds
- Partnering with Landcare groups to support local weed initiatives.
- Partnering with Community College Gippsland to provide practical experience to students training in the Horticulture and Conservation and Land Management fields.

Council will continue to deliver these initiatives and look for opportunities to improve or expand upon them. The provision of digital resources has been identified as one option to improve accessibility to information.

Statutory planning

Statutory planning provides a framework for future sustainable development and can play a role in weed management, especially when land is being developed. The planning scheme sets out policies for the use, development and protection of land, providing Council with opportunities for influencing vegetation management on private land.

Planning permit conditions provide Council with a valuable tool that can be used to facilitate environmentally responsible behaviour. While the use of planning permit conditions is limited to cases of new land use and development, due to the level of development occurring within the municipality, it provides Council with a mechanism for protecting or improving impacted biodiversity assets.

An opportunity available to Council to improve permit planning conditions is the development of Landscape Guidelines that specify landscaping requirements in different contexts and also inform developers about which plants can and can't be used in new developments.

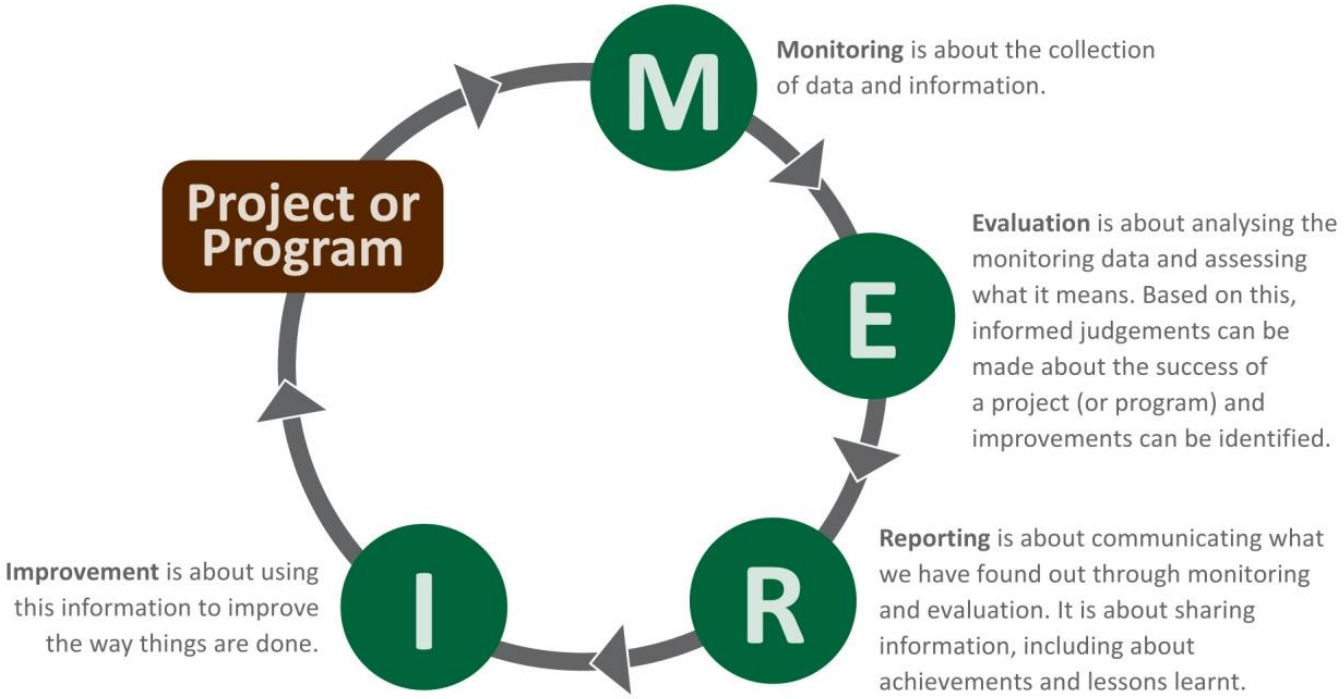
In addition, a review of the schedule to Clause 52.17 Native Vegetation (Baw Baw Planning Scheme), to include Victorian native vegetation that is known to be invasive e.g. Sweet Pittosporum would provide an exemption from requiring a planning permit for removal. This would improve efficiencies in the delivery of weed control programs particularly where they are across multiple land tenures.

Monitoring and review

To help understand whether Council's investment in weed programs is achieving planned outcomes, the design of weed management programs integrates monitoring and evaluation activities from the outset. Program review can then be based on the outcomes of this monitoring, thereby assisting in making better strategic decisions for long-term weed management.

This can be done through the cycle of monitoring, evaluation, reporting and improvement (MERI), as illustrated in Figure 2, which is a simple concept developed by the Victorian Government which, when applied, helps us understand what is being achieved and identify possible improvements for projects and programs.

Figure 2 - The Monitoring, Evaluation, Reporting, Improvement (MERI) cycle (Department of Agriculture, Water and the Environment 2013).



Progress of the actions in this strategy will be reviewed annually. A more detailed review of the entire strategy, including progress towards the objectives outlined under each of the three goals, will take place after its conclusion in 2025.

Action plan

Table 3 - Protect Action Plan

No.	Action	Priority
1.1	Implement prioritisation process to prioritise sites and set weed control objectives.	High
1.2	Develop annual work programs for bushland reserves.	High
1.3	Continue to collaborate with partner agencies, community groups and landholders, to plan and implement weed programs.	Medium
1.4	Increase staff and contractor weed identification skills through the provision of training and educational material.	Medium
1.5	Update the schedule to Clause 52.17 in Baw Baw Shire Planning Scheme.	Low
1.6	Establish a process to ensure that Committees of Management for Shire or Crown land are meeting their weed control responsibilities.	Low
1.7	Determine priority weeds in roadsides of high conservation value and include control targets in Roadside Weed and Pests Program.	Medium
1.8	Assess changes in weed cover and biodiversity in relation to the objectives of management. This may involve on-ground assessment and mapping at selected sites.	High
1.9	Provide input into the review of the Roadside Conservation Management Plan to reinforce the aims of the Weed Management Strategy.	Low

Table 4 - Manage Action Plan

No.	Action	Priority
2.1	Monitor and evaluate the effectiveness of weed control contractors.	High
2.2	Collect information from monitoring or photo points to analyse weed change.	Medium
2.3	Continue to work in partnership with the Victorian Government through the Roadside Weeds and Pests Animals Program to deliver actions reducing the impact of weeds on roadsides.	High
2.4	Continue to inform key public land managers of weed priorities in Baw Baw and encourage a strategic long-term approach to weed control, including addressing any concerns of weeds on adjoining council and private land.	High
2.5	Advocate to DEDJTR to continue to provide support to local government for weed control on private land through an ongoing weed enforcement program.	Low
2.6	Continue to work in collaboration with stakeholders involved in the Central Highlands Eden Project (DELWP to prioritise weed control programs within the Central Highlands).	Medium
2.7	Investigate how to best support Compliance to enforce Local Law 3.12.	Low
2.8	Monitor and review the effectiveness of the Rural Weed Control Grant and determine opportunities for improvement.	Low
2.9	Continue to seek funding to deliver partnership projects in high quality bushland reserves and along waterways.	Medium
2.10	Review annual works plans to continue to inform subsequent works plans.	High
2.11	Develop a comprehensive weed list for Baw Baw Shire.	Low

Table 5 - Engage Action Plan

No.	Action	Priority
3.1	Continue to support Landowners, Landcare groups and Latrobe Catchment Landcare Network to manage invasive species.	Medium
3.2	Undertake private property site inspections to provide advice in relation to improved agricultural land management with the additional potential of providing assistance via Council's incentive programs.	Low
3.3	Provide technical support to landowners including pest species identification and bushland management advice.	Medium
3.4	Provide grants to new rural landholders for actions to manage invasive species on their land.	Low
3.5	Promote Baw Baw Shire Council's Community Grants program to Landcare and Friends Groups to undertake targeted weed control programs.	Low
3.6	Continue to administer and assess the Rural Weed Grants program.	Low
3.7	Monitor and review the effectiveness of the Land Management Incentive Program.	Medium
3.8	Work with adjoining landowners and Landcare groups to implement landscape-scale pest animal control programs including roadsides.	High
3.9	Continue to support the Friends Groups working on Council land to implement on-ground conservation works by providing contractor and planning support, tools, equipment, training and advice.	High
3.10	Update Council's website to provide clear information on invasive species, including photos, control information and identification details.	Medium
3.11	Provide copies of Common Weeds of Gippsland booklet at Council's information stands, through Landcare and at community events.	Low
3.12	Undertake staff training to improve and maintain skills in identification of invasive species.	Medium

References

Agriculture Victoria (2017). *Roadside Weeds and Pest Report.* Accessed 30/03/2020. http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/weeds/roadside-weeds-and-pests-report

Baw Baw Shire Council (2015). *Open Space Maintenance Standards October 2015.* Baw Baw Shire Council.

Baw Baw Shire Council (2017). *Council Plan 2017-2021.* Baw Baw Shire Council.

Baw Baw Shire Council (2018). *Environmental Sustainability Strategy 2018 – 2022.* Baw Baw Shire Council.

Department of Agriculture, Water and the Environment (2013) *Monitoring, Evaluation, Reporting and Improvement Strategy – Caring for our Country and the Biodiversity Fund.* Viewed 09/03/2020. http://www.nrm.gov.au/publications/meri-strategy

Department of Primary Industries (2009). *The Biosecurity Strategy for Victoria*. Department of Primary Industries, Biosecurity Victoria, Melbourne.

Department of Primary Industries (2010). *Invasive Plants and Animals Policy Framework*. Department of Primary Industries, Melbourne.

Invasive Plants and Animals Committee (2016). *Australian Weeds Strategy 2017 to 2027*, Australian Government Department of Agriculture and Water Resources, Canberra.

The State of Victoria (1996-2020) *Protecting Victoria from Pest Animals and Weeds*. Viewed 09/03/2020. http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/protecting-victoria

The State of Victoria, Department of Sustainability and Environment (2011). *Victoria's Native Vegetation Management – A Framework for Action.* East Melbourne.

White, M., Cheal, D., Carr, G.W., Adair, R., Blood, K and Meagher, D. (2018) *Advisory list of environmental weeds in Victoria*. Arthur Rylah Institute for Environmental research Technical Report Series No. 287. Department of Environment, Land, Water and Planning, Heidelberg, Victoria.

Appendices

Appendix A – Nationally significant weeds

Weeds of National Significance (WONS)

Scientific name	Common name
Alternanthera philoxeroides	Alligator weed
Tamarix aphylla	Athel pine
Chrysanthemoides monilifera	Bitou bush / Boneseed
Rubus fruticosus agg.	Blackberry
Asparagus asparagoides	Bridal creeper
Cabomba caroliniana	Cabomba
Nassella neesiana	Chilean needle grass
Ulex europaeus	Gorse
Hymenachne amplexicaulis	Hymenachne
Lantana camara	Lantana
Prosopis spp.	Mesquite
Mimosa pigra	Mimosa
Parkinsonia aculeata	Parkinsonia
Parthenium hysterophorus	Parthenium weed
Annona glabra	Pond apple
Acacia nilotica ssp. indica	Prickly acacia
Cryptostegia grandiflora	Rubber vine
Salvinia molesta	Salvinia
Nassella trichotoma	Serrated tussock
Salix spp. except S. babylonica, S. X calodendron and S. X reichardtiji	Willows except weeping willows, pussy willow and sterile pussy willow

National Environmental Alert List

Scientific name	Common name
Acacia catechu	Cutch Tree
Acacia karroo	Karroo Thorn

Scientific name	Common name
Asystasia gangetica subsp. Micrantha	Chinese Violet
Barleria prionitis	Barleria
Bassia scoparia subsp. Densiflora	Kochia
Calluna vulgaris	Heather
Chromolaena odorata	Siam Weed
Cynoglossum creticum	Blue Hound's Tongue
Cyperus teneristolon	Cyperus
Cytisus multiflorus	White Spanish Broom
Dittrichia viscosa	False Yellowhead
Equisetum species	Horsetails
Gymnocoronis spilanthoides	Senegal Tea Plant
Hieracium aurantiacum	Orange Hawkweed
Koelreuteria elegans subsp. Formosana	Chinese Rain Tree
Lachenalia reflexa	Yellow Soldier
Lagarosiphon major	Lagarosiphon
Nassella charruana	Lobed Needle Grass
Nassella hyalina	Cane Needle Grass
Pelargonium alchemilloides	Garden Geranium
Pereskia aculeata	Leaf Cactus
Piptochaetium montevidense	Uruguayan Rice Grass
Praxelis clematidea	Praxelis
Retama raetam	White Weeping Broom
Senecio glastifolius	Holly Leaf Senecio
Thunbergia laurifolia	Laurel Clock Vine
Tipuana tipu	Rosewood
Trianoptiles solitaria	Subterranean Cape Sedge

Sleeper weeds

Category 1

Species that are considered to have been eradicated but are recommended for ongoing field monitoring

Scientific name	Common name
Crupina vulgaris	Common Crupina
Eleocharis parodii	Parodi Spike Rush
Piptochaetium montevidense	Uruguayan Ricegrass

Category 2

Species for which recent field surveys are complete and immediate eradication is recommended.

Scientific name	Common name
Asystasia gangetica ssp. micrantha	Chinese Violet
Baccharis pingraea	Chilquilla
Centaurea eriophora	Mallee Cockspur
Nassella charruana	Lobed Needle Grass
Oenanthe pimpinelloides	Meadow Parsley, Water Dropwort
Onopordum tauricum	Taurian Thistle

Category 3

Species considered suitable for eradication but for which field surveys on distribution are recommended to confirm feasibility of eradication.

Scientific name	Common name
Aeschynomene paniculata	Pannicle Jointvetch
Gmelina elliptica	Badhara Bush
Rorippa sylvestris	Creeping Yellow Cress

Category 4

Eradication is desirable but probably not feasible, and field surveys on distribution are recommended to confirm this assessment.

Scientific name	Common name
Cuscuta suaveolens	Chilean Dodder
Brillantaisia lamium	Giant Tropical Salvia
Hieracium aurantiacum	Orange Hawkweed
Froelichia floridana	Snakecotton
Hypericum tetrapterum	Square-stalked St John's Wort

Appendix B – Victorian noxious weed list

Current at 20 July 2017

Schedule 1: State Prohibited weeds

Scientific name	Common name
Acacia erioloba E. Mey	Giraffe thorn
Acacia karroo Hayne	Karoo thorn
Alhagi maurorum Medik.	Camel thorn
Alternanthera philoxeroides (Mart.) Griseb.	Alligator weed
Ambrosia psilostachya DC.	Perennial ragweed
Cannabis sativa L.	Marijuana
Carduus nutans L.	Nodding thistle
Centaurea nigra L.	Black knapweed
Eichhornia crassipes (Mart) Solms	Water hyacinth
Equisetum L. spp.	Horsetail
Fallopia japonica (Houtt.) Ronse Decr.	Japanese knotweed
Fallopia sachalinensis (F. Schmidt ex Maxim) *Ronse Decr.*	Giant knotweed
Fallopia x bohemica (Chrtek & Chrtkova) J.P.Bailey	Japanese knotweed hybrid
Festuca gautieri (Hack.) K. Richt.	Bear-skin fescue
Hieracium spp.	Hawkweed
Hypericum triquetrifolium Turra	Tangled hypericum
Iva axillaris Pursh.	Poverty weed
Lagarosiphon major (Ridl.) Moss	Lagarosiphon
Malvella leprosa (Ortega) Krapov.	*Ivy-leafed sida*
Nassella charruana (Arechav.) Barkworth	*Lobed needle grass*
Nassella tenuissima (Trin.) Barkworth	*Mexican feather grass*
Orobanche ramosa L.	*Branched broomrape*
Parthenium hysterophorus L.	*Parthenium weed*
Prosopis spp.	*Mesquite*
Salvinia molesta D.S. Mitch.	*Salvinia*

Schedule 2: Regionally Prohibited (P), Regionally Controlled (C), or Restricted Weeds (R)

Scientific name	Common name	Corangamite	East Gippsland	Glenelg	Goulburn	Mallee	North Central	North East	Port Phillip and Westernport	West Gippsland	Wimmera
Acacia nilotica (L.) *Delile subsp. indica* (Benth.) Brenan	Prickly acacia	Restricted weed (R) in the whole of the State									
Ailanthus altissima (Mill.) Swingle	Tree of heaven	R	C	C	C	R	R	C	C	C	R
Allium triquetrum L.	Angled onion	Restricted weed (R) in the whole of the State									
Allium vineale L.	Wild garlic	R	R	R	P	C	C	C	R	R	C
Alternanthera pungens Kunth.	Khaki weed	R	P	R	C	R	C	P	P	R	C
Amsinckia spp.	Amsinckia	P	C	P	C	R	C	C	C	P	R
Andropogon gayanus Kunth	Gamba grass	Restricted weed (R) in the whole of the State									
Annona glabra L.	Pond apple	Restricted weed (R) in the whole of the State									
Anredera cordifolia (Ten.) Steenis	Madeira vine	Restricted weed (R) in the whole of the State									
Asparagus aethiopicus L.	Ground asparagus	Restricted weed (R) in the whole of the State									
Asparagus africanus Lam.	Ornamental asparagus	Restricted weed (R) in the whole of the State									
Asparagus asparagoides (L.) Druce	Bridal creeper	Restricted weed (R) in the whole of the State									
Asparagus declinatus L.	Bridal veil creeper	Restricted weed (R) in the whole of the State									
Asparagus plumosus Baker	Climbing asparagus	Restricted weed (R) in the whole of the State									
Asparagus scandens Thunb.	Asparagus fern	Restricted weed (R) in the whole of the State									
Austrocylindropuntia Backeb. spp.	Opuntioid cacti	Restricted weed (R) in the whole of the State									
Calicotome spinosa (L.) Link	Spiny broom	C	R	R	R	R	R	P	P	R	C
Carduus tenuiflorus Curtis/ C. pycnocephalus L.	Slender/ Shore thistle	R	C	R	R	R	R	C	C	C	R
Carthamus lanatus L.	Saffron thistle	R	C	R	C	R	R	C	C	C	C
Cenchrus longispinus (Hack.) Fernald	Spiny burr grass/ Gentle Annie	R	R	P	C	C	C	C	P	R	C
Centaurea calcitrapa L.	Star thistle	R	C	R	R	R	R	C	P	C	R
Centaurea solstitialis L.	St Barnaby's thistle	P	P	P	C	R	R	C	P	P	C
Cestrum parqui L'Her.	Chilean cestrum	R	P	R	C	R	R	C	P	P	C

Scientific name	Common name	Corangamite	East Gippsland	Glenelg	Goulburn	Mallee	North Central	North East	Port Phillip and Westernport	West Gippsland	Wimmera
Chondrilla juncea L.	Skeleton weed	R	R	C	R	R	R	R	P	R	R
Chrysanthemoides monilifera (L.) Norl.	Boneseed/ Bitou bush	C	P	C	C	C	P	P	C	C	C
Cirsium arvense (L.) Scop.	Californian/ Perennial thistle	C	C	C	C	R	P	P	C	C	C
Cirsium vulgare (Savi) Ten.	Spear thistle	R	C	R	R	R	R	C	C	C	R
Conium maculatum L.	Hemlock	C	R	R	C	R	R	C	C	C	R
Convolvulus arvensis L.	Bindweed	R	P	R	R	R	R	C	C	C	C
Crataegus monogyna Jacq.	Hawthorn	R	C	R	C	R	R	C	C	C	C
Cryptostegia grandiflora R. Br.	Rubber vine	Restricted weed (R) in the whole of the State									
Cuscuta L. spp.	Dodder	R	R	R	C	R	R	C	C	P	P
Cylindropuntia (Engelm.) F. M. Knuth spp.	Opuntioid cacti	Restricted weed (R) in the whole of the State									
Cynara cardunculus L.	Artichoke thistle	C	R	R	P	C	C	P	C	P	R
Cytisus scoparius (L.) Link	English broom	C	P	R	C	R	R	C	C	C	P
Datura ferox L.	Thorn apple (long-spine)	R	R	C	C	R	C	C	C	C	R
Datura inoxia Mill.	Thorn apple (recurved)	R	R	C	C	R	C	C	P	P	R
Datura stramonium L.	Thorn apple (common)	R	R	C	C	R	C	C	C	C	R
Diplotaxis tenuifolia (L.) DC.	Sand rocket/ Sand mustard	R	R	C	R	R	R	R	C	R	R
Dipsacus fullonum L. subsp. fullonum	Wild teasel	R	R	R	R	R	R	C	C	C	R
Dittrichia graveolens (L.) Greuter	Stinkwort	R	R	R	R	R	R	C	C	R	R
Dolichandra unguiscati (L.) L.G. Lohmann	Cat's claw creeper	Restricted weed (R) in the whole of the State									
Echium plantagineum L.	Paterson's curse	C	C	C	C	R	C	C	C	C	C
Echium vulgare L.	Viper's bugloss	C	C	C	C	R	R	C	C	C	C
Emex australis Steinh.	Spiny emex	R	R	R	C	C	R	C	P	R	P
Eragrostis curvula (Schrad.) Nees	African love grass	C	C	R	C	R	C	C	C	C	R
Foeniculum vulgare Mill.	Fennel	C	R	R	R	R	R	R	R	R	R
Genista monspessulana (L.) L.A.S. Johnson	Cape broom	C	C	R	C	R	R	C	C	C	C
Genista linifolia L.	Flax-leaved broom	C	P	R	R	R	R	P	C	C	C

Scientific name	Common name	Corangamite	East Gippsland	Glenelg	Goulburn	Mallee	North Central	North East	Port Phillip and Westernport	West Gippsland	Wimmera
Hymenachne amplexicaulis (Rudge) Nees	Hymenachne, Olive hymenachne	Restricted weed (R) in the whole of the State									
Hypericum androsaemum L.	Tutsan	R	C	R	C	R	R	C	C	C	R
Hypericum perforatum L.	St. John's wort	C	C	C	C	R	C	C	C	C	C
Hypericum tetrapterum Fr.	St. Peter's wort	R	R	R	R	R	R	C	C	R	R
Jatropha gossypiifolia L.	Bellyache bush	Restricted weed (R) in the whole of the State									
Juncus acutus L.	Spiny rush	R	C	C	C	R	C	C	C	C	C
Lantana camara L.	Lantana	Restricted weed (R) in the whole of the State									
Lavandula stoechas L.	Topped lavender	R	R	R	R	R	R	C	R	R	R
Lepidium draba L.	Hoary cress	C	R	R	C	C	R	P	C	C	R
Leucanthemum vulgare Lam.	Ox-eye daisy	C	R	R	C	R	R	R	C	C	R
Lycium ferocissimum Miers	African boxthorn	C	C	C	C	C	C	C	C	C	C
Marrubium vulgare L.	Horehound	C	C	C	C	R	C	C	C	C	C
Melianthus comosus Vahl	Tufted honeyflower	R	R	R	C	R	R	R	C	C	R
Mimosa pigra L.	Mimosa, giant sensitive plant	Restricted weed (R) in the whole of the State									
Moraea flaccida (Sweet) Steud.	Cape tulip (one-leaf)	C	C	C	P	P	C	C	C	C	C
Moraea miniata Andrews	Cape tulip (two-leaf)	P	P	C	P	P	C	C	C	P	P
Nassella neesiana (Trin. & Rupr.) Barkworth	Chilean needle grass	Restricted weed (R) in the whole of the State									
Nassella trichotoma (Nees.) Hack. ex Arechav.	Serrated tussock	C	P	P	P	P	P	P	C	C	P
Onopordum acanthium L.	Scotch/ Heraldic thistle	C	C	C	C	R	P	C	P	C	R
Onopordum acaulon L.	Stemless thistle	R	C	R	R	R	R	C	P	R	R
Onopordum illyricum L.	Illyrian thistle	R	P	R	P	R	C	P	P	R	R
Opuntia aurantiaca Lindl.	Tiger pear	C	P	P	C	P	P	P	C	C	P
Opuntia Mill. spp. (except *O.aurantiaca Lindl., O. monacantha* Haw., *O. robusta* H.L. *Wendl. ex Pfeiff., Opuntia stricta* (Haw.) Haw., *O. ficus-indica* (L.) Mill.)	Opuntioid cacti	Restricted weed (R) in the whole of the State									

Scientific name	Common name	Corangamite	East Gippsland	Glenelg	Goulburn	Mallee	North Central	North East	Port Phillip and Westernport	West Gippsland	Wimmera
Opuntia monacantha Haw.	Prickly pear (drooping)	R	R	R	R	C	C	C	C	P	C
Opuntia robusta H.L. Wendl. ex Pfeiff.	Wheel cactus	R	R	R	R	C	C	C	P	R	C
Opuntia stricta (Haw.) Haw.	Prickly pear (erect)	R	R	R	R	C	C	C	C	P	C
Oxalis pes-caprae L.	Soursob	Restricted weed (R) in the whole of the State									
Parkinsonia aculeata L.	Parkinsonia/ Jerusalemthorn	Restricted weed (R) in the whole of the State									
Pennisetum macrourum Trin.	African feather grass	P	P	C	P	P	P	P	P	P	P
Physalis hederifolia A. Gray	Prairie ground cherry	C	R	R	C	C	C	C	C	R	P
Picnomon acarna (L.) Cass.	Soldier thistle	R	R	R	C	R	P	C	P	R	R
Proboscidea louisianica (Mill.) Thell.	Devil's claw (purple-flower)	R	R	C	C	R	R	C	P	R	R
Proboscidea lutea (Lindl.) Stapf	Devil's claw (yellow-flower)	R	R	C	C	R	R	C	P	R	R
Reseda luteola L.	Wild mignonette	Restricted weed (R) in the whole of the State									
Rhaponticum repens (L.) Hildalgo	Hardheads/ Russian knapweed	P	R	P	C	C	C	P	P	R	C
Rosa rubiginosa L.	Sweet briar	C	C	C	C	R	C	C	C	C	C
Rubus fruticosus L. agg.	Blackberry	C	C	C	C	R	C	C	C	C	C
Sagittaria L. spp.	Arrowhead	P	P	P	C	P	C	C	P	P	P
Salix spp. (except Salix alba var. caerulea (Sm.) Sm.*, Salix alba x matsudana, Salix babylonica* L.*, Salix X calodendron Wimm., Salix caprea* L. *'Pendula', Salix matsudana* Koidz *'Aurea', Salix matsudana* Koidz *'Tortuosa', Salix myrsinifolia Salisb., and Salix X reichardtii* A. Kern.)	Willows	Restricted weed (R) in the whole of the State									
Salpichroa origanifolia (Lam.) Thell.	Pampas lily-of the-valley	R	P	R	R	R	R	C	C	R	R
Scolymus hispanicus L.	Golden thistle	C	R	P	C	R	C	P	C	R	R
Senecio jacobaea L.	Ragwort	C	C	C	P	R	R	P	C	C	R
Senecio madagascariensis	Fireweed	Restricted weed (R) in the whole of the State									

Scientific name	Common name	Corangamite	East Gippsland	Glenelg	Goulburn	Mallee	North Central	North East	Port Phillip and Westernport	West Gippsland	Wimmera
Poir.											
Senecio pterophorus DC.	African daisy	P	R	C	P	R	P	P	C	P	P
Silybum marianum (L.) J. Gaertn.	Variegated thistle	R	C	R	C	R	R	C	C	C	R
Solanum elaeagnifolium Cav.	Silverleaf nightshade	C	R	P	C	C	C	C	P	R	C
Solanum rostratum Dunal	Buffalo burr	R	R	R	C	R	R	P	P	R	P
Tamarix aphylla (L.) H. Karst.	Athel pine/ tamarisk	Restricted weed (R) in the whole of the State									
Tribulus terrestris L.	Caltrop	C	R	C	C	R	C	C	P	P	C
Ulex europaeus L.	Gorse/ Furze	C	P	C	C	R	C	C	C	C	C
Verbascum thapsus L	Great mullein	R	C	R	C	R	R	C	R	R	R
Watsonia meriana (L.) Mill. *var bulbillifera* (J.W. Mathews & L. Bolus) D.A. Cooke	Wild watsonia	C	C	R	R	R	R	C	C	C	R
Xanthium spinosum L	Bathurst burr	C	C	C	C	R	C	C	C	C	C
Xanthium strumariam L.	Noogoora burr/ Californian burr	P	R	C	C	C	C	C	C	P	P

Appendix C - Environmental weeds

The following list of environmental weeds in an extract from Schedule 3 to Clause 42.01 Environmental Significance Overlay of the Baw Baw Planning Scheme. Any species included in this list may be removed, destroyed or lopped without the need to obtain a planning permit within the Trafalgar Sand Resource area (see ESO3 map in Baw Baw Planning Scheme).

Common Name	Botanical Name
African Boxthorn*	*Lycium ferocissimum*
African Feather Grass*	*Pennistum macrourum*
African Lily or Agapanthus	*Agapanthus praecox ssp. orientalis*
African Lovegrass*	*Eragrostis curvula*
African Olive	*Olea europaea var.cuspidata*
Alkante	*Pentaglottis sempervirens*
Alligator weed*	*Alternanthera philoxeroides*
American Aspen	*Populus tremuloides*
Angled Onion*	*Allium triquetrum*
Apple	*Malus spp*
Artichoke thistle	*Cynara cardunculus*
Asparagus Fern	*Myrsiphyilum scandens*
Banana Passionfruit	*Passiflora tarminiana (syn. P.mollissima)*
Belladonna Lily	*Amaryllis belladonna*
Berry-flower Heath	*Erica baccans*
Black Locust	*Robina pseudacacia*
Blackberry*	*Rubus fruticosus spp. Agg*
Blue Periwinkle	*Vinca major*
Blue Psoralea or Blue Butterfly Bush	*Psoralea pinnata*
Bluebell Creeper	*Sollya heterophylla*
Boneseed*	*Chrysanthemoides monilifera*
Bridal Creeper	*Asparagus asparagoides*
Bulbil Watsonia*	*Watsonia meriana var. bulbillifera*
Butterfly Bush	*Buddleia davidii, B. madagascariensis*
Cactus Pears	*Opuntia spp.*
Camphor Laurel	*Cinnamomum camphora*
Cape Broom*	*Genista monspessulana*
Cape Ivy	*Delairea odorata*
Cape Tulips*	*Moraea spp.*
Cape Wattle	*Paraserianthis lopantha var lophantha*
Cedar Wattle	*Acacia elate*
Cestrum	*Cestrum elegans*
Cherry laurel	*Prunus laurocerasus*
Cherry Plum	*Prunus cerasifera*
Chilean Needle – grass*	*Nassella neesiana*
Common Bindweed*	*Convolvulus arvensis*
Common Dipogon or Dolichos Pea	*Dipogon lignosus*

Common Name	Botanical Name
Common Forget-me-not	*Myosotis sylvatica*
Cootamundra Wattle	*Acacia baileyana*
Cotoneaster	*Cotoneaster spp.*
Creeping Buttercup	*Ranunculus repens*
Darwin's Berberry	*Berberis darwinii*
Desert Ash	*Fraxinus angustifolia ssp. Angustifolia (syn F.oxycarpa)*
Dietes	*Dietes grandiflora, D.bicolr*
Drain Flat-sedge	*Cyperus eragrostis*
Drooping Prickly Pear*	*Opuntia monacantha*
Early Black Wattle	*Acacia decurrens*
English Broom*	*Cytisus scoparius*
English Ivy	*Hedra helix*
Euryops	*Euryops abrotanifolius*
Evening Primrose	*Oenthera stricta*
Evergreen Dogwood	*Cornus capitata*
Fennel*	*Foeniculum vulgare*
Firethorns	*Pyracantha spp.*
Flax Leaf Broom*	*Genista linifolia*
Fountain Grass	*Pennisetum setaceum*
Fragrant Violet	*Viola odorata*
Freesia	*Freesia alba x lechtlinii*
Gazania	*Gazania lineraris*
Giant Honey Myrtle	*Melaleuca armillaris*
Golden Wreath Wattle	*Acacia saligna*
Gorse*	*Ulex europaeus*
Great Mullein*	*Verbascum thapsus*
Harlequin Flowers	*Sparaxis spp.*
Hawthorn*	*Crategus monogyna*
Hemlock*	*Conium maculatum*
Himalayan Honeysuckle	*Leycesteria formosa*
Holly	*Ilex aquifolium*
Honey Myrtle	*Melaleuca hypericifolia*
Italian Buckthorn	*Rhamnus alaternus*
Japanese Honeysuckle	*Lonicera japonica*
Karamu	*Coprosma robusta*
Karo	*Pittosporum crassifolium*
Kikuyu	*Pennisetum clandestinum*
Lantana*	*Lantana camara*
Laurestinus	*Vibernum tinus*
Manna Ash	*Fraxinus ornus*
Montbretia	*Crocosmia x crocosmiifolia*
Monterey Pine or Radiata Pine	*Pinus radiata*
Morning Glory	*Ipomoea indica*

Common Name	Botanical Name
Myrtle Leaf Milkwort	*Polygala myrtifolia*
New Zealand Mirror Bush or Taupata	*Coprosma repens*
Olive	*Olea europaea var. europaea*
Ox – eye Daisy*	*Leaucanthemum vulgare*
Pampas Grass	*Cortaderai selloana*
Patersons Curse*	*Echium plantagineum*
Pepper Tree	*Schinus areira*
Peruvian Lily	*Alstromeria aurea*
Plum	*Prunus spp.*
Portugal Laurel	*Prunus lusitanica*
Prickly Pear*	*Opuntia aurantiaca*
Privet	*Ligustrum vulgare*
Quaking Grass	*Briza maxima*
Ragwort*	*Senecia jacobaea*
Sallow Wattle	*Acacia longifolia*
Shasta Daisy	*Chrysanthem maximum*
Silky Oak	*Grevillea robusta*
Smilax	*Myrsiphyilum asparagoides*
Spanish Heath	*Erica lusitanica*
Spear Thistle*	*Cirsium vulgare*
Spiny Rush*	*Juncus acutus*
St Johns Wort*	*Hypericum perforatum*
Sticky Hop Bush	*Dodonea viscosa*
Strawberry Tree	*Arbutus unedo*
Sugar Gum	*Eucalyptus cladocalyx*
Swamp Foxtail - grass	*Pennisetum alopecuroides*
Sweet Briar or Briar Rose or Wild Rose	*Rosa rubiginosa*
Sweet Pea	*Lathyrus latifolius*
Sweet Pittosporum	*Pittosporum undulatum*
Sycamore Maple	*Acer pseudoplantanus*
Tall Fleabane	*Conyza bonariensis*
Tiger Pear	*Opuntia aurantiaca*
Topped Lavender*	*Lavendula stoechas*
Tree Lucerne	*Cytisis palmensis*
Tree Tobacco	*Solanum mauritianum*
Tutsan*	*Hypericum androsaemum*
Wandering Trad	*Tradescantia fluminensis*
Water Hyacinth	*Eichhornia crassipes*
Watsonia	*Watsonia spp.*
Wheel Cactus*	*Opuntia robusta*
White Arum Lily	*Zantedeschia aethiopica*
White Sallow Wattle	*Acacia floribunda*
Wild Oat	*Avena fatua*

Common Name	Botanical Name
Willow Hakea	*Hakea salicifolia*
Willows*	*Salix spp.*
Wood Violet	*Viola riviniana*

* Declared noxious weeds – includes State Prohibited Weeds, Regionally Prohibited Weeds, Regionally Controlled Weeds and Restricted.

Appendix D – Prioritisation process

Risk assessment

Determining risk is an essential component in helping to define priorities for weed prevention and control. A 'risk' is the chance of something occurring that has the potential to cause loss, damage or injury, and the term is used within this strategy to describe the negative impact of weeds on the environmental, economic and social values of bushland reserves within Baw Baw Shire.

This strategy adopts a prioritisation process to identify sites where risks are greatest and to set priorities for weed management. Part A of the process is designed to identify and rank biodiversity assets while Part B uses the *Advisory list of environmental weeds in Victoria* (White et al. 1998) to identify the risk rating of individual weed species present at the site. The risk rating is determined with consideration of the following attributes:

- Impact on natural systems
- Area of potential distribution remaining
- Potential for invasion
- Rate of dispersal
- Range of susceptible habitat types

The degree to which species are controlled is then determined through the development of site-specific management plans, which take into account the level of resources available.

Prioritising weed control

The process involves site-based assessments that prioritise weed control based on the ecological value of sites. By setting priorities based on the ecological value of sites, a wide range of weed infestations will be identified ranging from small, localised new invasions to large infestations that completely cover an area. Management options will therefore vary for each site. As it is the ecological value of sites that is significantly threatened by weed invasions, and extremely difficult to regain if degraded, the site-based approach is considered more appropriate than species-based.

The intention of implementing the prioritisation process is that the highest quality sites will be treated in the first year, then require less attention in the following year. This will allow the next highest quality sites to be treated in the second year and so on until the majority of sites have been treated and only maintenance is required.

This approach to weed management is based on the philosophy of working from the best areas to the worst.

While sites with the highest ecological value will be a priority using this system, it is important that not all resources are used in these areas, or there will be some sites that never get managed. Therefore, this problem could be addressed by including one or a combination of the following:

- visit all sites on a rolling roster (1-3 years), but vary the intensity of weed control at each site to be proportional to how they rank;
- divide up weed control resources so that a large proportion (i.e. 60%) goes to sites of 'high' value, 30% to 'medium' value and 10% to low value sites;
- prioritise certain works e.g. removal of mature Sweet Pittosporum, and carry out these works across all sites in order as prioritised;
- use a combination of all three options.

The prioritisation process is a priority-setting tool that will guide weed control efforts in Baw Baw Shires bushland reserves.

Part A: Site prioritisation

Criteria	Rationale	Level	Score
Native Vegetation Condition			
Ecological Vegetation Class Bioregional Conservation	A bioregional conservation status is provided for each EVC within a bioregion. It is a measure of the current extent and quality for each EVC, when compared to its pre-1750 extent and condition.	Endangered	5
		Rare	4
		Vulnerable	3
		Depleted	2
		Least Concern	1
Vegetation Condition based on Keighery (1994)	A rapid assessment of vegetation condition at a reserve level, undertaken to determine the quality of vegetation.	Pristine	10
		Excellent	8
		Very Good	6
		Good	4
		Modified / Revegetation	2
		Degraded	1
		Completely degraded	0
Threatened Species			
Flora and Fauna (add score for each threatened species)	Contains Nationally Listed Species	Present	2
		Absent	0
	Contains State Listed species	Present	2
		Absent	0
Size and Shape			
Reserve Size	Large reserves are more likely to support viable and resilient communities.	Greater than 10 Ha	5
		5 - 10 Ha	4
		2 - 5 Ha	3
		1 - 2 Ha	2

Criteria	Rationale	Level	Score
		0 - 1 Ha	1
Reserve Shape	Large, more rounded/square shaped reserves are more likely to have less edge effects and provide better habitat quality as compared to long and thin shaped reserves.	Circular, square	6
		Oval, rectangular	5
		Irregular with few indentations	4
		Irregular with many indentations	3
		Long and thin with large proportion greater than 50 metres wide	2
		Long and thin with large proportion less than 50 metres wide	1
Habitat Link		Part of a continuous link	4
		Part of a moderately fragmented link	2
		Part of highly fragmented link or potential link	1
		Not part of a link	0
Natural Features			
Wetland or Waterway	The presence of wetlands or waterways provides additional habitat and resources.	Present	5
		Absent	0
Community Use			
Active Community Group	Presence of an active Friends group at a site increases the community value and priority.	Regular involvement (> 4 visits p.a)	5
		Irregular involvement (> 4 visits p.a)	2
		Absent	0
Recreational Use		High	3
		Medium	2
		Low	1
		None	0
Indigenous or European Historical / Cultural Values		Present	1
		Absent	0
Tally scores for all sites and rank accordingly			

Part B: Weed assessment

Use the *Advisory list of environmental weeds in Victoria* (White *et al.* 1998) to prioritise weed control within sites.

Appendix E – Relevant legislation, policies and strategies

The legislative policy and strategy documents identified in the following table are all relevant to the management of weed species.

Australian Government Legislation	
Legislation	**Summary**
Agricultural and Veterinary Chemicals Administration Act 1992	This Act provides for controls in relation to the evaluation, registration and use of agricultural chemicals including pesticides for the control of weeds and pest animals. The Act is complemented by State legislation relating to the use, application and sale of agricultural chemicals.
Environment Protection and Biodiversity Conservation Act 1999 (EPBC)	The EPBC Act provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places which are defined in the Act as matters of national environmental significance. Threat abatement plans are generated under the EPBC Act to provide for the research, management, and any other actions necessary to reduce the impact of a listed key threatening process on native species and ecological communities. Plans have been developed for several species, including foxes, rabbits, feral cats, 'unmanaged' goats and feral pigs.
Quarantine Act 1908	The Australian Quarantine and Inspection Service (AQIS) is established under the Quarantine Act and manages quarantine controls at our borders to minimise the risk of exotic pests, animals, weeds and diseases entering the country. The risk assessments of importing individual species are undertaken by Biosecurity Australia.

Australian Government Strategies	
Strategy	**Summary**
Australian Weeds Strategy 2017-2027	The AWS has three overarching goals: To prevent the development of new weed problems. To reduce the impacts of existing weed problems of national significance. To provide the framework and capacity for ongoing management of weed problems of national significance.

State Government Legislation	
Legislation	Summary
Agricultural and Veterinary Chemicals (Control of Use) Act (1992) *Agricultural and Veterinary Chemicals Act (1994)*	These Acts complement Commonwealth legislation on the registration of agricultural chemicals including the use, application and sale of pesticides used for the control of weeds and invasive animals.
Catchment and Land Protection Act (1994) (CaLP Act)	The CaLP Act provides the power to declare noxious invasive plants and invasive animals if the Minister is satisfied that the species has or has the potential to become a serious threat to primary production, Crown land, the environment, or community health.
Conservation Forests and Land Act (1987)	This Act enables the Minister to establish Codes of Practice including eradication and control procedures for weeds and pest animals. The Act also provides for the establishment of land management cooperative agreements including the provision of grants and rate relief.
Crown Land Reserves Act (1978)	The Act provides for the permanent or temporary reservation and management of Crown Lands for a range of public purposes. Committees of management are appointed to manage, improve, maintain, and control the land for the purposes for which it was reserved.
Flora and Fauna Guarantee Act (1988) (FFG Act)	The FFG Act aims to guarantee that all Victorian taxa of flora and fauna can survive, flourish, and retain their potential for evolutionary development in the wild. Invasive plants and invasive animals present a major threat to flora, fauna and natural communities. Environmental weeds and some pest animals (e.g. feral cat) are listed as potentially threatening processes for native flora and fauna under FFG. FFG action statements provide land managers with a choice of procedures that can be used for the management of potentially threatening processes.
Land Act (1958)	The Land Act requires lessees and holders of agricultural licenses to control and keep the licensed land free of invasive animals and invasive plants.
Local Government Act (1989) *Planning and Environment Act (1987)*	These Acts provide opportunities for local councils to become involved in and enforce weed and pest animal control through local laws and planning permit conditions.
National Parks Act (1975)	The Act requires national and State parks to be managed in a manner that protects natural condition of the park. Managers are required to eradicate or

	control exotic species in all parks managed under the Act.
Road Management Act (2004)	Provides for the management of road reserves including the protection of significant roadside vegetation. It provides for the preparation of voluntary roadside management plans. At least nine acts make provision for the management of invasive plants and invasive animals along roadsides. These include the CaLP Act, Forests Act 1958, Transport Act 1983 and the Country Fire Authority Act 1958.
Sustainable Forests (Timber) Act (2004)	The Sustainable Forests Act (2004) inserted new clauses into the Forests Act (1958) including the provision for the use of fire to control weeds and animals in State Forests, National parks and protected public land. Fire may also be used to protect and enhance the ecology of these lands.
Water Act (1989)	The purpose of the Water Act is to provide means for the protection and enhancement of the environmental quality of waterways and for the protection of catchment conditions. This includes controls on the introduction of exotic species and the protection of the land and waterways.

State Government Policies	
Title	**Summary**
Code of Practice for Fire Management on Public Land (2012)	The Code requires that wherever possible the introduction and spread of weeds and pest animals is to be avoided or addressed within appropriate timeframes by effective Machinery hygiene practices.
Code of Practice for timber production (2007)	A mandatory requirement of the code is to identify and mitigate against potential threats such as invasive plants, pest and pathogens.
Environmental Policy for Victoria's State Forests	The policy identifies the seven objectives for the management of State forests in Victoria.
Invasive Pest Plant and Animal Policy Framework (IPAPF)	The policy provides a revision of the *Victorian Pest Management Framework – A Framework for Action* (2002). It represents the Victorian Government's approach to managing existing and potential invasive species across the whole of Victoria.
Sustainability Charter for Victoria's State Forests	The charter sets objectives for the sustainability of public native forests and the timber harvesting industry on public land in Victoria. It has strong links with the Environmental Policy for Victoria's State Forests.

State Government Strategies	
Title	Summary
Biosecurity Strategy for Victoria	The strategy covers threats to primary industries, the environment, social amenity and human health, across Victorian public and private land, freshwater and marine habitats, caused by plant and animal pests and diseases, and invasive plants and animals. The strategy focuses on new and emerging threats.
Victorian Biodiversity Strategy	Victoria's Biodiversity Strategy fulfils commitments in the national strategy for the Conservation of Biodiversity and requirements under Victoria's FFG Act 1998.

State Government Guidelines	
Title	Summary
Guidelines and Procedures for managing environmental impacts of invasive plants on public land in Vic 2007	The Guidelines propose a priority setting framework for managing the environmental impact of invasive plants and gives highest priority to new and emerging invasive plants and the next priority to protecting the highest value assets at greatest risk.

Other	
Title	Summary
Securing our Natural Future: A White paper for land framework and biodiversity at a time of climate change.	The White Paper is a long-term strategy to secure the health of Victoria's land, water and biodiversity in the face of ongoing pressures and a changing climate over the next fifty years.

Regional Strategies	
Title	Summary
Port Phillip and Western Port Regional Catchment Strategy	The Port Phillip Westernport RCS provides a strategic framework for land, water and biodiversity management in the Port Phillip and Western Port Region. The strategy sets targets for environmental assets such as native vegetation, native animals, waterways, wetlands, hinterland, coasts and bays. Measures are embedded into the strategy to generate and foster a shared vision for future environmental condition, commitment from partners, collaboration and effective action.
Port Phillip and Westernport Native Vegetation Plan 2006	The Port Phillip and Westernport NVP is a strategic guide for regional native vegetation management to

	achieve a reversal of the long-term decline in the extent and quality of native vegetation.
Port Phillip and Westernport Regional River Health Strategy 2006	This strategy identifies waterway values, threats to waterway values and actions to address these threats. It provides a five-year blueprint for Melbourne Water, the Port Phillip and Westernport CMA, Councils, community groups and environmental and industry associations to work together to improve rivers and creeks.
West Gippsland Regional Catchment Strategy 2013-2019	The West Gippsland RCS provides a strategic framework for land, water and biodiversity management in West Gippsland. The strategy identifies areas of the most importance and provides a framework that any individual, group or organisation can use to guide natural resource management decisions.
Invasive Plants and Animals Strategy 2010-2015	The IPA 2010-2015 describes the vision, goals and priorities for the management of invasive plants and animals across West Gippsland. The strategy employs a biosecurity approach to pest management.

Local Strategies

Title	Summary
Baw Baw Shire Council Plan 2017-2021	The Council Plan represents a four-year road map for Council and describes key services and priorities that Council will focus on between 2017-2021. The plan acknowledges the link between the future health and wellbeing of the community and the need to protect and sustainably manage our unique biodiversity and environmental assets. One of four key objectives under the Council Plan is Safe and Sustainable Environments. This objective focusses on 'protecting and sustainably managing Baw Baw's environment'.
Environmental Sustainability Strategy 2018-2022	This strategy focusses on Council's key environmental responsibilities to the community and the Baw Baw Shire organisation as directed by legislative and statutory requirements and the Council Plan. The strategy is structured to focus on three key environmental pillars: 1) Natural environment, 2) Climate change adaptation and mitigation, 3) Sustainable development.
Baw Baw Shire Council Pest Plant and Animal Chemical Policy	This policy describes Council's approach to control the use of chemicals in the management of unwanted vegetation and animal pests through a

	'least harm' approach in line with Council's legislative requirements.