

WEED ACTION PLAN

Updated 2012

NORTHERN NATURAL RESOURCE MANAGEMENT REGION
TASMANIA

WEED ACTION PLAN – REVIEW AND UPDATE 2012 NORTHERN NATURAL RESOURCE MANAGEMENT REGION TASMANIA

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Weed Management Strategy for the Northern Natural Resource Management Region

The overall goal of the Strategy is to protect the Northern NRM Region's economy, environment and community by reducing the adverse impacts of weeds.

The objectives that were recommended in the Weed Management Strategy are summarised in the following section of this Action Plan, as an overall précis of that document.

1. PREVENT THE DEVELOPMENT OF NEW WEED PROBLEMS

There are three recognised methods for preventing the development of new weed problems: prevention; preparedness and a rapid response. This section has four main objectives dealing with new weed issues, as follows:

1.1 Minimise the spread of weeds

The development of regional policies and codes of practice to prevent or minimise the spread of weeds through unnatural vectors (i.e. vectors associated with human activities) is seen as a key strategic action in prevention. The use of hygiene practices such as washing contaminated wastes are all important strategies for reducing weed spread. The dissemination of information on weed management is essential in preventing the introduction and/or spread of weeds.

1.2 Support National and State quarantine measures

Quarantine measures taken by National and State authorities provide some protection from the introduction of weeds. National quarantine measures include terrestrial and aquatic weed inspection and action, the regulation of ballast water which has been recognised as a vector for marine weeds and the assessment of plant species considered 'sleeper weeds'. The appropriate personnel to complete quarantine protection and assessment, coupled with the support of the community are vital in protecting the region from new weed introductions and the spread of existing weeds.

1.3 Detect and control new and emerging weeds

One of the first strategic actions in this area is the reporting of new weeds to a central body that the community is aware of, for referral and action at the regional level. The development of a system of immediate response to new weed reports coupled with an action plan outlining the available resources and expertise available will provide an immediate and appropriate response to new weed introductions.

1.4 Control the trade and sale of weedy species

The National and State quarantine measures in place provide an important first line in the prevention of the introduction of weedy species. At a regional level the promotion of codes of practice and policies to reduce the trade and sale of weedy plants, by industries dealing with plants that may become weeds, provides an important local minimisation method.

2. REDUCE THE IMPACT OF EXISTING WEEDS

Once weed species are established in the region the reduction of their impacts on the community is desirable for preventing or minimising economic loss, environmental degradation and community enjoyment of their land and water areas. There are four objectives dealing with reducing the impact of weeds in the region.

2.1 Improve mapping of weed distribution and density

Mapping of weed distribution and density allows a coordinated and informed approach to weed control and management and allows a quantitative assessment of the effectiveness of weed management practices in the region. Knowledge of what weeds are in the region and their area of occurrence is a vital first step in managing and reducing the impact of weeds.

2.2 Develop and implement multiple on ground support services

The first action is the provision of information on best practice weed management to the community from a central source where up to date information on weed management is available. This develops an informed community with the most effective weed management advice available for on ground action and planning information. The sharing of resources amongst the community encourages a coordinated approach with the most appropriate equipment and expertise.

2.3 Implement weed management legislation

The need for the community and land and water managers to comply with existing weed management legislation is an integral part of long term effective weed control in the region. Weed management plans for priority weed species are developed under State weed legislation and provide a number of actions that can be taken to reduce the impact of weeds on land and in water areas, with the final option of prosecution, if necessary. The provision of an adequate number of gazetted Weed Officers in the region to engage the community in weed management is essential. The review of existing legislation and its effectiveness in weed management is necessary for the long term reduction of weed impact.

2.4 Develop and promote integrated weed management

Investigation of new control methods and technology to reduce the impact of weeds is important for future best management practice. Integrating existing methods of weed control provides the best weed management results, from methods such as bio-control agents to non-chemical control methods such as smothering and grazing regimes. Supporting the research and development of ecologically sustainable alternative weed control methods provides the possibility of a future where control methods are ecologically sustainable.

3. PROVIDE THE FRAMEWORK AND CAPACITY FOR THE ONGOING MANAGEMENT OF WEEDS

Weed management in a regional context requires the cooperation and coordination of weed management efforts from landholders, the general community, industry and government. This section has six objectives dealing with providing the framework and capacity for effective weed management.

3.1 Promote and implement best practice weed management

The strategic management of weeds is best achieved by the integration of planning, implementation and monitoring with a system of cooperation between landholders, community, industry and government. Any effective weed management must be a part of overall natural resource management and land management practices and techniques. Codes of practice and policies from a variety of land and water management activities provide an awareness avenue for the promotion of best practice weed management. The utilisation of bioregional areas provides a natural resource classification process that will enable planning and action to be as effective as possible.

Using best practice weed management is the optimum approach and coupled with a long term commitment will lead to success in weed management.

3.2 Establish a network of Gazetted Weed Officers

The establishment of locally based Gazetted Weed Officers in the region is important for coordinating weed management activities in the region at regional and sub-regional levels.

The network of gazetted Weed Officers in conjunction with other organisations involved in weed management will form a regional support network to provide up to date advice and information on best practice weed management.

3.3 Prioritise weeds and areas in the region

The prioritisation of weed species assists in the effective allocation of resources for weed management. Given the high number of weed species a prioritisation for the region is necessary to concentrate efforts and resources on the weeds that are most important to the regional community.

The identification of high value areas for protection against weeds and for the management of existing weed infestations will allow community priority areas to be protected.

3.4 Develop, implement and support strategic planning for weed management at the local and municipal level

The development and upgrading of municipal weed management strategies taking into consideration regional priorities and improved resource sharing opportunities will allow sub-regional priority setting. The establishment and support for sub-regional weed management groups will ensure an effective and coordinated approach to sub-regional weed management.

3.5 Promote and implement resource sharing

Regional community resources, knowledge and expertise can be combined to realise more effective weed management; cooperative weed management planning and on ground control can lead to greater effectiveness.

Potential funding sources can be accessed more successfully by joint sub-regional and regional applications, with an underlying Weed Management Strategy providing direction for priority setting. The identification of the weed management resources in the region into a central inventory will enable quick and effective access to weed control infrastructure, expertise and experience when required.

4. INCREASE PUBLIC AWARENESS AND EDUCATION ON WEED MANAGEMENT

The awareness of a weed problem is a major issue in effective and cooperative weed management. The public need to be aware of which plants are weeds, how important a weed species can be to the community in the social, environmental and economic sense and the individual in terms of productivity loss, aesthetic value depreciation, human health and loss of biodiversity. There are two objectives for increasing public awareness and education of weed management.

4.1 Raise awareness

Increasing awareness of the detrimental effects of weeds and the regional and sub-regional priorities for weed management will combine and focus efforts across the region. There is a variety of awareness raising avenues available and a wide variety of media types that can be utilised in awareness campaigns.

4.2 Conduct training campaigns

Training and awareness of weed identification, management and prevention is an integral part of weed management. A well trained and aware community will assist in regional weed management success. Specific training on integrated weed management techniques and group-specific training sessions which target specific weed areas (for example, coastal areas) and weed species will result in more effective weed management.

5 IMPLEMENT, MONITOR AND REVIEW PROGRESS IN WEED CONTROL AND PREVENTION

Monitoring and evaluation of the effectiveness of the regional strategy and the objectives and strategic actions outlined to manage weeds will enable an analysis of future needs and past successes and failures. This section has three objectives dealing with the monitoring and evaluation of progress in weed spread, prevention and management in the region.

5.1 Implement the strategy

Establish a regional group to facilitate the implementation of the Strategy and Action Plan.

5.2 Develop monitoring procedures

Developing criteria to ensure that comprehensive and effective monitoring of weed management activities is carried out at the regional and sub-regional level will ensure the evaluation of the success of the Regional Weed Management Strategy by a rigorous monitoring and evaluation process. Information on monitoring and evaluation combined with trend analysis will be disseminated to the regional community.

5.3 Review the strategy and action plan

Review the Weed Management Strategy – Northern NRM Region and the Weed Action Plan – Northern NRM Region to evaluate the effectiveness of their implementation.

Review of progress in the period 2006 until 2011

Stakeholders actively involved in weed management in Northern Tasmania were invited to complete a questionnaire seeking their opinions on the progress made to date on the Specific Actions in the 2006 Weed Action Plan, and their assessment of the priority of those actions for the next 5 years.

The targeted stakeholders included the following;

- DPIPWE
- DIER
- Parks & Wildlife Service
- Forestry Tasmania
- NRM North facilitators
- Local Councils (Mayor and General Manager)
- TFGA
- Aurora Energy
- Transend
- Hydro Tasmania
- Tasmanian Landcare Association
- Tasmanian Land Conservancy
- Tasmanian Conservation Trust

Responses are summarised in the table below: Note that the percentages reflect the percentage of responses in the category.

The results need to be treated with some caution, as the number of responses was relatively small (15 in total).

Action	Progress toward completing this action					Progress Score	Priority for the next 5 years				Priority Score
	None	Some	Much	Comp	On-going		Low	Med	High	Urgent	
1.1 Minimise the spread of weeds	13%	67%	9%		11%	53	8%	31%	61%		77
1.2 Support National & State quarantine		46%	32%		21%	77	7%	7%	86%		89
1.3 New & emerging weeds detected & controlled	22%	32%	25%	2%	19%	64	7%	7%	50%	2%	75
1.4 Control the trade & sale of weedy spp.	23%	39%	32%		6%	58	24%	24%	56%	3%	71
2.1 Improve mapping of weed distribution & density		30%	56%		15%	85	4%	4%	77%		87
2.2 Develop & implement multiple on-ground support services	20%	13%	40%		27%	73			67%		83
2.3 Enact weed management legislation	28%	36%	3%		33%	54	32%	32%	41%	3%	60
2.4 Integrated methods of control	5%	21%	36%		38%	85	6%	6%	78%	3%	90
3.1 Promote and implement best practice weed management	9%	41%	16%		35%	71	8%	8%	65%		78
3.2 Establish a network of Gazetted Weeds Officers	22%	50%	11%		17%	53	32%	32%	32%	17%	64
3.3 Prioritise weeds in the region	18%	30%	30%		23%	68	3%	3%	59%	3%	79
3.4 Develop and implement strategies for sub-regions	24%	50%	5%	5%	17%	56	16%	16%	49%	4%	73
3.5 Promote & implement resource sharing	18%	70%	3%		8%	47	15%	15%	44%		65
4.1 Raise awareness	11%	44%	16%		29%	67			63%	4%	87
4.2 Conduct training campaigns	16%	47%	15%		22%	60	11%	11%	39%		64

Note: The higher the Progress Score, the greater the achievement to date. The higher the Priority Score the higher the priority for the next 5 years.

Progress Score and Priority Score has been divided into three classes (High >80, Medium 70-80, and Low <70) to create the following table

Progress	Priority for the next 5 years		
	High	Medium	Low
Good	2.1 Improve mapping of weed distribution and density 2.4 Integrated methods of control		
Medium	1.2 Support National and State Quarantine measures 2.2 Develop and implement multiple on-ground support services	3.1 Promote and implement best practice methods of control	
Low	4.1 Raise awareness	1.1 Minimise the spread of weeds 1.3 New and emerging weeds detected and controlled 1.4 Control the trade and sale of weedy species 3.3 Prioritise weeds in the region 3.4 Develop and implement strategies for sub-regions	2.3 Enact weed management legislation 3.2 Establish a network of Gazetted Weeds Officers 3.5 Promote and implement resource sharing 4.2 Conduct training campaigns

The allocation of the categories is somewhat arbitrary, and the divisions have been made to provide a reasonably equitable distribution. Despite the limitations of the survey, the analysis provides some useful pointers:

- Good to Medium progress has been made for the issues currently considered a High priority; the exception is raising awareness where the priority is High, but progress has been low.
- Progress has been Low with a number of Medium priority issues.
- There has been Low progress with the issues given a Low priority.

The Weed Action Plan

This Weed Action Plan is designed as a simple but precise outline of the current programs and future actions required in the Northern NRM region of Tasmania to manage the existing and potential weed issues. This specific action plan addresses the weed management issues and actions required to efficiently and effectively deal with weeds across the region.

The basic foundation of the Weed Action Plan is the Weed Management Strategy for the Northern NRM region and the Northern NRM Strategy which were developed in 2004 through extensive stakeholder and public consultation. The overlying goal for weed management in the region emanating from the Strategies is as follows:

Goal: To protect the Northern NRM Region's economy, environment and community by reducing the adverse impacts of weeds.

The following priority Northern Regional Weed Management objectives, strategies and actions have been derived from the consultative work of the Northern Regional Weed Strategy Working Group. The Responsibility/Stakeholders section is a list of suggested organisations likely to have responsibilities in weed management.

The priority objectives, strategies and actions need to be subject to change in light of new information and knowledge to achieve best practice weed management and should be considered in conjunction with State weed management objectives.

1. PREVENT THE DEVELOPMENT OF NEW WEED PROBLEMS

The aim is to prevent the introduction and spread of new weeds into the Northern NRM region.

The issue of new weeds includes those new to Tasmania and also those new to the Northern region or parts of it. There are three recognised methods of dealing with new weeds: prevention; preparedness and a rapid response.

1.1 MINIMISE THE SPREAD OF WEEDS.¹		
<i>Implement quarantine and hygiene actions such as Hygiene Codes of Practice to prevent the spread of weeds through “access corridors”.</i>		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Develop and implement regional policies and Codes of Practice to prevent or minimise the spread of weeds through human activity.	H	<ul style="list-style-type: none"> • Programs created and implemented to address spread of high priority weeds. • Organisational strategies compiled on database. • Hygiene facilities identified and agreements on use created. • Vendor declaration systems for sale of animal feed and gardening products are implemented.
2. Incorporate weed management information in existing Codes of Practice.	M	
3. Install strategically placed washing stations in the region for vehicle washing to prevent the spread of new weed species, and maximise the utilisation of existing wash-down stations.	M	
4. Develop and implement disposal procedures for weeds.	M	

(1) These priorities are from the survey. Caution is necessary as the number of responses was low.

1.2 SUPPORT NATIONAL AND STATE QUARANTINE MEASURES		
<i>Support the National and State quarantine measures to control spread and prevent introductions of new weeds</i>		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Encourage and support compliance with National and State legislation and policies to prevent new weed spread.	H	<ul style="list-style-type: none"> • Reduction in number of new weed introductions to the State and region.

1.3 DETECT AND CONTROL NEW AND EMERGING WEEDS

Detect new weeds in the region through networks such as Weed Alert Network, and develop a referral procedure from the Weed Alert Network for regional action, followed by immediate and appropriate action. Support the National and State quarantine measures to control spread and prevent introductions of new weeds

ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Raise awareness of the Weed Alert Network, the Tasmanian Weed Society and similar organisations that can assist in the identification and management of sleeper weed species	L	<ul style="list-style-type: none"> • Measurable increase in public input to Weed Alert Network services. • Referral system established. • Response system established. • Potential sleeper weeds identified.
2. Develop and maintain a system of referral from the Weed Alert Network for regional action.	L	
3. Maintain a system of immediate response from reports of new weeds in the region.	H	
4. Support assessment of sleeper weeds nationally and identify potential sleeper weeds in the region.	M	
5. Support and encourage the enforcement of the provisions of the State legislation for detection and control of new weeds.	H	

1.4 CONTROL THE TRADE AND SALE OF WEEDY SPECIES		
<i>Control the sale and trade of weedy species to prevent the spread of species with weed potential and to prevent the introduction of new weed species</i>		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Encourage and support awareness of and compliance with National and state legislation to prevent the introduction of weedy species.	L	<ul style="list-style-type: none"> • Compliance monitored and enforced. • Adequate monitoring by Gazetted Weeds Officers.
2. Support and encourage the enforcement of the provisions of the State legislation for detection and control of new weeds.	H	<ul style="list-style-type: none"> • Regional input into nursery industry Code of Practice. • Consultation with industry representatives.
3. Promote and encourage a voluntary Code of Practice in the nursery industry.	L	
4. Consult with trade representatives to encourage actions to limit the sale of weedy species		

2. REDUCE THE IMPACT OF EXISTING WEEDS

The aim is to control (including eradication where practicable) the spread of weeds within and from the Northern NRM region.

Once weed species are established in the region the reduction of their impacts on the community is desirable for reasons such as preventing or minimising economic loss, environmental degradation and community enjoyment of their land and water areas. There are four objectives dealing with reducing the impact of weeds in the region.

2.1 IMPROVE MAPPING OF WEED DISTRIBUTION AND DENSITY

Improve mapping of the distribution and density across the region of the high priority weed species

ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Continue to improve the mapping of weeds in the region by supporting the State weed mapping database including training and community capacity building.	H	<ul style="list-style-type: none"> Maintain a central register of the distribution of each weed identified as a regional priority. Make register of priority weed distribution easily available to the public.
2. Map priority weed species in the region by distribution and density.	H	

2.2 DEVELOP AND IMPLEMENT MULTIPLE ON GROUND SUPPORT SERVICES

ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Develop and distribute information on Best Practice weed management for all land managers.	H	<ul style="list-style-type: none"> Information on Best Practice weed management available by website including control information sheets and new developments in weed management. Integrated weed control information available and actively disseminated and promoted. Develop freely available and reliable weed identification source, especially targeted to the priority weeds identified in the region.

2.3 IMPLEMENT WEED MANAGEMENT LEGISLATION		
<i>Improve weed management by implementing and enforcing weed management legislation</i>		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Support legislation by expanding the number of Officers available to enforce the provisions of the Acts and Regulations.	L	<ul style="list-style-type: none"> Gazetted Weed Officers employed across the region. Nomination of priority weeds supported by the regional groups.
2. Contribute to legislative reviews to improve weed management.	L	
3. Contribute to the process of nomination of priority weeds for declaration under the Weed Management Act 1999.	L	

2.4 DEVELOP AND PROMOTE INTEGRATED WEED MANAGEMENT		
<i>Investigate new control methods and technology for existing and potential high priority weeds</i>		
ACTION	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Implement existing effective control methods for high priority weeds.	H	<ul style="list-style-type: none"> New control methods identified and promoted. Control methods for high priority weed species implemented. Research and development projects supported.
2. Promote long-term effective weed management programs and practices.	H	
3. Support research and development of ecologically sustainable alternative weed control methods	M	

3. PROVIDE THE FRAMEWORK AND CAPACITY FOR ON-GOING MANAGEMENT OF WEEDS

The aim is to increase the planning of weed management in a strategic way in a regional context through the cooperation and coordination of landholders, the general community, industry and government.

Weed management in a regional context requires the cooperation and coordination of weed management efforts from landholders, the general community, industry and government. This section has five objectives dealing with providing the framework and capacity for effective weed management.

3.1 PROMOTE AND IMPLEMENT BEST PRACTICE WEED MANAGEMENT		
<i>Promote and implement best practice weed management as an integral part of natural resource management and land management practices and techniques</i>		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Promote integrated weed control methods.	H	<ul style="list-style-type: none"> Increased adoption of integrated weed control methods. Demonstrated increase in the integration of weed management with overall land management practices. Ongoing integration of Best Practice weed management in Whole Farm Planning Courses.
2. Promote weed management as a long term activity.	H	
3. Increase the integration of weed management with overall land management practices.	H	
4. Plan and implement effective weed management in the Northern region.	L	
5. Promote and implement Codes of Practice and Policies to achieve Best Practice Weed Management.	M	

3.2 ESTABLISH A NETWORK OF GAZETTED WEED OFFICERS		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Appoint a sufficient number of Weed Officers across the Northern region to enable the management of priority weed species and support sub-regional programs in the region.	L	<ul style="list-style-type: none"> Gazetted officers employed in all municipalities across the Northern Region. Training courses undertaken and support network created.
2. Establish a regional support network to	M	

provide advice and information on best practice to gazetted officers and organisations involved in weed management.		
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3.3 PRIORITISE WEEDS AND AREAS IN THE REGION

ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Develop a system of prioritisation for weeds in the Northern region.	H	<ul style="list-style-type: none"> • Prioritisation system developed.
2. Identify priority areas for protection against weeds and for management of existing weed infestations.	H	<ul style="list-style-type: none"> • Priority areas identified. • Action plans developed.
3. Develop Weed Management Action Plans for the priority species.	M	

3.4 DEVELOP, IMPLEMENT AND SUPPORT STRATEGIC PLANNING FOR WEED MANAGEMENT AT THE LOCAL AND MUNICIPAL LEVEL

Develop Weed Management Strategies for all municipalities in the Northern region

ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Establish and support sub-regional weed management groups.	L	<ul style="list-style-type: none"> • Municipal weed management strategies/plans developed, implemented and reviewed.
2. Support strategic planning within all municipalities in the region.	M	
3. Upgrade existing municipal Weed Management Strategies to reflect regional priorities and resource sharing opportunities.	L	<ul style="list-style-type: none"> • Weed management groups are active at a sub-regional level. • Weed management strategies developed and/or updated for other land tenure sectors in the region (for example, Reserves under the <i>National Parks and Wildlife Act 1971</i> and <i>Nature Conservation Act 2002</i>).
4. Identify potential sources of funding for the strategic weed management planning.	H	<ul style="list-style-type: none"> • Potential funding and other resources identified.

3.5 PROMOTE AND IMPLEMENT RESOURCE SHARING		
<i>Promote and implement resource sharing between National, State and local Government, industry, land managers and community groups</i>		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Develop cooperative weed management (including planning) with all aspects of the community in the region.	M	<ul style="list-style-type: none"> • Adoption of resource and information sharing across the region and between Tasmanian NRM regions. • Joint funding applications developed as appropriate • Inventory of infrastructure and expertise developed for the region
2. Share resources for weed control within the community.	L	
3. Develop joint funding applications that maximise the utilisation of sub- regional resources.	L	
4. Maintain an inventory of weed control infrastructure held by State and Local government, industry, private individuals, weed contractors and community groups for use in resource sharing.	L	
5. Maintain an inventory of expertise and experience in weed control.	L	

4. INCREASE AWARENESS AND EDUCATION ON WEED MANAGEMENT

The aim is to disseminate information widely and frequently on weed identification, reporting, control methods (strategic and direct) and the detrimental effect of weeds on natural resources, the economy and society.

The awareness of the weed problem is a major issue in effective and cooperative weed management. The public need to be aware of which plant is a weed, how important a weed species can be to the community in the social, environmental and economic sense and the individual in terms of productivity loss, aesthetic value depreciation, human health and loss of biodiversity. There are two objectives to increase public awareness and education on weed management.

4.1 RAISE AWARENESS		
<i>Raise the level of community awareness and understanding of weed identification, methods of spread, adverse impacts and control techniques</i>		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Develop an awareness campaign on regional priority weeds and Best Practice Weed Management throughout the community, including schools across the region.	H	<ul style="list-style-type: none"> • Increase in web site hits to weed identification and management sites. • Increase in community awareness of the regional priority weeds and Best Practice management of those weeds. • Weed management / identification information is readily available. • Technical advice on weed management is accessible.
2. Increase public awareness of the detrimental effects of weeds and the strategies developed for the region including priorities for weed management.	H	
3. Incorporate best practice weed management into land management information sources.	M	
4. Provide various sources of weed management information for the community such as DPIPWE Web site, DPIPWE service sheets, and local government newsletters and utilise the media to promote current issues.	H	
5. Support a coordinated		

best practice approach to weed management actions.		
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4.2 CONDUCT TRAINING CAMPAIGNS

Conduct training and awareness campaigns on weed identification, methods of spread and integrated weed control techniques.

ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Conduct regional campaigns through Council and community newsletters and other regional media on regional and sub-regional priorities for weed management.	L	<ul style="list-style-type: none"> • Increase in organisations involved in weed management • More on-ground weed managers are using best practice methods. • Training sessions conducted. • Weed management and identification skills are maintained through structured training.
2. Conduct regular training sessions across the region.	M	
3. Conduct group-specific training on weed control for community groups involved in environmental management.	M	
4. Investigate other land and water management courses and training bodies and incorporate Best Practice Weed Management in their course structure.	L	
5. Support dissemination of contemporary weed information.	L	

5. IMPLEMENT, MONITOR AND REVIEW PROGRESS IN WEED CONTROL AND PREVENTION

The aim is to quantify the success of the Northern NRM region Weed Management Strategy and Weed Action Plan, and update the documents to facilitate future planning.

The monitoring and evaluation of the effectiveness of the regional strategy and the objectives and strategic actions outlined to manage weeds will enable an analysis of future needs and past successes and failures. This section has three objectives dealing with the monitoring and evaluation of progress, and updating the strategy and action plan.

5.1 IMPLEMENT THE STRATEGY		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Establish a regional group to facilitate the implementation of the Weed Management Strategy and Action Plan	H	<ul style="list-style-type: none"> Regional group established and active.

5.2 DEVELOP MONITORING PROCEDURES		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Evaluate the success of the Regional Weed Management Strategy by a rigorous monitoring and evaluation process.	On-going	<ul style="list-style-type: none"> Comprehensive and effective monitoring of weed management activities established and regularly updated at the regional and sub-regional level.
2. Seek feedback from and disseminate information to the regional community on progress in weed management	On-going	

(2) Monitoring components should include:

1. The development and recording of sound baseline data for all initiatives;
2. Arrangements for the collection of point-in-time and trend data required to assess progress on Strategy initiatives and
3. Auditing the quality of the data collected.

Evaluation components should include:

1. Evidence-based reviews of the effectiveness of the Regional Weed Strategy;
2. A schedule of evaluations determined by the community and regional committees and
3. Evaluation findings should be fed back into management systems in order to support continuous improvement

5.3 REVIEW THE STRATEGY AND ACTION PLAN		
<i>Review the progress and revise the strategy and action plan to reflect current needs</i>		
ACTIONS	INTERIM PRIORITY	EXPECTED OUTCOMES
1. Quantify where resources are being directed for weed management and evaluate their effectiveness.	On-going	<ul style="list-style-type: none"> • Quantify the resources employed in weed management. • Resource use based on priorities identified in the region by the community, including weed species priorities. • Strategy and Action Plan reviewed when the Northern NRM Strategy reviewed. • Weed management reference group established and active.
2. Re-direct resource allocation if necessary for better weed management outcomes.	On-going	
3. Review the regional weed strategy concurrently with the regional NRM strategy.	On-going	
4. Link this strategy to WeedPlan and the regional NRM strategy.	On-going	
5. Convene a strategy review reference group with relevant expertise and representation.	On-going	

STAKEHOLDERS

The actions listed in this Action Plan were revised by a small stakeholder group in 2012, but it is recognised that the actions will require the energy and resources of a larger group of stakeholders. Likely stakeholders are:

Aurora Energy

Hydro

Transend

Forestry Tasmania

Department of Infrastructure, Energy and Resources.

Department of Primary Industries, Parks, Water and Environment

Parks & Wildlife Service

Municipal Councils (Break O'Day, Dorset, Flinders, George Town, Launceston, Meander Valley, Northern Midlands, West Tamar)

NRM North

Sub-regional/municipal NRM groups

Tasmanian Weed Society

Tasmanian Farmers and Graziers Association

Tasmanian Institute of Agriculture

Tasmanian Herbarium

Tasmanian Landcare Association

APPENDIX 1 - DECLARED WEEDS -MUNICIPAL DISTRIBUTION AND (SWMP) ZONE STATUS

Common Name	Scientific Name	CURRENTLY KNOWN MUNICIPAL OCCURENCE and (SWMP) ZONE STATUS								
		Break O' Day	Dorset	Flinders	George Town	Launceston	Meander Valley	Northern Midlands	West Tamar	
African Boxthorn (WoNS)	<i>Lycium ferocissimum</i>	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B
African Feathergrass	<i>Pennisetum macrourum</i>	Not known in the region								
African Lovegrass	<i>Eragrostis curvula</i>	A	A	A	A	A	✓ A	A	A	A
African Thistle	<i>Berkheya rigida</i>	Not known in the region								
Alligator Weed (WoNS)	<i>Alternanthera philoxeroides</i>	Not known in the region								
Amsinckia species	<i>Amsinckia species</i>	Not known in the region								
Apple-of-Sodom	<i>Solanum sodomaeum</i>	Not known in the region								
Arrowhead	<i>Sagittaria montevidensis</i>	Not known in the region								
Artichoke Thistle	<i>Cynara cardunculus</i>	Not known in the region								
Asparagus Fern, Climbing Asparagus (WoNS)	<i>Asparagus scandens</i>	A	✓ A	✓ A	✓ A	A	A	A	A	✓ A
Athel Pine (WoNS)	<i>Tamarix aphylla</i>	Not known in the region								
Bear-skin Fescue	<i>Festuca gautieri</i>	Not known in the region								
Bifora	<i>Bifora testiculata</i>	Not known in the region								
Blackberry (WoNS)	<i>Rubus fruticosus</i>	✓ B	✓ B	✓ A	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B
Boneseed / Bitou Bush (WoNS)	<i>Chrysanthemoides monilifera</i>	✓ A	✓ A	A	✓ A	✓ A	✓ A	A	A	✓ A
Bridal Creeper (WoNS)	<i>Asparagus asparagoides</i>	✓ A	✓ A	✓ A	✓ A	✓ A	A	✓ A	✓ A	✓ A
Broomrape	<i>Orobanche species</i> (except <i>O. minor</i> and <i>O. cernua</i> var. <i>australiana</i>)	Not known in the region								
Burrs	<i>Xanthium s species</i>	A	A	A	A	✓ A	✓ A	A	A	✓ A
Cabomba (WoNS)	<i>Cabomba caroliniana</i>	Not known in the region								
Californian Thistle	<i>Cirsium arvense</i>	✓ B	✓ A	✓ A	✓ B	A	✓ B	✓ B	✓ B	✓ B
Caltrop	<i>Tribulus terrestris</i>	Not known in the region								
Canadian Pondweed, Elodea	<i>Elodea canadensis</i>	A	A	A	A	A	A	✓ A	A	A

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Cape Tulips	<i>Moraea</i> species	A	A	✓ A	A	✓ A	✓ A	A	✓ A
Chilean Needle Grass (WoNS)	<i>Nassella neesiana</i>	Not known in the region							
Common Crupina, Bearded Creeper	<i>Crupina vulgaris</i>	Not known in the region							
Common Heliotrope	<i>Heliotropium europaeum</i>	Not known in the region							
Cotton Thistle	<i>Onopordum</i> species	A	A	A	A	A	A	✓ A	A
Creeping Knapweed, Hardheads	<i>Acroptilon repens</i>	Not known in the region							
Creeping Yellowcress	<i>Rorippa sylvestris</i>	Not known in the region							
Crow Garlic	<i>Allium vineale</i>	A	A	A	A	✓ A	A	A	A
Cut-leaf Nightshade	<i>Solanum triflorum</i>	Not known in the region							
Darwin's Barberry, Berberis	<i>Berberis darwinii</i>	A	✓ A	A	A	✓ A	A	A	✓ A
Datura	<i>Datura</i> species	✓ A	✓ A	A	✓ A	✓ A	✓ A	✓ A	✓ A
Dodder	<i>Cuscuta</i> species (excluding <i>Cuscuta tasmanica</i>)	Not known in the region							
Egeria, Dense Water Weed	<i>Egeria densa</i> (= <i>Elodea densa</i>)	Not known in the region							
Elisha's Tears, Himalayan Honeysuckle	<i>Leycesteria formosa</i>	✓ A	✓ B	A	A	✓ A	✓ A	✓ A	✓ B
English Broom (WoNS)	<i>Cytisus scoparius</i>	✓ B	✓ B	✓ A	✓ B	✓ B	✓ B	✓ B	✓ B
Espartillo	<i>Amelichloa caudata</i> (= <i>Achnatherum caudatum</i>)	A	A	✓ A	A	A	A	A	A
False Cleavers	<i>Galium spurium</i>	Not known in the region							
False Yellow Head	<i>Dittrichia viscosa</i>	Not known in the region							
Feathertop	<i>Pennisetum villosum</i>	Not known in the region							
Fennel	<i>Foeniculum vulgare</i>	✓ B	✓ A	✓ A	✓ B	✓ B	✓ B	✓ B	✓ B
Floating Water Chestnut, Water Caltrop	<i>Trapa</i> species	Not known in the region							
Giant Hogweed	<i>Heracleum antegazzianum</i>	Not known in the region							
Gorse (WoNS)	<i>Ulex europaeus</i>	✓ B	✓ A	✓ A	✓ B	✓ B	✓ B	✓ B	✓ B
Hawkweeds	<i>Hieracium</i> species	Not known in the region							
Heather	<i>Calluna vulgaris</i>	Not known in the region							
Holly-leaved Senecio	<i>Senecio glastofolius</i>	Not known in the region							

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Horehound	<i>Marrubium vulgare</i>	✓ A	✓ B	✓ B	✓ B	✓ B	✓ A	✓ B	✓ B
Hornwort	<i>Ceratophyllum demersum</i>	Not known in the region							
Horsetail	<i>Equisetum</i> species	A	A	A	A	✓ A	A	A	A
Hydrilla	<i>Hydrilla verticillata</i>	Not known in the region							
Hymenachne (WoNS)	<i>Hymenachne amplexicaulis</i>	Not known in the region							
Innocent weed	<i>Cenchrus longispinus</i>	Not known in the region							
Japanese Knotweed	<i>Fallopia japonica</i>	A	✓ A	A	A	✓ A	A	A	✓ A
Karamu	<i>Coprosma robusta</i>	Not known in the region							
Kochia	<i>Bassia scoparia</i> (=Kochia scoparia)	Not known in the region							
Lagarosiphon, Oxygen weed	<i>Lagarosiphon major</i>	Not known in the region							
Lantana (WoNS)	<i>Lantana camara</i>	Not known in the region							
Mallee Cockspur	<i>Centaurea eriophora</i>	Not known in the region							
Meadow Parsley	<i>Oenanthe pimpinelloides</i>	Not known in the region							
Mediterranean Daisy	<i>Urospermum dalechampii</i>	Not known in the region							
Mesquite (WoNS)	<i>Prosopis</i> species	Not known in the region							
Miconia	<i>Miconia</i> species	Not known in the region							
Montpellier Broom, Canary Broom (WoNS)	<i>Genista monspessulana</i>	✓ B	✓ B	✓ A	✓ B	✓ B	✓ B	✓ B	✓ B
New Zealand Sedges	<i>Carex albula</i> , <i>C. buchananii</i> , <i>C. flagellifera</i> , <i>C. testacea</i>	Not known in the region							
Nodding Thistle	<i>Carduus nutans</i>	A	✓ A	A	A	✓ A	✓ A	✓ A	A
Onion Weed	<i>Asphodelus fistulosus</i>	A	✓ A	✓ A	A	A	A	A	A
Pampas Grasses	<i>Cortaderia</i> species	✓ A	✓ A	✓ A	✓ A	✓ A	✓ A	✓ A	✓ A
Pampas Lily-of-the-Valley	<i>Salpichroa origanifolia</i>	Not known in the region							
Parkinsonia (WoNS)	<i>Parkinsonia aculeata</i>	Not known in the region							
Parodi Spike Rush	<i>Eleocharis parodii</i>	Not known in the region							
Parrot's Feather	<i>Myriophyllum aquaticum</i>	✓ A	A	A	✓ A	✓ A	✓ A	✓ A	✓ A
Parthenium Weed	<i>Parthenium hysterophorus</i>	Not known in the region							

Common Name	Scientific Name	Break O' Day	Dorset	Flinders	George Town	Launceston	Meander Valley	Northern Midlands	West Tamar
Paterson's Curse	<i>Echium plantagineum</i>	✓ A	✓ A	✓ A	✓ A	✓ A	✓ A	✓ A	✓ A
Pond Apple (WoNS)	<i>Annona glabra</i>	Not known in the region							
Prickly Acacia (WoNS)	<i>Acacia nilotica ssp. indica</i>	Not known in the region							
Purple Nut Grass	<i>Cyperus rotundus</i>	Not known in the region							
Ragwort	<i>Senecio jacobaea</i>	✓ A	✓ A	✓ A	✓ A	✓ A	✓ B	✓ A	✓ A
Rubber Vine (WoNS)	<i>Cryptostegia grandiflora</i>	Not known in the region							
Saffron Thistle	<i>Carthamus lanatus</i>	✓ A	A	A	✓ A	✓ A	A	✓ A	A
Sagittaria	<i>Sagittaria platyphylla</i>	Not known in the region							
Salvinia (WoNS)	<i>Salvinia molesta</i>	Not known in the region							
Senegal Tea Plant, Temple Plant	<i>Gymnocoronis spilanthoides</i>	Not known in the region							
Serrated Tussock (WoNS)	<i>Nassella trichotoma</i>	✓ A	A	A	A	✓ A	✓ A	✓ A	A
Silver-leaf Nightshade (WoNS)	<i>Solanum elaeagnifolium</i>	Not known in the region							
Skeleton Weed	<i>Chondrilla juncea</i>	Not known in the region							
Slender Thistle	<i>Carduus pycnocephalus,</i>	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B
	<i>Carduus tenuiflorus</i>	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B	✓ B
Spanish Heath	<i>Erica lusitanica</i>	✓ B	✓ A	A	✓ B	✓ B	✓ B	✓ A	✓ B
Spiny Burrgrass	<i>Cenchrus incertus</i>	Not known in the region							
Spiny Emex	<i>Emex australis</i>	A	A	✓ A	A	A	A	A	A
Square-stemmed St John's Wort	<i>Hypericum tetrapterum</i>	Not known in the region							
St John's Wort	<i>Hypericum perforatum</i>	✓ A	✓ A	A	A	✓ A	✓ A	✓ A	✓ A
Star Thistle, Purple Star Thistle	<i>Centaurea calcitrapa</i>	Not known in the region							
Stemless Thistle	<i>Onopordum acaulon</i>	Not known in the region							
Stinking Mayweed	<i>Anthemis cotula</i>	A	A	A	✓ A	✓ B	✓ B	✓ B	A
Three-horned Bedstraw	<i>Galium tricornutum</i>	Not known in the region							
Tumble Weed	<i>Amaranthus albus</i>	Not known in the region							
Viper's Bugloss	<i>Echium vulgare</i>	A	A	A	A	✓ A	✓ A	✓ A	✓ A
Water Hyacinth (WoNS)	<i>Eichhornia crassipes</i>	Not known in the region							

Common Name	Scientific Name	Break O' Day	Dorset	Flinders	George Town	Launceston	Meander Valley	Northern Midlands	West Tamar
White Spanish Broom	<i>Cytisus multiflorus</i>	Not known in the region							
White Weed (Hoary Cress)	<i>Lepidium draba</i>	Not known in the region							
White-edged Nightshade	<i>Solanum marginatum</i>	Not known in the region							
Wild Rice	<i>Zizania</i> species	Not known in the region							
Willows (WoNS)	<i>Salix</i> species excluding <i>S. babylonica</i> , <i>S. x calodendron</i> and <i>S. x reichardtii</i>	✓ B	✓ B	✓ A	✓ B	✓ B	✓ B	✓ B	✓ B
Witchweed	<i>Striga</i> species (all non-indigenous species)	Not known in the region							
Yellow Nut Grass/Yellow Nut Sedge	<i>Cyperus esculentus</i>	Not known in the region							

APPENDIX 2 - NON-DECLARED WEEDS IN THE NORTHERN REGION

Common Name	Scientific Name	CURRENTLY KNOWN MUNICIPAL OCCURENCE							
		Break O'Day	Dorset	Flinders	George Town	Launceston	Meander Valley	Northern Midlands	West Tamar
Arum lily	<i>Zantedeschia aethiopica</i>	✓	✓		✓				
Banana Passionfruit	<i>Passiflora tarminiana</i>	✓	✓			✓			✓
Beach daisy	<i>Arctotheca populifolia</i>			✓					
Besom Heath	<i>Erica scoparia</i>					✓	✓		
Black-berry Nightshade	<i>Solanum nigrum</i>		✓	✓					
Bluebell Creeper	<i>Billardiera heterophylla</i>	✓	✓		✓				
Blue Butterfly Bush	<i>Psoralea pinnata</i>	✓	✓		✓				✓
Blue Periwinkle	<i>Vinca major</i>	✓	✓	✓	✓	✓	✓	✓	✓
Cape Wattle	<i>Paraserianthes lophantha</i>	✓	✓		✓				✓
Capeweed	<i>Arctotheca calendula</i>	✓	✓	✓	✓	✓	✓	✓	✓
Chickory	<i>Cichorium intybus</i>			✓				✓	
Cordyline	<i>Cordyline australis</i>		✓			✓		✓	✓
Cotoneaster	<i>Cotoneaster</i> spp.	✓	✓		✓	✓	✓	✓	✓
Cumbungi	<i>Typha</i> spp.	✓	✓		✓	✓	✓	✓	✓
Elderberry	<i>Sambucus nigra</i>						✓		
English Ivy	<i>Hedera helix</i>	✓	✓		✓	✓	✓	✓	✓
Evening Primrose	<i>Oenothera macrocarpa</i>		✓			✓	✓	✓	
Foxglove	<i>Digitalis purpurea</i>	✓	✓				✓		
Great Mullein	<i>Verbascum</i> spp.	✓	✓	✓	✓	✓	✓	✓	✓
Hawthorn	<i>Crataegus monogyna</i>	✓	✓		✓	✓	✓	✓	✓
Holly	<i>Ilex aquifolium</i>	✓	✓		✓	✓	✓		
Japanese Knotweed	<i>Fallopia japonica</i>		✓			✓			✓
Marram Grass	<i>Ammophila arenaria</i>	✓	✓	✓	✓				✓
Mirror Bush	<i>Coprosma repens</i>	✓	✓	✓	✓	✓			✓

Common Name	Scientific Name	Break O' Day	Dorset	Flinders	George Town	Launceston	Meander Valley	Northern Midlands	West Tamar
Montbretia	<i>Crococsmia x crocosmiiflora</i>	✓	✓			✓			
Nutgrass	<i>Cyperus rotundus</i>					✓			
Parramatta Grass	<i>Sporobolus africanus</i>	✓		✓					
Pheasant's eye	<i>Adonis microcarpus</i>			✓					
Radiata Pine	<i>Pinus radiata</i>	✓	✓		✓		✓		✓
Reed Sweetgrass	<i>Glyceria maxima</i>	✓	✓				✓		
Ricegrass	<i>Spartina anglica</i>	✓	✓		✓	✓			✓
Sea Spurge	<i>Euphorbia paralias</i>	✓	✓	✓	✓				✓
Sea Wheatgrass	<i>Thinopyrum junceiforme</i>	✓	✓	✓					✓
Sweet Pittosporum	<i>Pittosporum undulatum</i>	✓	✓		✓	✓			✓
Sycamore Maple	<i>Acer pseudoplatanus</i>	✓	✓			✓	✓	✓	
Three- Cornered Garlic	<i>Allium triquetrum</i>					✓			✓
Valerian	<i>Centranthus ruber</i>					✓			
Wandering Creeper	<i>Tradescantia fluminensis</i>	✓	✓			✓			
Watsonia	<i>Watsonia meriana</i>	✓	✓		✓		✓		✓
Wild Mignonette	<i>Reseda lutea, R. luteola</i>	✓		✓	✓				
Wild Turnip/ Brassica weeds	<i>Brassica spp.</i>		✓	✓					