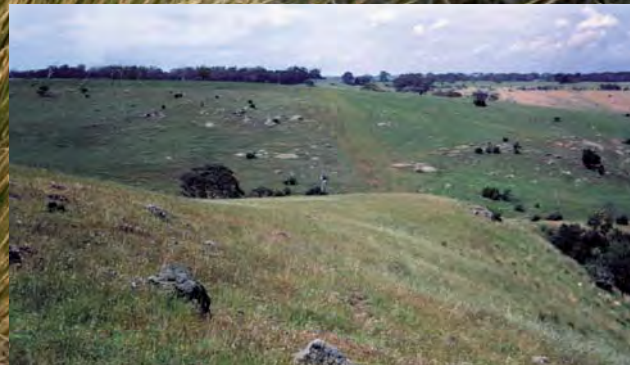


Victorian  
Serrated Tussock  
Working Party

# progress report

2006







North Central  
Catchment  
Management Authority



east gippsland logo



Victorian  
Catchment  
Management  
Council



Victorian Serrated Tussock Working Party, Progress Report, 2006

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# Chairman's Report



As the new Chair of the Victorian Serrated Tussock Working Party (VSTWP), I am pleased to present the 2005–2006 Progress report. I would also like to take this opportunity to thank the out-going Chair, Mr Scott Chirnside for his commitment and enthusiasm for the position and congratulate him on his new role as Chair of the National Serrated Tussock Management Group. Mr Chirnside's drive for landscape change will be a valuable asset to this national group and will increase serrated tussock's profile as one of Australia's worst weeds.

The VSTWP is now incorporated under the Victorian Farmers Federation's Farm Tree & Landcare Association and provides the opportunity to increase the group's financial independence and ability to drive change through the development and implementation of a new serrated tussock strategy and associated initiatives.

In the catchments of Corangamite and Port Phillip, which are considered to hold the core infestations of serrated tussock within Victoria, the VSTWP continues to develop stronger partnerships with key stakeholders - namely the Department of Primary Industries (DPI), Department of Sustainability and Environment, local government and Catchment Management Authorities - to undertake a detailed priority setting process for delivery of the program. This process targets the finite resources available in these catchments to fight serrated tussock in defined focus areas to deliver the best possible outcomes for both agricultural and environmental values.

An exciting initiative introduced this year through the Australian Government's *Defeating the Weed Menace* Program is the Isolated Infestation Project. The Project aim of encouraging long-term control of isolated infestations reflects the key strategic objectives of the new serrated tussock strategy - "Intensifying the attack on serrated tussock". This project will continue until 2009 with clear outcomes to build the capacity of land managers and community groups and enhance existing regional serrated tussock programs.

The VSTWP will continue to build on the relationships established over the life of the project by introducing a new position focused on partnerships. This position is a critical role that has been identified as a clear gap in the delivery of the serrated tussock project. The advocacy of groups involved in serrated tussock control, such as local government and Landcare, has been very important but more can and will be done with this new position.

The serrated tussock project aims to achieve long-term practice change and therefore education, awareness and support are seen as priority activities to achieve this. The VSTWP is working toward this goal by introducing standardised serrated tussock signage on Victoria's major roads.

Compliance is also used in the project as a management tool to ensure all land managers are undertaking serrated tussock control. One land manager failing to prevent seed set can have devastating impacts on adjoining land managers. This makes compliance a necessary and important component of the project and the recent changes to the Catchment and Land Protection Act will be utilised to increase the effectiveness and efficiency of this tool.

Research remains a high priority to solve the problems posed by serrated tussock in areas with low rainfall, marginal soil types, non-arable land and steep slopes. The VSTWP will work in partnership with research teams and institutes to develop and support innovative projects to answer these problems through trial sites, investigations into chemical resistance and the development of best practice approaches.

The passion and commitment of landholders, industry, DPI staff, the affected urban community, and this Working Party, is there, however the “capacity” to succeed is entirely dependent on the government deciding if it should invest in this area. I, along with community members, firmly believe that serrated tussock must be treated wherever it occurs and that investment in this project is an investment for land management and a capacity building focus for the rest of the State.

A handwritten signature in black ink, appearing to read 'P. Lindeman', on a white rectangular background.

Peter Lindeman



# Background

Serrated tussock (*Nassella trichotoma*) is native to South America and was first identified in Victoria in 1954. It has the potential to infest a further 4.6 million ha in the State and continues to be a serious problem in New South Wales, New Zealand and South Africa.

Serrated tussock readily spreads when the mature seed heads break off and are carried by the wind, in fodder, or on livestock or machinery to infest new areas. Identification is difficult because serrated tussock is superficially similar to many native grasses including members of the *Poa*, *Stipa* and *Danthonia* groups. This has meant that many new invasions remain unnoticed until significant infestations develop.

Serrated tussock is a problem because pastures dominated by the weed have virtually no grazing value as the foliage is low in protein and very high in fibre, often resulting in stock starvation on heavily infested pastures. Serrated tussock also invades and degrades native grasslands and bushland.

Government involvement in management is justified because of the public benefit obtained by preventing serrated tussock spreading to other parts of Victoria. Landholders in infested areas need encouragement to undertake control because many infestations are on poor, stony ground with relatively low rainfall where the cost of control frequently exceeds the productive value of the land. However, a high level of control is required for the protection of the clean areas of the State.

## Community-led program

In 1995 the community was deeply concerned with the spread of serrated tussock, a devastating weed that had invaded 130,000ha of land in Victoria. In response to that community concern, a strategy for the control of serrated tussock in Victoria was produced, which called for the development of the Victorian Serrated Tussock Society, as it was known then. Today, that organisation is the community-managed and driven Victorian Serrated Tussock Working Party (VSTWP).

Since that time, the VSTWP has striven in partnership with staff from the Department of Primary Industries (DPI) and Department of Sustainability and Environment, to achieve the original recommendations of the strategy. This work now continues with the delivery of the strategic objectives of the new strategy “Intensifying the attack on serrated tussock”. This includes undertaking research into pastures and herbicide technology, producing appropriate extension materials, providing incentives to land managers and community groups and a comprehensive mapping, extension, monitoring and compliance campaign.

The members of the VSTWP are comprised of community representatives and a range of stakeholders, including DPI and Port Phillip and Corangamite Catchment Management Authorities.

The VSTWP has the following terms of reference:

- Develop and implement detailed strategies;
- Oversee implementation of on-ground work programs;
- Review and allocate current budget allocations;
- Attract further funding through grant submissions;
- Act as a communication link with stakeholder groups;
- Produce annual progress reports;
- Advise Government of serrated tussock project objectives and targets.

Current estimates (2003) show serrated tussock affecting 82,000ha of public and private land in Victoria and in a 'do nothing scenario', the projected figure for potential area under threat is 4.6 million ha.

The Victorian Serrated Tussock Program has conducted, and/or sponsored, a wide range of serrated tussock research and development, education, extension and enforcement activities. Program staff and management have worked closely with Landcare groups, local government and other agencies to promote a holistic approach to land management and serrated tussock control.





# Intensifying the attack on serrated tussock 2005-2010

Pre-empting the initial serrated tussock strategy 1995–2001, an evaluation process was conducted to provide data for the development of the new strategy “Intensifying the attack on serrated tussock”. This strategy has been prepared in recognition of a statewide framework to allow strategic serrated tussock management within Victoria and nationally. The strategy primarily aims to increase involvement in serrated tussock management, provide further opportunities for integration, whilst reducing areas affected by serrated tussock.

“Intensifying the attack on serrated tussock” focuses on strengthening achievements and partnerships established through the implementation of the initial serrated tussock strategy. It also sets substantial goals for serrated tussock reduction and aims to:

- Coordinate serrated tussock control at a state level;
- Identify satellite infestations throughout the State with the view of eradication;
- Reduce the spread of serrated tussock, contain its density and reduce current infestations by a further 40%;
- Map and record all new infestations of serrated tussock;
- Have 25% of all properties with serrated tussock determined as under long term control with properties sustainably managed;
- Demonstrate 50% of landowners with serrated tussock to be voluntarily preventing the growth and spread of serrated tussock on their properties without DPI intervention;
- Demonstrate highly visible landscape change through the investment of stakeholders in sustainable land management projects such as Grow West and the east Moorabool recovery project.

“Intensifying the attack on serrated tussock” identifies strategic outcomes outlining the actions and key responsibilities for initiating and achieving desired results. The strategy forms the basis for strengthening links with key stakeholders involved in serrated tussock management.

Through the investment of land-managers, industry and government the new strategy develops the basis for a well-managed landscape that resists invasion and contributes to the protection of biodiversity and sustainable agriculture for all Victorians.

The new strategy showcases the integral role of the serrated tussock project in Victoria, the opportunities for investment and partnership and the achievements that the program plans to deliver to the State.



# Defeating the Weeds Menace program

## Intensifying the attack on serrated tussock: targeting isolated infestations for eradication

The Australian Government has committed \$44.4 million over 4 years, from 2004/05 to 2007/08, for national action on Australia's most threatening weeds through the Defeating the Weed Menace program.

The VSTWP and Department of Primary Industries (DPI) were successful in 2005/2006 in gaining funds under this program for a new project - Intensifying the attack on serrated tussock: targeting isolated infestations for eradication. The Australian Government is providing funds for the employment of a project officer to coordinate the project and incentives to landholders and community groups to control isolated infestations of serrated tussock.

The aim of the project is to achieve long term control of isolated serrated tussock infestations in Victoria through rapid control and replacing it with appropriate vegetation.

The grant will provide community groups, such as Landcare, and private landholders in catchments that have isolated infestations of serrated tussock, the opportunity to access funds to support long-term control programs to prevent further spread.

Detailed planning processes were undertaken as apart of the project with the Isolated Infestation project officer working with DPI regional staff, Catchment Management Authority representatives and community groups to formulate the project plan and the incentive criteria.

The Officer travelled to each of the 7 catchments in Victoria which contain less than 100 serrated tussock infestations to hold meetings and workshops with key stakeholders to raise awareness and develop linkages to deliver the incentive component.

To improve the planning process, raise awareness and affectively promote the program a series of maps were produced showing the locations of serrated tussock in Victoria and in individual catchments.

DPI staff in each catchment conducted individual property inspections of known serrated tussock infestations to ensure that the land managers were aware of the importance of control by mapping the property, providing extension material and by using the provisions of the Catchment and Land Protection Act 1994.



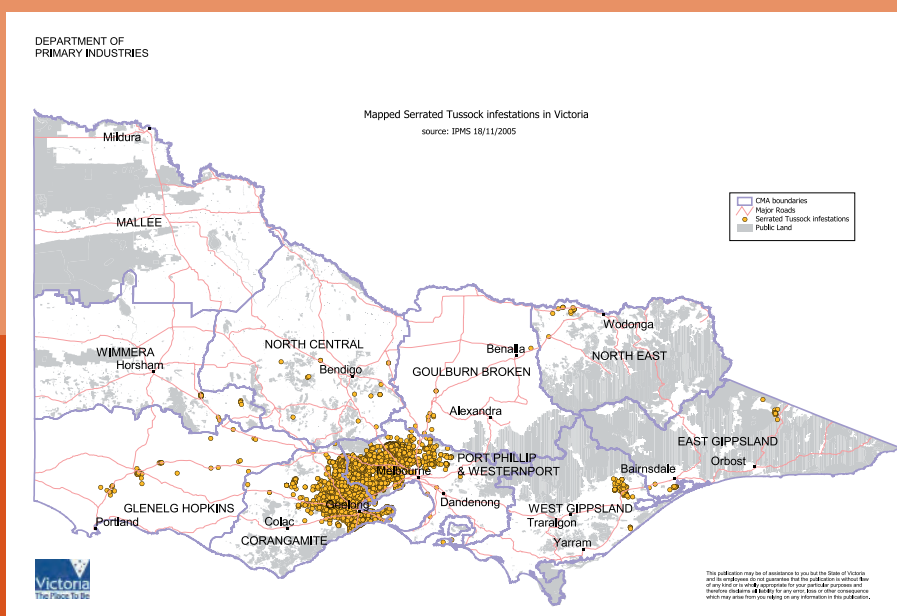
## Isolated Infestation Property Inspections

Isolated Infestation Catchment	Number of Properties Inspected
Wimmera	25
East Gippsland	34
West Gippsland	80
North Central	13
Glenelg Hopkins	43
North East	11
Goulburn Broken	16

## Isolated Infestation Incentive Program

Isolated Infestation Catchment	Incentive Funds
Glenelg Hopkins	\$13,765
East Gippsland	\$16,821.82
West Gippsland	\$ 2,892.31
North East	\$ 7,000
Goulburn Broken	\$ 1,000
<b>Total Incentives</b>	<b>\$41,479.13</b>

The Isolated Infestation project will continue for the next three years with the Australian Government extending the project. This will allow land managers and community groups to plan meaningful long-term serrated tussock programs such as pasture renovation.



# International Landcare Conference

The VSTWP worked with the other community weed groups to present the Community Weed Model to the delegates of the 2006 International Landcare Conference. The conference was held at the Melbourne Exhibition and Convention Centre on 8-11 October.

As the VSTWP and the serrated tussock project is linked so closely to Landcare through funding and the work that Landcare groups do in the fight against serrated tussock, this conference presented a fantastic opportunity to show-case the Community Weed Model and achievements of the VSTWP.

Landcare began in Australia in 1986 with landholder groups taking local action and has now evolved to become a national land management ethic at a local level. Since 1986 various government programs have been developed to support local action. Landcare continues to grow in all Australian states and other countries such as the Philippines, New Zealand, South Africa, Sri Lanka, Germany, Canada and the USA.

In the weeks leading up to the conference, members from each of the community weed groups of serrated tussock, gorse, ragwort and blackberry contributed their expertise to produce a Community Weed Model brochure and a set of five banners. The banners and brochure described the model concept and the history and achievements of each of the groups.

Over the four days of the conference over 1000 delegates participated, with 10 percent being from a number of different countries. The Community Weed Model booth was well received by the conference delegates and the organisers with a large amount of extension material distributed.





# Formation of NSW/ACT Serrated Tussock Working Party

New South Wales' Department of Primary Industries invited the Executive Officer of the VSTWP to present the Victorian Community Weed Model concept as a part of a series of workshops delivered to key stakeholders in Goulburn, NSW. The aim of the workshops presented were to determine if NSW would continue its current serrated tussock program or adopt a new model such as the Victorian Community Weed Model.

The serrated tussock situation in NSW and the ACT are on a larger scale than that of Victoria with surveys conducted from 1976 to 2003 revealing that the total area infested in NSW had increased from 680,000ha to 820,000ha. Serrated tussock, which is also known as Yass River tussock in NSW, was first recognised near the NSW town of Yass in 1935. In 1937 it was cited as a potential weed in NSW and in 1938 it was proclaimed noxious in several shires in the central and southern tablelands. The main infestations of serrated tussock are currently in the central and southern tablelands stretching south from Mudgee to the Victorian border. Isolated infestations also occur in the northern tablelands.

The workshops were attended by over 70 people from all over NSW, the ACT and from a range of backgrounds such as government departments, Catchment Management Authorities, researchers and land-managers.

The participants heard from speakers on a range of topics such as the past and current serrated tussock situation in NSW and the ACT, the current research being conducted and community empowerment models such as the one used by the VSTWP. The workshops were facilitated and the remaining time was spent by the participants working through the issues relating to the management of serrated tussock in NSW and the ACT, proposing solutions and ways to move ahead through a decision tree process.

As a result of the workshops, overwhelming support was received for developing a community-led NSW/ACT Serrated Tussock Working Party to drive a statewide attack on serrated tussock. The NSW DPI is now working with the community to form the NSW Serrated Tussock Working Party and formalise the blueprint of a State serrated tussock strategy.





# National Serrated Tussock coordinator tour of Victoria

The serrated tussock national coordinator, Mr Byron Stein, together with Mr Terry Hayes, a landholder from Goulburn, NSW and Mr Robert Meyer from the Hawkesbury Nepean Catchment Management Authority in NSW, undertook a tour of Victorian serrated tussock projects in March 2006.

The purpose of the tour was to forge stronger ties between the National Serrated Tussock Management Program and the VSTWP, and for the delegation to learn about the innovative strategies and programs developed in Victoria to manage serrated tussock.

The first day of the tour included a meeting with Dr David McLaren, Section Leader Agricultural Weeds from Primary Industries Research Victoria (PIRVic). The purpose of this meeting was to discuss current and proposed research projects in Victoria and to identify opportunities for collaboration between the Victorian and national serrated tussock management groups.

Day two of the tour included meetings with David Boyle, Project Leader – Victorian Priority Weeds/WoNS; Claire Norris, Partnerships Officer – Linear Reserves; Peter Gibbs and John Edwards, Wyndham City Council; Rob Walker, Port Phillip Catchment Coordinator – Pest Management; John Forrester, Grow West Program Coordinator; and Graham Simpson, landholder representative – Victorian Serrated Tussock Working Party.

David Boyle outlined the history of the VSTWP and of the importance of developing and maintaining affective partnerships with all stakeholders, including local landholders, State government agencies, Catchment Management Authorities, local government, linear transport corridor managers and other public land managers.

Claire Norris gave an overview of the Tackling Weeds on Private Land (TWoPL) initiative. TWoPL is a \$9 million, three-year State Government initiative to encourage landowners to work collaboratively to manage weeds. One of the key elements of the initiative is to engage and encourage linear reserve managers (transport corridor managers) to develop industry standards for weed management along transport corridors, including rail and road corridors, as well as a review of weed mapping systems and databases.



David Boyle then took the delegation on a tour of serrated tussock projects and infestation sites in the region north of Geelong, including the Rowsley Valley and Bacchus Marsh. This was an excellent opportunity for the delegation to gain a greater understanding of the issues and the scale of the problem in parts of regional Victoria.

Peter Gibbs and John Edwards provided details of the Land Management Rate Rebate Scheme operated by the Wyndham City Council. This scheme operates under the council's Land Management Policy and aims to support and promote sustainable land management practices, focussing initially on addressing pest animal and weed control throughout the rural areas of Wyndham.

Rob Walker provided an outline of the Catchment and Land Protection Act (CaLP) 1994, which provides the legislative framework for weed control enforcement in Victoria. Rob explained that land management notices were the main instruments used to drive compliance set out in the CaLP Act. Rob provided an overview of Victorian legislation and the variety of tools and resources required to promote compliance regarding weed control, and serrated tussock in particular.

John Forrester and Graham Simpson provided an overview of the Grow West program which started in 2000/2001 and has already seen an investment of between \$3-4 million thus far. John explained that projects to date have been completed on both private and public land and range in size from 1ha to 170ha. Both farm forestry and revegetation projects have been undertaken, including projects to manage core serrated tussock infestations on marginal country. Future projects may include the establishment of saltbush pastures, development of alternative agricultural industries, and the education of small rural landholders in property management.



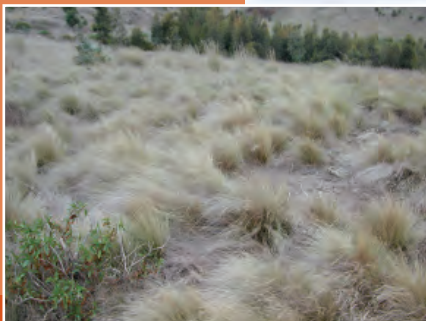
The final day of the tour included meetings with Byron Crowe – Executive Officer of the VSTWP, Scott Chirnside – the former Chairman of the VSTWP and Ryan Melville - Weed Alert Contact Officer, DPI Victoria.

Byron explained his role as the executive officer and detailed some of the current projects of the VSTWP, including an update on the new Victorian strategy – Intensifying the attack on serrated tussock and the Good Neighbour program, which is aimed at managing weeds on Crown land, particularly those adjoining private property.

Scott Chirnside emphasised the importance of a community-led and owned strategy for serrated tussock in Victoria and explained that this model had been the key factor in the successes the VSTWP had achieved in managing this weed. Scott strongly felt that community ownership of the problem will lead to a greater level of support and compliance with the serrated tussock strategy in Victoria.

Ryan Melville demonstrated the Integrated Pest Management System mapping and data program used by DPI Victoria to record and manage pest species, including serrated tussock infestations throughout the State. Accurate and rigorous mapping of serrated tussock is a key objective the VSTWP.

The tour concluded with a visit to the Moorabool Gorge Recovery Project. Jim Seager, a landholder and vicechair of the VSTWP and Ralph Cotter, Moorabool Gorge project officer, met delegates to explain the project. The Moorabool Gorge Recovery project is a community driven integrated catchment restoration program aimed at protecting and restoring over 1000ha of indigenous vegetation along the gorge. One of the primary goals of the project is to use native vegetation to shade out serrated tussock and form barriers to catch blowing tussock seed.





# Local Government Programs

## HUME CITY COUNCIL

Hume City Council (HCC) is very pro-active and vigilant in its fight to control serrated tussock within its boundaries. Underpinning its resolve to tackle serrated tussock is the council's Sustainable Land Management and Integrated Weed Control strategies.

HCC provides a range of services and incentives to landowners to assist them to tackle priority weeds such as serrated tussock. Some of the key tools in the council's fight against weeds are the delivery of education programs and the provision of incentives to landowners through The Farm (Weed Management) Rate Rebate Scheme and the plant donation scheme. In addition to this, HCC also produces a quarterly newsletter, Hume Weeds News, which is distributed to over 1800 landowners and promotes key message about weed control.

HCC also has a comprehensive program to manage council land and has invested significant funds towards the fight against serrated tussock on all land managed by the council.

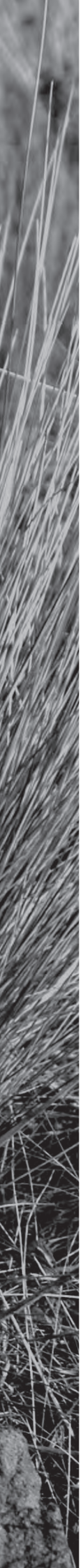
Following consultation between DPI and HCC's environmental staff, 100 properties were targeted for inspection within the Hume shire in the 2006 season. DPI staff exceeded this number and inspected 113 properties in the period.

## MELTON CITY COUNCIL

In its Council Plan, Melton shire has pledged to preserve the integrity of the natural environment to help ensure a high standard of living for all residents living in the shire. The Melton City Council (MCC) acknowledges that high environmental and amenity standards are essential if the region is to attract new residents and businesses to the region.

MCC is committed to stopping land degradation, improving land quality and productivity whilst protecting our natural values and increasing biodiversity. Under Section 169 of the Local Government Act 1989, MCC has established a Rural Rate Rebate that is granted to properties greater than two hectares that are zoned Rural Zone, Green Wedge Zone, Green Wedge A Zone, Rural Conservation Zone, Farming Zone and Special Use Zone 5. The rebate is a reward for improving environmental values within these zones. The policy rewards sustainable land management practices with lower rates.

MCC does not take a zero-tolerance approach to the control of weeds. Landholders are encouraged to approach the council to achieve an agreed outcome and arrangement where unforeseen issues arise.



A proposed works form must be completed by the landowner and submitted to council, detailing the land degradation problems to be addressed, their extent and the nature of works to be undertaken. This year a very encouraging 98% of rural landholders have returned their proposed works form.

Over the coming months MCC's authorised officers will assess the appropriateness of works as described in the proposed works form submitted to council by the landowner. Landowners whose proposed works are approved will be notified in writing in due course. Typically each year an average of 95% of rural landholders retain their rate rebate.

A recent survey of landholders found that 86% of residents thought that the environmental enhancement policy and its rural rebate has been an important factor in reducing the amount and severity of weed infestation in the shire. In addition an overwhelming 93% supported the continuation of the policy and the provision of the rural rate rebate.

## WYNDHAM CITY COUNCIL

The Wyndham City Council has developed an incentive-based program to assist landowners to manage priority weeds including serrated tussock. In 2005/06 the participation rate in this incentive scheme had risen from the previous year to approximately 85%.

Following consultation between DPI and Wyndham City Council environment staff in early 2006, an agreed list of properties was developed for DPI to provide compliance support to assist the objectives of the council's land management rate rebate scheme.

Wyndham City Council is also involved in a number of other initiatives to tackle serrated tussock and other priority weeds, including:

- Controlling serrated tussock on council managed land;
- Training mowing and slashing crews in weed identification and weed spread prevention techniques;
- Early roadside slashing program;
- Development of local laws to manage weeds;
- Production and dissemination of the 'Wynweeds' newsletter;
- Providing education services to landowners;
- Distribution of land management kits to all new rural landowners.

## MOORABOOL SHIRE COUNCIL

Throughout 2005/06 Moorabool Shire Council continued to target serrated tussock on all council reserves, roadsides and river frontages. In excess of \$30,000 was spent on controlling serrated tussock on council reserves in this financial year. In addition to this, the council implemented the Interim Roadside Weed Control project, which resulted in over 54 serrated tussock infested roadsides being treated, over an area of approximately 160km.

The council also continues to be an active partner and supporter of the Grow West project by participating in its implementation committee meeting and delivering natural resource outcomes within the boundaries of the Grow West target area.

## MACEDON RANGES SHIRE COUNCIL

The Macedon Ranges Shire Council is alarmed at the northward creep of serrated tussock into areas of the municipality, which previously had no record of serrated tussock infestations. Following meetings with DPI serrated tussock staff in early 2006, a number of activities are planned to assist council manage serrated tussock.

## SURF COAST SHIRE

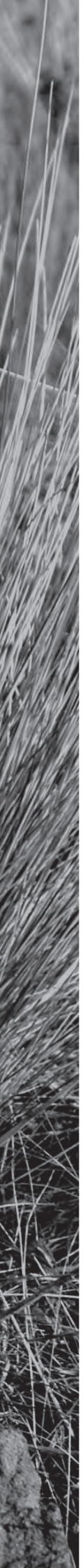
The Surf Coast Shire has continued to be a key stakeholder in managing serrated tussock within the Corangamite catchment. Over the past twelve months the shire has adopted several new initiatives to reduce the impact of serrated tussock primarily through education and awareness.

The shire has undertaken weed-mapping works, focussing on serrated tussock and priority weeds on all high and medium conservation roadsides within the shire. The information was shared with DPI who coordinated control of all identified serrated tussock outbreaks through the good neighbour program.

All contractors engaged by the shire for fire prevention works are inducted through training in prevention of weed-spread, and informed of serrated tussock and other noxious weed infestations within the shire.

Serrated tussock management is incorporated in planning permits where relevant. The shire distributes pest plant and animal information kits to new landholders moving into the shire. These kits contain serrated tussock identification and management guides. The shire conducts pest plant and animal implementation meetings. A committee of community members, local government, Parks Victoria and DPI meet to discuss and implement various weed programs throughout the shire.





Over the last year the Surf Coast Shire has prepared an environmental management strategy that documents council's commitment to pest plants and animals in the shire. Important actions of the strategy such as weed mapping and control of council land is under way on the following locations:

#### **Deep Creek**

This reserve has extensive serrated tussock infestations particularly in cleared open areas. These areas are controlled by broad scale slashing well before flower/seed set and is spot sprayed when funds are available.

Areas of intact native vegetation generally out compete serrated tussock throughout this reserve and isolated serrated tussock plants that are spot sprayed and/or chipped, are usually replaced with indigenous vegetation as required.

#### **White's Beach**

This area is also subject to heavy infestations of serrated tussock, particularly in modified cleared areas of exotic/pasture grasses. A combination of burning, slashing and spot spraying has been used in the council managed area to control the spread of serrated tussock with the view for long-term control as part of planned major infrastructure works in this area. These works are now well under way and extensive earthworks will continue to scrape and cap large infestations with suitable topsoil in preparation for new public facilities to be placed throughout newly sown open grassed areas and indigenous landscape plantings across the reserve.

#### **Spring Creek and Bells Beach Surfing Recreation Reserve**

Council has and will continue to spot spray and/or chip all infestations that are intermingled amongst indigenous vegetation. Revegetation with suitable species will also be carried out as required.

### **GOLDEN PLAINS SHIRE**

Over the past 12 months the Golden Plains Shire has persisted with programs directed at reducing the impact of serrated tussock on the local community. In particular, the shire has undertaken serrated tussock control on council land and reserves at Inverleigh, Teesdale, Bannockburn and Shelford. In addition, the council has continued to provide advice to landholders on identification features and control measures for serrated tussock through the council's Weednet network and in person at customer service centres. Council has continued to raise awareness within the Golden Plains Shire of the impacts of serrated tussock and the responsibility of landholders to control serrated tussock through the council's community newsletter, 'The Gazette'. Council has also continued to support DPI by providing land ownership details to DPI staff for enforcement purposes.

The list table details the location of serrated tussock control undertaken by Golden Plains Shire on 35 properties and roadsides.

Reserves	Roadsides
Don Wallace Reserve, Teesdale	Lowndes Rd Easements, Bannockburn
Alice Mews Walking Tracks, Bannockburn	Burnside Rd, Bannockburn
Bannockburn Arboretum, Bannockburn	Cambridge St, Inverleigh
Bannockburn Business Estate, Bannockburn	Cambridge St River Reserve, Inverleigh
Golden Plains Shire Offices and surrounding Recreation Reserve, Bannockburn	Geelong Rd, Bannockburn
Old Batesford Cemetery, Batesford	Harvey Rd, Bannockburn
Bannockburn Lock-up Building Reserve, Bannockburn	High St, Bannockburn
Somerset Court Reserve, Bannockburn	Railway Terrace, Bannockburn
East Street Reserve, Inverleigh	McPhillips Rd, Bannockburn Midland Highway buffer, Bannockburn Midland Highway buffer, Bannockburn Range Rd, Bannockburn Redgum Reserve, Batesford Savage Drive Riverside Reserve, Inverleigh Unused portion of East St, Inverleigh Unused Road, Lethbridge Unused Road, Bannockburn Range Rd (unused portion), Bannockburn Saleyard Rd (unused portion), Inverleigh McCallum Rd (unused portion), Inverleigh Middleton Drive, Bannockburn McPhillips Rd (unused portion), Bannockburn McPhillips Rd, Bannockburn Mercer St (unused portion), Inverleigh Midland Highway through Batesford



## CITY OF GREATER GEELONG

The City of Greater Geelong's main focus in relation to serrated tussock has been to control infestations of serrated tussock on council reserves and to promote community awareness of serrated tussock and its impacts on the environment and agricultural productivity.

The City of Greater Geelong received \$11,000 through the Department of Sustainability and Environment's interim roadside weed control program to treat roadside infestation of serrated tussock. Shire staff and DPI officers identified roadsides within the Little River area as having serrated tussock infestations. These areas were chosen to complement existing control programs on private land. A tender process followed with the successful contractors implementing control works. An audit of treated roadsides followed to ensure control works had been completed successfully.

An outcome of the Biodiversity Strategy has been the establishment of a Conservation Reserves Team. The specialist skills of this team are being used to target weeds such as serrated tussock in order to protect and enhance the biodiversity values of the city's conservation reserves. The weed control program aims to treat all known infestations of serrated tussock prior to seeding.

The city's Roadside Management Strategy aims to minimise the threat of weeds to the city's biodiversity by ensuring that all roadside maintenance activities are planned and undertaken in a manner which minimises the spread of weeds.

A variety of environmental resources are available at the city's customer service centres and on the council's web site at [www.geelongaustralia.com.au](http://www.geelongaustralia.com.au). This information includes: Roadside Weed Management Guidelines, Rural Land Management Kits, Garden Plants Going Bush and Indigenous Plants of the Geelong Region.

A reminder notice regarding the need to control serrated tussock together with extension material has been sent to rural residential areas within the city to assist the DPI compliance program in those areas.



# State Government Programs

## DEPARTMENT OF PRIMARY INDUSTRIES

The Department of Primary Industries is the major service provider to the VSTWP, with funds allocated through DSE. The DPI/DSE model focuses on providing comprehensive extension and advisory services, individual property inspections and infestation mapping encouraging land managers to implement long-term control practices. A compliance component is implemented following extension works to ensure all landowners meet their legislative requirements.

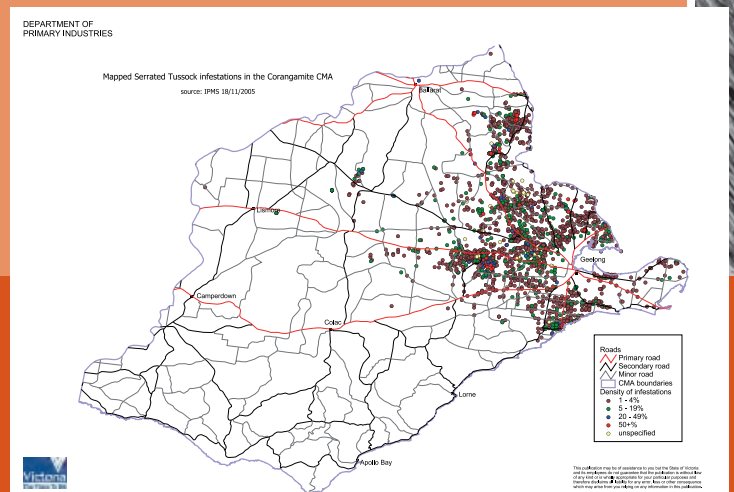
The work done by DPI through these services works to achieve the goals of the State Government's pest plant strategy 'Victorian Pest Management Framework' and the VSTWP serrated tussock strategy 2005-2010 "Intensifying the attack on serrated tussock". The important work performed by DPI forms the basis for achieving ongoing reduction within existing core infestations and containing the spread within the Corangamite and Port Phillip catchments and treating isolated infestations throughout the State with the aim to eradicate these infestations. The dedicated DPI staff work to engage and empower the community to implement long-term serrated tussock control programs.

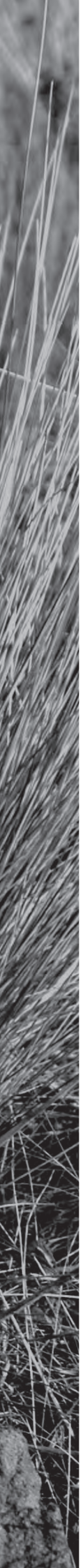
## CORANGAMITE CATCHMENT

### Planning

Over the 2005/06 period a framework for serrated tussock investment and resourcing document was developed. This process has been implemented to aid priority setting within the Corangamite/Port Phillip catchments ultimately determining where DPI resources are allocated. The document sets a range of criteria directly aligned to the VSTWP's "Intensifying the Attack on Serrated Tussock". Focus areas were identified and bound on the similarities that the properties in each landscape had with each other. These factors included the size of properties, number of properties, land class, infestation levels and geography. The five factors which were considered when ranking these areas were:

- 1 **Asset protection** (Scored between 1-5)
- 2 **Satellite and outlying infestations** (Scored between 1-5)
- 3 **Seed production** (Scored between 1-5)
- 4 **Partnerships** (Scored between 1-3)
- 5 **Previous investments** (Scored between 1-3)





Each focus area was assessed against the criteria and scored based on its rating against each criterion. Focus areas were then arranged in order of highest to lowest rank. Resources were then allocated to focus areas from the highest ranking area downward until the number of inspections met the agreed figure to be delivered.

Following the completion of this process the document was presented to the VSTWP for comment and endorsement. The process and identified target areas for the 2006 serrated tussock program were supported, with this process also enabling an assets-based approach supported by investors.

Property inspections have been conducted throughout the Torquay, Mt Duneed, Stonehaven/Murgheboluc, Balliang, Inverleigh, Lethbridge, Upper Moorabool and Morrisons focus areas over the 2005/06 period.

A priority property database comprising of over 150 properties has also been compiled. This includes properties that have been the focus of ongoing extension programs over several years and continue to be visited to ensure serrated tussock control is achieved. These properties were issued an introductory letter with a common compliance date for serrated tussock works to be completed. This has reduced the need to conduct initial inspections allowing staff to focus traditional extension programs in emerging areas such as Torquay and Mt Duneed in the autumn period. Priority properties are then inspected at the expiry of the compliance date and issued notices where required.

## Extension

Extension programs have focused on landowners within the Torquay, Mt Duneed and Freshwater Creek areas to the south of Geelong. These three new project areas comprise of 100 properties and have been adopted for the 2006 serrated tussock program. Serrated tussock is an emerging issue for landowners within these landscapes. A large component of this program has focused on building awareness and increasing the community's ability to identify and manage serrated tussock through property visits and one on one extension.

Properties in the Upper Moorabool project area have also been the focus of extension programs incorporating the serrated tussock program in conjunction with the mapping of rabbit indicators. This program has focused on raising awareness and ensuring landholders undertake necessary control works.

Parks Victoria with the help of the adjoining landholder treated an isolated infestation located at Lake Bolac, covering an area of approximately 1 ha. The adjoining landholder and Parks Victoria have been involved in extensive consultation concerning future control measures to be implemented. Parks Victoria is committed to both a work plan/agreement and property management plan.

Extension programs have also been conducted in established focus areas in the Stonehaven, Murgheboluc, Inverleigh, You Yangs, Anakie and Little River areas.

Extension programs have also been conducted with local Landcare groups focusing on a range of weed management issues. A serrated tussock control presentation was given to the Leigh catchment and escarpment groups.

### **Field Days/Workshops**

DPI staff in conjunction with Barwon Water and the Corio Landcare group conducted a successful field day at the Lara Heritage Festival. Information was provided to members of the general public on the identification and control of various noxious weeds and many other natural resource management issues. Pest species were displayed to aid the community with identification.

Staff completed a display at the Catch-a-Carp day held on the Barwon River. The day raises awareness of water quality and other catchment issues such as pest plants and animals and their impact on Victoria. The display included a live serrated tussock plant and a range of pest species and information notes to aid identification and management.

DPI staff attended a bus trip organized by the Geelong Landcare network visiting properties within the 2005/2006 focus areas, highlighting weed issues and management options for non-arable lands. This was a good opportunity for new staff to integrate with the community and provide ideas for management solutions in a range of land management situations.

A plant identification forum focusing on Chilean needle grass and serrated tussock was conducted in conjunction with the Surf Coast and Inland Plains Network (SCIPN) at Connewarre, with approximately 20 landholders in attendance.

### **Compliance**

Compliance outputs in 2005/2006 throughout the Corangamite catchment are slightly lower than the previous years due to several DPI staff being in transition between programs. Two compliance staff have since been recruited and began late in the financial year.

Compliance activities in Geelong have resulted in the completion of three successful prosecution briefs that were found proven in the Geelong Magistrates Court.



## Media

Media articles have been completed to coincide with key periods of the serrated tussock program throughout the year, the following media releases were completed in the 2005/06 period.

- Three articles detailing “PASTURE ESTABLISHMENT FOLLOWING SERRATED TUSSOCK CONTROL”
- “MAKE SERRATED TUSSOCK CONTROL YOUR LONG TERM GOAL”
- “STOP MACHINERY AIDING THE MOVEMENT OF SERRATED TUSSOCK”
- “SURF COAST LANDOWNERS WELCOME SERRATED TUSSOCK EXTENSION PROGRAM”
- “NEGLIGENT LANDHOLDERS IN FIRING LINE OVER SERRATED TUSSOCK”
- “THREE PROPERTY OWNERS CONVICTED FOR FAILURE TO CONTROL SERRATED TUSSOCK”

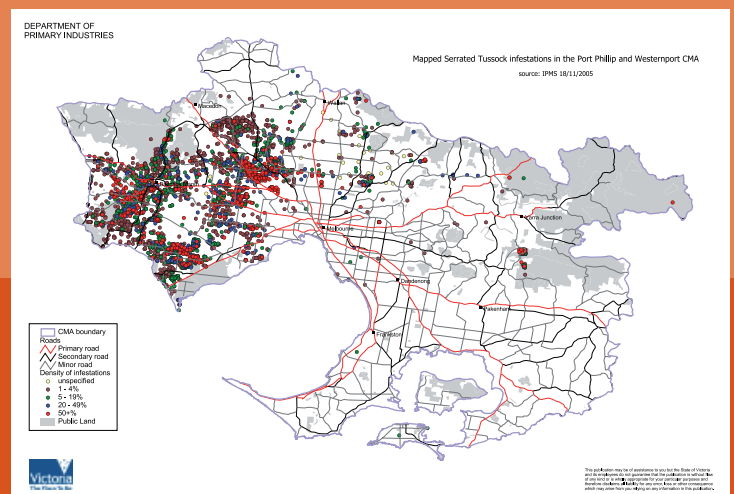
## PORT PHILLIP CATCHMENT

### Planning

The Port Phillip catchment worked through the priority setting process in conjunction with the Corangamite catchment. After this process was completed, identified target areas for the 2006 Port Phillip serrated tussock program were supported by the VSTWP.

Property inspections were conducted in the Port Phillip catchment in the areas of Organ Pipes, Truganina, Point Cook, Werribee Gorge, Pentland Hills, Lerderderg, Maribyrnong, Melton and Parwan.

Priority properties are those that have received a number of years of extension in the management of serrated tussock and have required repeated compliance visits. They are key properties for the community's continued confidence in the Department's extension and compliance program. The priority properties are to be inspected despite the ranking of the focus area in which the property is located. They consume a larger proportion of time however, and limit the availability of resources that can be used to work through the focus areas.



Port Phillip's major priority area is the Rowsley Valley, which lies within the heart of the Multiple Outcome project region. This area has been inundated with extension information in the past. In 2006 a letter drop to 90 properties within the Rowsley area was conducted. The letter informed landholders that officers would be conducting inspections from a pre-determined date. Follow-up inspections of selected properties were conducted within the priority area.

### **Extension activities**

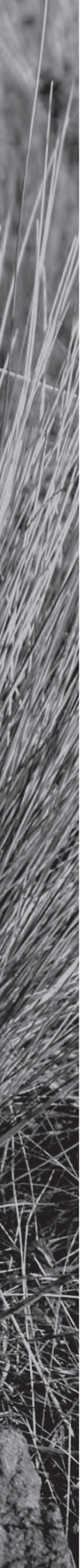
Despite the late appointment of staff to the project, Port Phillip staff were able to achieve a number of very successful events designed to increase the community's knowledge and capacity to manage serrated tussock.

The most significant of these events in 2005/06 were the 'expert panel' forums, the Clarkefield Field Day held in partnership with the Clarkefield Landcare group and the Macedon Ranges Shire Council, and the joint workshop with DSE flora and fauna staff in February 2006.

The 'expert panel' forums were held at three locations across the catchment - Bulla, Truganina and Ballan. A series of scientific and technical experts were assembled to address issues and present information to the community regarding serrated tussock management. These forums also included representation from landowners successfully managing serrated tussock. The forums were well received by the majority of the 127 people who attended with plenty of positive feedback received.

The Clarkefield Landcare Day was held on a property in Clarkefield that had a scattered infestation of serrated tussock amongst the native tussock. Over 50 participants attended this day which provided an excellent opportunity to increase the participants identification skills and knowledge of control options in these situations.

A joint workshop was developed with DSE flora and fauna staff to ensure closer working relationships between DPI and DSE and to assist staff to provide best management advice to landowners managing serrated tussock in native grasslands. This is one of several events that are planned to increase project staff's knowledge surrounding this issue.



Port Phillip staff were also involved in many other extension activities in 2005/06, these include:

- Presentations at Landcare meetings (Truganina, Sunbury, Clarkefield, Pentland Hills, Rowsley and Upper Maribyrnong)
- A joint stall with Hume City Council and Sunbury Landcare at the Sunbury Fair and the Sunbury Show.
- Attendance at Hume Weeds Advisory Committee
- Presentation to Latrobe University fourth year agriculture students on serrated tussock identification and control.
- Moorabool's Green Living Expo – World Environment Day

### Compliance activities

A total of 210 Land Management Notices (LMN's) were issued to landowners throughout the Port Phillip catchment in 2005/06. The majority of these notices were due to expire throughout July, August and September of 2006. At the time of compiling this report eight prosecution briefs have been submitted to the Department's Offence Management Unit with recommendations to proceed with prosecution of the landowners for failing to comply with a LMN. It is anticipated that several more briefs will be submitted in late 2006.

A number of directions were issued to landowners to prevent the movement of serrated tussock contaminated fodder throughout the summer of 2005/06. This is an area that the project has identified as requiring further focus in future years.

### Media

A number of media articles were published in local papers in the Sunbury, Bacchus Marsh, Melton and Werribee areas highlighting the projects extension and compliance activities.

Project staff also developed a number of media articles relating to serrated tussock which were not published by local papers, and there appears to be some reluctance to publish these articles, which has not been experienced in previous years.

### Flupropanate resistance

DPI's Port Phillip and PIRVIC staff have been working with a landowner in the Rowsley area to treat an infestation of flupropanate resistant serrated tussock. This is one of several known sites to have serrated tussock plants resistant to flupropanate in the catchment.



## Coimadaí Landcare

The Coimadaí Landcare group currently has 35 member families, however this year it has accepted members from outside of the local area. A successful event held last Christmas provided members with training on the identification and control of serrated tussock

The Coimadaí and Merrimu areas still have several large infestations of serrated tussock mainly on properties where there are absentee landowners, or where landowners do not have the time to invest in weed management.

In the northern Coimadaí area off Gisborne Road, there are several isolated blocks that are difficult to access with conventional machinery (too steep) and present problems to landowners in the eradication of serrated tussock on the steep hills. Education has been provided to these landowners by the group, however support from DPI is also required.

The group provides members with a quarterly newsletter, and in the March edition information was provided to members on the identification and control of serrated tussock.

The group is aiming to eradicate serrated tussock from the area by 2010, although many areas still remain a problem.

## Staff

A number of factors conspired together to make 2005/06 a difficult year. The late appointment of staff, the Bushfire Recovery project, extended sick leave, dry seasonal conditions and delays in getting staff authorised under relevant legislation meant that the project was unable to work at full capacity for most of this period.

Throughout the first half of 2005/06 Deven McPhan was the sole officer in the Port Phillip serrated tussock project. This was a result of the statewide workforce management process undertaken across the Landscape Protection portfolio. This resulted in delays in appointing project staff. However, in December 2005 three officers were appointed to the project - Anna Grech (Rural Extension Officer), Richard Plant (REO) and Grace Guzel (Compliance Officer).

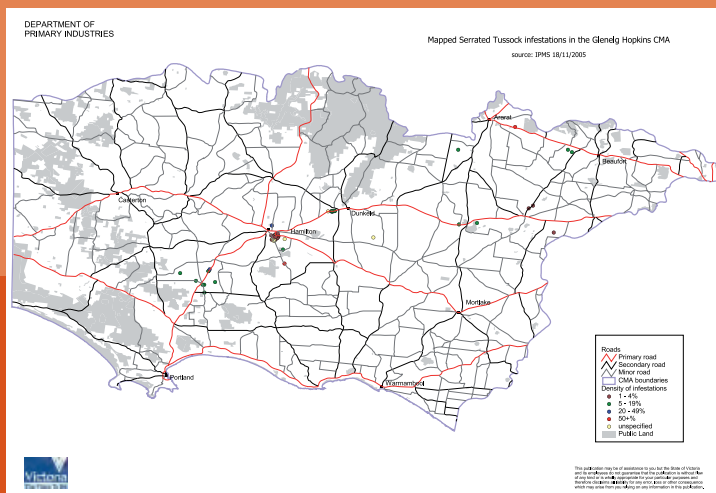
In March 2006 following the devastating bushfires earlier in the year, and the announcement by the State Government of the Bushfire Recovery Package to assist fire affected landowners, REO Richard Plant left the project to back fill a position vacated to assist with the implementation of the Bushfire Recovery project.

Gerry O'Keeffe (CO) also joined the project in April 2006 for a period of six months and made a significant contribution to the project with his work in Hume.

## GLENELG-HOPKINS CATCHMENT

### Extension

Extension effort was significantly ramped up this year with serrated tussock, once again, featuring at the SheepVention field day site in the DPI exhibit in August 2005. Staff fielded questions from interested visitors and handed out a variety of extension material. The live weed species in the trailer also featured in the display with a serrated tussock plant included.



Two new landowners to Pierrepoint, on the fringe of the compliance area, were, on request, forwarded extension material on the identification and control of serrated tussock and their properties inspected for the plant, where none was found.

A landowner outside of the focus area contacted the Hamilton office for information on serrated tussock as a result of reading an article published in the Hamilton Spectator. He requested a field inspection of his property and, after completing this, no serrated tussock was found. Community interest in this program is increasing and staff are prepared and resourced to chase potential new infestations.

### Local Government and Public Land Managers

Local government and public land managers still play an integral part in the success of the serrated tussock program. All roadsides, rail and government agency managed land were treated by the expiry of the Work Plan Agreement.

These organisations are becoming increasingly aware of the weed and the expectation the Department has of them to actively engage in management. Most public land managers are not based locally so it is both refreshing and encouraging to see them lead and engage local contractors to complete works on their land.

Departmental officers continue to build strong productive relationships with these managers and will continue to support them in controlling serrated tussock in the future.

## Compliance

DPI staff coordinate the compliance program with all landowners and managers with tussock on their properties issuing Work Plan Agreements requesting every plant to be treated by August 15<sup>th</sup>. The program delivered from DPI Wimmera–Glenelg Hopkins is truly “tenure blind”.

Notices of Intent to Enter were sent to 34 landowners involved in the program this year. Two officers conducted the inspections and found landowners had demonstrated once again their vigilance in eradicating the plant with only three landowners not complying with Work Plan Agreements.

Three landowners were issued with LMN’s, expiring in October 2005. All three completed the required works by the compliance date and no further action was necessary.

## Monitoring and Evaluation

The focus area was monitored over the summer period to ensure that a Summer Alert Program was not necessary. Conditions did not favour a second germination of seed and no plants were visible over the summer period this year.

No new infestations were found in the program area this year but new infestations found in the previous year were included into the compliance program and treated under a Work Plan. Roadsides were continually monitored inside the focus area and on the fringes to ensure no seed spread had occurred. Any plants found were manually removed.

In evaluating the spread and density of serrated tussock in Pierrepont, it can be concluded that the distribution of plants may have increased slightly along roadsides and fringes but the density is reducing significantly.

This year, a visible reduction in infestations is clear due to the vigilance of all landowners involved with densities reduced to cover only 40% of land in the program area. The major infestation within the target area on the old quarry site has seen every plant manually removed from the ground. This effort should see a reduction in plants establishing next season as they have been unable to set seed for several years.

## Operating Environment

After eight continuous years of coordinating a compliance program in this area, the majority of landowners are familiar with their responsibilities regarding the control of serrated tussock. The Land Protection Group members are committed to eradicating the plant from the area and actively seek expertise, funding and assistance, both internally and externally of the group, to treat plants.



## Upper Hopkins Serrated Tussock Program 2005-06

Four infestations exist in the Upper Hopkins area, three of those being on Railway Reserve between Ararat and Beaufort which were first observed in 2003. The fourth was found on road reserve south of Ararat in October 2005 by a passing landowner from outside the district. All infestations were treated successfully in 2005.

### Conclusion

All of these infestations are isolated occurrences that are small in size with a low density of plants. Continued good management of these infestations should result in these sites being declared under long-term control in the near future.

### Issues

A major issue arising in this program is the 'roadside' issue. As it is still unclear who is responsible for regional priority weeds on roadsides, it is with risk for staff to include roadsides on Work Plan Agreements. In the case that an incident was to occur on a roadside during weed control works, it would expose the Department to public scrutiny.

This issue needs to have some level of resolution so the Department, local government, VicRoads and landowners can all be made aware of who is responsible for weeds on roadsides in the future.

### Incentives and Funding

The Community Landcare Facilitator with the Glenelg-Hopkins Catchment Management Authority coordinated an Expression of Interest for the Group in a bid to gain funds from the DPI initiative - Defeating the Weed Menace.

Pierrepoint was lucky to be awarded a grant to treat serrated tussock that will be used in the 2006-07 Compliance Program. This funding should allow for a fully 100% subsidised chemical control program to be undertaken by an external contractor to treat every plant on the landowners behalf.

The group received some \$13,500 to complete this task next year. Accepting this funding will not abrogate the landowner's responsibility to have all plants treated by the 15<sup>th</sup> August 2006.

### Media

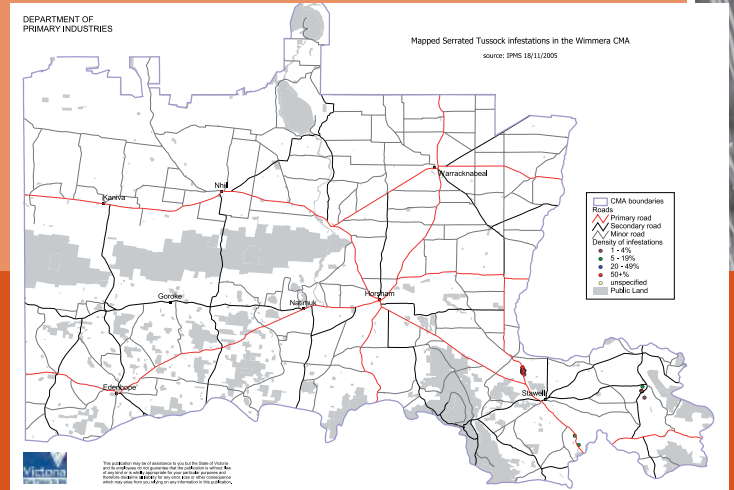
Two Hamilton based staff attended the VSTWP's strategy launch of "Intensifying the attack on serrated tussock 2005-2010". This was an opportunity to meet and network with others continuing the fight against serrated tussock in Victoria.

As a part of the spring weeds media offensive, Hamilton staff submitted articles explaining the great efforts of the Pierrepoint program. These articles were published externally and internally in DPI News and CAS Update.

## WIMMERA CATCHMENT

### Introduction

Serrated tussock was first observed in the Wimmera in 1999 at Bunyip Crossing near Glenorchy and at Landsborough. A small isolated infestation was found at Armstrongs in 2002. Serrated tussock is not a declared noxious weed in the Wimmera catchment but is considered a new and emerging weed (Wimmera Weed Action Plan 2000-2005).



### Wimmera Weed Action Plan 2000-2005

#### Section 4.2 Prevent the Establishment of New and Emerging Weeds

Aim: To implement early detection and rapid control of new weeds that have the potential to cause significant environmental and/or economic impacts.

In August 2005 initial inspections were undertaken at 17 sites at the three locations.

#### Bunyip Crossing (Glenorchy)

At this location there are ten sites infesting about 11.2ha within an approximate area of 70ha. In August 2005, three Work Plans were issued for the implementation of control programs, one to a private land owner, another to a company and the third to DSE.

The landowner and DSE both completed successful control programs by the expiry date on their respective Work Plans. Allocated \$1000 from the Good Neighbour Program (GNP) DSE engaged a contractor to spray the infestation on public land.

The company did not comply with the Work Plan by its expiry date. Further correspondence to the company resulted in a successful control program being initiated.

GNP funding was also utilised from the Wimmera Prohibited Weeds Roadside Project to engage a contractor to spray three roadside infestations.

Work Plans were required to be issued to the other four private landowners where serrated tussock had been found in previous years. This was either due to no serrated tussock being located at these sites on the initial inspection or if there was any they were hand grubbed out at this time because of the small number of plants present.

### Armstrongs

A small infestation of about 100m<sup>2</sup> was first observed at this location in 2003. No plants were observed at this site in 2005.

### Landsborough

Serrated tussock is located on six private properties in the Landsborough area infesting a total area of about 4.9ha. Work Plans were issued to three of the landowners with each completing successful control programs by the expiry dates. No Work Plans were issued to the other three landowners, one not having any plants to control and the other two undertaking control at the time of the initial inspection.

### Conclusion

Infestations across the Wimmera are decreasing in density. Occasionally individual plants or small infestations are found a short distance outside the recorded infestation boundaries.

The continued success of this program shall require ongoing monitoring of known sites and surrounding areas by landowners/managers to detect and control plants before seeding occurs. DPI's Landscape Protection staff shall play an important part in insuring this is continued through the implementation of education, monitoring and compliance programs. Current infestation observations would suggest continued implementation of these programs shall see current infestations reduced significantly over the next few years.



## EAST GIPPSLAND CATCHMENT

Within east Gippsland, serrated tussock infestations are located in the parishes of Bairnsdale, Meerlieu, Coongulmerang, Tubbut and Bonang, with infestations varying from a few plants and small patches to scattered plants across entire paddocks. Approximately 254ha are currently infested to some extent.

### Compliance

DPI Pest Management Officers continued to undertake serrated tussock inspections, provide extension material and technical advice. Thirty two properties were inspected with 21 landowners issued with work plan agreements. Only one landowner failed to undertake the required work and was issued a LMN. The LMN was complied with and consequently no prosecutions took place

At the conclusion of the season, of the 34 properties inspected, only 28 were identified with serrated tussock.

During 2005/06 landowners used various methods of control including spot spraying, digging out, boom spraying, cultivation and fodder crop establishment. Pest Management Officers observed a significant reduction in infestations where fodder crop establishment had occurred. Further cropping is planned for 2006-2007 with establishment of permanent pasture in 2007-2008

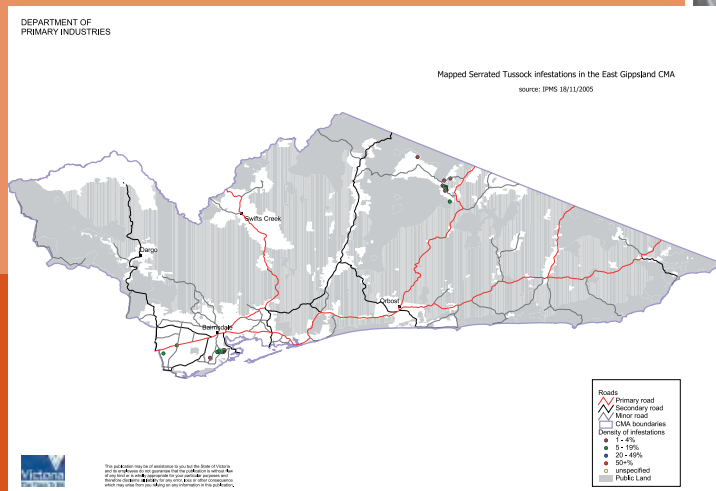
### Extension and Field Days

New landowners in the target areas were provided with assistance in serrated tussock identification from DPI staff. All other landowners have become confident in the identification and are aware of the affects serrated tussock has on agricultural production.

At the east Gippsland field days held in April, DPI staff displayed a range of weed samples and information. Interested landowners were given assistance in serrated tussock identification and control techniques available.

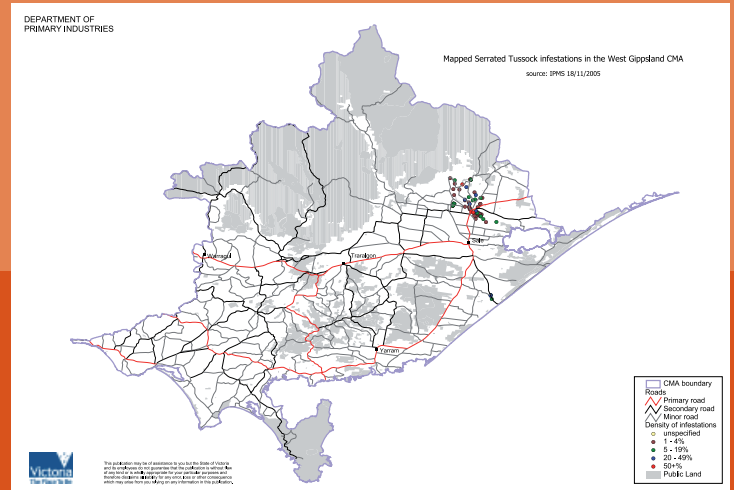
Local east Gippsland newspapers featured articles on serrated tussock including identification and details of extension/compliance programs.

Weedbuster activities were held in east Gippsland during October. Serrated tussock plants were on display, along with Landcare notes on its identification and control techniques for people to take home.



## WEST GIPPSLAND CATCHMENT

The 2006 west Gippsland serrated tussock program has focussed on the Maffra, Stratford, Briagolong and Seaspray areas with some 85-90 properties identified as having infestations of serrated tussock. Property sizes range from small residential, through hobby farms to 100+ha grazing properties, with most infestations classified as light to medium.



As an outlier infestation and consistent with the strategic direction identified in “Intensifying the attack on serrated tussock” the key objectives of the west Gippsland program this year have been to ensure that all plants on known infestation sites are treated (with a view to eradication), and there is increased monitoring of high-risk areas to detect any new infestations.

### Compliance

With the assistance of officers from other catchments, DPI undertook a co-ordinated compliance program during August–September in which 32 properties were inspected. Eight LMN’s were issued and two briefs prepared as a result of this program. The level of co-operation and assistance from the local community was excellent, with a number of new infestations detected following information from members of the public.

### Extension

Overseen by the Gippsland Serrated Tussock Project Officer (a position funded with assistance from the VSTWP) the extension component of the 2006 program has resulted in more than 60 properties being visited and provided with relevant extension material. Other key elements of the program have included the preparation and distribution of a newsletter, participation in field days and displays and general liaison with the community on education and awareness issues. This has also resulted in a number of new infestations being recorded and mapped. A very strong and productive relationship exists between the project officer and the Maffra and District Landcare Network and its local reference group. The success of the extension element of the Gippsland serrated tussock program is largely attributed to the local knowledge, respect and ability of the incumbent to effectively communicate and interact with the local community.

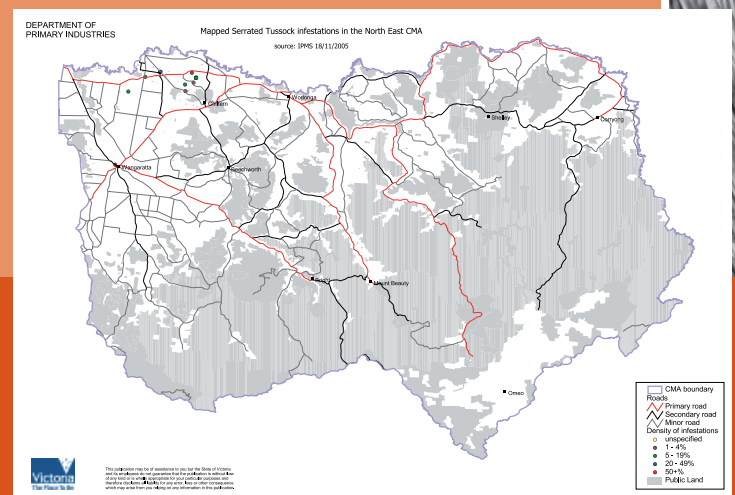
## Good Neighbour Program / Defeating the Weed Menace:

All known infestations of serrated tussock on roadsides in west Gippsland have been sprayed under the Good Neighbour Program (GNP).

One landowner was also a recipient of a Defeating the Weed Menace incentive grant for outlier infestations. This grant enabled spraying out and renovation of approx. 40ha of pasture, providing valuable support and assistance to the farmer in achieving his ultimate objective - that of long-term control.

## NORTH EAST CATCHMENT

The immediate serrated tussock project in the Rutherglen area is almost completed with small infestations being identified by the team and by landowners coming forward. The Rutherglen/Chiltern Serrated Tussock Management Plan is progressing well. Considerable effort has been put in by the local committee comprising DPI staff, Indigo Shire, the Landcare group, spraying contractors and land managers highlighting the importance of the serrated tussock issue, community education and site treatments in the area. Roadside infestations have been treated using GNP funds. There will need to be a future fund source to treat these sites for a number of years to come.



## Compliance

Overall results from the project include 20 Work Plan Agreements (WPA's) covering some 2,500ha have been signed. A number of the WPA's relate to private land, but most of the infestations are along roadsides. The WPA's commit the landholder to be on the lookout for and treat tussock if found on the property. Intensive inspection of 50km of roadsides has been conducted in areas of known infestation.

In 2005/2006 three new infestations have been discovered in the North East Catchment - Pearses Rd infestation, which extends into the adjoining privately owned land. This new roadside infestation links up with an existing infestation and small patch on Old Howlong Road. The other new infestation was confirmed on the Mortons Rd site, which was found due to a report by a local landholder who had heard about serrated tussock through the DPI extension program.



## Extension and Field days

DPI staff attended a number of regional events to promote state prohibited and priority weed awareness and management including the Wangaratta Show in partnership with Milawa Markwood Landcare Group and the Greta, Moyhu and Whitfield Weed Action Committee.

DPI staff used the 'Woody Weed' mascot to highlight the weed message to children attending the Rutherglen Show. This was a particularly successful event and highlighted to local community the importance of locating and eliminating serrated tussock infestations.

DPI staff attended Henty Field Days and collaborated with the Eastern Riverina Weeds Advisory Groups (NSW) to produce a weed display, which highlighted the need to control serrated tussock.

Indigo Shire/DPI/Landcare weed information sessions were held at Tangambalanga, Yackandandah and Bright Sustainable Gardens Expo with Weed Spotter information and weed displays providing an opportunity to promote the serrated tussock issue to the wider community.

DPI Catchment Co-ordinator Greg Johnson worked with local government and Greening Australia staff and presented at the Enviromarker workshop. He also organised Indigo Shire to make contractors and community members aware of the Enviromarker system and its importance to pests and other environmental management programs.

DPI extension staff at Rutherglen conducted a field tour for VicRoads and Indigo Shire employees and contractors, to increase their ability to identify serrated tussock in (mostly roadside) situations where they work.

DPI staff established a weeds information display at McNamara's Country Store Rutherglen in a joint operation with local business, industry and Rutherglen Landcare group which also provided the starting point for the Rutherglen Weeds Walk attended by 15 community members in conjunction with DPI. This had a focus on serrated tussock.

## GOULBURN BROKEN CATCHMENT

Infestations of serrated tussock were first discovered in the Goulburn Broken catchment in 1996 along roadside verges. The main infestations within the catchment are still located along main roads such as the Goulburn Valley and Hume Highways and secondary roads around Kilmore, Rutherglen and Broadford.

The remaining 10 serrated tussock infestations within the Goulburn Broken catchment occur mainly on private land with only one infestation located on crown land.

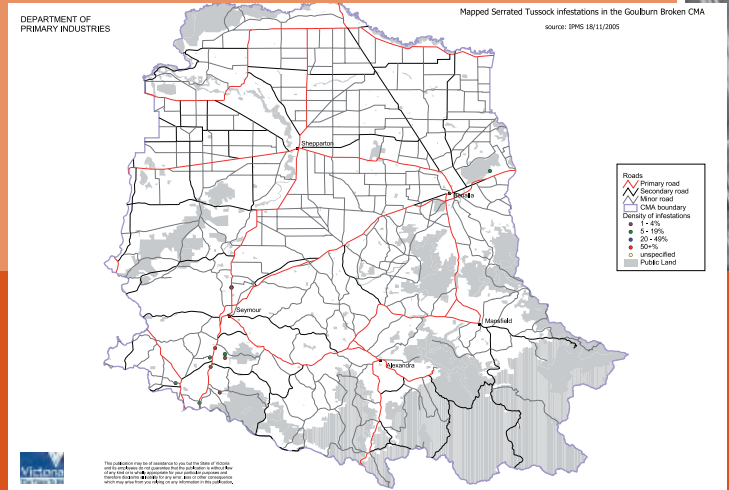
### Compliance

The known infestations of serrated tussock were inspected mapped and eight Work Plan Agreements were issued to land managers with extension material on how to identify and control serrated tussock.

Only two LMN's were issued both relating to serrated tussock infestations on main roads.

Two new serrated tussock infestations were identified, one in Broadford and one in Pyalong. Mitchell Shire staff identified the new serrated tussock infestations and made the official reports to DPI staff. The reports followed serrated tussock identification training provided to the Mitchell Shire staff by DPI Pest Management Officers in April 2006.

New infestations of serrated tussock in the Port Phillip region on the border with the Goulburn Broken region were reported to Robert Walker (DPI) and will be followed up on by Port Phillip staff.





## Extension and Field Days

The awareness and extension program targeted the properties around the known infestations at Kilmore. Over 30 properties were inspected with DPI extension staff working with landholders to help them improve their knowledge in the identification of serrated tussock. As a result of these inspections four new serrated tussock infestations were discovered. DPI staff directed the landholders with these new infestations to access funds under the Defeating the Weed Menace Isolated Infestation project.

The minor roadsides within the Mitchell Shire with serrated tussock infestations along their verges were all successfully treated as a part of the GNP.

A number of serrated tussock displays and presentations occurred in the Goulburn Broken catchment this year. For example, the regional weeds roadshow at Euroa, Broadford, Dookie and Yea and at the Landmark Farm Show and the Seymour Show.

Serrated tussock awareness DPI media articles in July and October 2006 were prepared informing landholders that serrated tussock would currently be in seed and to be on the lookout for its distinctive seed heads. Both articles were published in many local newspapers across the Goulburn Broken and North East regions.

When the new infestations were found at Broadford media articles were produced and released into the local papers to inform the community that serrated tussock had been found in their area and to contact the DPI Customer Service Centre to report further sightings.

## Issues

More funding is needed for broader investigation and treatment of roadside infestations given that most existing funding is directed to already known serrated tussock sites.

Post drought opportunity exists for extension to current infestation sites; potential serrated tussock spread along roadsides if travelling stock is allowed on roads in the Rutherglen area.



## NORTH CENTRAL CATCHMENT

Within the North Central catchment there are less than 20 known infestations of serrated tussock, mainly occurring on roadsides. These small, isolated infestations are located around Bridgewater, Kyneton and Heathcote and are treated on an annual basis.

### Compliance

During 2005/06 no compliance was conducted on serrated tussock infestations in the North Central as the majority are located on roadsides. DPI staff work collaboratively with landholders where infestations occur on private land to ensure that the infestations are ground-truthed and treated each year.

### Extension and Field Days

DPI staff work closely with landholders, local government and the North Central Catchment Management Authority to provide extension information and technical advice about preventing the spread, maintaining vigilance and using effective treatment techniques for serrated tussock on land that they are responsible for.

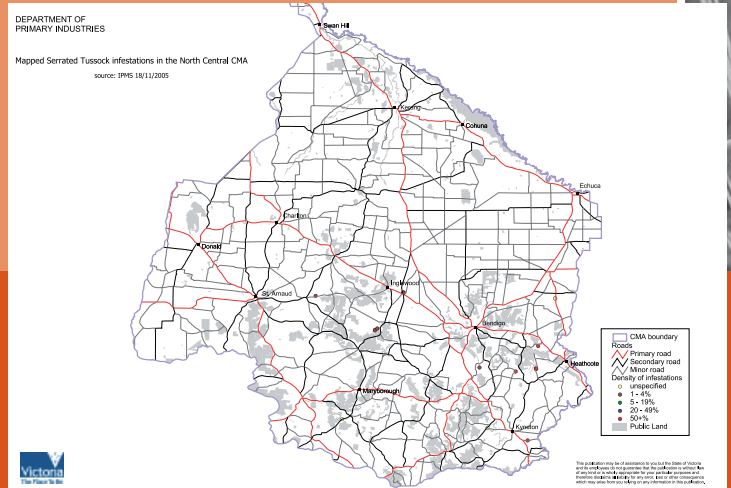
This approach had enabled DPI to minimise the risk of spread and contain known infestations.

### Media Articles

During 2005/06 North Central utilised general media articles written for other regions.

### Future Activities

On-ground works on the isolated serrated tussock infestations will continue during 2006/07. The North Central infestations logged in the Information Pest Management database will also be reviewed to ensure that infested sites are accurately located so that ground truthing and monitoring can be undertaken effectively.



# Moorabool Gorge Recovery Program - 2006

The **Moorabool Gorge Recovery Program (MGRP)** is a community driven catchment restoration project aiming to protect and improve the water quality and biodiversity values of the Moorabool River. The project is an important partnership between the DPI, Moorabool Shire, Corangamite Catchment Management Authority, Barwon Water and the East Moorabool Landcare Group.

The main goal of the program is to transform the river valley into a diverse and robust wildlife corridor. This will not only protect the existing endangered vegetation along the river but also improve water quality and address weed and pest issues on the escarpments. Serrated tussock is a huge problem on the non-arable gorge country and replacing it with native vegetation is the best solution.

## Achievements for 2006

- Completed projects with 32 landholders ranging from large remnant protection projects (70ha) through to small shelterbelt plantings (1ha);
- Revegetated 93ha;
- Enhanced 10.1km of waterways;
- Protected 116.7ha of high quality remnant vegetation: 38ha of valley grassy forest, 7.6ha of plains grassy woodlands, 11.4ha of grassy dry forest, 35ha of creekline herb-rich woodland, 21ha of escarpment shrub land and 3.7ha of stream-bank shrub land;
- Protected and enhanced 15ha of eroded land with fencing and vegetation;
- Demonstrated tree-planting techniques to a group of 25 volunteers during a Commonwealth Games tree project;
- Held a Waterwatch and riparian health day for 60 students from Heathdale College;
- Organised a native seed collection workshop in Gordon;
- Held an electric fencing field-day for the community;
- Organised a Landcare Bus tour
- Coordinated World Environment Day events for two local Primary Schools;
- Articles written include: Farm Forestry-From Firewood to Furniture; Greening the Gorge and Restoring Land; "Seeds not just for the birds" - Ballan news; East Moorabool Landcare Newsletter; paper for International Landcare Conference; Moorabool Landcare Bus tour newspaper article.



# Grow West

## Background

The Grow West project is turning back the tide of environmental degradation, initially by working in an area of 50,000 ha of land between Bacchus Marsh and Ballan, straddling the Western Highway, 60km west of Melbourne.

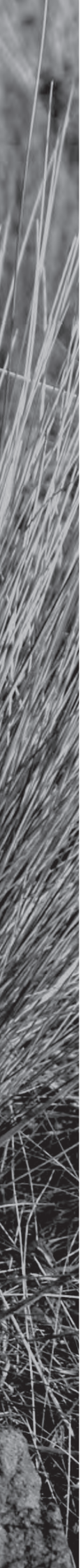
This significant project was born from the desire of the local community to improve the degraded landscape and address major land management issues, including the control of serrated tussock through integrated land management.



Grow West has been working to achieve major landscape change through projects involving large scale revegetation, pest plant and animal control, waterway rehabilitation, erosion and salinity management and community capacity building.

Projects to date have been completed on both public and private land and range in size from 1ha to 170ha. Other projects have included the establishment of saltbush pastures, development of alternative agricultural industries and the education of small rural landholders in property management.





There are a number of partners involved with Grow West resulting in a truly integrated project:

### Stakeholders

- Local landholders and Landcare groups
- Moorabool Shire Council
- Port Phillip and Western Port Catchment Management Authority
- Southern Rural Water
- Melbourne Water
- Department of Primary Industries
- Landcare Australia Limited
- Victorian Serrated Tussock Working Party
- Central Victorian Farm Plantations

### Sponsors

- Australian Government Natural Heritage Trust Project
- Australian Government National Landcare Project
- Department of Sustainability and Environment
- Commonwealth Games 2006
- Australian Government Water Fund
- VicRoads
- Australian Government Envirofund
- eTree Computershare
- Medibank Private
- Norman Wettenhall Foundation
- ABN AMRO
- Origin Energy

### Recent Achievements

- Establishing 240ha of Farm Forestry plantations to help combat serrated tussock infestations, manage soil erosion, increase land productivity and achieve sustainable land management outcomes;
- Delivery of several workshops and field days promoting sustainable land management - topics have included weed control, whole farm planning, native seed collection, farm forestry, pasture management and waterway management;
- Implementing revegetation initiatives in conjunction with Coimadai Landcare and associated groups to achieve almost 50ha of biodiversity planting and revegetation of 5km of stream frontage;
- Development of a seed orchard test site to investigate the potential seed harvest capabilities of a number of locally indigenous plant species;
- Revegetation of 170ha of land in the Rowsley Valley to assist the 2006 Commonwealth Games in being a carbon-neutral event.

- Creating 6ha of native saltbush pasture to investigate fodder potential for local land systems. This site will be increased in size to 11ha during 2006/07.
- Various research and development projects including an investigation into the correlations between revegetation activities and increases in local bird diversity.
- Establishment of a local Farm Forestry support network which has undertaken research, extension, field days, and various other support activities.
- Several revegetation projects in conjunction with private investors including a partnership with eTree Computershare whereby 8.4ha were planted at Merrimu Reservoir with Southern Rural Water, and 21ha on land adjacent to the Western Highway with VicRoads.
- Approximately 25ha planted in the Pentland Hills in partnership with the Norman Wettenhall Foundation and eTree as part of the 'Myrniong Parks Link Project'. This included a planting day with 100 volunteers from the Victorian National Parks Association to plant 4000 seedlings in July 2006. This event was also supported by Parks Victoria and local Landcare and 'Friends' groups.
- Establishment of a long-term partnership with Medibank Private to help fund local revegetation and sustainable land management initiatives. To date, this has included the planting of 9,000 locally indigenous trees and shrubs to help combat weed infestations, address soil erosion and enhance biodiversity.
- Preparation of a land capability study for the Moorabool district, in conjunction with Moorabool Shire Council.

### **Future Direction**

- Initiating the design of a framework for the monitoring, evaluation and reporting of Grow West's future achievements and on ground results.
- Developing a Corporate Strategy to meet the needs of future investment projects, including provision for greenhouse gas emission and carbon credit schemes.
- Continuing to meet the needs of the Grow West vision for landscape change through large-scale revegetation, erosion control, pest plant and animal control, waterway rehabilitation, salinity management and community capacity building.





# Good Neighbour Program

The Good Neighbour Program (GNP) promotes the Government as a 'Good Neighbour' and catalyst for pest management on public land. The program is an essential element in the Government's approach to pest plant and animal management.

The GNP supports community based programs occurring on adjoining private land such as the Serrated tussock control program integrating pest management with natural resource management objectives.

The GNP has a statewide focus targeting areas adjoining existing pest management programs provides the mechanism for a strategic approach toward treating serrated tussock on the public and/private land interface according to regional catchment strategies and local action plans.

## Corangamite Catchment

The GNP has funded numerous projects in the Geelong area over the past eight years, targeting serrated tussock on crown land and interfaces. The program has also funded serrated tussock mapping along roadsides and crown land parcels.

The GNP has continued to support the serrated tussock program in 2005/06 with funds provided to control serrated tussock on Crown land, parks and roadsides within the Corangamite catchment.

Parcels that have been treated for serrated tussock within the 2005/06 period include frontage to the Moorabool, Barwon and Little Rivers, 65ha of Crown land at Pt Liliias, Boondooroo Grasslands at Lethbridge, You Yangs and Inverleigh common. These works have been undertaken in conjunction with DPI, DSE, Crown Land Management and Parks Victoria.

The serrated tussock roadside project has also been implemented on local roads within the Corangamite catchment. This project focuses on roadside serrated tussock control within identified focus areas to ensure works complement those implemented on private land. Roadside treatment has been undertaken on two separate occasions in 2005/06. In October 2005 107 roads were treated prior to seeding, totalling approximately 450km. Roadside works were again undertaken in May with 155 roads treated totalling 695km.

The GNP has also funded the control, by a registered local Ballarat contractor of serrated tussock infestations (20km of roadside) in the areas of Inverleigh-Shelford within the Leigh district, as well as a Crown allotment at Rokewood Junction which has no current title.



## Port Phillip Catchment

In 2005/06, DPI coordinated the implementation of the GNP project on behalf of DSE. The GNP contributed \$104,500 in 2005/06 to assist public land managers to undertake serrated tussock control on public land in the Port Phillip catchment. These funds were allocated between Parks Victoria (\$48,300), DPI - Catchment and Agricultural Services (\$45,000), DSE - LandVic (\$6,800) and DSE - Forests (\$3,200).

The \$45,000 funding received by DPI contributed to the employment of a Pest Management Officer (PMO) to facilitate and coordinate public land managers to undertake serrated tussock control on the public/private land interface. The PMO's role included facilitating these works through the provision of technical and regulatory services and involved the following public land managers:

- Rail authorities
- Road authorities
- Water authorities
- DSE
- Parks Victoria
- Commonwealth and local government.

In 2006/07, DSE will take over the coordination role of the GNP project from DPI. Although DPI will still receive a funding allocation of \$45,000 to facilitate public land managers to undertake serrated tussock control, DSE will coordinate the implementation of other GNP projects with Parks Victoria, LandVic and DSE - Forests. The following funding has been allocated for the 06/07 financial year:

- \$45,000 DPI - Catchment and Agricultural Services
- \$3,200 DSE - Forests (1 project)
- \$8,000 DSE - Landvic (3 projects)
- \$50,548 Parks Victoria (14 projects)

## East Gippsland Catchment

A contractor was engaged to spray serrated tussock along the Honeysuckle Road to Cabanandra in far east Gippsland under the GNP. Approximately 16ha were treated at a cost of \$2,860. This program plays an important role in the success of treating serrated tussock on public land, with infestations reducing considerably.

### Wimmera Catchment

GNP funding was also utilised from the Wimmera Prohibited Weeds Roadside Project to engage a contractor to spray three roadside infestations.

### West Gippsland

All known infestations of serrated tussock on roadsides in west Gippsland have been sprayed under the GNP.

### North East Catchment

Roadside infestations have been treated using GNP funds. There will need to be a future fund source to treat these sites for a number of years to come.

### Goulburn Broken Catchment

The minor roadsides within the Mitchell Shire with serrated tussock infestations along their verges were all successfully treated as a part of the GNP.

### Interim Roadside Weed Control Program

An Interim Roadside Weed Control (IRWC) program was initiated in October 2004 due to number of significant issues being raised regarding responsibility for the control of regionally controlled weeds and established pest animals (as defined by the CaLP Act 1994) on undeclared roadsides.



# Interim Roadside Weed Control Program

In 2004/5, DSE allocated \$273,000 for the treatment of regionally controlled weeds on priority roadsides. In 2005/6 \$314,890 was again allocated for the treatment of these weeds and declared pest animals, to support the community-led approach and previous investment made by both government and the community. Of that \$314,890 allocated to the program, \$56,700 was devoted to the control of serrated tussock. This work occurred on roadsides in the local government areas of Moorabool, Geelong, Melton, Hume and Wyndham. This project resulted in over 700km of serrated tussock infested roadsides being treated during this financial year.

In addition to this funding, several municipalities contributed significant funding to compliment DSE's. For example, Melton Shire Council contributed a further \$18,000 to treat serrated tussock on roadsides in 2005/06.

A reduction in funding has been received for this project in the Port Phillip catchment for 2006/07, with \$32,360 allocated for treatment of serrated tussock on priority roadsides.

This project was to allow the continuation of roadside works whilst clarification of the Catchment and Land Protection Act 1994 Section 20 Part 3 paragraph (e) was being sought. The project was designed to run for an initial period of six months to conclude on the 30 July 2005, however it has been extended to support the control of priority weeds.

The IRWC program enhanced and built on the previous relationship between DPI, community-led weed action groups and local government. By supporting local government in providing the best available data on weed species, distribution and infestation, the tendering and out-sourcing of contractors could proceed with efficiency and accuracy.

The project focussed on continuing work within, and in proximity to, previous compliance target areas. Community-led action groups and local government representatives, such as environmental officers, were both aware of these project areas and in many ways had provided significant previous investments in them. Therefore it is logical for local government and weed action groups to see the interim roadside arrangement as being both necessary and beneficial to the wider community.

Regional coordinators were employed by DPI to engage the environmental officers from the applicable shires and to produce and facilitate sign off of financial condition agreements for each local government grant. Regional coordinators were also in a position to negotiate the re-allocation of funding due to budget surplus or shortfall throughout the project.



Local government representatives, usually environmental officers, were responsible for creating tenders and contracts for the spraying of weed species occurring within their relevant local government areas on undeclared roadsides. This process involved using local contractors and, in some cases, involved the use of one or more contractors simultaneously. The shires therefore were responsible for selection of contractors, tender or contract negotiation, monitoring of progress, contract invoicing and payment.

The following funds were allocated to undertake serrated tussock control within the Port Phillip catchment:

Municipality	Total Infestation (km)	Total Cost
Moorabool	126	\$12,600
City of Greater Geelong	110	\$11,000
Melton	125	\$12,500
Wyndham	11	\$11,100
Hume	95	\$9,500

# Tackling Weeds on Private Land Initiative

## Mobile compliance project targeting serrated tussock in Port Phillip and Corangamite catchments:

In August 2005, a Mobile Task Force (MTF), funded under the government's Tackling Weeds on Private Land (TWOPL) initiative, developed and implemented a compliance project targeting serrated tussock in the Wyndham area of the Port Phillip and Corangamite catchments.

The MTF supports the enforcement activities of regional staff through targeted mobile compliance projects, which focus on land managers or businesses whose ongoing refusal to tackle weeds, threatens the efforts and investment of the community and impacts on agriculture or the natural environment. This project was undertaken to support the partnership developed between DPI's serrated tussock program, the VSTWP and the Wyndham City Council. Under a partnership arrangement the Wyndham City Council - through their rate rebate scheme - offer financial incentives to landowners to undertake weed control for targeted species. The serrated tussock program assists this scheme by providing compliance support to ensure landowners meet their obligations for controlling serrated tussock. In early August, a total of 51 properties covering approximately 4,800ha were inspected in the Truganina, Little River, Wyndham Vale and Point Cook areas. Varying levels of tussock were discovered and only six properties had completed work at the time of the initial inspections.

One landowner refused DPI officers entry to their property and a warrant under the Catchment and Land Protection Act (CaLP) 1994 was obtained and executed. A dense infestation of serrated tussock was located on the property, however subsequent discussions with the landowner brought about a positive outcome and all works were completed under a LMN.

A number of complex enforcement issues were encountered in the project area making enforcement challenging. These included complex ownership arrangements, landowners residing overseas, language barriers, native grasslands being heavily infested with serrated tussock and disputes and legal action between joint owners. These issues were addressed and 86 LMN's were issued for serrated tussock control.

Ten landowners were prosecuted for failing to control serrated tussock within designated time frames as part of the program and were subsequently fined a total of \$1,900 and ordered to pay over \$19,500 in costs. These included court costs and two forced entries undertaken by MTF and local DPI staff to issue LMNs where landowners failed to undertake control works and seeding threatened neighbouring properties. Ten landowners were also issued warning letters relating to lesser breaches of the CaLP Act.

The project was publicised through three media releases. The first introduced the program and outlined what the project involved; the second related to the return of the MTF to ensure control works were completed; and the third highlighted prosecutions to support landowners controlling serrated tussock. These media releases were published in local newspapers and generated significant interest in the local community.



## Weeds are everyone's property

### Case Study

#### Grassroots approach tackles tussock

A community-led working party has literally "moved mountains of serrated tussock" and proven that grassroots level partnerships can tackle, reduce and in some cases eradicate, prolific weeds.

The Victorian Serrated Tussock Working Party - formed in 1996 - reduced serrated tussock from 170,000 to 82,000 hectares - a 37 per cent reduction.

Of the 82,000 hectares remaining, control work has been done on 60 per cent of the land.

Without control, climatic modelling shows the prolific seeding of serrated tussock could have by now ravaged 4.6 million hectares of Victorian land at an estimated cost of \$15.7 million over 20 years.

Cresay farmer Scott Chimside, who leads the Serrated Tussock Working Party, says the group brings together different groups "fighting for the same thing".

The working party now includes representatives from 27 Landcare groups, 11 local councils, five Catchment Management Authorities, the Department of Primary Industries and Department of Sustainability and Environment. Its model is now widely considered the benchmark for weed control programs around Australia.

Its roots were more humble: concerned community members and Landcare representatives successfully lobbied the Government for funding and formed a working party.

Within four years, the working party and their NSW colleagues successfully lobbied the Federal Government to make serrated tussock a weed of national significance.

**Partnership approach**

Scott says the partnership approach has been its strength.

"Our approach was to encourage people to own their weeds problem, by making them feel part of it and being lateral in the solutions we developed together," says Scott.

"You have to listen to your partners as much as talk to them... and we needed their insights as much as they needed our assistance. We never thought we had a mortgage on the knowledge."

"It worked by everyone being able to contribute to an overall picture of weeds management by giving their area of expertise."

Over time, partnerships were developed with private industry, Parks Victoria, Greening Australia, Catchment Management Authorities and others to provide vital links to additional resources, follow up control techniques and assist with awareness campaigns.

A key success of the working party has been working collaboratively to secure funding.

"The partnerships work by people not putting "fences" around their funding or ideas but by having a blank sheet of paper and seeing the best way to do things."

"We needed to make sure that every dollar was spent solving the weed problem on the ground."



Scott Chimside from the Victorian Serrated Tussock Working Party



## Weeds are everyone's property

### Fact Sheet

#### Serrated tussock (*Nassella trichotoma*)

**The problem**

Serrated tussock is a potentially devastating weed, which has aggressively invaded Victoria. As an impostor that resembles native tussock grasses, serrated tussock often goes unnoticed until it has taken root and rapidly invaded large areas of pasture. Recent trials have shown that a heavy infestation of the weed can lead to a production loss of up to 95 per cent.

Serrated tussock is considered one of the state's most costly and threatening weeds, causing serious damage to environmental and agricultural assets.

Livestock forced to graze on serrated tussock can starve to death, despite a full stomach, due to its low nutritional content.

Serrated tussock threatens the biodiversity values of native grasslands and poses a fire hazard in urban areas.

**The weed**

Serrated tussock is a long-living perennial grass. Tussocks are typically about 50cm high. Serrated tussock usually flowers and sets seed from October to January, with peak flowering time in November and December. Fully ripe and viable seeds can germinate at any time after rain and in response to soil disturbance, with the largest germination occurring in spring.

Serrated tussock grows in a variety of climates with annual rainfall of 450-1000 mm. It is not limited by soil type or fertility and can tolerate freezing temperatures.

Trout controlled, a small infestation of serrated tussock can rapidly turn into a large problem, becoming a moderately dense infestation after five years and a heavy infestation within eight.

**How it spreads**

Serrated tussock spreads solely by seed. Mature plants can produce more than 140,000 seeds a year.

Its extremely light seed heads can be blown over long distances. Water, machinery, vehicles and stock can easily transport seeds. Seeds can remain viable in the digestive tract of grazing animals for up to 10 days.

**Where it grows**

Serrated tussock currently infests 82,000 hectares of Victoria, but its potential spread has been predicted to be 4.6 million hectares based on climatic models. It is most prevalent on agricultural land surrounding Melbourne, Geelong and Russhon Marsh. It is commonly found in pasture, along roadsides and in dry coastal vegetation.

**Identifying serrated tussock**

Early identification and removal of serrated tussock is the best way to protect your land. Learn to identify it, regularly check for it and act promptly to remove it.



Department of Sustainability and  
Department of Pri



Department of Sustainability and Environment  
Department of Primary Industries

#### In Brief

- Dense infestations can reduce the productivity of grazing land by 95 per cent.
- Established serrated tussock is extremely expensive to control.
- Identifying and acting quickly to remove new infestations of serrated tussock is the best form of control.
- Destroying and replacing serrated tussock with dense competitive vegetation is essential for long-term management.



# Compliance Program

## Corangamite catchment

Properties inspected	187
Hectares inspected	12125.712
Hectares infested	1709.1805
Work Plan Agreement issue	219
Notice of Intent to Enter issued	140
Land Management Notices issues	29
Compliance entries conducted	0
Prosecutions recommended	3

## Port Phillip catchment

Properties inspected	364
Hectares inspected	27976.148
Hectares infested	17934.2677
Work Plan Agreement issue	180
Notice of Intent to Enter issued	328
Land Management Notices issues	114
Compliance entries conducted	0
Prosecutions recommended	0

## Wimmera catchment

Properties inspected	10
Hectares inspected	86
Hectares infested	5.9
Work Plan Agreement issue	5
Notice of Intent to Enter issued	14
Land Management Notices issues	0
Compliance entries conducted	0
Prosecutions recommended	0

### **North Central catchment**

Properties inspected	4
Hectares inspected	85
Hectares infested	1
Work Plan Agreement issue	1
Notice of Intent to Enter issued	3
Land Management Notices issues	0
Compliance entries conducted	0
Prosecutions recommended	0

### **East Gippsland catchment**

Properties inspected	79
Hectares inspected	2954
Hectares infested	862
Work Plan Agreement issue	67
Notice of Intent to Enter issued	82
Land Management Notices issues	5
Compliance entries conducted	0
Prosecutions recommended	1

### **West Gippsland catchment**

Properties inspected	34
Hectares inspected	8940
Hectares infested	247
Work Plan Agreement issue	18
Notice of Intent to Enter issued	55
Land Management Notices issues	0
Compliance entries conducted	0
Prosecutions recommended	0

### North East catchment

Properties inspected	14
Hectares inspected	13
Hectares infested	1.5
Work Plan Agreement issue	0
Notice of Intent to Enter issued	0
Land Management Notices issues	0
Compliance entries conducted	0
Prosecutions recommended	0

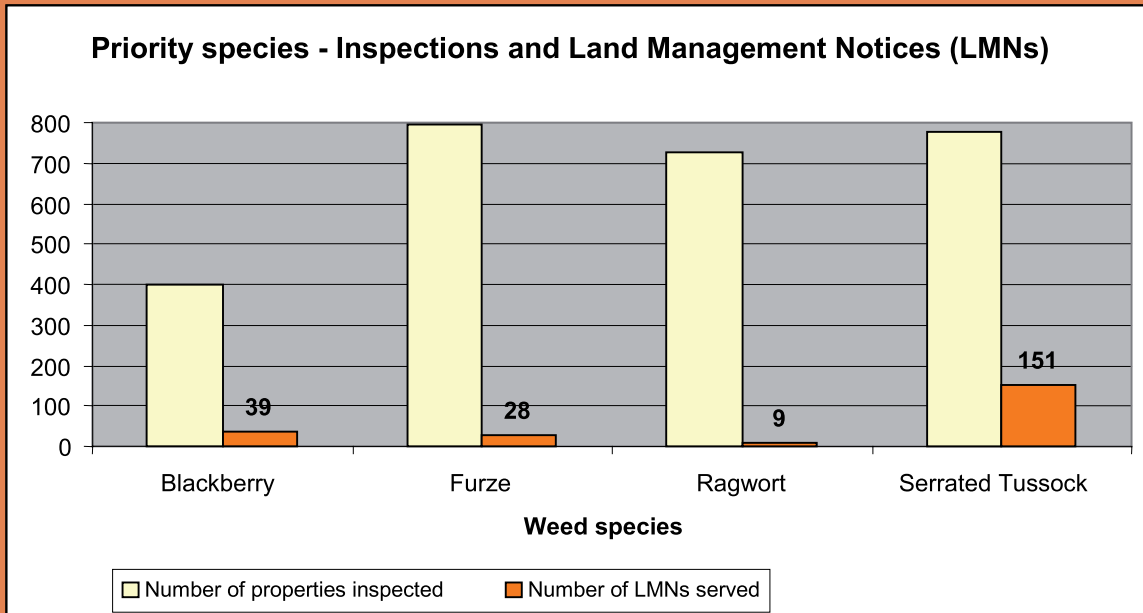
### Goulburn Broken catchment

Properties inspected	40
Hectares inspected	638
Hectares infested	24.6
Work Plan Agreement issue	12
Notice of Intent to Enter issued	2
Land Management Notices issues	0
Compliance entries conducted	0
Prosecutions recommended	0

### All catchments

Properties inspected	777
Hectares inspected	53831.8904
Hectares infested	21185.3982
Work Plan Agreement issue	582
Notice of Intent to Enter issued	667
Land Management Notices issues	151
Compliance entries conducted	0
Prosecutions recommended	4





Almost half (44%) of the LMNs served in 2005-2006 were for serrated tussock, reflecting DPI's increased focus on priority weeds and priority areas and the increased amount of cooperation with Landcare and serrated tussock community weed groups.

# Research Program

## Biological Control of Serrated Tussock and Chilean Needle Grass

Surveys of pathogens attacking serrated tussock (*Nassella trichotoma*) and Chilean needle grass (*Nassella neesiana*) - or CNG - in South America have identified five fungi showing potential for biological control. These are rusts, *Puccinia nassellae*, *P. graminella* and *Uromyces pencanus*, a smut, *Ustilago* sp. and a Corticiaceae basidiomycete fungus. Due to difficulties in culturing this latter fungus and the extremely low infection rates by the smut, the program is now concentrating on host specificity testing of the three rust fungi. Due to problems with quarantine accreditation in Australia, the host specificity testing now has to be undertaken in Argentina. Approaches are now being made with authorities to introduce the test plants into Argentina. The first phase of this testing is to ensure the pathogens are sufficiently virulent and attack Australian accessions of serrated tussock (*N. trichotoma*) and CNG (*N. neesiana*).

### 1. Life Cycle

The life cycle of *P. nassellae* on *N. trichotoma* and *N. neesiana* is proving to be complex. No telia have been recorded on *P. nassellae* attacking *N. trichotoma*. Only uredinia, the repetitive stage of the rust, have been found in the field, rendering it impossible to prove beyond doubt the nature of the life cycle. Nevertheless, field observations would indicate the rust is autoecious. If *P. nassellae* were autoecious it would make the fungi more stable, as there wouldn't be a sexual "crossing" stage in its life cycle.

Both uredinia and telia have been identified on *N. neesiana*. However, as yet, no infection of *N. neesiana* has occurred from basidiospores germinating from the telia. This suggests that either:

1. there is an alternative host (not yet identified);
2. the telia stage is becoming redundant and the *P. nassellae* is becoming autecious like *P. nassellae* on *N. trichotoma*; or
3. either the conditions or growth stage of *N. neesiana* were not correct for basidiospore germination on *N. neesiana*.

These possibilities are being investigated.

From the literature, *U. pencanus* is reportedly autecious forming aecia, uredinia and telia on its grass host. However, to date this fungus has been behaving in a similar way to *P. nassellae*. No infection of *N. neesiana* has occurred from basidiospores germinating from the telia. The aecia described by Arthur (1925) as belonging to *U. pencanus* look identical to those of *Puccinia graminella*. It is possible that there is a mixed infection on the specimens collected by Holway and that the mentioned aecia belong in fact to *P. graminella* and not to *U. pencanus*.

## 2. Host Specificity Testing

Preliminary host specificity testing in Argentina has shown that *P. nassellae* from two out of four *N. trichotoma* accessions and is capable of infecting the Australian native grass *Austrostipa aristoglumus*, albeit at a much lower infection level than *N. trichotoma*. One possible reason for *A. aristoglumus* observed susceptibility to these pathogens could be its lack of exposure to them. Additional tests need to be undertaken to see if *A. aristoglumus* plants that have been previously infected with *P. nassellae* will again become infected.

No off target attack was observed from *P. nassellae* or *U. pencanus* from any of the *N. neesiana* accessions tested. Results show that Australian *N. neesiana* is susceptible to infection by *P. nassellae*. However, *P. nassellae* on *N. neesiana* is proving to be almost too specific in its attack. Populations of *P. nassellae* from one location in Argentina will not attack *N. neesiana* plants from another location.

*U. pencanus* has been shown to attack six out of seven Australian but not the two NZ accessions of *N. neesiana* tested. *U. pencanus* appears as a very good prospective biological control agent against *N. neesiana* in Australia in every respect except the confirmation of its full life cycle on *N. neesiana*.

## Chemical Control of Serrated Tussock

### 1. Serrated Tussock

An infestation of serrated tussock in Victoria and an infestation of giant Parramatta grass in NSW have been confirmed resistant to flupropanate. Laboratory trials have shown that the resistant serrated tussock is almost 20 times more tolerant of flupropanate than normal serrated tussock. A survey of serrated tussock plants collected from the affected property and surrounding properties shows that resistance more than 4km away from the initial infestation. A concentrated serrated tussock control program by the Victorian Department of Primary Industries (DPI) and the Melton Shire aims to contain or eradicate the resistant populations.

Inheritance studies conducted by Sethu Ramasamy from RMIT University show that serrated tussock resistance to flupropanate can be transmitted through pollen. When a serrated tussock plant that is susceptible to flupropanate receives pollen from a flupropanate resistant serrated tussock plant the offspring ratio is 1 resistant: 2 partially resistant: 27 susceptible. He has also shown that approximately 5% of the panicle seeds produced by serrated tussock are cleistogamous (selfing) while the other 95% are potentially available for cross-pollination. However, approximately 85-90% of these seeds don't actually open so fertilisation occurs within the closed flower (Figure 1). This means that only 10-15% of serrated tussock flowers actually cross-pollinate. However, this also means that a nearly all the seed produced from a resistant serrated tussock plant will produce resistant offspring.



The resistance issue has prompted a national serrated tussock survey, including questions on resistance. To date, approximately 400 out of 5000 surveys sent out have been returned. Nine of these surveys reported resistance to flupropanate with six being in Victoria. These were all located within the Diggers Rest, Bulla and Bacchus Marsh locations. Follow up to these surveys is now being undertaken and a second site has now been confirmed resistant.

In NSW, Karl Grigulus has undertaken a screening trial to test the tolerance/susceptibility of major native grass species to herbicides registered for serrated tussock. Three seasonal applications (winter, spring, summer) have been applied to try and identify if timing and herbicide specificity can reduce off-target damage to native grass species. Initial results support the hypothesis that *Bothriochloa* and *Themeda* species have a relatively high tolerance to flupropanate, while *Danthonia* and *Microlaena* are extremely susceptible. Sensitivity to Glyphosate did not vary greatly between the species, but the potential exists for Glyphosate to be used as a selective herbicide during periods when the native grasses are dormant but serrated tussock is still actively growing (summer for C3 grasses and winter for C4). A small-scale project has also been completed assessing the safety of flupropanate for juveniles of *Eucalyptus* and *Acacia* species in areas where re-forestation is being used as a control method. This work showed that at label rates *Acacia* species can suffer significant foliar damage while *Eucalyptus* species are quite tolerant.

## 2. New label registration

The Australian Pesticides & Veterinary Medicines Authority (APVMA) has recently approved changes to the label of "TUSSOCK™ HERBICIDE". The active constituent of TUSSOCK is flupropanate at 745 g/L present as the sodium salt. Information for the new label was obtained from research conducted by the Victorian Department of Primary Industries Frankston, NSW Agriculture and from the Western Australian Department of Primary Industries. DPI Frankston also supplied the APVMA with trial data on serrated tussock and Chilean needle grass from Weeds of National Significance and Weeds CRC supported chemical control projects. This data enabled the APVMA to make amendments to Grow Choices original draft label to reduce recommended rates from 3L/ha for Chilean needle grass to a 1.5-3.0L/ha recommendation for all needle grasses (*Nassella* spp.).

**The label changes provide land managers with increased flexibility in managing these exotic unpalatable grasses. Benefits of the new label recommendations include:**

- (1) Flexibility of using lower flupropanate rates means less off-target damage to beneficial species.
- (2) Potential cost savings to land managers from lower application rates.
- (3) A low rate for control of serrated tussock seedlings that can enable broadacre management at a relatively low cost with significantly reduced impacts to beneficial species.
- (4) Weed officers now have a registered herbicide use with which to encourage land managers to control Chilean needle grass, a Weed of National Significance.

## Serrated tussock variation.

A CRC PhD student, Seona Casonato from RMIT University has recently completed her thesis entitled “Serrated tussock (*Nassella trichotoma*): variation and control”. Seona found that serrated tussock from Victoria is different in both its morphological and its germination characteristics from serrated tussock in the other Australian states. Victorian plants are significantly shorter and their seed has a higher germination percentage. However, molecular work shows no differences between Australian and international serrated tussock populations. There are no subspecies. The lack of molecular variability in serrated tussock increases the likelihood of a successful biological control program.

## Grazing Management

A Weeds of National Significance “Best Management Practice” project was set up by CSIRO, NSW Agriculture and the Victorian DPI during 2002. Experimental demonstrations have been established at four sites for serrated tussock throughout NSW and Victoria, to develop and evaluate strategies to better control for serrated tussock. The trials aim to combine herbicide technologies with methods of grazing and pasture management to promote or re-establish vegetation that is able to persist on these difficult areas, and which is both competitive enough to limit the re-establishment of weed seedlings, and, with appropriate management, able to support animal production. This project addresses the urgent need to better understand how management interventions such as reducing grazing pressure/grazing strategically, fertiliser use, and herbicide application influence the ability of desirable pasture species to compete with and limit the invasion/re-invasion of serrated tussock.

The results of investment in this project will become apparent after the pasture has responded to the applied treatments and land managers are able to become aware and informed with the effectiveness of the various treatments in controlling serrated tussock over the long-term.

### 1. Serrated Tussock

A network of demonstration sites has been established (three in NSW and one in Victoria) throughout the Australian range of serrated tussock trialing integrated management options including grazing and fertility management coupled with herbicide use and re-sowing options. These demonstration sites in NSW are focused on the control of serrated tussock on low productivity, non-arable areas.

Current results indicate that established populations of serrated tussock are highly resistant to changes in grazing regime or soil fertility. Increased competition from desirable pasture species (mostly native grasses) under lenient grazing or grazing removal and under conditions of normal or increased nutrient levels have not had any impact on the survival, growth rate or seed production of mature serrated tussock at this early stage. In contrast to established plants, encouragingly, serrated tussock seedlings have been very susceptible to changes in pasture management. In general, the successful establishment of serrated tussock seedlings requires areas of bare ground and has been largely prevented in treatments with ground cover greater than

70-80% and a dry biomass of 1.5-2 tonnes per ha. However, very dry conditions over the period of the trial has resulted in very little difference in serrated tussock establishment or desirable species recovery between the treatments and it is expected that such trends will take some years to become apparent.

A best practice management guide for serrated tussock (Serrated Tussock Managers Fact Pack) has been produced and is currently being distributed throughout Australia.

Monitoring of Warwick Badgery's PhD sites at Tuena in the Central Tablelands of NSW has continued looking at competition between native grasses and serrated tussock. This work is suggesting that in areas dominated by native grasses such as Themeda, conservative grazing regimes and conditions of low fertility provide the best circumstances for native grasses to be able to compete with and prevent the establishment of serrated tussock seedlings.

A recently approved project with the South East Catchment Management Board in NSW will contain a component investigating the options available for land rehabilitation and re-forestation for low productivity serrated tussock infested land. This work will involve monitoring the effectiveness of afforestation in controlling serrated tussock through the long-term monitoring of on ground works and also assessing the utility of native shrubs as a control method. This is because these are easier/quicker to establish than trees and can quickly begin to provide competition and limit serrated tussock seed rain.

## Seed Banks

Work on serrated tussock seed banks undertaken by PhD students Seona Casonato (Victoria) and Tieneka Trotter (NSW) have both shown that serrated tussock seed banks may be relatively short lived. Casonato showed that within 7 months the germinable serrated tussock seeds recovered from buried seeds had reduced from between 75% to 99% compared to unburied controls. This suggests a much shorter seedbank duration than the 12 + years previously reported. Trotter got very similar results with her serrated tussock seedbank studies in NSW. These results provide some real hope that a prolonged campaign of preventing serrated tussock going to seed will result in meaningful and long term reductions in serrated tussock for affected farmers, which in turn supports the aims of the Victorian Serrated Tussock Working Party in having a blanket policy of not allowing any serrated tussock going to seed.

## Extension

As part of a Weeds of National Significance project, websites have been created with specific information regarding the identification, impacts and management of serrated tussock. The website is online at <http://www.deh.gov.au/biodiversity/invasive/publications/n-trichotoma.html> for serrated tussock.



# Publications

## Publications: Journal

McLaren D.A., Stajsis V., and Iaconis, B. (2004). The distribution, impacts and identification of exotic stipoid grasses in Australia. *Plant.Prot.Quart.* **19(2)** 59-66.

## Publications: Conference

- Barritt, A.R., Sale, P.W.G., Miller, L. and McLaren, D.A. (2004) Effects of grazing strategies on the number of serrated tussock (*Nassella trichotoma* (nees) Arechav.) seedlings in an improved pasture. *Fourth.Int.Weed.Sci.Cong.* Durban June 21-25.
- Casonato, S.G., Lawrie, A.C., Butler, K.L. and McLaren, D.A. (2004) Endemic fungi inhibit germination of serrated tussock seed: an alternative to classical control? *Fourteenth.Aust.Weeds. Conf. "Weed Management – Balancing People, Planet, Profit"* 6-9 Sept 2004, Charles Sturt University, Wagga Wagga, NSW pp 321-324.
- McLaren, D.A., Hunt, T., Officer, D., , Walton, C. and Lawson, B. and Vogler, W. (2004) The unpalatable grass syndrome in Australia – An agricultural and environmental disaster. *Fourth.Int.Weed.Sci.Cong.* Durban June 21-25.
- McLaren, D.A., Hunt, T., Officer, D., , Walton, C. and Lawson, B. and Vogler, W. (2005) The unpalatable grass syndrome in Australia – An agricultural and environmental disaster. *Proceedings of the Tussock Terminators Research Forum, Lake Hume Resort, Albury NSW 2nd-3rd Nov 2005.* pp. 1.
- Casonato, S.G., Lawrie, A.C. McLaren, D.A. (2005) Prospects for biological control of serrated tussock. *Proceedings of the Tussock Terminators Research Forum, Lake Hume Resort, Albury NSW 2nd-3rd Nov 2005* pp. 32-35.
- McLaren D.A., Ramasamy, S., Lawrie, A.C., Pritchard, G. and Morfe, T.A. (2005). The national serrated tussock survey – impacts and implications of its resistance to the herbicide flupropanate in Australia. *Proceedings of the Tussock Terminators Research Forum, Lake Hume Resort, Albury NSW 2nd-3rd Nov 2005* pp. 44-49.
- Ramasamy, S., Noble, S., Pritchard, G., Lawrie, A.C. and McLaren, D.A. Flupropanate resistance mechanisms and heritability in serrated tussock. *Proceedings of the Tussock Terminators Research Forum, Lake Hume Resort, Albury NSW 2nd-3rd Nov 2005* pp.56-59.
- McLaren D.A., Ramadamy, S., Lawrie, A.C., Pritchard, G. and Morfe, T.A. (2005). The national serrated tussock survey – impacts and implications of its resistance to the herbicide flupropanate in Australia. *Proceedings of the 2<sup>nd</sup> Victorian Weeds Conference – Smart weed control, managing for success.* pp. 102-105.
- Noble, S., Pritchard, G., Casonata, S.G., Lawrie, A.C. and McLaren, D.A. (2005) Flupropanate resistance in serrated tussock (*Nassella trichotoma*) in Victoria. *Proceedings of the 2<sup>nd</sup> Victorian Weeds Conference – Smart weed control, managing for success.* pp. 125.
- McLaren, D.A. (2005) Managing grass weeds in grazing systems (2005). *Linking the Science of Research and Extension – A conference to highlight the range of natural resource management science conducted by DPI.* 7-8<sup>th</sup> September 2005. pp. 23.
- McLaren D.A., Ramasamy, S., Lawrie, A.C., Morfe, T.A and Pritchard, G. (2005). The National Serrated Tussock Survey – Serrated tussock resistance to the herbicide, flupropanate in Australia. *CD Proceedings of the 13<sup>th</sup> NSW Biennial Noxious Weeds Conference, Orange NSW 19-22 September 2005.*

- Anderson, F.E., Diaz, M.L and McLaren, D.A. (2006) Current status of research on potential biological control agents for *Nassella neesiana* and *Nassella trichotoma* (Poaceae) in Australia. *15<sup>th</sup> Aust Weeds Conference*, eds C. Preston, J.H. Watts and N.D. Crossman (Weed Management Society of South Australia, Adelaide. pp. 591-594.
- McLaren, D.A., Ramasamy, S., Lawrie, A.C., Pritchard, G. and Morfe, T.A. (2006) The national serrated tussock survey – Impacts and implications of its resistance to the herbicide, flupropanate in Australia. *15<sup>th</sup> Aust Weeds Conference*, eds C. Preston, J.H. Watts and N.D. Crossman (Weed Management Society of South Australia, Adelaide. pp. 534-537
- McLaren D.A., Ramasamy, S., Lawrie, A.C., Morfe, T.A and Pritchard, G. (2006). Assessing the extent of serrated tussock resistance to the herbicide flupropanate in Australia. *Proceedings of the 21<sup>st</sup> Annual Conference of the Grassland Society of NSW – Waging war on weeds 25<sup>th</sup>-27<sup>th</sup> July Charles Sturt University, Wagga Wagga* 40-45.

## Publications: Books

- Casonato, S. (2005) *Nassella trichotoma*: Variation and Control. PhD Thesis, Department of Biotechnology and Environmental Biology, Faculty of Life Sciences, RMIT University pp. 1-315.

## Public presentations

- McLaren, D.A. (2004) The unpalatable grass syndrome in Australia, a potential disaster, 4th International Weeds Science Congress, Durbin South Africa
- McLaren, D.A. (2004) The distribution impacts and identification of exotic stipoid grasses in Australia. - South Australia Exotic Grasses Workshop
- McLaren D.A., Ramadamy, S., Lawrie, A.C., Pritchard, G. and Morfe, T.A. (2005). The national serrated tussock survey – impacts and implications of its resistance to the herbicide flupropanate in Australia. *Proceedings of the 2<sup>nd</sup> Victorian Weeds Conference – Smart weed control, managing for success*.
- McLaren, D.A. (2005) The unpalatable grasses syndrome. *The CRC for Australian Weed Management Review*, June 2005.
- McLaren, D.A. (2005) Serrated tussock research. *Serrated tussock focus workshop –Bulla*. 26<sup>th</sup> July 2005.
- McLaren, D.A. (2005) Serrated tussock research *Serrated tussock focus workshop –Truganina*. 4<sup>th</sup> August 2005.
- McLaren, D.A. (2005) Managing grass weeds in grazing systems. *Linking the Science of Research and Extension* September 2005
- McLaren, D.A. (2005) The unpalatable grasses syndrome. *Tussock Terminators Research Forum, Lake Hume Resort, Albury NSW 2nd-3rd Nov 2005*.

McLaren, D.A. (2005) The national serrated tussock survey – impacts and implications of its resistance to the herbicide flupropanate in Australia. *Tussock Terminators Research Forum, Lake Hume Resort, Albury NSW 2nd-3rd Nov 2005*.  
McLaren D.A. (2005) The National Serrated Tussock Survey – Serrated tussock resistance to the herbicide, flupropanate in Australia. *13th NSW Biennial Noxious Weeds Conference, Orange NSW 19-22 September 2005*.

### Public Publications: Magazines

McLaren, D.A., Gaur S. and Pritchard, G. (2005) Herbicide label changes for serrated tussock and needle grasses (*Nassella* spp.) *Under Control* 29:8

The **External Grants** section is to list all research grants obtained by staff **for core research** in the CRC (but not consultancies or research contracts). *See page 92-93 of the 2003/04 Annual Report for examples.*

### External Grants

McLaren 2005-2006  
DPI Frankston  
Biological Control of serrated tussock and Chilean needle grass  
NHT Weeds of National Significance  
12 Months  
\$100,000

McLaren and Gaur 2005-2006 ended July 2006  
DPI Frankston  
Chemical Control of serrated tussock and Chilean needle grass  
NHT Weeds of National Significance  
12 Months  
\$80,000



# Victorian Serrated Tussock Working Party Financial Account

For the financial year ending 2006

## INCOME

State Government Second Generation Funds	\$272,000
NHT Intensifying the Attack on Serrated Tussock	\$ 76,000
Defeating the Weed Menace – Isolated Infestation	\$146,909
Working Party accumulative revenue	\$348,341
CMA's Roadside Sign Sponsorship	\$ 2,455
<b>Total Income</b>	<b>\$845,705</b>

## EXPENDITURE

### State

Isolated Infestation Project Officer	\$60,000
Isolated Infestation Incentives	\$41,469
Project officer for the implementation of the Serrated Tussock Strategy	\$30,000
<b>Total State expenditure</b>	<b>\$131,469</b>

### Corangamite

Second Generation Project Officers	\$121,000
NHT Intensifying the Attack on Serrated Tussock Project Officer	\$76,000
<b>Total catchment expenditure</b>	<b>\$197,000</b>

### Port Phillip

Second Generation Project Officers	\$121,000
<b>Total catchment expenditure</b>	<b>\$121,000</b>

## Operational commitments and committed grants 2005-2008\*

CMA's Roadside Sign Sponsorship	\$ 2,455
VSTWP operations	\$ 48,341
Partnerships Officer Port Phillip/Corangamite 1 EFT Commitment for 2 years	\$200,000
Project Officer Isolated Infestation Incentives Gippsland .5 EFT	\$ 50,000
PIRVic Serrated Tussock Best Management Workshops	\$50,000
Isolated Infestation Incentives	\$45,440
<b>Total commitment</b>	<b>\$396,236*</b>

<b>TOTAL INCOME</b>	<b>\$845,705</b>
<b>TOTAL STATE AND CATCHMENT EXPENDITURE</b>	<b>\$449,469</b>
<b>OPERATIONAL COMMITMENTS AND COMMITTED GRANTS 2006-2008</b>	<b>\$396,236*</b>

\*Note: Due to emergency response to bushfire, locusts, drought and the movement of staff to new positions there were delays in the delivery of projects like the Defeating the Weed Menace Isolated Infestation Project and expenditure of Working Party accumulative revenue. Extensions have been granted by the Federal Government for the Defeating the Weed Menace Isolated Infestation Project and all of the Working Party funds are committed to new initiatives in 2006/2007.

# Appendix One

## Stakeholders

Victorian Serrated Tussock Working Party  
Department of Primary Industries  
Department of Sustainability and Environment  
Australian Federal Government  
Avalon Landcare Group  
Corio Landcare Group  
Barrabool Hills Landcare Group  
Maude and District Landcare Group  
Swan Bay Catchment Group  
StonehavenLeigh Landcare Groups  
Brisbane Ranges Landcare Group  
Woody Yaloak Catchment Committee  
Grow West  
Maffra and District Landcare Network  
East Gippsland Landcare Network  
West Gippsland Catchment Management Authority  
Yarram Yarram Landcare Group  
GroupBonang Landcare Group  
Avon Landcare Group  
Toms Creek Landcare Group  
Romawi Landcare Group  
Moorabool Shire Council  
Golden Plains Shire  
Wyndham City Council  
Surf Coast Shire  
City Of Greater Geelong  
Brimbank City Council  
Hume City Council  
Melton City Council  
Southern Grampians Shire  
Shire of Glenelg  
Geelong Landcare Network  
Moorabool Gorge Recovery Project

# Appendix

## Two

### Victoria Serrated Tussock Working Party Members

Peter Lindeman - Chair; Landholder representative

Jim Seager - Vice Chair; Landholder representative

John Webb Ware - Treasurer; Landholder representative

James Pettit - Landholder representative

Veronica Burgess - Landholder representative

Andrew Brown - Landholder representative

Graham Simpson - Landholder representative

Brian Frawley - Landholder representative

Byron Crowe - Executive/Serrated Tussock Project Officer, DPI

David McLaren - PIRVIC senior researcher, DPI

Leigh Dennis - Corangamite; CMA representative

Duncan McDonnell - Port Phillip CMA representative

Anne Dennis - Manager Pest Management, DSE

David Boyle - Manager Victoria Community Weeds, DPI



Victorian  
Serrated Tussock  
Working Party

# progress report 2006