

Tamar Valley

Weed Management

Strategic Plan 2022-2026

This project is supported through funding from the Tasmanian Weeds Action Fund, a \$5 million Tasmanian Government initiative funded until 2024. The funds provided by the Tasmanian Government are being invested with landholders, land managers, and other organisations to tackle weeds that are impacting valuable agricultural and environmental assets.





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1. Background

Weeds pose a significant threat to economic, environmental, and social assets within the Tamar Valley and more broadly across Tasmania and Australia, with weed management and production losses as a result of weeds estimated to cost nearly \$5 billion annually across Australia¹. In addition to production losses, weeds threaten significant ecological communities and threatened species and reduce the aesthetic value and access to land. Weed management is required to reduce these impacts where possible.

1.1 History of weed management in the Tamar Valley

There has been a history of targeted and coordinated weed management in the Tamar Valley.

1.1.1 Tamar Valley Weeds Strategy

In the early 1990's the Tamar Valley Weed Strategy was first formed as a community-based organisation, funded by the Tasmanian Government. The operational model of the organisation consisted of a coordinator bringing together all industry, Landcare groups, municipal Councils, Tasmanian Farmers & Graziers Association, Federal and State Governments, and individual landowners and farmers. The coordinator provided up to date weed identification and management information, coordinated weed management programs across land management tenure, and secured funding for weed education and management programs to assist landowners/managers and community groups. This coordination role was passed to Tamar NRM (formerly Tamar Region Natural Resource Management Strategy) at its inception in 1999 with support from City of Launceston, West Tamar, and George Town municipalities.

1.1.2 Tamar NRM

Weed management is one of the five key strategic objectives of Tamar NRM. Over the years Tamar NRM have managed a variety of weed management programs in the Tamar Valley with support and assistance from their partnerships with volunteers, community groups, all levels of Government, private industry, and business.

This Tamar Valley Weed Management Strategic Plan was developed for Tamar NRM by consultants RMCG through a grant provided by the Tasmanian Government's Weeds Action Fund under the guidance of a Steering Committee and has incorporated community input through consultation with all relevant stakeholders (local and State government, Landcare groups, landholders, etc).

1.2 Aim

The aim of the Tamar Valley Weed Management Strategic Plan (the Strategic Plan) is to provide a practical framework for long term, effective management of weeds in the Tamar Valley region.

¹ McLeod, R. (2018). *Annual Costs of Weeds in Australia*. eSYS Development Pty Limited. Published by the Centre for Invasive Species Solutions, Canberra, Australia

1.3 The Strategic Plan Area

The Strategic Plan covers three local government municipal areas; City of Launceston, George Town, and West Tamar (Figure 1).

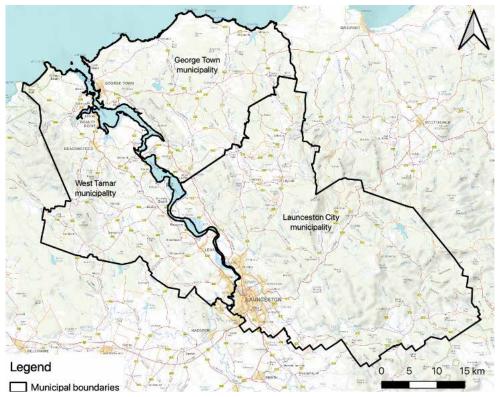


Figure 1. The Tamar Valley area

1.4 Relevant Legislation

Weeds that are deemed to significantly threaten environmental, economic, and/or social assets have been declared under the *Weed Management Act 1999*, which is the primary legislation concerning the management of declared weeds in Tasmania. The Act is administered by Biosecurity Tasmania within the Department of Natural Resources and Environment Tasmania (NRE TAS).

Once a weed is declared, a Statutory Weed Management Plan must be prepared for the weed. Within each Weed Management Plan, the weed is classified into one of two management zones (Zone A or Zone B) for each municipality;

Zone A

- Management objective: eradication
- Aim: to achieve and then maintain the total absence of the weed in the municipality.

Zone B

- Management objective: containment
- Aim: prevent the spread of the weed to areas free of the weed or areas where eradication has been achieved within the municipality.

It is an obligation of all landholders to take all reasonable measures to manage the impact and spread of declared weeds on their land. Weed Management Plans also outline restrictions on importation, sale, and storage of declared weeds.

2. Objectives of the Strategic Plan

The Strategic Plan has three primary objectives:

- Reduce the impact of existing weeds, with a focus on key weed species, in the Tamar Valley
- Prevent the establishment of new weeds in the Tamar Valley
- Build community awareness and capacity to act regarding weed management in the Tamar Valley

3. Priority 1: Reduce the impact of existing weeds in the Tamar Valley

3.1 Weed management

In order to reduce the impact of existing weeds in the Tamar Valley, a targeted and coordinated management approach is required. This Strategic Plan highlights nine key weed species (listed in Section 3.2) that such management should be focused on for the next five years. However, other weed species (e.g. those listed in Section 3.3) may also be managed in conjunction with these key species. In conjunction with this Strategic Plan, a weed action plan for each of the nine key species has been created for the Tamar Valley region (Appendix 1).

When determining appropriate management actions and a management target for a weed, the current distribution and municipality management measures should be taken into account. Generally, for each municipality, the management target will fall into one of the following categories;

- · watch for incursions and prevent establishment,
- eradicate existing occurrences, or
- contain the existing occurrences and prevent further incursions.

While the Statutory Weed Management Plans provide a management measure for a municipality as a whole, this may not be the most appropriate measure for a specific locality within the municipality or be the preferred approach of the local community. Therefore, the management measure for a weed may vary within a municipality, as well as among municipalities.

3.1.1 Management across boundaries

When planning management measures of a weed in an area, the status and location of the weed in adjacent properties, municipalities etc., which could provide a potential source population for re-establishment within the target area, should be considered. Not accounting for weeds across a boundary could severely hinder any attempt at successful, sustained containment or eradication of a weed. In situations where this is likely to be an issue, coordinated weed management and cooperation from multiple landholders/stakeholders is recommended. Tamar NRM may be able to facilitate this process if required.

A common example where coordination and cooperation should be sought between different stakeholders is roadsides in regional areas. If management of a particular weed is conducted on

one side of the boundary in isolation of the other, the likelihood of reinfestation is high, which can reduce the impetus for weed management. In order to increase coordinated weed management across tenure boundaries, it is recommended that the community (facilitated by Tamar NRM) encourage and seek Council/State Growth cooperation with landholders adjacent to proposed management areas. This cooperation should involve working towards an agreement for a weed management plan for the area, facilitating long term effective weed management for both parties. Council/State Growth should also be encouraged to coordinate their works with landholders that approach them with property weed management plans for land adjacent to Council/Crown land. Landholders looking to manage weeds on their property should also approach neighbours for similar coordinated weed management.

3.1.2 Management considerations

The approach to all weed management should involve integrated weed management with all known best practice methods being utilized where relevant. This may include chemical, biological or physical treatment of weeds. Each case will be different and the approach should reflect the circumstances at the time.

In some instances, ongoing successful weed management in an area can also be enhanced by revegetating management areas with local native species. For example, where large patches of gorse are removed, large patches of disturbed soil may remain with a large gorse seedbank. As well as providing competition for weeds, revegetation can assist in stabilising the soil and reducing erosion issues, particularly along watercourses where large weeds in the riparian zone are removed.

When planning the clearing of large patches of gorse and other weeds, consideration should also be given to the potential habitat it is providing native fauna species, primarily threatened native fauna such as the eastern barred bandicoot (*Perameles gunnii*, listed as vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*). Potential impacts on native fauna species can be minimised by clearing these large areas in stages and ensuring the areas cleared are replaced with native vegetation that provides similar, suitable habitat.

If a landholder is refusing to undertake appropriate management activities for declared weeds on their land, as obligated under the *Weed Management Act* (WMA), NRE TAS should be notified via lnvasiveSpecies@nre.tas.gov.au. Non-compliance with the WMA can result in fines and/or a requirement notice to manage declared weeds being issued. Failure to comply with a requirement notice can result in prosecution and/or the measures listed in the requirement notice being undertaken by a third party, with costs charged to the landholder.

3.1.3 Tamar NRM Weed Working Group

The Tamar NRM Weed Working Group (WWG) coordinates direct on ground action against prominent problem weeds in the Tamar Valley and provides a channel for the sharing of information on weed management activities by all stakeholders.

Over the past few years, the WWG has met on an annual basis with community groups, landholders, State government agencies, and Councils to review and plan weed management in the Tamar Valley. Under this Strategic Plan, meetings will be increased to a minimum of three times per year with the aim of improving collaboration and coordinated weed management between stakeholders, as well as providing a platform for information sharing regarding specific weeds management methods, new or existing problem areas/assets at risk, etc. These meetings will also be useful for highlighting the resources available to facilitate weed management works in the Tamar Valley. For example, Tamar NRM have a spray trailer that can be taken onsite and NRE TAS have a washdown trailer housed at Prospect that can be utilised.

3.2 Key weed species

This Strategic Plan focuses on nine key weed species;

- Asparagus fern Asparagus scandens
- Besom heath Erica scoparia
- Boneseed Chrysanthemoides monilifera
- Bridal creeper Asparagus asparagoides
- Gorse *Ulex europaeus*
- Paterson's curse Echium plantagineum
- Ragwort Senecio jacobaea
- Sea Spurge Euphorbia paralias
- Serrated tussock Nassella trichotoma

These key weed species were selected as they are currently within the Tamar Valley, have been subject to past, current, and/or proposed management actions within the Tamar Valley, and coordinated management actions under the Strategic Plan will reduce the impact of these weeds on economic, environmental and/or social assets in the Tamar Valley.

All of these key weed species are declared under the Weed Management Act 1999, with the exception of sea spurge. Although not a declared weed, sea spurge is highly invasive to coastal environments and is considered to impact on environmental, economic, and/or social assets.

While this Strategic Plan does highlight nine key weed species, it is important that local groups maintain the freedom to be able to determine their own 'local' priorities. While not all works will necessarily be targeted toward management of the nine key species of this Strategic Plan, the works will be contributing to community involvement in weed management and long term weed management in the Tamar Valley.

3.3 Other weeds of note in the region

This Strategic Plan is aimed primarily at the nine key weed species listed above in Section 3.2, however; it is noted that these are not the only weeds that are causing potential issues for local groups or landholders within the Tamar Valley, threatening economic, social, and/ or environmental assets. When the resources and opportunities allow, other weeds should be

managed to reduce their impact and prevent them from becoming a bigger issue and requiring a greater amount of resources for management in future. Other weeds nominated through community consultation in the development of the Strategic Plan include;

- Pampas grass Cortaderia spp.
- Willows Salix spp.
- Blackberries Rubus spp.
- Cape weed Arctotheca calendula
- Spanish heath Erica lusitanica
- Blue periwinkle *Vinca major*
- Hawthorn Crataegus monogyna
- Thistles (scotch, slender, cotton, saffron, star, nodding)
- Agapanthus Agapanthus spp.
- Blue butterfly-bush *Psoralea pinnata*
- Myrtle-leaf Milkwort Polygala myrtifolia
- Fox glove Digitalis purpurea
- Rice grass Spartina anglica
- African boxthorn Lycium ferocissimum
 - Specifically, at the Low Head Historic Site and Low Head Conservation Area.
- Broom spp Scotch Broom Cytisus scoparius; Montpelier Broom Genista monspessulana

4. Priority 2: Prevent the establishment of new weed problems

An important aspect of weed management is the prevention of new weed species or infestations establishing. The primary aspects in relation to this are:

- Preventing weed spread along existing/new pathways
- Identification of new incursions
- Fast and effective management of identified incursions.

4.1 Preventing weed spread along existing/new pathways

Targeting the source of incursions, where possible, is important for the ongoing success of weed management in an area. In all instances of weed management, consideration should be given to how the infestation originated and what can be done to prevent the re-establishment of the weed along the same potential pathways. Identifying the source of an infestation may also provide an indication of where else the weed may have spread or could potentially spread in the region.

4.1.1 Hygiene

An important aspect in the spread of weeds is the movement of machinery and equipment hygiene. Appropriate hygiene measures should be adhered to by anyone conducting weed management activities, e.g., landholders, community groups, Councils, contractors, NRE TAS. All equipment, tools, footwear, vehicles, and machinery that could contain weed seeds must be inspected and then cleaned when entering and leaving a site. Detailed information on hygiene measures can be found in the NRE

TAS *Weed and Disease Planning and Hygiene Guidelines 2015*. Note that the NRE TAS washdown trailer (housed at Prospect) may be utilised to facilitate hygiene procedures. While washing down onsite may not always be feasible, consideration must be given to minimising the risk of weed spread during transportation to a washdown bay. Following hygiene procedures will also minimise the potential of spreading disease and pathogens such as *Phytophthora* (root rot) and Chytrid frog fungus between sites.

Hygiene considerations are also important for the movement of material such as sand, gravel, and soil on to or off a site as any contamination of materials can result in the spread of weeds. If there are declared weeds present at the source site of the material, e.g., quarry, there is a high risk the material is contaminated. If bringing material to a site, an alternative source should be identified. If removing material from a site, e.g., cutting away material to allow for road expansion, the material should be appropriately disposed of or carefully monitored and treated to prevent weed establishment at the destination site.

When conducting roadworks, or any other works that require soil disturbance or the movement of material to or from a site, consideration should be given to potential sources of weed incursions and how these can be mitigated. Any potential for weed spread resulting from works conducted by Council/NRE TAS should be mitigated by the authority's management processes. Where feasible, this should include the creation and implementation of a weed management plan, which can also incorporate hygiene measures.

In addition to hygiene measures, knowledge of weed identification is important to ensure weeds at a site can be recognised and the correct plant targeted during weed management activities. Awareness raising activities around weed identification and the importance of hygiene and how this can be managed should also be provided under this Strategic Plan. This should include training sessions facilitated by Tamar NRM targeted at City of Launceston, West Tamar, and George Town Councils, contractors, and Crown land managers (NRE TAS) and also cover best practice weed management. With the aim of maintaining and improving the knowledge and skills of individuals involved in weed management, such training sessions should be conducted on an ongoing basis (annual/biannual). Training targeted at the general public is covered in Section 5.

4.1.2 Weeds in gardens

Illegal dumping of weeds and garden waste on Council or Crown land is an ongoing problem and recurring source of weed infestations. Once found, these areas can be managed, however, options to prevent dumping from occurring should be explored. Select areas in the City of Launceston and West Tamar municipalities have the option for residents to opt-in to a Food Organics and Garden Organics (FOGO) kerbside collection service which, if widely adopted, could assist in reducing the dumping of garden waste in these areas. Within other areas of the Tamar Valley, local waste management centres can be utilised as disposal sites for garden waste. The community should be encouraged to appropriately manage their garden waste, whether through the FOGO service or through their local waste management centre. Promotion around appropriate garden waste management should be incorporated into all community awareness raising activities under this Strategic Plan wherever possible.

If resources allow, alternative methods of appropriate weed disposal in the Tamar Valley may be investigated under this Strategic Plan, e.g. through the creation of biochar.

Exotic garden plants are a common source of weed infestations and as climate change occurs, the suitability of the Tamar Valley for a broader range of exotic plants, native to the drier mainland Australia and elsewhere, is likely to increase, potentially resulting in additional weed problems, or a wider distribution of existing weeds. While not a primary aspect of the Strategic Plan, the potential implications of climate change on weed management should be considered.

4.1.3 Roadside weed management

Weed incursions are common on and easily spread along roadsides. Appropriate weed management (spraying vs slashing) on roadsides is debated within the Tamar Valley, however, it is likely there are not adequate resources to slash or spray all roadsides at the appropriate time to minimise seed set of weeds. Relying solely on either technique will likely be ineffective weed management and result in the spread of weeds. Appropriate management of roadside weed infestations should be determined on a case-by-case basis and consider the species present, the size of the infestation, the density of weeds, and the type of and proximity to surrounding assets at risk.

Increasing and maintaining awareness and education of weed identification and best practice management of all organisations conducting roadside weed management is important in facilitating appropriate roadside weed management and should be incorporated into the ongoing training sessions facilitated by Tamar NRM under this Strategic Plan (see Section 4.1.1).

4.2 Identification of new incursions

In order for new weed incursions to be identified, members of the community must first be aware of what species are weeds and what they look like. Community awareness is an important part of this Strategic Plan and is addressed further in Section 5.

Community members should be encouraged to look out for and report new weed incursions, as well as querying potential new incursions if they are unsure of species identification. All new incursions should be reported to the Tamar Valley Weed Contact (see Section 4.3).

4.3 Fast and effective management of identified new incursions

Once a new weed incursion has been identified, fast and effective management is important to prevent the weed from establishing within an area and spreading further. A coordinated approach is recommended to streamline the management of new incursions, assisting in dealing with varying land tenure and responsible authorities. Under this approach, it is recommended that a central point of contact (Tamar Valley Weed Contact) is appointed. The feasibility of this approach (below) should be investigated by the Weed Working Group and adjusted where necessary to determine a new incursion reporting and management pathway. Once an approach is determined, this should be advertised.

Proposed approach:

- New weed incursion identified
- Location, species, size of/number of weeds in infestation, etc. reported to the Tamar Valley
 Weed Contact
- Tamar Valley Weed Contact enters details in a 'Tamar Valley weed incursion' spreadsheet
- Tamar Valley Weed Contact liaises externally with relevant authorities, e.g., State Growth, Council, landholder, Landcare Group, on a regular basis, passing on all relevant incursion information for instigation of management. If necessary, the Tamar Valley Weed Contact can also provide information on appropriate management measures.

Recording all new incursions in a spreadsheet is not only useful for passing on information to the appropriate authority but could also be used for tracking the success of management of new incursions, with the Tamar Valley Weed Contact facilitating an annual check-in with the relevant authority regarding existing incursions on the list. The information contained in the spreadsheet could then be evaluated to highlight instances of success and what worked well, as well as what aspects require a different approach to increase success of weed management. This evaluation, including potential new approaches to new incursion management, should be discussed with the relevant stakeholders (Councils, NRE TAS, etc.), allowing for continuous improvement of weed management in the Tamar Valley.

In future, the development of an app that allows users to upload information and photos relating to a weed incursion on a map, which could be updated to reflect when incursions are being targeted for management, could be a useful tool to track weed management in the Tamar Valley. Existing apps with appropriate functionality may be able to be applied in this manner in the Tamar Valley. The feasibility of utilising an existing app for weed management in the Tamar Valley should be explored if/when resources allow.

5. Priority 3: Build community awareness and capacity to act

A key aspect of successful ongoing weed management in an area is community awareness and involvement. There are currently a number of community Landcare groups that are involved in weed management in the Tamar Valley, however, it is important to engage the wider community in weed management where possible.

5.1 Tamar Valley weed brochure

An excellent existing community education tool for weed identification and best practice weed management in the Tamar Valley is the Tamar Valley weed brochure, which also provides information on native plant alternatives to weeds and details of important weed contacts. Under this Strategic Plan, the brochure should be updated, re-printed, and circulated by Tamar NRM.

5.2 Community events

To further support the roll out of the Strategic Plan, community awareness and involvement in weed management could aim to be increased through a series of weed identification and best practice management workshops throughout the Tamar Valley that are based on the priorities of this Strategic Plan. These workshops should be facilitated by Tamar NRM and aimed at both the general public and community groups that are already involved in weed management.

Where appropriate, weed identification and management, as well as the importance of appropriate hygiene measures, should be incorporated into community events run by Tamar NRM, Councils, etc. in an attempt to reach a broader audience than events focused primarily on weeds. Tying in the importance of weed management to the event by highlighting the impacts of weeds on the focus of the event will likely increase engagement, resulting in individuals more likely to be involved in weed management in the future.

Additional options for building community awareness include posting targeted information on Facebook gardening and community groups. Such information could include the updated Tamar Valley weed brochure, how popular garden plants can also be weeds, issues related with garden escapees, what native species could be planted in place of exotic garden plants/weeds, and what declared weeds are and what landholder obligations are regarding the management of declared weeds, with reference to the NRE TAS declared weeds index, https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-w

5.3 School partnerships

The feasibility should be examined of conducting annual/biannual presentations in schools, both primary and secondary, or supplying schools with information to incorporate into existing classes regarding the importance of weed management, weed identification, how to reduce weed spread, etc. As well as introducing the subject of weed management to multiple cohorts of students on an ongoing basis, it is likely that some children will share this information with their families, adding to community awareness outcomes. Exposing school students to weed management is also likely to increase the level of weed awareness in the community in the future. Some Landcare groups and Tamar NRM currently work with schools where possible and these partnerships should continue to be utilised and further explored. Additional opportunities to work with schools should be investigated, including identifying potential resources to facilitate partnerships and weed awareness in schools.

5.4 Resources

Tamar NRM have the capacity to fund specific weed projects within the Tamar Valley, however, additional funding is required to broaden the scope and outcomes of weed management projects. Additional funding associated with weed management in the Tamar Valley is generally short term and therefore unreliable to support long term weed management measures. A strategic approach to obtaining funding is therefore required and Tamar NRM should continue to seek and pursue any relevant grants and funding opportunities that arise.

A highly valuable resource for Tamar NRM is the commitment from volunteers and community groups as well as the partnerships they have formed with a range of community groups, local Councils, State and Federal Government, private industry, and business which assist in achieving on-ground actions. See Appendix 1 for a current list of Tamar NRM weed management partnerships. Tamar NRM should continue to maintain and build on these partnerships where possible.

Additional resources for weed management in the Tamar Valley include Tamar NRM's spray trailer and NRE TAS's washdown trailer housed at Prospect.

6 Evaluation and review

The Tamar Valley Weed Management Strategic Plan is to be reviewed and updated in 2026, after five years of operation. Management measures outlined in the Strategic Plan should be evaluated for success and effectiveness and adapted where necessary and any new management measures should be included. The key weed species listed under the Strategic Plan should also be reviewed and updated to reflect any changes in weed threat/distribution/priority over time. The review will be conducted by Tamar NRM with consultation with the community, Landcare groups, Councils, and NRE TAS.

A summary of the general weed management actions and performance measures against these is provided in Table 1 to assist in the evaluation.

As well as a full review in five years, it is recommended that the Strategic Plan is subject to a minor review on an annual basis. This could be incorporated into one of the WWG meetings and involve monitoring progress against the performance measures for actions under the Strategic Plan.

It is envisaged that the Weed Working Group will play an important role in the five year review and evaluation of the Strategic Plan, incorporating the information, actions, and discussions from the scheduled meetings held throughout the life of this Strategic Plan, including the annual reviews.

If adopted, the 'Tamar Valley weed incursion' spreadsheet is also expected to be a useful tool in the evaluation process as it may indicate trends in a particular weed species or area and may identify successful processes that should be incorporated in future strategies.

Table 1: Summary actions and performance measures

Priority	Action	Performance measure
1: Reduce the impact of existing weeds in the Tamar Valley	1.1 Reduce the impact of the nine key weed species in the Tamar Valley	1.1 Targeted and coordinated action is undertaken to reduce the impact of each of the nine key weed species
	1.2 Encourage/seek the coordination of weed management actions with adjacent landholders under a weed management plan	1.2 Number of weed management plans agreed to between different stakeholders/land managers
	1.3 Tamar NRM Weed Working Group (WWG) meetings will be increased to a minimum of three times per year	1.3 Number of WWG meetings held per year
	1.4 Where appropriate, revegetate management areas with local native species	1.4 Number of management areas where revegetation has occurred
2: Prevent the establishment of new weed problems	2.1 Provide information to all organisations and contractors conducting weed management regarding potential hygiene issues and encourage the documentation and implementation of hygiene control measures as per the NRE TAS Weed and Disease Planning and Hygiene Guidelines 2015	2.1 Councils, State Growth/NRE TAS, and community groups, etc. have, and implement, hygiene management protocols
	2.2 Tamar NRM facilitate ongoing (annual/biannual) weed ID, weed management, and hygiene focused training sessions targeted at Councils, NRE TAS, contractors	2.2 Number of targeted training sessions facilitated by Tamar NRM
	2.3 Potential weed spread resulting from works conducted by Council/ NRE TAS should be mitigated by the authority's management processes. Where feasible, this should include the creation and implementation of a weed management plan, which can also incorporate hygiene measures.	2.3 Council/NRE TAS management processes effectively mitigate potential weed spread resulting from works

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	2.4 Encourage the use of FOGO bins (in participating areas) and waste management centres for appropriate disposal of garden waste	2.4 Number of events/activities where appropriate garden waste disposal is encouraged
	2.5 Investigate alternative options of appropriate weed disposal in the Tamar Valley, e.g. through the creation of biochar	2.5 Potential alternative weed disposal options are investigated
	2.6 The WWG investigate the feasibility of the proposed coordinated approach to new weed incursion management	2.6 The feasibility of the proposed approach to new weed incursion management has been determined
	2.7 The WWG agree on and advertise a new weed incursion reporting and management pathway	2.7 A new weed incursion reporting and management pathway is agreed to and advertised
	2.8 Investigate feasibility of utilising an existing app for weed management in the Tamar Valley	2.8 Suitability of existing app/s for use in weed management in the Tamar Valley is determined
3: Build community awareness and capacity to act	3.1 Tamar NRM update and reprint the current Tamar Valley Weed brochure	3.1 Brochure is updated, reprinted, and circulated
	3.2 Tamar NRM run weed identification and best practice management workshops to engage the community on the priorities of the Strategic Plan	3.2 Number of workshops held/ number of workshop attendees
	3.3 Where appropriate, weed identification and management, as well as the importance of appropriate hygiene measures, should be incorporated into community events run by Tamar NRM, Councils, etc	3.3 Number of community events where weed management/ identification and hygiene procedures are incorporated
	3.4 Post targeted information on Facebook gardening and community groups	3.4 Number of informative posts to relevant Facebook groups
	3.5 Build partnerships with schools for weed education of students	3.5 Number and type of events conducted in/with schools

3.6 Investigate additional opportunities to work with schools, e.g. sourcing resources to facilitate partnerships/activities	3.6 Potential resources to facilitate partnerships/activities with schools have been investigated
3.7 Tamar NRM should continue to seek and pursue any relevant grants and funding opportunities that arise	3.7 Number and type of grant/funding applications/total dollar amount resulting from successful funding applications
3.8 Tamar NRM to maintain and build on existing partnerships	3.8 Number and type of partnerships

7. Useful links

- Code of Practice for Ground Spraying (NRE TAS) https://nre.tas.gov.au/agriculture/agvet-chemicals/codes-of-practice-guidelines-and-information-sheets/codes-of-practice/code-of-practice-for-ground-spraying
- Code of Practice for Spraying in Public Places (NRE TAS) https://nre.tas.gov.au/agriculture/agvet-chemicals/codes-of-practice-guidelines-and-information-sheets/codes-of-practice/code-of-practice-for-spraying-in-public-places
- Declared Weeds Index (NRE TAS) https://nre.tas.gov.au/invasive-species/weeds/weeds-index/ declared-weeds-index
- Weed and Disease Planning and Hygiene Guidelines (NRE TAS) https://nre.tas.gov.au/invasive-species/weeds/weed-hygiene/weed-and-disease-planning-and-hygiene-guidelines

Appendix 1 - Current Tamar NRM weed management partners

Organisation	Role
City of Launceston	Enforcement support; event volunteers; on ground management; disposal; project partner
West Tamar Council	Enforcement support; event volunteers; on ground management; disposal; project partner
George Town Council	Enforcement support; event volunteers; on ground management; disposal; project partner
Department of Natural Resources and Environment Tasmania	Information; enforcement support; event volunteers; on ground management; project partner
Department of State Growth	Enforcement support; on ground management
East Tamar Landcare Group	Event volunteers; on ground management; project partner
West Tamar Landcare Group	Event volunteers; on ground management; project partner
Lilydale Landcare Group	Project partner
Friends of Riverside	Event volunteers; on ground management
George Town Coastal Management Group	Event volunteers; on ground management
Lulworth Community Association	Event volunteers; on ground management
Beechford Residents and Property Owners Association	Awareness event partner
Parks and Wildlife Service	On ground management
Tasmanian Farmers and Graziers Association	On ground management, information

Tasmanian Herbarium	Information; event volunteers	
Royal Automobile Club of Tasmania (RACT)	Sponsorship	
BOAGS	Event volunteers	
Piper River Volunteer Fire Brigade	Venue; event volunteers	
Scent Dogs Australia	Event volunteer; contractor	
Conservation Volunteers Australia	Event sponsorship	
Individuals / land holders	Event volunteers; on ground management	

Appendix 2 - Action Plans for the nine key weed species

Tamar Valley Weed Action Plan

Asparagus Fern *Asparagus scandens*

Distribution

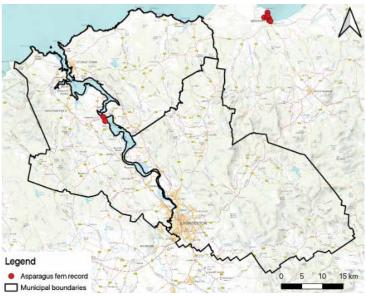


Figure 1. NVA location records of asparagus fern at 01/07/2021

Management objective

Launceston: Zone A, none - prevention George Town: Zone A, isolated - eradication West Tamar: Zone A, isolated - eradication

References

NRE Tas (2021) *Asparagus*. https://nre.tas.gov.au/ invasive-species/weeds/weeds-index/declared-weeds-index/asparagus

Action	Municipality	Responsible Organisation	Timeframe
Undertake community awareness and identification activities and encourage reporting of new sightings	All	TNRM, GTCMP	Ongoing
Continue control of Lulworth infestation	George Town	GTCMP	Ongoing

Besom heath Erica scoparia

Distribution

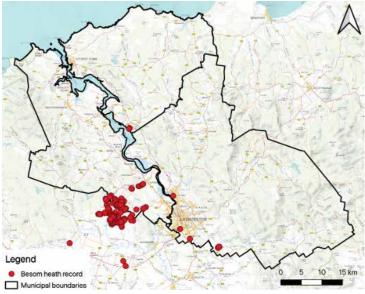


Figure 1. NVA location records of besom heath at 01/07/2021

Management objective

Launceston: eradication George Town: eradication

West Tamar: containment, leading to

eradication

Resources

NRE Tas washdown trailer

References

NRE Tas (2020) *Erica*. https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index/erica

Action	Municipality	Responsible Organisation	Timeframe
Record all past management actions undertaken on Besom Heath in the Tamar Valley		TNRM	By Dec. 2021
Undertake community awareness and identification activities and encourage reporting of new sightings	All, Focus in Bridgenorth and surrounding area, West Tamar	TNRM	Late winter/ spring
Increase community, Council, and contractor awareness around the importance of hygiene and early control of incursions to prevent spread and known control methods	All, Focus in Bridgenorth and surrounding area, West Tamar	TNRM, DPIPWE	Late winter/ spring
Map existing infestations and initially target control to prevent spread	All	TNRM, groups	Commence Aug. 2021
Seek funding, undertake herbicide trial, and obtain APVMA approval		TNRM	Commence Aug. 2021
Work with landholders to implement control techniques	All, Focus in West Tamar and work in conjunction with Meander Valley	TNRM, West Tamar Council, Meander Valley Council, landholders	Spring - annually

Boneseed Chrysanthemoides monilifera

Distribution

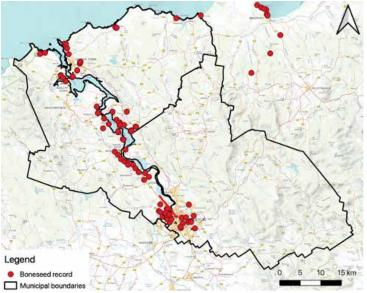


Figure 1. NVA location records of boneseed at 01/07/2021

Management objective

Launceston: Zone A, localised - eradication George Town: Zone A, isolated - eradication West Tamar: Zone A, localised - eradication

References

Brougham, KJ, Cherry, H and Downey, PO (eds) (2006) Boneseed Management Manual: current management and control options for boneseed (Chrysanthemoides monilifera ssp. monilifera) in Australia. Department of Environment and Conservation NSW, Sydney. https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Pests-and-weeds/boneseedmanagement-manual-060390.pdf

NRE Tas (2019) *Boneseed*. https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index/boneseed

Action	Municipality	Responsible Organisation	Timeframe
Undertake community awareness and identification activities during germination/ flowering season	All	TNRM, Councils, Landcare groups	Aug. to Sep. annually
Undertake survey of key known infestations	All	TNRM	Mid-late Aug. annually
Determine priority Boneseed Blitz (BB) event sites & set up with appropriate organisations/groups and gain approvals	All	TNRM	Aug. to Sep. annually
Promote BB events to community and run events	All	TNRM, Councils, groups	Aug. to Sep. annually
Target private land for a generic awareness letter noting landholder obligation and compliance (and provide at BB activities)	All	TNRM	Aug. to Sep. annually
Provide list of remaining incursion sites to Councils/State Growth etc. and request they follow up with landowners	All	TNRM	Sep. annually
Prepare BB report & distribute		TNRM	By mid Oct. annually

Bridal creeper *Asparagus asparagoides*

Distribution

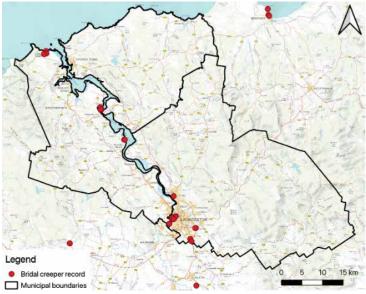


Figure 1. NVA location records of bridal creeper at 01/07/2021

Management objective

Launceston: Zone A, localised - eradication George Town: Zone A, none - prevention West Tamar: Zone A, localised - eradication

References

NRE Tas (2021) Asparagus. https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index/asparagus

Action	Municipality	Responsible Organisation	Timeframe
Survey known infestations to determine extent and presence of any rust/ leafhopper	Launceston City, West Tamar	TNRM	Aug. 2021
Liaise with DPIPWE to seek source of rust/leafhopper and establish in vigorous infestations with no current biocontrol agents	Launceston City, West Tamar	TNRM	Ongoing
Undertake community awareness and identification activities and seek reports of infestations and biocontrol agent establishment	All	TNRM	Incorporated with other events in spring/early summer
Encourage community action to control any identified infestations	All	TNRM	Spring/early summer annually

Gorse *Ulex* europaeus

Distribution

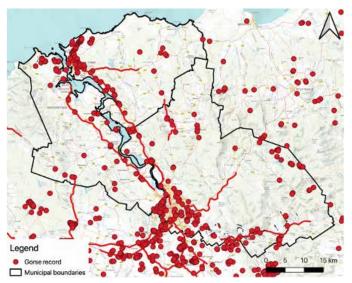


Figure 1. NVA location records of gorse at 1/7/21

Management objective

Launceston: Zone B, widespread - containment George Town: Zone B, widespread - containment West Tamar: Zone B, widespread - containment

Resources

TNRM spray trailer

References

NRE Tas (2019) *Gorse*. <u>https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index/gorse</u>

Gouldthorpe, J., Austen, L., Moore, J., Poulish, G., Sandiford, L., Ireson, J., Laird, A., Hurley, H., and Williams, S. (2006) *Gorse - National best practice manual.* Department of Primary Industries and Water, Tasmania. Available online: http://www.nccma.vic.gov.au/sites/default/files/publications/nccma-10130-gorse_national_best_practice_manual.pdf

Action	Municipality	Responsible Organisation	Timeframe
Promote active management of existing infestations using known control methods • Focus on areas where environmental/ agricultural/ cultural assets at risk. • Where feasible, TNRM and Council weed officers work with landholders to develop a management plan and provide ongoing advice and encouragement	All	TNRM, Councils	Spring annually
Actively spread existing biocontrol agents	All	TNRM, Councils	Dec. annually
Seek funding to eradicate gorse from Pipers River Catchment (PRC) through 10-year program	George Town, Launceston City	TNRM, East Tamar Landcare Group (ETLG), Lilydale Landcare Group (LLG), landholders	Aug. 2021
Undertake control program and awareness raising for all infestations in PRC. Ensure mapping and monitoring occurs	George Town, Launceston City	TNRM, ETLG, LLG, landholders	Nov. 2021 ongoing to 2024
Revisit control areas in PRC to eliminate regrowth	All	TNRM, groups, landholders	Annually
Revegetate control areas on waterways and large control areas with local native plants, where feasible	All	TNRM, groups, landholders	Ongoing

Paterson's curse Echium plantagineum

Distribution

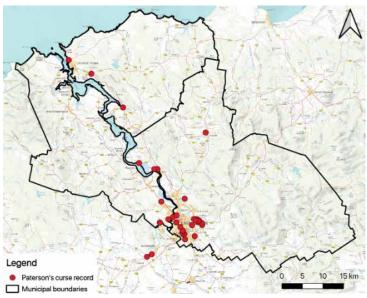


Figure 1. NVA location records of Paterson's curse at 01/07/2021

Management objective

Launceston: Zone A, localised - eradication George Town: Zone A, localised - eradication West Tamar: Zone A, localised - eradication

References

NRE Tas (2019) Paterson's Curse and Viper's Bugloss. https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index/patersons-curse-and-vipers-bugloss

Action	Municipality	Responsible Organisation	Timeframe
Promote best practice control and encourage reporting of new infestations	All	TNRM, groups, organisations	Incorporated with other events in spring/early summer
Assist DPIPWE to monitor and collect biocontrol agents for establishment elsewhere		TNRM	Spring/summer
Undertake community awareness and identification activities	All	TNRM, groups	Spring annually

Ragwort Senecio jacobaea

Distribution

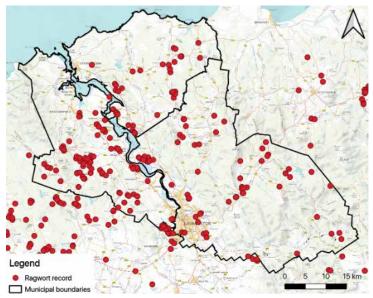


Figure 1. NVA location records of ragwort at 01/07/2021

Management objective

Launceston: Zone A, localised - eradication George Town: Zone A, localised - eradication West Tamar: Zone A, localised - eradication

References

NRE Tas (2019) *Ragwort*. https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index/ragwort

Action	Municipality	Responsible Organisation	Timeframe
Determine annual dates for Ragwort Raid (RR) in conjunction with groups	All	TNRM, groups	By early Nov. annually
Seek Council and State Growth approval to work on roadsides	All	TNRM	Nov. annually
Undertake awareness activities and RR promotion	All	TNRM, RR coordinator	Nov. to Jan.
Undertake RR at 3-4 locations (e.g. East Tamar, West Tamar, Blessington, Nunumara)	All	TNRM, groups, RR coordinator	Jan. annually
Follow up with Council/State Growth etc. regarding any infestations on private/Council/Crown land	All	TNRM	By end Jan. annually
Prepare RR report & distribute		TNRM, RR coordinator	By mid Feb. annually

Sea Spurge Euphorbia paralias

Distribution

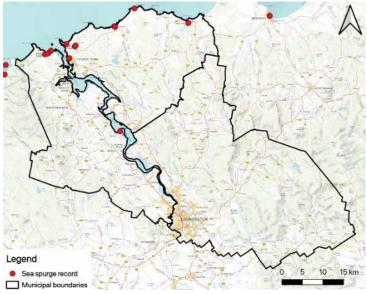


Figure 1. NVA location records of sea spurge at 01/07/2021

Management objective

Launceston: prevention

George Town: containment, leading to eradication West Tamar: containment, leading to eradication

Resources

TNRM spray trailer

References

NRE Tas Weed Management Guide Sea Spurge (Euphorbia paralias). https://nre.tas.gov.au/Documents/DPIPWE-Sea-Spurge-Guidelines.pdf

Action	Municipality	Responsible Organisation	Timeframe
Undertake community awareness and identification activities - ensure dangers to humans and environment are known and control methods understood	All	TNRM, George Town Coastal Management Group (GTCMG)	Spring/summer
Continue control of the Lulworth, Bellingham, and surrounding areas infestations and encourage other groups to prioritise areas and undertake control	George Town, West Tamar	GTCMG	Spring/summer
Update the GTCMG action plan to include sea spurge bio control		GTCMG	When available

Serrated tussock Nassella trichotoma

Distribution

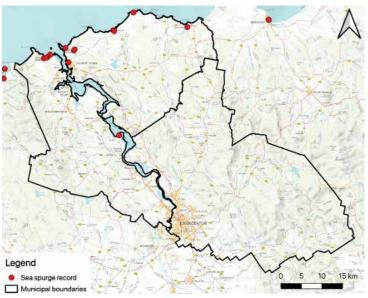


Figure 1. NVA location records of serrated tussock at 01/07/2021

Management objective

Launceston: Zone A, prevention

George Town: Zone A, none - prevention West Tamar: Zone A, none - prevention

Resources

Scent dogs

References

NRE Tas (2019) Serrated Tussock <u>https://nre.tas.gov.au/invasive-species/weeds/weeds-index/declared-weeds-index/serrated-tussock</u>

McLaren, D. & Grech C. (2019) *Recognising, managing and preventing herbicide resistance in serrated tussock.* Department of Primary Industries, NSW. https://www.dpi.nsw.gov.au/biosecurity/weeds/weed-control/herbicides/recognising-managing

Osmond, R., Veebeek, M., McLaren, D.A., Michelmore, M., Wicks, B., Grech, C. J. and Fullerton, P. (2008) Serrated tussock - National best practice manual. Victorian Department of Primary Industries. http://serratedtussock.com/wp-content/uploads/files/Serrated-Tussock-National-Best-Practice-Management-Manual.pdf

Action	Municipality	Responsible Organisation	Timeframe
Undertake community awareness and identification activities during germination/ flowering season and encourage reporting of new sightings	All	TNRM	Sep. to Nov. annually
Maintain surveillance of the high-risk sites identified through the Weed Action Fund project	All	TNRM, Nassella Monitors	Annually
Maintain liaison with landholders of known infestations	City of Launceston	TNRM	Annually
Continue to support surveillance and control of known infestations	City of Launceston	TNRM	Annually
Complete training of scent dog for serrated tussock surveillance		TNRM, Scent Dogs Australia	Oct. 2021