

25/05/2015

Dear Committee,

As former chairs of Wons groups we make this submission with over 100 years combined experience in agriculture, natural resource management, weeds and pest animals, from the high rainfall zone to the wet and dry tropics and the pastoral zones of Australia. Without exception our combined experience is extensive, in the practical application, policy development, and delivery at the local state and National level.

We note your discussion paper, *Modernising Australia's approach to managing established pests and diseases of national significance* says; it outlines a new approach to managing those weeds, pest animals, plant and animal pest or diseases that become established in Australia and have a significant impact at the national level. We feel this statement needs to be changed to a more proactive statement to include those pests that have not yet arrived but will in the future, In other words we need to manage risk by being more strategic, and proactive in our approach.

Our response to your discussion paper is not in the format of answering your 10 questions directly but through the submission of the *Weeds of National Significance Program Business Plan 2010 – 2025*. This plan was written by the authors of this submission, as an alternative to the original Wons plan, interestingly it answers all your questions.

We realise now, as we have in the past, the attached plan is not the bee all and end all, but is a good starting point for the development of a national plan, that will provide coordination, consistency and an integrated management model that is suitable for the management of both weeds and pests across the Australian landscape.

To augment our written submission and the business plan we attach the following documents that help augment our discussion.

1) STATISTICS ON WONS ACTIVITIES PAPER 2003 – 2009

- A) Awareness raising activity's
- B) Extension materials delivered
- C) Investment leveraged, this shows for every \$6million dollars of Australian Government investment \$116 million dollars is leveraged

2) PAPER TITLED KEY ACHIEVEMENTS 2003-2006

3) PAPER TITLED LESSONS LEARNT FROM A DECADE OF NATIONAL WEED COORDINATION, NATIONAL GORSE TASK FORCE

4) NATIONAL LANDCARE SURVEY RESULTS 2013

This shows amongst other things where farmers get their information from

5) PAPER TITLED NATIONALLY COORDINATED WEED MANAGEMENT ITS WORKING AT THE LOCAL LEVEL

As past chairs we were, and are still frustrated and critical at the lack of motivation, governance and leadership by departmental staff and ministers in the management of weeds programs, and the demonstrated total lack of desire for structural change.

We fully understand and support the need for caution and careful consideration during the development and roll out of any programme, and the risk management strategy's needed, but it seems as though we are working in a leadership vacuum, where decisions are made at a snail's pace.

As chairs we made many representations to improve the effectiveness and efficiency of the business model for national coordination of weed management, we made this to Ministers, advisors, and the Australian weeds committee, the later were uninterested because the model removed some power and influence from the members.

Sadly it would seem this culture of limited change is still entrenched with the national biosecurity committee talking and reporting on discussions on FMD since 2012 and no concrete policy being developed.

It is clear that for any policy to be developed it has to be done in partnership with those on the ground, those that own, manage, or derive an income from the land. Weed management, development, and execution must be done in partnership with stakeholders, who have the appropriate demonstrated skills.

We urge you as a committee to grasp this opportunity and not be constrained by past perceptions and culture, but develop a world class programme that is based on the best of what we have done in the past, so we can manage pest animals and weeds in an effective efficient measurable way, these opportunity's do not land in your lap very often.

Efficiency of a program or indeed any business is always affected by both its strategic direction and the structure of that organisation, it is imperative that thought be given to who and how any program will be delivered, managed, and monitored. At present the default fall back for NRM issues is the regional process, to use the regional body's to deliver such a programme will fail, for a variety of reasons, some which are articulated in the Landcare survey attachments.

Our business plan is based on fundamental principles that are listed in no particular order.

- National coordination delivers consistency in delivery monitoring and evaluation
- Based on determined timeframes and orderly phasing down of Australian government commitment by handing responsibility back to the States
- Australian Government plays a leadership role, but does not have to be main financier
- Education, extension and delivery of decision support tools is a very effective way of getting effective change on the ground
- By having Government, industry and community owning the process you limit risk.
- Whatever is done must be achievable, measurable, and value add Government investment
- An engaged community will allow for early prevention and eradication of weeds and or pests.
- For every \$1million invested in national coordination \$19 million is leveraged

We hope the business plan and attached documents will help you set a direction for a world class weed and pest plan for Australia.

Furthermore we are willing as a group or individually to be contacted for further clarification, or to help where ever we can.

Yours sincerely,

IAN SAUER

Past Gorse task force Chair

DREW ENGLISH

Past Willows task force chair, and past chair of chairs

SCOTT CHIRNSIDE

Past Serrated Tussock task force chair

JIM FORWOOD AM

Past Athol Pine and Mimosa Pigra task force's chair

Attachments listed below

**Weeds of National Significance Program –
STATISTICS ON WONS ACTIVITIES 2003 – 2009**

Awareness raising activities

WONS Weed	Workshops/training		No. presentations given	Networks		General enquiries (phone/email) p/month	TOTAL impact
	No. Workshops	No. People trained		No. people (on network lists)	No. different organisations/ groups		
Alligator Weed	10	180	37	65	55	230	577
Athel Pine	8	48	6	385	200	10	657
Bitou	13	250	18	200	125	10	616
Blackberry	20	152	42	350	150		714
Boneseed	16	300	16	350	200	20	902
Bridal creeper	14	100	20	400	100	17	651
Cabomba	10	180	32	46	40	80	388
Chilean needle grass	80	800	46	264	210	15	1,415
Gorse (<i>stats not available</i>)	-	-	-	-	-	-	-
Hymenachne	10	200	40	100	60	10	420
Lantana	25	1500	42	2273	>100	50	3,890
Mesquite	12	280	24	-	40	20	376
Mimosa pigra	-	-	5	221	151	5	382
Parkinsonia	15	300	24	-	40	20	399
Parthenium	10	600	15	Na	79	-	704
Pond apple	8	100	30	60	40	2	240
Prickly acacia	8	240	16	-	40	20	324
Rubber vine	6	370	15	Na	84	-	475
Salvinia	10	180	34	68	55	130	477
Serrated tussock	18	700	22	550	420	15	1,725
Willows	29	590	25	459	240	10	1,353
TOTAL impact	322	7,070	509	5,791	2,329	664	16,685

Extension Materials (DISTRIBUTED) & Other Communication Activities

WONS Weed	Mgt Guides	Awareness materials	ID info (brochure/ Weedeck/ other)	Brochures (info sheets, guides)	DVDs/CDs	Banners	Promo (magnets /stickers)	Media**			Other		Total
								TV	Radio	Print	No.	Type	
Alligator Weed	1000	40000	1000			2							42,002
Athel Pine	1000	2000	1500		150	2		3					4,655
Bitou	1800	32000	2800	5100	1500	4					100	TAPs	43,304
Blackberry						2			5				7
Boneseed	2500	90000	300	7500		2							100,302
Bridal creeper	2000	6500	5500	10 000		2							14,002
Cabomba	1000	40000	1000	3000	1000	2							46,002
Chilean needle grass	3730	230	20	6701		2					2105	brochures	12,788
Gorse	7500					2							7,502
Hymenachne	1,200	1,200	2000	2000	200	32	3000	4	6				9,642
Lantana	11,430*	12,000	6,000	2000	4,500	10		10	34				35,984
Mesquite	5,000	9,000	12,000	2000	50	4					200	Acrylic seed pods	28,254
Mimosa pigra	750	5000	1000	3000	0	2							9,752
Parkinsonia	5,000	12,000	12,000	2000	50	4							31,054
Parthenium, rubber vine	15000	11000	15000			25	16,000	400^					57,425
Pond apple	500	500	1000	1200	100	27	2000			5			5,332
Prickly acacia	5,000	11,000	12,000	2000	50	4							30,054
Salvinia	1000	25000	1000			2							27,002
Serrated tussock	9000	3000			800	2		2	8	10	1	Research forum	12,823
Willows	2200	3300	1250		950	2			4		1	Research forum	7,707
TOTAL	76,610	303,730	75,370	36,501	9,350	134	21,000	419	57	15	2,407		525,593

* Includes Best Practice Manuals and Herbicide Use Guides

**Note: print media refers only to newspaper articles that are directly submitted by national groups. Most programs did not provide data for this.

^infomercial screenings

Investment in WONS Program (up until June 2009).

WONS Weed	Yrs program running	AG investment in WONS Program Coordination (up until 08/09)	Investment in WONS weeds from non AG sources (TOTAL)*
Alligator Weed	6	270,000	8,700,000
Athel Pine	4	208,523	Not available
Bitou AND Boneseed	4.5	607,500	16,329,645 (from 06/07 on)
Blackberry	5	666,306	Not available
Bridal creeper	4	328,000	7,270,000
Cabomba	6	270,000	5,520,000
Chilean needle grass	6	590,000	923,708 (from 07/08 on)
Gorse (stats not avail)	Not available	Not available	Not available
Hymenachne	4	320,000	3,000,000
Lantana	7	784,540	\$6,342,000**
Mesquite	7.5	373,000	Not available
Mimosa pigra	6	176,722	Not available
Parkinsonia	7.5	373,000	Not available
Parthenium	7	366,375	6,600,000 (from 03/04 on)
Pond apple	4	200,000	1,500,000
Prickly acacia	7.5	373,000	Not available
Rubber vine	7	366,375	5,700,000 (from 03/04 on)
Salvinia	6	270,000	6,300,000
Serrated tussock	5	464,800	Not available**
Willows	4.5	636,900	56,000,000 (from 06/07 on)
estimate of TOTAL	5.7 (average)	\$6,185,935	\$116,915,353^

*It is very difficult to accurately determine all investment in WONS due to the huge plethora of agencies, groups and people involved from the national through to the local scale (including volunteers). It is also difficult in the case of some WONS to gain figures where separate out costs attributed to WONS against those that are part of larger landscape or restoration projects. The figures provided are an estimate and have captured only investment that the WoNS Program is aware of and can source. Actual investment is expected to be much higher than what could be sourced.

^ This figure is not directly comparable to the AG investment as it only represents the 8/20 WoNS, it is also over a shorter timeframe. The actual comparable figure would be much higher and highlight an even greater level of leverage, see note*. Note this figure is also *exclusive* of any other AG investment in WoNS that may be additional to Coordinator funding.

**Lantana: Figure is direct contributions linked to the WoNS program; \$17,000,000 per year control costs - Aust grazing industry.

**Serrated tussock: not possible to ascertain, but in order of \$000,000's per year.

2012

Achievements, Experiences and Lessons from a Decade of National Weed Coordination



National Gorse **TASKFORCE**

National Gorse Taskforce

October 2012

**National Gorse Coordination – Achievements, experiences and lessons
from a decade of national weed coordination**

National Gorse Taskforce

(Written and edited by Ian Sauer and Michael Noble on behalf of the National Gorse Taskforce, with significant contributions from former national coordinators Sandy Leighton and Michael Rowland, and from John Ireson of the Tasmanian Institute of Agriculture)

October 2012

Forward

This legacy document is the final output prepared by the National Gorse Taskforce (NGT), it is a “warts and all” review, to:

1. Highlight, celebrate and recognise those who helped with our significant successes;
2. Outline areas where improvements and efficiencies can be made and;
3. Use our successes, failures and learning’s as a reference for new taskforces, government departments, or others setting up processes to tackle weeds or indeed pest animals on a national scale.

Firstly congratulations to the Australian and State Governments, without a doubt the WoNS programme is one of the standout natural resource management programs Australia has seen. It is implemented in a highly strategic manner, has true national coordination, and leverages huge financial and in-kind support from state governments and the general community.

However, it is incumbent upon us all, to make sure that the investments of the Australian Government through funding; the state governments through housing and hosting; and, more importantly the community’s significant in kind and financial investment are not lost or diluted, but in fact value-added. This legacy document can hopefully help do just that.

It is clear that the WoNs programme is in need of restructuring. This needs to be done in consultation with the people who are on the ground - farmers, industry, researchers, Landcarers - those that are directly impacted by weeds, not just those that administer programmes in capital cities. To not restructure and re focus will set the WoNs programme on a path of ineffectiveness and mediocrity.

We hope our learning’s and recommendations will be taken on-board by those in a position to make change, to make a great programme better, so Australia can lead the way in national coordination of pest weeds.

It should be noted the successes of the National Gorse Taskforce, and indeed the whole WoNS programme, certainly outweigh any negativity, and all Australians should be proud of the Weeds of National Significance (WoNS) program.

Clearly, the success of the National Gorse Taskforce would not have been achieved were it not for the dedication, drive and determination of the national coordinators, and the members of the Taskforce. To the coordinators - Sandy Leighton, Dean Vincent, Michael Rowland, and Mike Noble, a big thank you, as in most things, it is real people on the ground that makes change, not those pulling the purse strings.

To the members of the National Gorse Taskforce, we would not have achieved half as much as we did if it were not for your significant direction, thinking outside the square, your willingness to take a risk, and provide considered council. This laid the pathway for our success.

We can justifiably say that the National Gorse Taskforce has been successful, cost effective, and innovative, with an Australian Weeds Committee review saying that by 2009 we achieved 80 % of what we set out to do.

All of this was achieved in a difficult working environment characterised at times by uncertain funding, changing personnel in the Department of Agriculture, Fisheries

and Forestry (DAFF), lack and loss of project-related corporate knowledge from DAFF and Minister's officers, little understanding of community process, and lengthy recruitment processes at a State level.

There has been a clear need demonstrated to have real structural changes of the management of the programme, not just tinkering at the edges. Structural and management reform of the programme with a more integrated process, perhaps pest weeds and animals together as an example, need to be urgently explored.

I am proud to say the NGT has made a large national impact on gorse. We have in place 20 25 year gorse eradication memoranda of understanding (MOUs) across Australia. This means the work we have done will be monitored and maintained for another 25 years. As far as we know this is the first time an instrument like this has been used to maintain works done.

Subsequently Western Australia and Northern NSW have removed almost all above-ground gorse a great achievement.

On behalf of the NGT I am convinced we have value-added the Australian and State Government investments, and left land managers in every relevant state and territory with the tools, knowledge, and networks to continue eradicating the green cancer on our landscape, gorse.

Ian Sauer

A handwritten signature in black ink, appearing to be 'Ian Sauer', with a stylized, flowing script.

Chair
National Gorse Taskforce

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1. Introduction

In 1999, through a rigorous scientific process gorse was selected as one of 20 initial Weeds of National Significance (WoNS).

The motivation for the development of WoNS was to attempt to improve coordination among the weed management stakeholders nationally (Thorp and Lynch, 2000).

The basis for selection of the 20 WoNS species was intended to reflect the decision-making processes of managers and policy makers in prioritising the importance of individual weeds (Thorp and Lynch, 2000). The four major criteria used were:

- Invasiveness
- Impacts
- Potential for spread
- Socioeconomic and environmental values

Development of a Weeds of National Significance Gorse Strategic Plan (or National Strategy) in 2003 provided a basis for national coordination work to begin. From this time til 2012 there has been ongoing national coordination of gorse management related activities. 2012 marks the point where coordination reverts back to the states.

The National Gorse Taskforce considers it important that a record of achievements, experiences and lessons be left from this 2003-12 period. That is what this paper seeks to provide, and it is hoped that this information will assist planning for future national coordination of natural resource management related projects.

2. Overview of key achievements and experiences of the national gorse project 2003–2012

In 2003 following research and consultation, the WoNS Gorse National Strategy was published. This Strategy directed the national gorse program be focussed on five key areas. These are:

- Best practice management of established infestations implemented across Australia
- Prevent spread from established infestations
- Eradication of isolated and scattered infestations
- Management of at-risk areas to maintain them free of gorse
- National Gorse Taskforce (NGT) – be formed so that the strategy for gorse control is effectively managed at the national level

In 2004, a National Gorse Coordinator and subsequently Chair of the National Gorse Taskforce were appointed, and then the National Gorse Taskforce formed.

Sandy Leighton was the initial National Gorse Coordinator (2004-06). Dean Vincent (2006-08), Michael Rowland (2008-09), and Michael Noble (2009-2012) followed. Ian Sauer has remained National Gorse Taskforce Chair from 2004 to 2012.

In 2006, the WoNS Gorse National Best Practice Manual was produced. This was revised and reprinted in 2009, and is being reprinted again in 2012. The content is based on science, very practical, well researched, and with real life case studies as examples. Regular input from the Taskforce members (representing relevant states and industry) provided valuable input, as well as ground-truthing the document.

The NGT at an early stage deliberately adopted a philosophy that eradication of gorse can be achieved provided mechanisms to promote long term monitoring and maintenance were adopted. 25 year gorse eradication MOUs emerged from this background.

In 2007, the initiative was taken by the National Gorse Taskforce to develop and sign 25-year memoranda of understanding (MOU) with local government, regional bodies and other relevant organisations. This mechanism binds relevant authorities to commit to an effort to eradicate gorse from specified areas over a period of 25 years. The 25 year MOU may not be a legally binding document if tested in court, but what is more important and more powerful is showing commitment, and a willingness to work in partnership with others.

The MOU document provides background and scope with regard to gorse eradication to be achieved. Commitments by both the National Gorse Taskforce and the other signatory or signatories are outlined in the document. Typically, the NGT will:

- Provide best practice advice to ensure that the management approach of the infestations will lead to eradication
- Provide coordination and facilitation when requested to assist in the eradication project
- Promote and highlight the eradication project in the media for the benefit of both/all MOU parties
- Contact the other MOU signatory/signatories annually to seek an update on the eradication of infestations

Typically, the other signatory or signatories commit to:

- Facilitate eradication of all living gorse and the seed banks at the infestation sites
- Map the infestations to the National Mapping Standard as developed by the Bureau of Rural Science
- Ensure that gorse seed from infestations is not moved to infest other areas of the jurisdiction, chiefly through ensuring that hygiene measures are adequate in regard to preventing seed being moved
- Undertake annual inspections and destroy any regrowth or seedling germination to ensure that infestations do not produce any further seed
- Report annually to the National Gorse Taskforce

The first MOU was signed with Kangaroo Island NRM Board in South Australia. The MOUs cost no money to setup with minimal effort required.

Anecdotal evidence (such as feedback from NGT Western Australia representative John Moore and NSW local government weed officers), suggests that the MOUs are very effective in justifying and drawing funding for ongoing gorse management. Twenty MOUs were signed in five states by 2012. These are listed in Appendix 1.

Between 2007 and 2009, an Australian Government funded national *Defeating the Weed Menace* gorse control project was rolled out across six areas in five states. This was important in achieving the control of almost all above-ground gorse in Western Australia.

25-year MOUs were signed for several localities where works under this program were completed. These included Tumut Shire Council area in NSW, SE NRM Board area in SA, and South Coast NRM area in WA.

In 2009 the Taskforce developed the idea of a yellow gorse baton. These were provided to MOU signatories for storage of MOU-related records. Being large and bright yellow the batons are difficult to lose, or indeed, to forget. A smaller version of the baton was developed to contain MOU information for local community champions. Each MOU co-signatory was asked to nominate a community champion who would remain responsible for providing timely reminders on the MOU and gorse eradication issues such as the need for monitoring and retreatment over the longer term. The first community member to have responsibility for a baton was Mr Chris Gilmour in Western Australia.

In 2009 an Australian Weeds Committee review of the implementation of the National Gorse Strategic Plan found implementation to be 80% complete, and recommended a gradual phase-out of the national project. This recommendation sat well with the NGT as we had been looking for a seamless way to conclude our activities. Sadly though, immediately following this was a time of significant frustration for the Taskforce. The Taskforce sought a rapid conclusion to national coordination, we were of the opinion we had delivered National coordination, delivered the education and tools that would allow the Community to continue the work we had set in train, and our value for money was diminishing.

Frustrating this was inconsistent timing of notifications on annual Australian Government funding (a situation which was significantly improved in 2011), and a total lack of clear direction or understanding from the Australian Government and Australian Weeds Committee (AWC) on how to conclude national coordination of not only the NGT but all the inaugural WoNS. The process was pushed out to the end of 2011.

In 2010 the Taskforce came up with the idea of a *Nationally Outstanding Gorse Management Achiever Award* to recognise those truly outstanding gorse management achievers around the nation. There was a strong desire on the part of the Taskforce to award and recognise those in the community who, with little recognition, make a huge difference in managing gorse.

Also in 2010, the Taskforce also undertook a review of the National Strategy, including a complex revision of actions and timelines.

The National Gorse Taskforce concluded its tenure in 2012. Prior to this, the Taskforce progressively handed over responsibility for the MOUs and other national coordination roles back to the states.

Events to mark this (and recognise Nationally Outstanding Gorse Management Achievers) were held in Western Australia, South Australia, Victoria, New South Wales and Tasmania.

Prior to conclusion in 2011-12, a double-sided A4 flyer was developed (different versions for each of the five gorse states), and distributed. This was targeted at gorse outlier and potential gorse infestation areas, leaving a legacy of awareness and an additional tool for future awareness-raising.

The achievements of the national gorse coordination are summarised in Table 1 below.

Table 1. National Gorse Program Achievements Summary

2003	National Gorse Strategic Plan published
2004	National Gorse Coordinator appointed National Gorse Taskforce formed
2005	National Gorse Eradication Areas identified Gorse National Priority Action Framework produced (a document that helps guide investment in gorse management and maximise public benefit)
2006	National Best Practice Manual Produced NSW gorse infestations mapped National Containment Lines developed for SA, WA, Tasmania and NSW National Gorse Map Produced
2007	Task Force Focus on Regional Eradication of Gorse Outliers Commences First 25 Year Eradication Agreement signed by Kangaroo Island NRM Board
2008	Western Australia commence plan to eradicate all the known gorse from Western Australia
2009	Launch of the Western Australian Defeating the Weed Menace Programme and hand over of the first Gorse Baton (Minister Burke in attendance, and Chris Gilmore became the first MOU monitoring community rep.) Gorse under eradication in 18 NRM regions and local governments, through 25 year MOU commitments by various land managers, with long term capacity to achieve eradication. 2 nd edition of the Gorse Best practice Manual printed for release.
2010	Nationally Outstanding Gorse Management Achiever Awards begin with Margaret Hatton of Kilmore, Victoria the inaugural recipient
2011	National Gorse Strategy reviewed The first Victorian 25 year eradication MOU signed with East Gippsland CMA National project winds down with handbacks completed to the states.
2012	Tasmania's Parks and Wildlife Service signs a 25 Year Gorse Eradication MOU for the Tasmanian SW Wilderness World Heritage Area (making 20 agreements nationally in total)

3. Processes used in implementing national coordination of gorse (2003-2012)

This section outlines some of the history of means used to implement national coordination of gorse.

3.1 Hosting of a coordinator by the Tasmanian State Government on contract from the Australian Government

Hosting of a national coordinator by the Tasmanian State Government meant that they became part of the State weeds team. They had ready access to resources – such as free GIS and mapping expertise – that may not otherwise have been as available. It also gave them a level of credibility within Tasmania and interstate when approaching governments and organisations.

Where the coordinator would otherwise be working in the weed management field in Tasmania, filling the role had the benefit of allowing a significant expansion of national weed management contacts for that person, and for the Tasmanian Government.

Up to 2011, the Australian Government provided Tasmania with 12 month contracts for hosting the Coordinator. This limited span of contract provided for uncertainty and disruption, particularly for coordinators that didn't have a permanent role to fall back on. Short contracts did not allow the taskforce to have the clear air to make long term decisions; too much time was spent on risk strategies instead of the main game. This was exacerbated by limited and often very late notice of future intention by the Australian Government.

The disadvantages of this were exacerbated by the State Government not being able to employ any new people or renew contracts at one point. This caused a 3 month delay mid-way through the project causing huge disruption to the program.

It should be in the minds of ministers, bureaucrats and the AWC managing these programs that uncertainty and disruptions cause huge negative impacts and costs to the delivery end of the project.

3.2 Establishing the National Gorse Taskforce

Sandy Leighton was appointed as the first National Gorse Coordinator. Sandy consulted key people in Tasmania for potential nominees for National Gorse Taskforce chair.

"We selected the Chair (Ian Sauer) based on his knowledge, experience & enthusiasm for weed management, together with confidence at public speaking, connections / savvy and also that he was a farmer and not short of a few words!" (Leighton pers. comm., 2011).

In order to determine state representatives for the National Gorse Taskforce, "contact was made with principal weed management officer within each state/ territory. They then nominated a representative. Depending on their workload & enthusiasm, this proved to be a worthwhile approach" (Leighton pers. comm., 2011).

The Taskforce had a conservation representative (Corey Watts from the Australian Conservation Foundation) for a period of years. According to Sandy Leighton, the conservation representative was sourced by approaching the ACF representative on the Australian Landcare Council. "However it was not part of his agreed core work duties so he eventually left the taskforce" (Leighton pers. comm., 2011).

An industry representative was sought from the outset, but proved challenging. Warwick Ragg from the Australian Forest Growers joined the Taskforce in its later

years. A forestry sector representative was considered very appropriate as gorse has a significant impact on this industry.

A “community” representative was never appointed to the Taskforce, but the value of such an appointment might be questionable given that in any case Taskforce members (drawn from five states), are members of communities around Australia.

At the close of the National Gorse Taskforce tenure (2012), members of the Taskforce are:

Ian Sauer, Chair Community (TAS based)
John Moore, WA research WA Government representative
David Cooke, SA Government representative
Shane Herbertson, VIC Government/ VIC Gorse Taskforce representative
Dr Peter Everist, community VIC Gorse Taskforce representative
Karen Stewart, TAS Government representative
Michael Michelmores, NSW Government representative
Warwick Ragg, Australian Forest Growers Association representative (ACT based)
Jeanine Baker, Australian Government representative

3.3 Determining national eradication areas and containment lines and collating state/territory data

At the beginning of the project, national mapping of gorse was very preliminary (e.g. map on page 25 of the 2003 National Strategy). Using the existing mapping the Coordinator (Sandy Leighton) and Chair (Ian Sauer) determined strategic national outliers including:

- Western Australia (infestations restricted to South Coast);
- South Australia - Port Lincoln, Burra, Yorke Peninsula, Kangaroo Island;
- NSW Armidale & surrounds (Leighton pers. comm., 2011).

The Coordinator then found key contact people in these areas and made initial personal visits and local field trips to inspect infestations and on-ground works in key outlier areas. “This worked extremely well by providing firsthand knowledge of local situations. It also enabled continued networking with these people over time, via phone and email, including encouraging them to apply for funding” (Leighton pers. comm., 2011).

National eradication areas and containment lines mapping (as produced for Caring for Our Country business plans) is provided in Appendix 1.

3.4 Promoting research on and use of biological control agents

Throughout the project the need for development and distribution of biological control agents has been recognised as a key mechanism for assisting with the management of core areas of gorse.

The NGT and coordinators promoted the use and distribution of bio-control agents, as well as funding applications for ongoing research.

However, Taskforce members (e.g. Ian Sauer and John Moore) feel that the national gorse project could have had more impact on gorse in core infestation, by committing more time and effort to progressing the presence of bio-control agents at an earlier stage in these areas.

Ian Sauer's observation – "In hindsight we probably missed some opportunities by not concentrating on R&D and bio control at the start of the program. This may have allowed us to make some more advances in this area.

If we had our time again, some concentration on coordinating internationally, especially with New Zealand, on bio control may have paid dividends and given an international focus."

John Ireson's (gorse bio control researcher with the Tasmanian Institute of Agriculture) observations on the bio control aspect - "Historically, a large amount of effort has gone into the research and development of gorse biological control as a long term control option. The gorse seed weevil, (*Exapion ulicis*), was released in Tasmania in 1939 and was the first gorse biological control agent released in Australia.

Since gorse was officially declared a target for biological control in 1995, four additional agents have been investigated for release. These are the gorse spider mite, (*Tetranychus lintearius*), the gorse thrips, (*Sericothrips staphylinus*), the gorse soft shoot moth, (*Agonopterix umbellana*) and the gorse pod moth, (*Cydia succedana*). The first three have been released in Australia, while the gorse pod moth release is still pending additional research.

Extensive surveys for new agents have also been conducted in Europe. All of this work has been co-ordinated by the Tasmanian Institute of Agriculture in association with DPI Victoria, the South Australian Research and Development Institute and CSIRO."

A detailed overview of the current situation of the Australian gorse biological control programme (as outlined by John Ireson) is provided in Appendix 2.

3.5 Other gorse management research and development activities

Important research has been undertaken by Western Australia-based John Moore (WA representative on the National Gorse Taskforce). John has long recognised the need for improved means of managing gorse soil seed banks.

John has conducted research into a broad variety of factors (including smoked water, hydrocarbons, temperature, solarisation, microwave radiation, and scarification) to better determine their impacts on gorse seed, and potential of these for assisting more rapid seed bank degradation.

Over the life of the National Gorse Taskforce, the critical nature of this work has become more and more clear. For example, in Western Australia the Defeating the Weed Menace gorse project resulted in the 99% completion of above ground gorse management. With this achieved, follow up and destruction of the gorse soil seed bank are the only obstacles to complete eradication of gorse in Western Australia.

3.6 National funding for on-ground works

Despite some initial lack of success, the National Gorse Coordinator and Taskforce successfully applied in 2006 for Australian Government Defeating the Weed Menace funding for dealing with key national gorse outliers. This resulted in extensive gorse works in six areas of five states. These were:

- Tumut Shire in NSW
- Wimmera Catchment Management Authority (CMA) in Victoria

- Tasman and Dorset Municipalities in Tasmania
- South East NRM in South Australia
- South Coast NRM in Western Australia

Tumut Shire (NSW), South East NRM (SA) and South Coast NRM (WA) signed 25 year gorse eradication memoranda of understanding (MOU) with the National Gorse Taskforce.

The finances for the Defeating the Weed Menace gorse project encompassing parts of five states were received, managed and acquitted by the Tasmanian Government (via the National Gorse Coordinator, as an employee). Acquittal was completed in 2010.

The Defeating the Weed Menace money facilitated a realistic shot at regional or local eradication of gorse for several of the recipients. This component of on-ground funding added significant credibility to the national coordination effort.

3.7 Improving national mapping

With states/territories having differing detail and format for weed mapping (or none at all) available, national mapping of WoNS species proved difficult (Leighton pers. Comm., 2011). National consistency was required. The National Core Attributes mapping method was adopted as the only system to be accepted by the NGT. This provides nationally consistent guidelines for weed mapping.

Prior to publication of the Gorse National Best Practice Manual, the Coordinator (Sandy Leighton) and Taskforce worked with the states to produce a much more accurate national map than had existed to date. This map is reproduced on page 15 of the Gorse National Best Practice Manual.

Further mapping has been undertaken by subsequent coordinators. Michael Rowland reflected “the detailed infestation map I found really valuable for identifying the outliers and targeting specific localities. Locality boundaries including NRM regions, weed management districts (NSW), and local government boundaries made identification of jurisdictions responsible for particular infestations easy. I recall spending a lot of time pulling this together and getting the formatting consistent for data from the different states. In many cases authorities had little awareness of the infestations due to staff changes and loss of corporate knowledge of data collected by previous staff” (Rowland pers. comm., 2012).

For most recent distribution mapping see Appendix 3.

3.8 National Best Practice Manual

The first coordinator (Sandy Leighton) and the Taskforce, in cooperation with the Tasmanian Government, gained Australian Government (Defeating the Weed Menace) funding to produce the WoNS Gorse National Best Practice Manual. This involved employing a project officer (Jonah Gouldthorpe), producing, and (in 2006), launching the manual with a field day on a gorse site outside Canberra.

Sandy reflected that the process of producing the manual was quite good and improved the taskforce members’ knowledge on all things gorse. Also that it was good for people working on gorse to have their case study in print in the manual - some were chuffed. She says that the state/ territory contacts she had made were

invaluable, through knowing local on-ground projects, and thus selection of appropriate and differing case studies (Leighton pers. comm., 2011).

In 2009, a second edition of the WoNS Gorse was produced by Taskforce and Coordinator (Michael Rowland by then). This was a “big job, [with] lots of extremely helpful input from the NGT team. Real commitment from those people” (Rowland pers. comm., 2012). The second edition was launched near Seymour, Victoria in early 2010. A third print run of the manual was completed in 2012.

3.9 Gorse eradication memorandum of understanding

The second National Gorse Coordinator was Dean Vincent. In 2007, Dean and the National Gorse Taskforce developed the idea of the 25 year gorse eradication memorandum of understanding (MOU). With a potential seed viability of several decades or more, gorse eradication is a long term prospect. With national coordination resulting in significant sums of Australian Government money being invested in gorse management, a mechanism was needed to secure this investment into the future. The MOU concept was decided upon and in 2007 the first 25 year gorse eradication MOU was signed between the National Gorse Taskforce and the Kangaroo Island NRM Board (please refer to Image 1 – signing of the first 25 year gorse eradication MOU at Kangaroo Island).

In 2012 there are 20 MOUs across five states. These are illustrated on the map in Appendix 3, and listed in Appendix 4. An example of an MOU document is provided in Appendix 5.



Image 1. Signing of the first 25 year gorse eradication MOU with Kangaroo Island NRM

3.10 Gorse batons and community custodians

The MOUs were signed primarily with local governments and regional bodies (such as Natural Resource Management and Catchment Management Authority organisations). The Taskforce was concerned at the potential for the MOUs to be filed away by signatories, and forgotten over time. Also, staff turnover in organisations put added limitations on corporate memory.

Michael Rowland became the third National Gorse Coordinator in 2008. The Coordinator and Taskforce developed the concept of gorse batons (a bright yellow painted PVC pipe). Batons (see Image 2) were presented to the MOU signatory organisation and contained the MOU documents and relevant maps, in a conspicuous manner. It was also decided that signatory organisations would be asked to nominate community custodians. These custodians hold a copy of the MOU and associated documents in their own smaller baton. Their role is to remind the signatory organisation, from time to time, of the gorse eradication agreement that is in place.



Image 2. Gorse batons containing MOU copies for signatory organisations and community champions

“The central purpose of the gorse baton was to incorporate and combine the only lasting way of keeping both the memory/data of locations, in the hands of the most affected – the community, with a ‘licensed’ cattle prod. Authorities have demonstrated their shortfall in their quick turn over of staff and consequent loss of corporate memory” (Rowland pers. comm., 2012).

3.11 Nationally outstanding achiever recognition

The National Gorse Taskforce recognised that certain individuals around the nation play an extraordinary role, often over a long period, in not only reducing the presence of gorse in the Australian landscape, but also by enthusing others that eradicating Gorse is achievable. In 2010 the Coordinator (the fourth, Michael Noble) and

Taskforce decided to initiate *Nationally Outstanding Gorse Management Achiever* recognition.

Basic criteria were established (see Appendix 6), and nominees were considered by the National Gorse Taskforce based on these criteria.

In early 2010, Margaret Hatton of Seymour, Victoria was presented with the inaugural *Nationally Outstanding Gorse Management Achiever* recognition (see Image 3). Subsequent recognitions have been presented to Anton Kurray and Phil Cramond in South Australia, the Boyd family in NSW, and the Clark family in Tasmania. Award recipients are provided with a certificate contained within a small gorse baton.



Image 3. Margaret Hatton of Kilmore, Victoria received the inaugural national award in early 2010

3.12 Gorse awareness-raising and management knowledge

In 2007, the National Gorse Taskforce produced an awareness-raising television commercial. This television “weed-Mercial” has been played in Tasmania. The concept is for each state to look for sponsorship, or have the weed mercial played as a community announcement.

All the communication activities and events are part of the communications plan developed by the NGT

Throughout the national gorse project, the coordinators and Chair readily took up all opportunities to speak at various forums including state and national weed conferences, Landcare and natural resource management conferences and events. Topics were not purely gorse-specific, but also the importance of all weeds, especially the WoNs weeds.

The memorandum of understanding (MOU) concept was of particular interest to natural resource managers, and during the last couple of years of the project papers were presented on this topic by the coordinator to the South Australian and New South Wales weed management conferences.

From 2006-12 six newsletters were produced by the National Coordinators and Taskforce. These provide a breadth of information from the latest gorse management information and achievements from around the country, to contact names and details for national networking on gorse.

In pursuing the National Strategy's target areas of keeping at-risk areas free of gorse and eradicating isolated and scattered infestations, in 2011 the Taskforce and National Coordinator had a state by state (five version) double sided A4 flyer produced. This provides two pages of information on gorse and gorse control, as well as a basic map of known gorse infestation areas and areas potentially suitable for gorse infestation (see them at www.weeds.org.au/WoNS/gorse/resources.htm#flyers).

Throughout the project and hopefully beyond, the National Strategy, National Best Practice Manual, newsletters, flyers and other awareness-raising and information products of the project are available at www.weeds.org.au/WoNS/gorse/. This provides ongoing access to the products from the years of national gorse coordination.

The National Best Practice Manual and on-ground results around the nation are important lasting legacies of national coordination. A philosophy and means (initiated and carried on across Australia) to achieve eradication of gorse over time are testament to the benefit of trying new ways, such as national coordination.

(Of interest, in January 2012, the WoNS Gorse Best Practice Manual, information from the website, and advice from the National Coordinator were used by a natural resource management specialist in Oregon, USA in developing a gorse management workshop for training staff and volunteers in that state.)

4. Working with frustrations encountered

Despite significant achievements made through national gorse coordination, the program frequently encountered problems and uncertainties. This section outlines some of the issues that were encountered, and which it would be advisable for future programs to learn from and improve on.

4.1 Lack of certainty in funding and of continuity of a Coordinator

Continual lack of certainty for funding of the Coordinator position led to ongoing frustration for not only the coordinator, but made any the Taskforce planning role extremely difficult. Being unable to plan out a three year plan or longer without the knowledge a coordinator was going to be there to implement led to a lot of frustrations, lost time and tail chasing.

By 2007 the successful outcomes of the programme were obvious. Funding for the WoNS programme was tied to political (election) cycles as it was not considered "core business" of government. This caused constant uncertainty in planning and implementation.

The WoNS National Gorse Coordinator role changed hands three times during 2006-2009.

For the new coordinator, getting up to speed with the programme's history and activities and the nature of the work in the position was not quickly achievable. A new coordinator needed to settle in and that reflected a good deal of lost time to the overall programme.

The contacts address book for example contained over 400 people and organisations. To make contact in a meaningful way with these people required a lot of time on the ground. Whilst a new coordinator needed to break new ground, the role also required re-treading areas where work was already underway to maintain the momentum for gorse eradication. Active weed managers across Australia made it clear they felt supported and thus motivated by the support of coordinators visiting them and encouraging their work.

Added to this, a large percentage of the coordinator's time was spent winding down or planning the end of any progress rather than the next step. If the programme had an open ended timeframe, the coordinator could have achieved all the work in perhaps half the time; and would not have needed to plan to leave the position and apply for jobs.

For example; during the 12 months of Michael Rowland's tenure, six months was spent thoroughly familiarising himself with the position and three-four months was spent drafting and planning funding applications, intergovernmental deeds/agreements work plans/proposals and budget planning for his position with Australian Government staff in Canberra. This also included preparing wind-up arrangements and by necessity preparing for handover to the incoming coordinator (Rowland pers. comm., 2012).

Ian Sauer's observations are that - "the lack of certainty and the stop-start nature of weed funding had an enormous impact on the functions of the NGT, apart from the extra planning, and the continual catch up, there was the inexcusable pressure put on coordinators, in not knowing if they would have a job. Apart from that, it is estimated the NGT could have finished its job 2 years ahead of 2012, if these stop starts did not occur.

These frustrations were communicated on numerous times to Minister's officers, the Department, and the AWC; each time it seemed these concerns fell on deaf ears."

Fortunately the situation with certainty of funding (and continuity of a coordinator) has improved significantly in the last two years. As of 2010/11, the Australian Government offered the states three year contracts for WoNS national coordination. This provided significant improvement on the system of annual contracts that existed prior.

4.2 Accommodating individual state approaches – Victoria/National Gorse Taskforce relationship case study

States differ significantly in their approaches and prioritising on weed management. During the initial years of the national project, Victoria stood out as the least responsive to the concept of tackling outliers first, despite extensive efforts to consult and inform by the early national coordinators and the Taskforce.

At that time there was a Ballarat centred gorse management strategy, but despite extensive efforts by the first national gorse coordinator, a state-wide strategy was not forthcoming (Leighton pers. comm., 2011).

State priorities and approaches on weed management will almost certainly not all match those of a national project.

Despite different approaches, the national project and Victorian representatives have remained engaged throughout, and both have benefitted from consistent engagement and communication over time.

In 2007 Wimmera Catchment Management Authority (CMA) carried out a project with National Gorse Taskforce as part of the national Defeating the Weed Menace gorse project.

In 2011 a late breakthrough was the signing by the National Gorse Taskforce and East Gippsland CMA of a 25 year gorse eradication memorandum of understanding.

In more recent years of the national project, Victoria established a state gorse taskforce and strategy, and is funding outlier gorse management projects with state funds.

Victorian Taskforce representatives Shane Herbertson and Dr Peter Everist provided consistent input and involvement in the Taskforce especially through its latter years. This was important in assisting the national coordinator in directing suitable types of support/involvement in that state.

It is clear that by working together across jurisdictions, huge benefits can be delivered, through shared approaches incorporating state, national and local government as well as regional bodies. National coordination worked best where “doors were open” on national to local coordinated efforts.

The lesson from the gorse experience is to recognise jurisdictional differences and allow flexibility in approach. Give priority to “low hanging fruit” opportunities. Don’t over-invest time in difficult areas, but remain open to progressing opportunities in these places.

4.3 NGT meetings/ teleconferences

The NGT slowly moved away from face to face meetings as the norm once all the planning was done and the NGT moved into a monitoring and evaluating mode. Most of the time we had four teleconferences a year, and regular email updates. This we found to be highly cost effective. However, having face to face interaction allows more time to make decisions and enthuse the participants.

Sandy Leighton’s observations – “I found these useful though a lot of work. Not many state reps were willing to take on extra work unless it was in their area of interest. Also some reps were not that great at reporting annually in to progress report. Face to face meetings went well and field trips were an added benefit, especially when I didn’t have to organise them!” (Leighton pers. comm., 2011).

Michael Rowland’s observations – “For me the meetings were good for maintaining momentum, particularly as I was picking up after the previous incumbent. I found the advice of the Taskforce members very helpful and objective. The face to face meetings were by far the most productive. Direction from the Taskforce helped focus

my work on the likely best outcomes. They in fact remained the source of programme continuity when staff was changing due to employment uncertainty.”

John Moore’s (National Gorse Taskforce member) observations – “The field trips and face to face meetings were a good means of keeping up the enthusiasm, seeing what others are doing and generating discussion on alternative strategies.”

4.4 National coordinator meetings

Often, frustrations encountered were common to numerous national coordinators and/or taskforces and committees. Communication within the national coordinator network has proven an often valuable tool for progressing management of common difficulties.

Sandy Leighton’s observations on national coordinator meetings – “OK but a lot of talking and sometimes limited action. Good way to stay current with Australian Government weed policy and network with other coordinators” (Leighton pers. comm., 2011).

Michael Noble’s observations – “becoming involved with the national coordinator network was very important for me as a new coordinator. I gained familiarity with how others carried out the role and was able to readily seek advice from experienced national coordinators. Also, with the existing governance arrangements, there has regularly been a lack of clarity on how goals (e.g. reviews of national strategies) should be achieved. Linking up with other coordinators and workshopping a way forward seems to be the best available way of managing this situation.”

In 2012 there have been quarterly teleconferences involving coordinators, their supervisors, Australian Weeds Committee representatives, and Australian Government representatives. These meetings have provided a useful avenue for communicating and sometimes resolving issues.

4.5 Reporting to the Australian Government

Sandy Leighton’s observations – “Initially we did a massive annual report against each action in the national strategy. Luckily this was eventually streamlined into a much more succinct document, even though it lost the detail” (Leighton pers. comm. 2011).

Michael Rowland’s observations - “ridiculous number of agreements (four in 12 months) drawn up between the Australian Government and DPIWE/DPIPWE [Tasmanian Government] to fund the gorse position (perhaps 30% of desk time ...)”. Michael’s observation from this was the “need for establishment of permanent staffing arrangements to ensure stability of staff, continuity of protocols and service delivery and reliability to stakeholders” (Rowland pers. comm. 2012).

Michael Noble’s observations – over time, reporting to the Australian Government becomes easier (with practice and understanding). However, as a new coordinator coming into an established project, I received minimal guidance on this (at least until a report was late!). I found out at some stage that there was a coordinator induction package, but by that time I had found my own way.

Ian Sauer’s observations - there was an over emphasis on uncoordinated reporting, some may say the programme is process driven not outcome driven. You would

never ever find this amount of meaningless reporting in the private sector. I see no justification for the amount the coordinators had to do.

In the latter part of the national coordination project, Australian Government reporting requirements have eased significantly. Three year contracts introduced in 2010/11 provided clear timelines for reporting, with reporting in a relatively simple template.

4.6 Inconsistency and leadership void

A review of WoNS project progress was undertaken by the Australian Weeds Committee in 2009. This found that the gorse project was overall 80% complete. It proposed a way forward for phasing down the project, something the NGT had been planning and recommended to the AWC.

Time involved in completing the project was lengthened partly due to a lack of provision of uniform guidance and approaches to the national coordinators and taskforces.

For example, in mid-2010 when coordinators and taskforces were required by DAFF and the AWC to review national strategies, no process or nationally consistent template was proposed or put forward. Despite this, some urgency to conclude was presented to us from the Australian Government.

To meet timelines the National Gorse Taskforce in consultation with DAFF and a couple of other taskforces, developed and adopted a procedure and format. However, some months later a previously unannounced template and process was developed and subsequently approved by the Australian Government and/or Australian Weeds Committee.

The Taskforce was completely “wrong-footed” by this. It had met (with DAFF personnel present) and workshopped a review format and content, and timelines for completion.

As a consequence the Taskforce produced a different product, which had been through a different process to the majority of other species projects. There seemed to be a total lack of understanding of the work load this caused, and the poor governance it represented.

There are signs of improvement on this front, such as the provision of a template and across-the-board approach for developing new WoNS species strategies (something that had been sought for some time).

There are many other examples that could highlight these issues of inconsistency, lack of appropriate process, and governance.

Ian Sauer's comments – “attempting to fill this void, the Chairs of (WoNS) working groups formed a group that was able to speak with one voice on behalf of all groups, coordinators (at times), and the chairs. This group had access to the department and ministers, and played a valuable role in trying to iron out issues.

The Chairs through their frustrations at the lack of appropriate structure and failing governance developed an alternative business plan with DAFF support for the management of weeds. Sadly, this seems to have been ignored. The business plan is attached to this as Appendix 7.

The NGT see this as a positive document that can help future programmes.”

5. Lessons learned

Sandy Leighton (first national gorse coordinator)

“Overall I thoroughly enjoyed my experience as a WoNS coord, especially my stint in the NT. It taught me many skills on tackling national issues, the importance of making face to face contact with people in order to develop a longer-term relationship and the various ways of tackling weeds in various jurisdictions” (Leighton pers. comm., 2011).

Michael Rowland (third national gorse coordinator)

“Significant success of the whole programme achieved through being supported by an extraordinary Chairperson, and a well-chosen team of representatives from the states” (Rowland pers. comm., 2012).

Michael Noble (fourth and final national gorse coordinator)

A dynamic and passionate Chair who is prepared to stick with the role for the long term has been crucial. Ian Sauer being Chair has been critical to what has been achieved over seven or eight years. With the swapping and changing of four coordinators in eight years, if the Chair had departed, the project may have collapsed.

With a weed like gorse (having a seed viability of potentially several decades or more), coming up with an inspiring and innovative way of providing a long term vision for eradication (like the memorandum of understanding) was an important motivator. So too is accessing and distributing funds for on-ground works. The MOU concept and the associated bright yellow gorse batons captured the imaginations of weed stakeholders nationwide.

Mapping support and being part of the state weeds team were very important positive factors that came as part of being a coordinator hosted by the Tasmanian Government.

Ian Sauer Chair of the National Gorse Taskforce

Clearly the leadership being shown by the Australian Government in having a national approach to such a serious problem as weeds is commendable. It works, is cost effective, and should continue with improvements.

However, it is important that we all recognise that it is the people on the ground, those who manage land, who can be characterised as those who get dirt under their finger nails, are the ones on the front line who contribute the most. They are the ones, who make it all happen.

Our successes were only achieved because of the strategic direction set by Taskforce members, who contributed their time in an unselfish manner. They showed consistent capacity to look at the national picture, and not just in their backyard.

As with all programs, the delivery side of the equation is the most important and the glue that holds it all together is the coordinators. Without exception all were extraordinary people who achieved huge amounts and are often the unsung heroes. Thank you to all.

6. Conclusions and Recommendations

From the experience of the WoNS national gorse project, the Taskforce and Coordinators over the period of the national project (2003 – 2012), the following conclusions have been reached.

Overall the NGT and the WoNS program have been a success. There are several main reasons for this.

The program has a nationally strategic focus, the coordinators determination knowledge and networks have value added and made the programme work. This has meant there have been significant strategic results delivered.

It needs to be remembered that it is people who are the main drivers especially those on the ground. It is not plans or reports

During the time of the NGT there was significant reduction in funding for the weeds section in DAFF, a huge turnover of staff and fewer people doing more and more with fewer resources.

This led to a nearly complete loss of corporate knowledge with new departmental staff and ministerial staff having trouble coming up to speed on issues. Such issues included the realities of on-ground action, the drivers, timeframes, people's frustrations, and more importantly appropriate delivery models

Combining the uncertainty in funding and the high turnover of staff, the WoNS program has been restricted because of an unclear functioning/chain of command of the organisational structure it falls within.

Structures that exist are cumbersome and slow with the AWC or DAFF reluctant to change to a more effective delivery model. This needs changing.

There was significant clogging of the system with duplication of reporting; in the end it seemed processes were more important than the outcomes of the project.

Despite the challenges, the important legacies of the national gorse project – the MOUs, best practice management research and information distribution, and national communication on gorse management – have made the eight years long investment by the Australian Government an excellent one.

The NGT recommend the following to value-add and improve the Weeds of National Significance Program

Recommendation 1

There be a continuation of the highly successful WoNS program in Australia that gives national coordination to Australia's worst weeds

The WoNS program has provided quality national linkages on key weed issues, and led to the development of outstanding national resources such as national best practice manuals. National linkages have driven improved management and consistency of management around Australia.

Recommendation 2

There is an independent review of the strategy, structure, funding and management of the WoNS program, with recommendations to make it more cost effective and efficient

There are opportunities to significantly improve the efficiency of the WoNS program. An independent review of the program involving genuine consultation of the coordinators will shed light on opportunities available.

Recommendation 3

Immediately review and overhaul Australian Weeds Committee communication and governance arrangements with regard to WoNS.

There have been significant communications challenges and failures between the Australian Weeds Committee and WoNS. Recommendations and ideas have been outlined – such as in the WoNS Chairs Business Plan (Appendix 7). Also, WoNS coordinators developed a governance discussion paper in 2012, and through this provided AWC with background and recommendations. Current arrangements should be reviewed and changes be put in place as a matter of urgency.

Recommendation 4

There needs to be a nationally recognised and consistent career path including pay and conditions for national coordinators and an option to house and host coordinators outside State Government if a better alternative can be found.

Perhaps the biggest constraint on achievement for the national gorse project was in having four different people fill the national coordinator role over seven to eight years. Two of the coordinators moved on to other work, and one didn't have their contract renewed due to state government budget measures.

With the option of housing and hosting outside state governments, there is the opportunity –for example - to get industry involved in participating in weed management.

Recommendation 5

Ensure funds and approvals to allow the national coordinator to travel to key places (such as outlier and isolated infestation areas) early in the project. This significantly assists in establishing contacts and understanding of specifics of situations around the geographical spread of the weed.

The national coordinator establishing contacts in relevant parts of the country, and becoming familiar with local situations through travel and research early in the project is a fruitful investment.

Recommendation 6

To maximise lasting benefits of national coordination, new (phase 1) WoNS coordination should set out early to develop innovative initiatives to extend/value add to the coordination investment. The gorse eradication memoranda of understanding, gorse baton, and national gorse management achiever recognition provide examples of innovative initiatives for ongoing WoNS coordination.

Developing innovative approaches such as the 25 year gorse eradication memorandum of understanding concept and community champion maintaining a vigilant watch over species management into the future provides a strong model for successful management of challenging species.

Recommendation 7

Identify early in national coordination programs, areas of research required to minimise the impact of WoNS (such as research and development on bio control agents), and access funding to investigate the factors that make the particular species troublesome.

Perhaps the most significant regret of the National Gorse Taskforce was that more early effort was not put into building stronger international and national networks on gorse bio control (particularly regarding research and development). With limited time and resources available for national coordination, it is critical that long lead time aspects of national coordination be started early.

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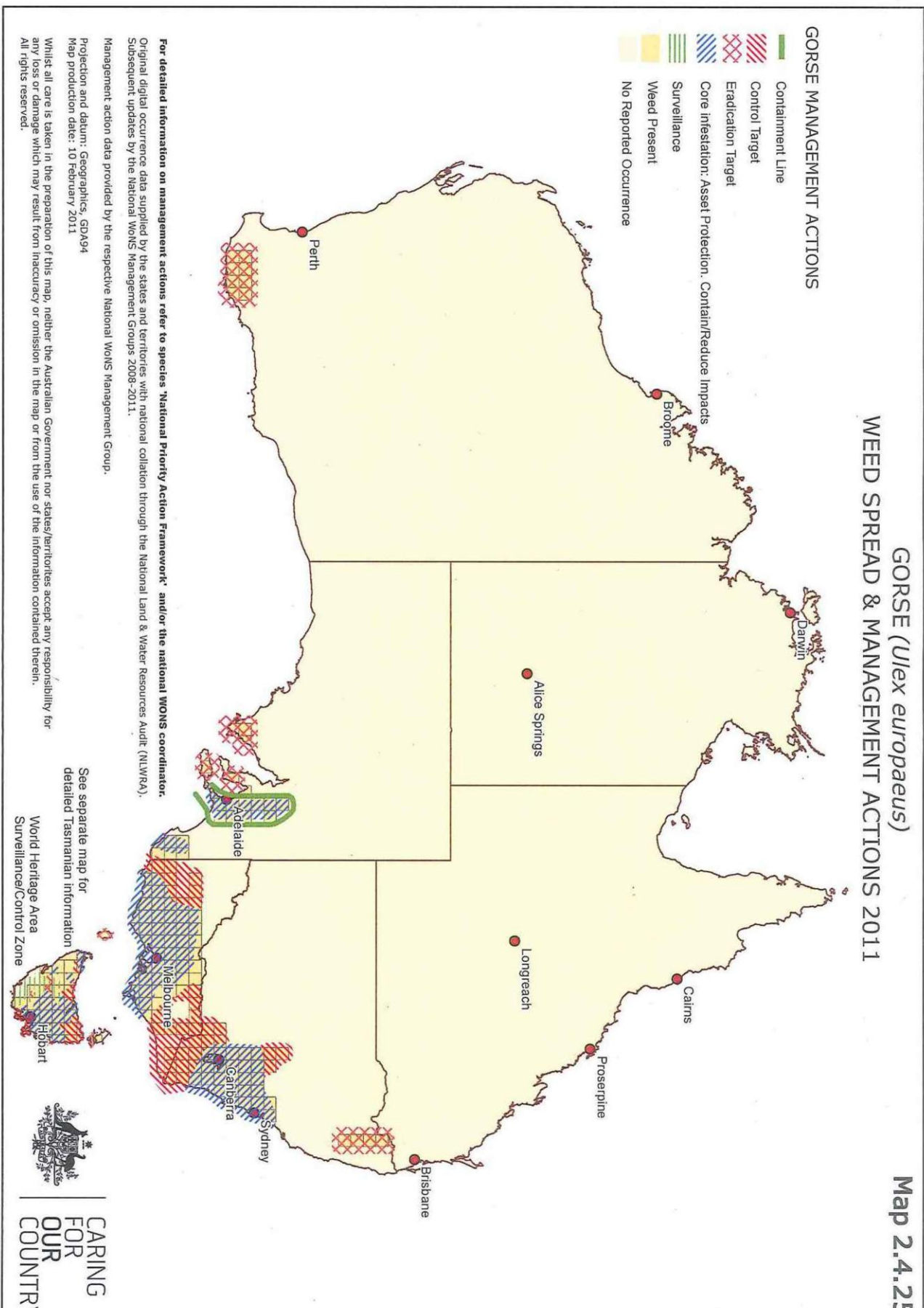
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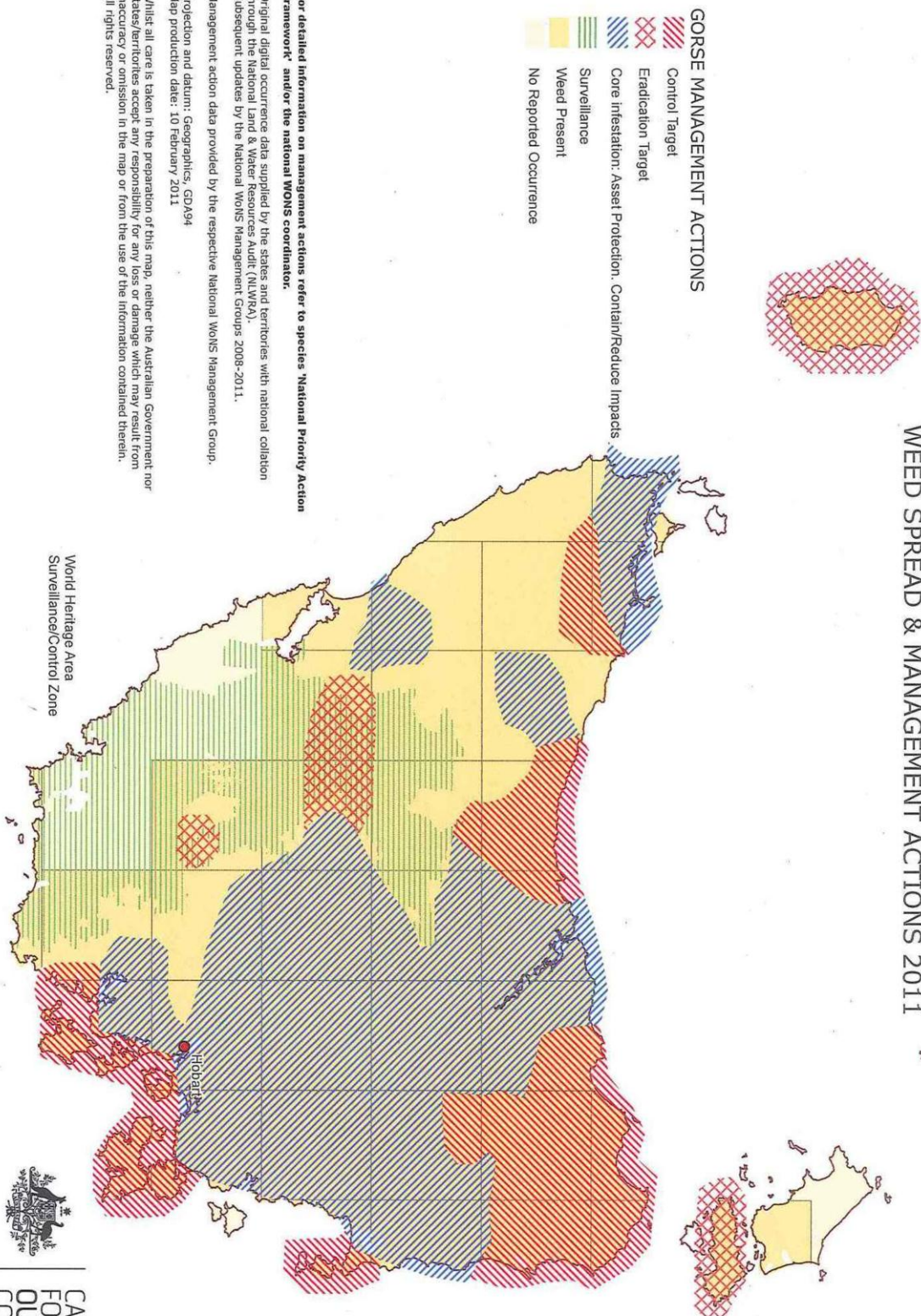
8. Appendices

Appendix 1 – National gorse eradication areas and containment lines mapping (as produced for Caring for Our Country business plans)



GORSE (*Ulex europaeus*) WEED SPREAD & MANAGEMENT ACTIONS 2011

Map 2.4.26



For detailed information on management actions refer to species 'National Priority Action Framework' and/or the national WONS coordinator.

Original digital occurrence data supplied by the states and territories with national collation through the National Land & Water Resources Audit (NLWRA).

Subsequent updates by the National WONS Management Groups 2008-2011.

Management action data provided by the respective National WONS Management Group.

Projection and datum: Geographics, GDA94

Map production date: 10 February 2011

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Appendix 2 – An Overview of the Australian Gorse Biological Control Programme (by John Ireson, Tasmanian Institute of Agriculture)

The following is an overview of the current situation of the Australian gorse biological control programme (as outlined by John Ireson of the Tasmanian Institute of Agriculture):

A large amount of effort has gone into the research and development of gorse biological control as a long term control option. The gorse seed weevil, (*Exapion ulicis*), was released in Tasmania in 1939 and was the first gorse biological control agent released in Australia.

Since gorse was officially declared a target for biological control in 1995, four additional agents have been investigated for release. These are the gorse spider mite, (*Tetranychus lintearius*), the gorse thrips, (*Sericothrips staphylinus*), the gorse soft shoot moth, (*Agonopterix umbellana*) and the gorse pod moth, (*Cydia succedana*).

Extensive surveys for new agents have also been conducted in Europe. All of this work has been co-ordinated by the Tasmanian Institute of Agriculture in association with DPI Victoria, the South Australian Research and Development Institute and CSIRO. The work has involved the host specificity testing, introduction, mass rearing and release of biological control agents followed by establishment monitoring and initiation of redistribution programmes to accelerate dispersal as well as agent efficacy assessments. The results of this work have been published or are being prepared for publication in international scientific journals and are also available to the general public through information brochures which can be obtained via the internet.

Funding support for the biological control of gorse has been obtained from the Australian Government through the National Heritage Trust, Defeating the Weed Menace and Caring for Our Country programmes.

Agent release and establishment

Gorse seed weevil and gorse spider mite

- Surveys have shown that the gorse seed weevil that was first released in 1939 and the gorse spider mite that was first released in 1998 are now widespread across south-eastern Australia.

Gorse thrips

- The gorse thrips was first released in 2001 and although established has been slow to spread. Dispersal was accelerated in Tasmania by releasing it at over 450 sites between 2001 and 2010. Continuous monitoring in Tasmania has shown that populations started to disperse exponentially from approximately 4-5 years after release and by 2011 populations were widespread on gorse throughout the state except on the west coast.
- Gorse thrips has been released at nearly 100 sites in South Australia and over 250 sites in Victoria. In South Australia, gorse thrips was recovered from 45% of sites surveyed in 2010 and had started to disperse from 19% of these sites. Although established in Victoria, surveys are still required to determine the extent of establishment and dispersal. Based on the Tasmanian results it is likely that the

rate of gorse thrips dispersal will also increase exponentially in South Australia and Victoria.

Gorse soft shoot moth

- The gorse soft shoot moth was first released in Tasmania in 2007 and has since been released at an additional seven sites in Tasmania. Releases were conducted at three sites in Victoria and one in South Australia in 2010/11. Populations have established well at the first Tasmanian release site at Jericho in the Tasmania midlands where the population has spread over ca. 1.5ha. Monitoring at this site suggests that it will be a suitable nursery site to enable collection of egg laying soft shoot moths in spring/early summer 2012 for redistribution to sites throughout Tasmania and interstate.
- Gorse soft shoot moth has been recovered at other release sites in Tasmania as well as in South Australia and Victoria indicating that it can be expected to establish across south-eastern Australia. However, population increases and dispersal from individual sites is expected to be slow initially. Dispersal will require acceleration thorough the initiation of redistribution programmes.

Gorse pod moth

- The gorse pod moth was approved for release in Australia in 2001 following host specificity studies on 79 species or cultivars of plants. However, the moth's release in Australia was postponed when field surveys in New Zealand revealed that it could exploit the weedy perennial (*Lupinus arboreus*) and some *Lotus* species that flower in summer.
- Subsequent New Zealand studies from 2003 to 2006 found that the release of untested moths from Portugal, coupled with asynchrony between the flight period of gorse pod moth and gorse flowering, explained the unanticipated non-target attack in New Zealand.
- The results of repeated host testing on *Lotus* and other species, using moths from England, concurred with the original tests and suggested that the English populations of the gorse pod moth would be unlikely to exploit non-target species.
- To confirm that gorse pod moth from England would not be a major risk to commercial lupin species or cultivars grown in Australia, a host specificity study was conducted on selected cultivars in quarantine at Frankston, Victoria, over a three-year period from 2009-2011. A comparison of the phenology of gorse pod moth, gorse and the lupins grown commercially in Australia and their susceptibility to attack under field conditions in New Zealand was also undertaken in 2011/12.
- No lupin pods of commercial Australian cultivars directly exposed to gorse pod moth under field conditions were attacked during spring when gorse was flowering. As expected, any non-target pod moth infestations were recorded when gorse was not flowering in summer. Therefore, it is unlikely that commercial cultivars of lupins grown in Australia which all flower and produce immature pods in spring will be attacked. The trials indicated that the risk that larvae could survive on commercial species/cultivars of lupins in numbers large enough to inflict significant damage is very low.
- The release of gorse pod moth for the biological control of gorse in Australia has been recommended and a new application for its release is currently being assessed by Australian quarantine authorities.

- If approved for release, gorse pod moth will be scheduled for importation into quarantine in Victoria in autumn 2013 to enable the commencement of a mass rearing program.

European surveys for additional agents

- Additional European surveys for the Australian program were conducted by CSIRO on behalf of the Tasmanian Institute of Agriculture in the native range of gorse in France, Spain and Portugal in 2005, 2006 and 2007.
- Surveys for root boring insects and new seed feeders failed to locate any candidates that might be suitably host specific across the native range. Analysis of diseased gorse specimens also showed that the ones found to be pathogenic to gorse were also not sufficiently host specific to be considered as biological control agents. It is therefore unlikely that any new host-specific invertebrate species or fungal pathogens with potential as gorse biological control agents will be found in Europe.

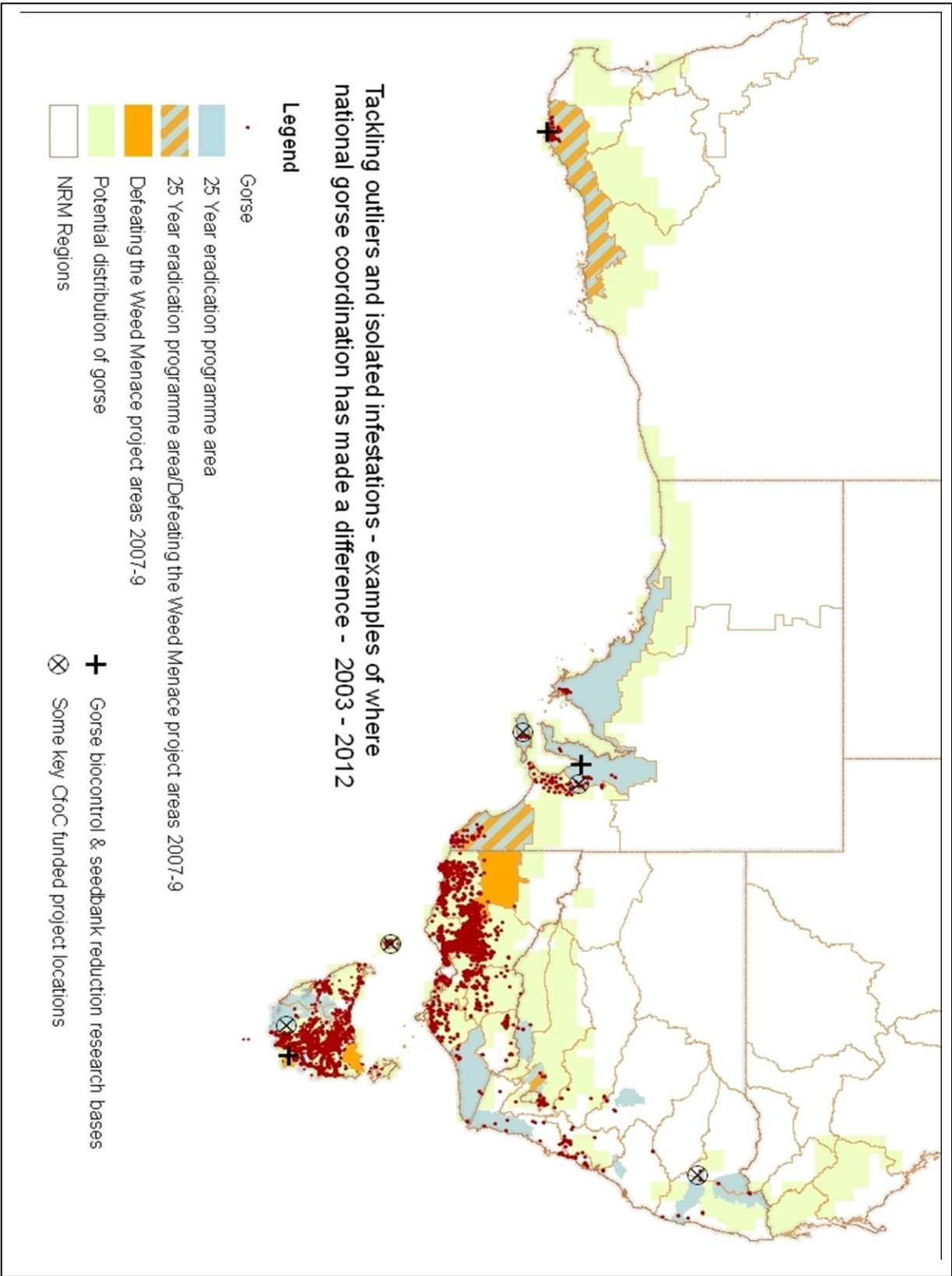
Agent impact

- Efficacy studies conducted by the Tasmanian Institute of Agriculture have shown that an established combination of three foliage feeders (gorse spider mite, gorse thrips and gorse soft shoot moth) will contribute to the biological control of gorse in Australia. However, these agents are all constrained by predation and the phenology and seasonality of gorse.
- The best outcome for the project will rely on whether the release of the second seed feeding agent, the gorse pod moth, is approved.
- Studies in New Zealand have shown that a combination of the gorse seed weevil and the gorse pod moth has resulted in seed destruction by up to 92% which is high enough to reduce the recruitment of gorse below replacement levels. It is expected that this result would be achievable at cooler sites in Australia such as the Tasmanian midlands where most of the gorse seed production is in spring and summer.
- If release of the gorse pod moth is not approved, the current guild of agents may have long term impacts through sub-lethal effects on maximum plant age, a decline in seed production through a reduction in plant vigour and by increasing susceptibility to fungal attack.
- Integrated control techniques (herbicides, mechanical clearing, cultivation and grazing) offer the best prospects for long term control in areas where gorse is actively managed, but the extent to which biological control will play a role in this will only be determined by future research once the complete guild of agents available are widely established.

Recommendations for future work

- Conduct a redistribution of the gorse soft shoot moth across south-eastern Australia using established nursery sites in Tasmania and monitor its establishment, dispersal and impact.
- Continue releases of the gorse thrips in South Australia and Victoria as considered necessary and monitor their establishment and dispersal.
- Monitor population densities and efficacy of gorse thrips particularly at established sites in Tasmania.

- Conduct a mass rearing and release program for the gorse pod moth if its release is approved and, once established, conduct efficacy studies on its impact alone and in combination with the gorse seed weevil.
- Future investigation of the combined long term impacts of the established guild of biological control agents should be considered together with any change to their role in integrated control strategies.



Appendix 4 – WoNS Gorse Eradication Memoranda of Understanding Signatory
Locations

25 Year MOU Projects

New South Wales

- Orange City Council
- Albury City Council
- Tumut Shire Council
- Bega Valley Shire Council
- Greater Hume Shire Council
- Kempsey Shire Council
- Glenn Innes Severn Shire Council
- Tenterfield Shire Council
- New England Weeds Authority
- Eurobodalla Shire Council
- Cessnock Shire Council
- Wellington Shire Council

South Australia

- Kangaroo Island NRM
- Eyre Peninsula NRM
- Northern and Yorke NRM
- Murray Darling Basin NRM
- South East NRM

Western Australia

- South Coast NRM

Tasmania

- South West Wilderness World Heritage Area (Tasmanian Parks and Wildlife Service)

Victoria

- East Gippsland CMA

MEMORANDUM OF UNDERSTANDING

Between the

... Council

And the

National Gorse Task Force

Eradication of Gorse from the Council area

1. Purpose

To eradicate Gorse (*Ulex europaeus*) a Weed of National Significance (WoNS) from the ... Council area.

2. Back Ground

Eradication of outlying infestations such as the infestations listed below (Item 3) in the ... Council area is a Nationally Strategic Priority for the National Gorse Task Force and is of major significance in managing the impacts of gorse nationally. This area has been identified as a National Priority Eradication Area for gorse because of its low density and sparse distribution.

Gorse is one of Australia's twenty worst weeds. Gorse ranges across 23 million hectares of land, infesting up to 1 million hectares. Its potential range is 87 million hectares of land. Impacts to primary industry alone, in Australia are in excess of \$7 millions dollars per annum.

The National Gorse Task Force (NGTF), formed in 2004 is an Australia-wide body representing industry, conservation, government and community organisations. The NGTF oversees the implementation of the National Gorse Strategic Plan. Outcome 3 of the National Gorse Strategic Plan is 'Eradication of isolated and scattered infestations.'

Control of above ground gorse is carried out successfully around the country. Seed viability of gorse is in the order of 25 years and remains a major obstacle in eradication of gorse infestations. Eradication of infestations is possible providing that seed is not transported from the infestation site and control of all regeneration of the infestation is conducted for the life of the seed bank.

The ... Council has an existing gorse management program, which if maintained should lead to eradication of the known gorse infestations. This MOU serves as

an opportunity for the Council's efforts to be recognised at a national level and offers assistance from the National Gorse Task Force where practical.

3. Scope.

This eradication project is to be conducted in the ... Council area in New South Wales.

The infestations recorded in the following table represent the known infestations at the date of this MOU.

Shire	Easting and northing (GDA)	Infestation size (hectares)	Infestation description and land tenure
...			... area
...			... area

4. The National Gorse Task Force will

- Provide mapping and best practice gorse control advice to ensure that the management approach of the infestations will lead to eradication in the shortest practical time
- Provide coordination and facilitation when requested to assist in the eradication project
- Promote and highlight the eradication project in the media for the benefit of all parties who have entered into this MOU
- Contact the Councils Noxious Weeds Officer at least annually to seek an update on the eradication of the infestations

5. The ... Council agree to

- Assist in mapping the infestations to the National Mapping Standard as developed by the Bureau of Rural Science
- Take measures to prevent Gorse seed from infestations moving from the infestation sites to infest other areas in the region
- Facilitate eradication of all living gorse plants within twelve months or before the next seed set
- Undertake inspections and take measures to control regrowth or seedling germination to control seeding
- Report as necessary to the National Gorse Task Force so that progress on the National Gorse Strategy can be tracked.

6. Memorandum of Understanding Duration

The duration of this agreement is for five (5) years. Once this has expired a re-evaluation of the agreement can be made.

7. Termination of this Memorandum of Understanding

Termination of this Memorandum of Understanding may occur at any stage of the agreement duration.

Both parties will attempt in good faith to resolve any issue that may arise, especially in relation to ongoing financial investment, to ensure the outcome of eradication of gorse from the project area.

8. Relevant Agreements, Policies, Plans and Strategies

The relevant references to the MOU are;

- The Australian Weeds Strategy
- The Gorse National Strategic Plan
- The Gorse Best Practice Manual
- The Determination of the Weeds of National Significance

- The NSW *Noxious Weeds Act 1993*
- Regional Weed Management Plan
- The New South Wales Weed Strategy
- Regional Catchment Management Plans

Effective date.

SIGNATURE BLOCK

**General Manager
... Council**

(Date)

SIGNATURE BLOCK

**Ian Sauer
Chair**
National Gorse Task Force

(Date)



National Gorse **TASKFORCE**

Outstanding Gorse Management Achiever Recognition – Background and Terms

In 2010 the National Gorse Taskforce developed and implemented recognition of nationally outstanding gorse management achievers. There are now five recipients of this recognition:

- Margaret Hatton from Kilmore, VIC
- Anton Kurray from Mt Gambier, SA,
- Phil Cramond from Adelaide, SA,
- Boyd family from Tumut, NSW
- Clark family from Stonor, TAS.

The National Gorse Taskforce and national gorse coordination is scheduled to largely conclude by 2012. The Taskforce wishes to make the Outstanding Gorse Management Achiever Recognition available for use by state-based taskforces or weed teams. A basic background is supplied here to help facilitate state use of the initiative.

Purpose

The Outstanding Gorse Management Achiever Recognition was intended by the National Gorse Taskforce to highlight the efforts of people “on the ground” achieving great gorse management outcomes.

The focus of the recognition was specifically intended to be on volunteers, community members and businesses in particular. Award recipient Margaret Hatton is a good example of a very worthy community volunteer.

However, there is also room for recognition of those in the public sector/natural resource management (NRM) professionals who have achieved outstanding results. Anton Kurray is a good example of an NRM professional who has achieved gorse management outcomes above and beyond the call of duty.

In essence, the recognition was intended to focus on exceptionally worthy quiet achievers in the gorse management arena.

Criteria

Candidates would be individuals or businesses making significant commitment to gorse management for community benefit.

One or (preferably) more of the following attributes should apply for candidates for recognition as nationally outstanding gorse management achievers:

- They have been instrumental in facilitating or undertaking highly significant gorse management works (e.g. strategic and/or broad scale).

- Efforts in regard to gorse management works have been selfless in nature, providing significant community benefit (e.g. privately resourced and/or focussed at least equally on properties other than their own).
- Efforts in regard to gorse management have spanned a significant period of time, demonstrating exceptional ongoing commitment.

Decision-making

Nominations for Nationally Outstanding Gorse Management Achievers were brought to the National Gorse Taskforce by state representatives on the Taskforce. Nominations were then considered and potentially approved by the National Gorse Taskforce, which is made up of representatives of gorse impacted states and industry.

This scenario can be replicated in the state context, for example, using regional and industry representatives.

Recognition

Recipients were recognised in situations local to them, where focus was drawn to their achievements, through the event and, if possible, media coverage. The recognition event centred on the handover of a recognition certificate (see below) contained in a bright yellow gorse baton.

Following this, the NGT Chair would then inform the relevant Australian Government minister and ask that they correspond with the recipient to assist in recognising their achievements.

Margaret Hatton was provided with the inaugural recognition as part of the launch of the revised *WoNS Gorse National Best Practice Manual*. The national launch and recognition were held on a property (where gorse work had been completed), near Margaret's home town of Kilmore. The event was organised by the National Gorse Coordinator in cooperation with Goulburn Broken Catchment Management Authority staff.

Anton Kurray's recognition presentation was carried out at the May 2010 South Australian Weed Management Conference in Adelaide.

Nationally Outstanding Gorse Management Achievers Recognition

The first two nationally outstanding gorse management achievers have been recognised by the National Gorse Taskforce.

In 2010, Margaret Hatton and Anton Kurray were recognised for their outstanding gorse management efforts. Here is some background on what they have achieved with their communities.

Margaret Hatton

Margaret is a resident of Kilmore, Victoria. Through involvement with Mitchell Shire Council and Goulburn Broken Catchment Management Authority, Margaret has – in a voluntary capacity - been instrumental in securing funding over an eight year period for inspection and treatment of gorse on 383 properties. She has also been instrumental in attracting a Vic DPI Regional Extension Program for gorse control in her region.

As a local community member put it “Margaret and her team [of three], quietly deliver the gorse control subsidy project year in, year out without much fanfare – delivering amazing environmental, agricultural, visual, and fire prevention results for our community”.



Margaret Hatton of Kilmore, Victoria was the inaugural recipient of the Nationally Outstanding Gorse Management Achievers Award



Anton Kurray of Mt Gambier, South Australia was awarded the 2nd Nationally Outstanding Gorse Management Achievers Award

Anton Kurray

Anton Kurray is based in Mt Gambier, South Australia. He is a long term natural resource management practitioner.

In his capacity as Senior Authorised Officer with the South East Natural Resource Management Board (SENRM), Anton was instrumental in the success of the “SE Gorse Eradication Project” that ran between 2007 and 2009 (see pg 7 for further information on the project).

Anton’s skills were critical in the success of this project. His colleagues point to Anton’s mix of outstanding communication, strategic thinking and project management skills as being behind the success of the project that has put gorse on the path to eradication in the SE region of South Australia.

This project saw 40 gorse sites treated resulting in completion of the first phase of eradication of gorse from the SENRM area. On ground work was undertaken in accordance with the WoNS Gorse National Best Practice Manual. Regular monitoring and follow-up continues.

Recognition certificate – printed on yellow paper and presented in a bright yellow gorse baton



National Gorse **TASKFORCE**

The National Gorse Taskforce

Wishes to recognise the nationally significant efforts
of gorse management volunteer

Margaret Hatton

of Kilmore, Victoria

On this day Thursday 22nd April 2010

Ian Sauer

Chair
National Gorse Taskforce

Weeds of National Significance Program

Business Plan 2010 - 2025

Prepared and submitted by the independent Chairs of the WoNS National Management Groups for consideration by Commonwealth, State and Territory Ministers and Officials and the community.

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Weeds of National Significance Program Business Plan 2010 – 2025

To provide coordinated and consistent delivery of Australian government investment across the landscape

1. Preamble

The Weeds of National Significance (WoNS) Program is the first truly national approach to the management of Australia's major environmental and agricultural land management issue of weeds, pest or invasive plants.

The WoNS Program began in 1999, and then was re-endorsed by the Natural Resource Management Ministerial Council (NRMMC) in 2009. It takes its strategic direction from the *Australian Weed Strategy*. The *Australian Weeds Committee (AWC)*, a committee whose members represent all Australian Governments, National, State and Territory, monitors the WoNS Program.

As a direct result of the WoNS Program land managers are now better equipped to manage 20 of Australia's worst or most invasive weeds. The WoNS program also helps leverage significant investment. It is estimated that for every \$1.00 directly invested by the Australian Government in coordination of the WoNS Program around \$16 is invested by 'third parties'; i.e. the wider community, local, regional and state partners. This 'multiplier effect' is estimated to lever around \$25.6m for weed management which is then extended through the Australian Government investment in on-ground activity through the *Caring for our Country* Program.

The *Weeds of National Significance Program Business Plan 2010 – 2025* (the WoNS Business Plan) has been developed by the independent Chairs of the WoNS National Management Groups (referred to as the 'WoNS Chairs'). This Business Plan is based upon 9 years of observation and experience. It is not intended to be a stand alone model; rather it recognises that the management of WoNS (and other weeds) is an integral part of the management and restoration of Australia's natural resource base.

We believe this Business Plan provides a working, integrated management model that is suitable for the management of many other national natural resource management (NRM) issues.

We have developed the *WoNS Business Plan 2010-2025* to support and protect investment from the community, industry, and government sectors to safeguard Australia's economic and environmental assets, our biosecurity, and our food security. The 15-year timeframe for the *WoNS Business Plan 2010-2025* provides a sound basis for all sectors to invest with confidence. The WoNS Business Plan reinforces other plans, strategies and structures by providing a strategic and integrating overview of weed management.

We believe that the WoNS Program, to date, is a success because it is strategic, focussed on results, and makes effective use of available resources. The *WoNS Program Business Plan 2010 – 2025* adopts the same principles and philosophy. We suggest some changes to the WoNS Program, which will improve its governance, operation, business management, consistency and efficiency.

This business plan provides a working, integrated management model that is suitable for the management of other NRM issues.

2. Introduction

Weeds are well recognised as a significant cost to agricultural and horticultural production in Australia, as weeds are estimated to cost Australia's farming sector over \$4 billion per annum.

Weeds and other invasive pests are acknowledged to pose the biggest threat, after land clearing, to our natural resource base and our environment. The 'cost' to the environment has never been quantified in financial terms. This cost must be significant because wide-scale habitat degradation and localised species extinctions have been attributed to invasive pests.

Surveys of individuals and groups involved in any form of land management clearly demonstrate that weeds are their main concern. The magnitude of this issue makes it imperative that management of weeds and other invasive pests **must** be an integral part of all biosecurity, natural resource management, Landcare, production, sustainability, climate-change, and environmental management plans and projects.

The relevant Ministerial Councils first endorsed the WoNS Program in 1999; the WoNS Program currently consists of the 20 weeds that were selected through agreed criteria as Australia's "worst weeds". In May 2009 the NRMCC re-endorsed continuation of the Program.

Implementation of the WoNS Program began in 2002, and since then there has been a profound increase in on-ground activity for nationally coordinated weed management in Australia. The strategic approach of the WoNS Program has been the catalyst for increased and better targeted investment. It has delivered increased research, better techniques, better planning and execution, and a sharing of the knowledge that has led to significant ownership and co-investment from the community.

The WoNS Chairs recognise and support moves to extend the benefits of the WoNS Program to some of Australia's other "worst weeds" by including them in the WoNS Program. The implementation of this Business Plan will bring the benefits and learning's from the first stages of the WoNS Program to new WoNS while maintaining a focus on the original 20 weeds.

The WoNS program has clearly demonstrated that through the strategic and judicious application of resources there is increased capability and willingness of land managers to manage weeds. Assets, agricultural production, biodiversity and human health are all now much better protected from the impacts of weeds, particularly the 20 WoNS. The resources and information developed and delivered by the WoNS program have been the catalyst for this significant and positive progress.

3. Program outline

Since the WoNS Program began operating in 2002 it has provided significant benefits. The WoNS program is unique; with its essential elements being:

- Formal agreement from all jurisdictions that nationally coordinated action is required;
- Commonwealth funding with joint contributions from relevant jurisdictions;
- Appointment of a National Coordinator for each Phase 1 WoNS to provide focus and national coordination for their WoNS. The WoNS Coordinators are housed and hosted within jurisdictions;
- Appointment of a Management Group for each WoNS. Membership includes people from community, industry, research, and government sectors. Members ensure each sector is represented and views are taken into account in discussion relating to the WoNS management; and,
- Appointment of an independent Community Chair to the management group of each WoNS.

Each WoNS Management Group is required to develop and oversee implementation of a National Strategic Plan for their WoNS. The key aim of these strategic plans is to coordinate national action to:

1. Prevent new infestations from becoming established;

2. Undertake strategic management to reduce the impact of existing infestations; and
3. Increase individual and institutional capability and willingness to manage WoNS.

4. Current Situation

The current 20 WoNS are supported by 16 National Management Groups with 13 independent Community Chairs and 13 National Coordinators, who sit within each jurisdiction except WA and the ACT.

Each of the 20 WoNS has a similar work program with a set of *Six Key Actions*:

1. Facilitate and monitor the implementation of their WoNS 'National Strategic Plan';
2. Identify and facilitate action for strategic on-ground priorities including containment lines, priority outlier sites, and infestations posing risks to key assets;
3. Establish strategic networks to 'influence the influencer';
4. Identify and report research gaps and priorities;
5. Establish contacts, networks, and processes for information collection and dissemination; and
6. Develop education and awareness programs and materials, including management guides and identification materials.

While each National Management Group operates independently, consistency in business planning and operational structure ensures that outputs are effective and clear and do not cause conflict or confusion for 'end users' of the products.

The strategic networks identified in 3 above also provide a service as "sentinels" for our national biosecurity. These networks comprise many informed and interested people who use the WoNS coordinators to report any new sightings of plants that may be of concern.

Through the WoNS Program, Australia now has a truly national and strategic approach to weed management. The Chairs believe that the *Weeds of National Significance Program Business Plan 2010 – 2025* model is one that could be applied more widely to other issues that require an integrated business model across Australia.

5. What has been delivered?

The 20 Weeds of National Significance, weeds scientifically assessed as Australia's "worst weeds," are now subject to a dedicated national program, *The Weeds of National Significance Program*.

Professional national coordination encourages a strategic and consistent approach across all WoNS and is supported by management groups with broad based membership from interested sectors.

Significant progress has been made in the management of the 20 WoNS. Provision of technical assistance, management techniques, access to networks of informed and active groups and individuals, an improved research focus, and assistance in accessing resources has enabled and empowered land managers to take focussed and strategic action.

Jurisdictions are also working more cooperatively, avoiding duplication, and making better use of available resources in tackling these WoNS. Resources are now better directed to protecting high priority sites and eliminating outlier infestations. There is now better targeting

of research, particularly the development of biological control to cost-effectively manage core infestations.

Importantly, the WoNS Program has contributed to the recognition within the community that not all weed infestation can be eradicated. There is now a better understanding that we must target our investment to:

1. Prevent new incursions;
2. Provide early intervention to eradicate small incursions; and
3. Contain core weed invasions and protect key assets.

The recent AWC review of the WoNS Program identified several key areas of 'most significant change', including:

- Legislation recognising the 'weedy' status of WoNS species in all states and territories (this was not consistent prior to the program's inception);
- Increased awareness raising and education activities;
- Increased availability and sharing of information; and
- Placing 'local' problems into the national context.

The WoNS Chairs believe that it is now time to bring even more consistency to the program, clarify the program governance, and resolve remaining operational differences to make the program more effective.

Outlined below are the improvements that we believe will enhance the Program.

6. Overview of the 'new and improved' program

We believe that the current management and coordination structures for the WoNS Program have demonstrated success and should continue. However, like all programs that have operated over a period of time, refinements will improve its effectiveness in tackling Australia's worst weeds and its continuing relevance to land managers.

Note: There remains some confusion between the strategic function of the National WoNS Program and the state based community focussed extension activities within jurisdictions.

6.1 Objective

The WoNS Chairs believe that the main focus of the WoNS Program is to identify and respond to new threats, eradicate outlier populations, contain core infestations, and protect key assets within the core infestations. This is achieved through the consistent and nationally coordinated resources and activities of the WoNS National Coordinators and their Management Groups.

Outcome: *A nationally coordinated and strategic program, with appropriate governance arrangements, to manage Australia's most invasive plants*

6.2 Funding

The WoNS Chairs support the concept of the Australian Government and the jurisdictions jointly funding the WoNS Program, as this acknowledges the national nature of weed management and the need for coordinated action.

Over the past few years, funding for the WoNS Program has been on a year-to-year basis. This frustrating situation has been very costly administratively, has led to temporary cessation of work programs, distracted the WoNS Coordinators, annoyed many of the community groups actively undertaking management actions, and in some cases has caused the loss of key staff.

We suggest that future base funding arrangements are on a program basis and not part of a contestable process. We contend this should be the case because the regular review processes built into the *Weeds of National Significance Program Business Plan 2010 – 2025* will identify any changed needs in funding arrangements.

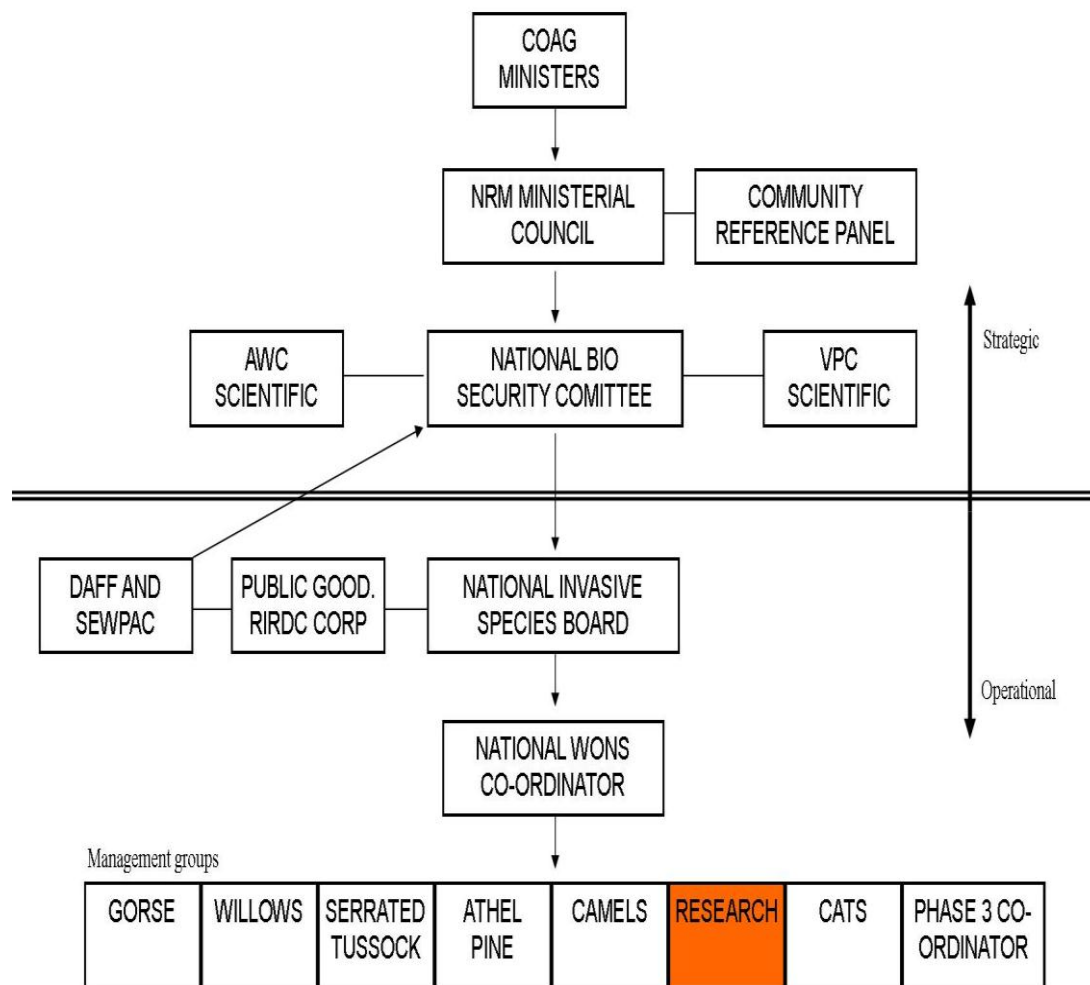
The WoNS Chairs recommend that all future funding for the WoNS Program be on a rolling 3 to 5 years basis. Funding may be either by direct allocations or in-kind, as negotiated and agreed from time-to-time.

Outcome: *A nationally coordinated and strategic program, with appropriate governance arrangements, to manage Australia's most invasive plants*

6.3 Governance

The WoNS chairs offer the following model to bring appropriate governance to a nationally coordinated and strategic WoNS Program. We believe this integrating management model is flexible enough for transfer to the management of other NRM issues and programs.

The following outline sets out the roles and responsibilities of existing parties involved with the development and delivery of the WoNS program, and also proposes the establishment of a new body, the National Invasive Species Board to address some of the key issues that have been raised in the business plan and to facilitate the expansion of the WoNS concept to other areas of pest management. We believe that this structure will provide the authority, accountability and responsibilities essential for the good governance and operation of this strategic national program.



Council of Australian Governments (COAG)

- Provides a national and strategic forum and unifying influence for issues of national interest to be discussed and to provide direction on those issues at the highest level

Natural Resource Management Ministerial Council (NRMMC)

- Provides a national and strategic policy focus on issues of national interest, particularly relating to landscape management

National Biosecurity Committee (NBC)

- Provides an operational and strategic focus on issues of national interest, particularly relating to landscape 'health'

Australian Government (AG)

- Provides policy and operational and strategic focus on issues of national interest
- Australian Government agencies bring a national perspective, leadership and significant resources to management of these issues

Australian Weeds Committee (AWC)

- Provision of scientific advice to the National Biosecurity Committee as required
- Bring jurisdictional perspectives, involvement and support to the WoNS Program

Vertebrate Pest Committee (VPC)

- Provision of scientific advice to the National Biosecurity Committee as required
- Bring jurisdictional perspectives, involvement and support to the VPC Program

Community Reference Panel (CRP)

- The management of biosecurity in Australia would be enhanced if ministers and officials had access to and guidance from a high level *Community Reference Panel* on the biosecurity issues of weeds, pest animals, insects & pathogens.

National Invasive Species Board (NISB)

- Provides operational and management function, direction and accountability to the WoNS Program, Coordinators and Management Groups - directly accountable to the NRMCC through the NBC

WoNS Coordinators

- Provide the operational and management function to individual WoNS Management Groups and their work programs
- Provide quarterly reports to NISB meetings

WoNS Management Groups

- Provide support and direction to their coordinator, provide links to sectoral interests

The National Invasive Species Board

The most significant change to the current program under the proposed model is the establishment of the *National Invasive Species Board*. The Board would drive the governance of the program and provide a direct link between all stakeholders involved with the delivery and management of WoNS. It is proposed that the Board would be the employer of the WoNS and other invasive species coordinators. The board would:

- Consist of an Independent Chair; with members drawn from stakeholder groups
- Have ministerial appointment, Chair and members
- Have dedicated secretariat services and be adequately resourced to carry out its functions
- Functions include the management, implementation, monitoring, and reporting of invasive species programs

The establishment of this Board is suggested with the same “public good” ethos as a Research and Development Corporation like the RIRDC Board. Investment in this model will provide cost-effective and better-coordinated delivery of services.

Outcome: A nationally coordinated and strategic program, with appropriate governance arrangements, to manage Australia’s most invasive plants

6.4 Phasing

Given the success of the WoNS Program in bringing about coordinated national action there is now pressure for other significant weeds to benefit from the Program. The WoNS Chairs recognise and strongly support the need for other weeds to benefit from a national and coordinated approach. The WoNS Chairs support the introduction of a 'phased' approach as it will ensure a progressive transfer of coordination effort from existing WoNS to new species. This will also allow current WoNS that have moved into later phases to be managed in groups of 'Phased WoNS' to increase program effectiveness.

The 2009 AWC commissioned review of the WoNS program suggests future national coordination requirements for each of the current WoNS. When the strategic objectives of each particular WoNS management group have been achieved the WoNS will require less direct ongoing national coordination. This will then provide 'space' within the program to admit newly assessed species that will benefit from national coordination into the WoNS Program.

Careful planning will be critical when grouping 'Phased WoNS' and incorporating new species into the program. The WoNS Chairs suggest that to ensure a successful WoNS Program continues, the current levels of funding and resourcing will need to be maintained as the absolute minimum for 20 Phase1 WoNS.

Assuming maintenance of current funding and coordination levels, the distribution of WoNS management responsibilities among WoNS coordinators must be carefully managed. Common features of WoNS life forms ("species matching"), management requirements, geographic distribution, and stakeholder group involvement may enable one coordinator to manage several WoNS species successfully. Levels of support from current stakeholder groups and the availability of baseline data will have a bearing on the costs and the expected and actual work-load of bringing a new WoNS species into the Program.

The work plan of each WoNS species will need to be taken into account to ensure that the workload is realistic and can be achieved. Timeframes and work plans of management groups and coordinators must be allowed to be flexible to account for the requirements and issues of different weed species. The timeframes and activities associated with each WoNS (as listed below) will need to be regularly reviewed and adjusted to meet each individual circumstance.

Following the identification, proposal, assessment, agreement and inclusion of a new weed into the WoNS Program, the Chairs support a three-phased approach, with following elements:

Phase 1:

Phase 1 requires a concentrated coordination effort to facilitate and/or implement the key actions of the strategic plan of the target WoNS'.

The duration of Phase 1 is linked to coordination effort and resourcing levels; however in general, this phase is likely to run for a three-year period under full time coordination.

A review at 2.5 years to assess progress against the work plan will determine whether the target WoNS is set to move to Phase 2 or should continue in Phase 1 management for another period.

Phase 1 activities include:

1. Appointment of a National Coordinator
2. Establishment of a National Management Group with an Independent Community Chair
3. Development of a National Strategic Plan for the target WoNS
4. Development of an annually-reviewed action plan or 'work plan' based on the National Strategic Plan.
5. Establishment of partnerships and communication networks
6. Implementation of the work plan, with a particular focus on:
 - a. identifying and facilitate action for strategic on-ground priorities
 - b. developing best practice and awareness resources
 - c. identifying research gaps and priorities and facilitating research partnerships and action

Phase 2:

Phase 2 should run for at least two years and is the transitional stage between full-time coordination and Phase 3 status. Phase 2 will maintain the resources of the target WoNS and monitor progress towards its strategic objectives. The required level of coordinator input should be determined on a case-by-case basis.

A Phase 2 WoNS should where possible and appropriate, maintain a Management Group to ensure that program momentum is maintained and species specific knowledge and experience is retained. Where WoNS species are similar, it may be possible to include responsibility for a new Phase 1 WoNS in the work plan of an existing Phase 2 WoNS Management Group.

An independent review should also take place at 1.5 years to assess progress against the National Strategic Plan. This will determine whether the target WoNS is set to move to Phase 3 or should continue in Phase 2 management for another period (see appendix 1B).

Phase 2 activities include:

1. Revising the National Strategic Plan taking into account any recommendations from the Phase 1 review
2. Finalising National Strategic Plan actions
3. Maintaining, reviewing and updating the plans, networks, partnerships, products and business of Phase 1
4. Developing a strategy that secures jurisdictional commitment for the ongoing maintenance and management requirements for the target WoNS. This is vital to protect the original investment.
5. Determining the role for a Management Group during this Phase
6. Establishing future management arrangements and securing commitment to ongoing management needs (as defined in 4.5 year review)

Phase 3:

Target WoNS species should only be moved into Phase 3 when there is confidence that community and stakeholder participation has reached a point where momentum can be maintained with reduced levels of national coordination and Management Group support.

Phase 3 activities include:

1. All stakeholders, networks, agencies and contacts are advised of the Phase 3 status: where advice, information, and contact are to now be found; and the future management arrangements
2. A National Coordinator and National Management Group be appointed for the target WoNS – this may continue with the original arrangements of the target WoNS or other arrangements will be agreed and made. The Phase 3 role is to oversee the continuing management and coordination of the target WoNS to ensure investment to date is valued, maintained and extended.
3. The National Coordinator and National Management Group continue to provide advice on need, direction, options and methods for future management of the target WoNS
4. Continue to secure and monitor commitment to ongoing management needs as per point 6 above.

Outcome: *A nationally coordinated and strategic program, with appropriate governance arrangements, to manage Australia's most invasive plants*

6.5 National Coordination

The key to the success of the WoNS program is the appointment and retention of quality people to undertake the national coordination role.

The National Management Groups are very effective in bringing together representatives from natural resource management bodies, industries, the wider community, and government officials from all spheres and levels of government. This is done in full recognition that effective weed management will only occur when all relevant parts of the community are engaged.

Professional Coordination and Career Paths

Phase 1 National Coordination will require a dedicated full-time coordinator who, with the assistance of a National Management Group, will develop and implement a National Strategic Plan. This includes strategic actions to identify, map, contain and manage the target WoNS.

Phase 2 WoNS National Coordination should be on a task-based approach as each work program will be specific to that plant or group of plants.

Phase 3 National Coordination must be at a sufficient level to support the networks, maintain information and resources, and keep a watching brief on any change in the behaviour of the plant or group of plants.

WoNS may be 'grouped' to provide efficiencies that would allow the introduction of new WoNS into the program.

- National Coordinators would be able to concurrently manage a Phase 1 and a Phase 3 WoNS
- Phase 2 WoNS may be 'grouped' with up to four being managed by a National Coordinator
- Phase 3 WoNS may be 'grouped' with up to seven being managed by a National Coordinator

The WoNS chairs consider this role to be professional, high level and strategic. There is currently some confusion around the classification, role, duties, qualifications, accountabilities, etc, of the WoNS coordinators. This situation must be rectified and there is an urgent need to establish clear career paths for people working in emerging roles like this – i.e. national coordination of integrating programs

Housing and hosting

Presently, National Coordinators are housed within state and territory agencies. The Australian government provides salaries and operational expenses; office space, equipment, and associated 'housing and hosting' on-costs and levies are provided by the host agency as in-kind support.

While the Australian Government (DAFF) has recommended a minimum salary range for Coordinators, salary setting remains the responsibility of the host agency. Substantial inconsistencies in coordinator salaries and conditions now occur across the host agencies. The WoNS program is a national, professional, high level and strategic program; as such it should have a level of consistency in conditions, classification, duties, and salaries, across jurisdictions. This is a prerequisite to providing the WoNS coordinators with a career path in this industry and to ensure a consistently high skill base and standard of work across the program.

Because this issue has been identified by the WoNS Chairs as critical and needing urgent attention, we recommend that WoNS Coordinators be employed within one national entity: Always recognising the need for continuing the strong links with the relevant jurisdictional agencies for hosting and housing of WoNS Coordinators.

6.6 National Management Groups

Membership of a National Management Group (or Task Force) should include appropriate community, government, research, and industry representation, plus any others that reflect the needs dictated in each national strategy. Key strengths of these groups include:

- Independent community chair
- Professional full time coordination through a dedicated national coordinator
- Bring together strategic thinkers and influencers from interested groups
- Members bring their networks to this activity
- Provision of a national focus to reflect the needs and views of stakeholders
- Ability to make and influence strategic decisions that offer the greatest benefit to the WoNS Program and so to the Australian community
- Knowledge brokering and 'championing' weed and NRM issues on behalf of interested groups
- Capacity to lobby for support / change
- Transparency in management and strategic direction
- Provide direction, technical and logistical support to coordinators
- Provide two way flow of information and views between the management group and the sectors they represent
- Provide efficient and effective linkages for national coordinators with individual state and industry situations and positions.

7. Future Directions

We as Chairs are unanimous in our belief that this new business plan model provides a sound basis, using an integrated approach, for dealing with the often intractable issue of weeds.

The *Weeds of National Significance Business Plan 2010 - 2025* takes a strategic approach; it does not go into operational detail. However we have identified the structures, roles, responsibilities, and accountabilities required for success.

We recommend the following steps for the scoping and adoption of the *Weeds of National Significance Business Plan 2010-2025*

- **Consider these recommendations**
- **Promote**
- **Discuss**
- **Scope and Develop**
- **Adopt**

- **Implement**
- **Review**

The WoNS Chairs and Coordinators have considered operational issues during the development of this plan.

We offer our insights and experience to assist with developing the detail required to be able to fully implement our proposal.

2013 National Landcare Survey Results

By Brett de Hayr – National Landcare Facilitator

Full Survey



Summary

The 2013 National Landcare Survey was conducted in May 2013, with a telephone interview of 500 commercial farmers spread across all states (other than the ACT), age groups and enterprises (beef, sheep, dairy, cropping, and horticulture). The 2013 survey concentrated on the following two areas which were highlighted as critical issues during the 2012 survey:

- 1) *Farmer participation in groups and the main drivers of awareness and adoption of NRM/sustainable agriculture issues***
- 2) *The impact of pests and weeds on farming enterprises and the costs associated with their control.***

Main Outcomes;

1. Farmer membership of agriculture related groups remains high (73%) – but reflects the diversity of groups and approaches now available.
2. The main agriculture related groups that farmers were members of were local Landcare/Farming systems groups (32%). Farmers tended to be members of 1 or 2 types of agriculture related groups. The only groups with significant shared membership were local Landcare/Farming Systems Groups and State Farming/Industry Organisations which shared around 30% of members. This indicates different but complementary roles.
3. The main reasons farmers cited that they were part of local Landcare and farming systems groups were associated with getting information tailored to local issues/conditions, social networks and seeing what other farmers were doing (74% of responses)
4. The primary information sources that farmers relied on for awareness and adoption of sustainable agriculture/NRM issues were the rural media, local Landcare/farming systems groups and State Departments of Agriculture (accounted for 66% of responses).

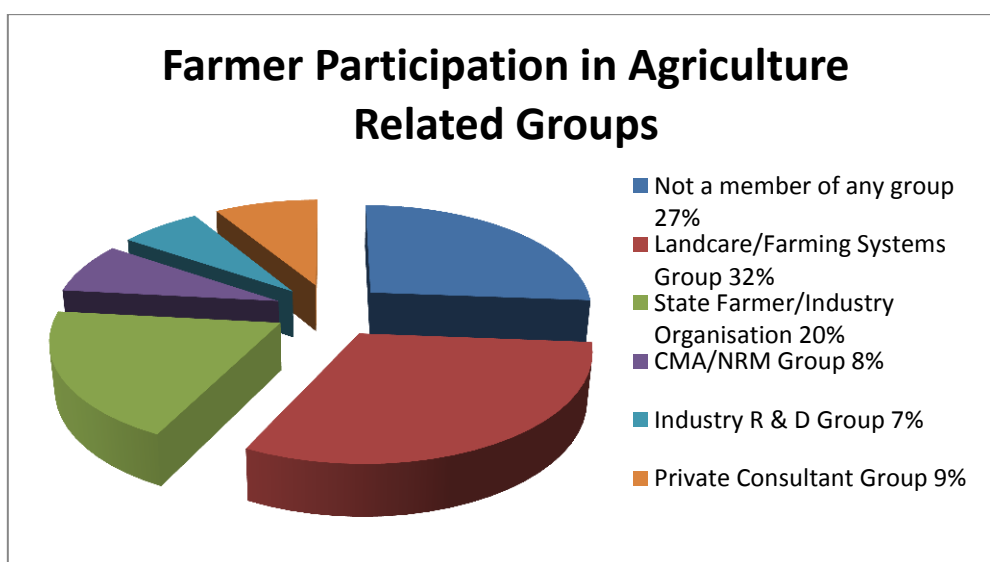
5. Pest and weed control remains a major Landcare issue for Australian farmers with an average expenditure per farm of \$20,640 (\$15,756 weeds and \$4884 for pests). Note that these figures do not include loss of income or opportunity costs and the pests figures are largely for vertebrate pests.
6. To give an indication of the impact of pests and weeds nationally at the farm scale this would equate to an annual direct expenditure by Australian farmers on pest and weed control of approximately \$2.38 billion based on the 2011/12 Australian Bureau of Statistics number of farmer enterprises.

Results

Farming Group Membership –

To better understand the importance placed on group delivery by farmers, participants were asked if they were a member or not of various types of agriculture related groups including Landcare and Farming Systems Groups, State Farmer/Industry Organisations, Catchment Management/Natural Resource Management Groups, Industry R & D Groups and private consultants' groups.

The results showed that 73% of farmers were part of some type of agriculture related group and of these the largest grouping was the local Landcare and Farming Systems groups at 32%.



The results indicate that group delivery remains important to the majority of Australian farmers. However group delivery has become specialised and segmented as farmers have focused on the type of group delivery that best meets their needs. Interestingly the results indicated that farmers tend to be members of only 1 or maybe two groups (less than 2% were part of more than 2 groups).

In general there was little crossover between group membership. The only area that shared significant common membership were the local Landcare/Farming Systems groups and the State Farming/Industry Organisations which had a common membership of around 30%.

This shared membership indicates these two types of groups are in general not competitors for membership but have different/complementary focuses.

Results were generally uniform across states, ages and enterprises with a few exceptions;

- Significantly more farmers in horticulture (45% as opposed to 27%) were not members of any type of group.
- 10% of croppers were part of private consultant groups as opposed to the national average of 6%.
- 30% of dairy farmers were part of State Farming/Industry organisations as opposed to the national average of 20%.

Of the 27% of farmers surveyed who said they were not part of any type of group, the main reasons cited was time and they said they were also not interested in becoming a member of any type of group, regardless of any changes that could be made as to how those groups operated.

What farmers value most about Landcare/Farming Systems Groups

The nearly one third of farmers who are part of local Landcare and Farming Systems groups cited the following points as their main reasons for being part of these groups;

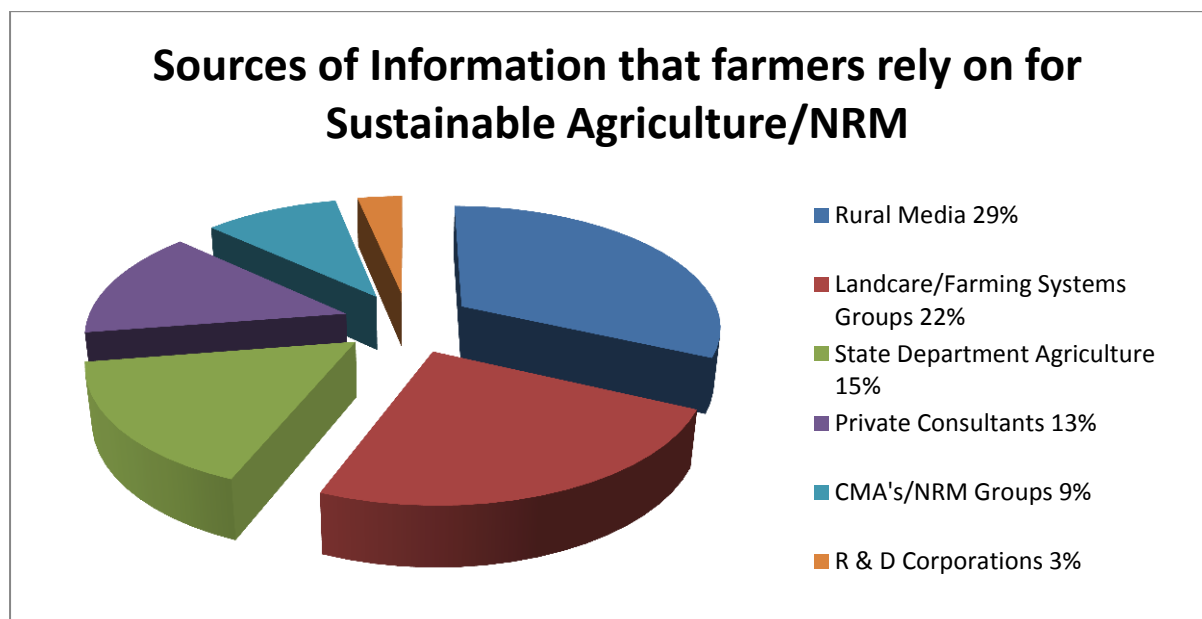
- 1) Information that is tailored to local conditions and issues (29%).**
- 2) Provides hands on field days that are locally relevant (22%).**
- 3) Social networks (12%).**
- 4) Opportunity to see what other farmers are doing (11%).**

Interestingly only 3% cited access to funding as what they value most about being part of a Landcare or Farming Systems group. However this could also be influenced by the fact that limited funding has been directed through groups in recent times. When asked how important is the work and activities of local Landcare and Farming Systems groups to them and their farming enterprise, 70% of farmers who were members of these groups gave a ranking of 5 or over (out of 10). 45% gave a ranking of 7 or better.

Information Sources that Farmers rely on for Awareness and Adoption in relation to Sustainable Agriculture.

Farmers were asked separately which sources of information they rely on for both awareness and adoption in relation to sustainable agriculture/natural resource management. However the responses were virtually the same for both awareness and adoption and only varied by 1-2%, which was not expected.

The top three sources were the rural media (ABC and Rural Press), Landcare/Farming Systems groups and State Departments of Agriculture. From the survey it appeared that more farmers tended to use private consultants individually than as part of a group.



Pests & Weeds

Farmers have consistently ranked pest and weed control as one of their top Landcare issues and this was reinforced in the 2012 National Landcare Survey. This year a series of questions were asked in relation to pests and weeds to determine the financial costs associated with their control and methods used.

In relation to pests and weeds the total average spend per farm over the last 12 months on pest and weed control was \$20 640 (\$15 756 weeds and \$4 884 for pests). With 89% of farmers saying that they undertake weed control and 74% undertaking pest control, this would equate to a national annual expenditure (based on 2011-12 ABS figures of numbers of Australian farms of 135 692), by Australian farmers of approximately \$2.38 billion (\$1.89 billion weeds and \$487 million for pests). Note that these figures do not factor in lost income or the opportunity cost associated with pests and weeds on farm enterprises.

Weed Control

The majority of respondents said that they undertook control activities of some type for pests or weeds on their property over the last 12 months (89% for weed control and 74% for pest control). Only 6% of those surveyed said that they did not do either. Expenditure figures below are the average of those farmers with expenditure on that item.

The average spend over the last 12 months on herbicides was \$21 313 with only 9% saying that they did not spend anything at all.

The average spend on contractors was \$9 518 in the last 12 months with a large number (81%) of farmers across all commodity types saying that they did not use contractors for weed control at all.

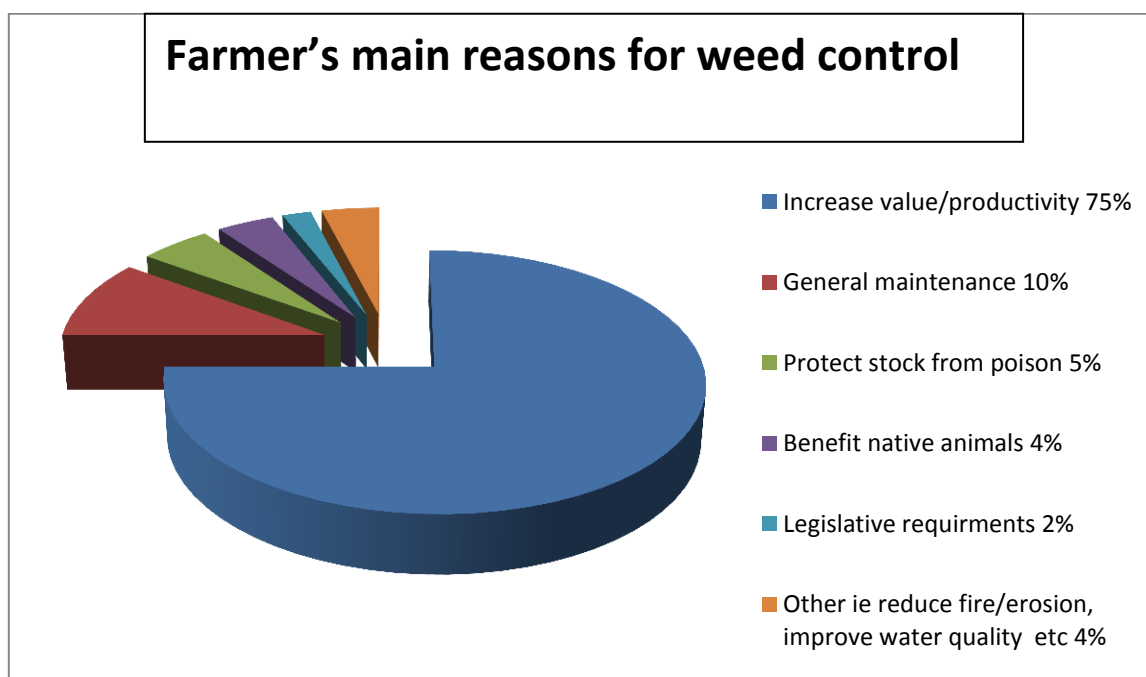
In relation to hired labour costs, the average spend over the last 12 months was \$28 398 however only 23% indicated they employed additional labour. On most properties, labour was mostly undertaken by owner/operators or farm managers.

For weed hygiene, the majority of farmers (89%) didn't incur any expenditure but the average expenditure cost across the remaining 11% was \$3 149.

Aerial spraying represented a significant expense for large properties in Qld, S.A and W.A. Beef and cropping enterprises represented over 60% of respondents in this category, spending in excess of \$5 000 over the last 12 months.

The total average spend in all areas of weed control across participants was \$15,756 over the last 12 months.

The main reasons cited for weed control was to improve the productivity of the holding at 75%, followed by general maintenance at 10%, protecting stock from poison at 5% and benefiting native plants and animals at 3%. Compliance with legislative requirements was only 2%.

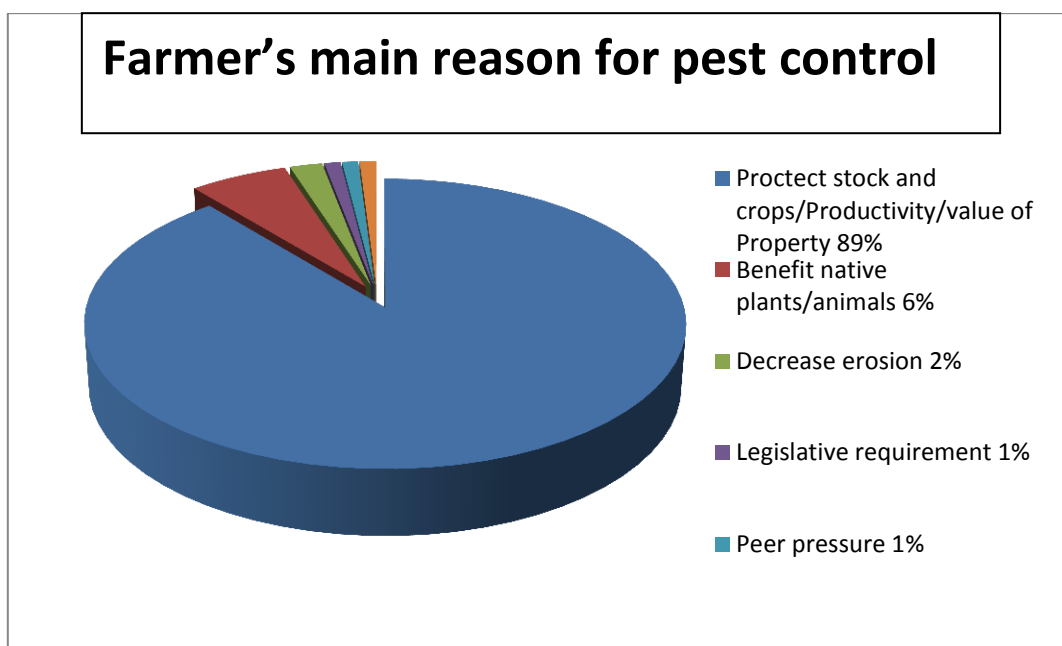


A significant proportion (80%) of farmers did not have a written weed management plan (the incidence being lowest in horticulture (19%) and beef (15%) through to sheep (22%), dairy (26%) and cropping (25%)). Of those who did have a weed management plan, 75% said that it played an important role in guiding their weeds management action over the year.

Pest Control

The average spend on pest control (where farmers used these individual items) over the last 12 months was \$6 779 for contractors, \$17 105 for labour costs, \$1 880 for toxins/baits. However most farmers tended to spend more money for pest control inputs such as toxins/baits and ammunition than they did on outside labour /contractors and carried out the

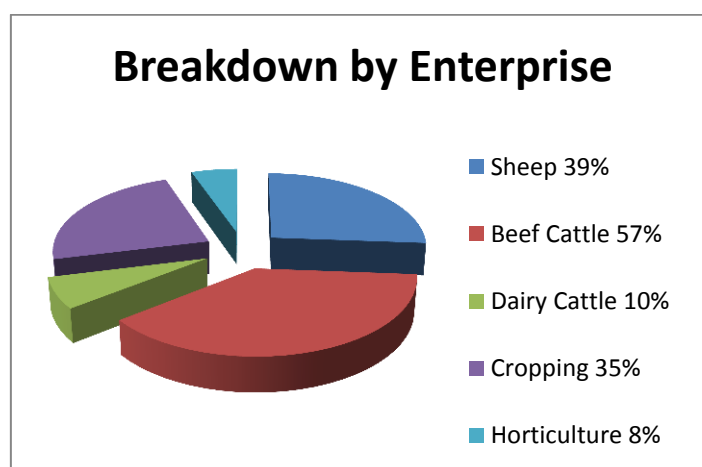
work themselves. The total average spend across all areas to manage pests over the last 12 months was \$4 884. The primary reason stated for undertaking pest control on their farm was increase productivity/value and to protect stock (could be seen as part of the first item).



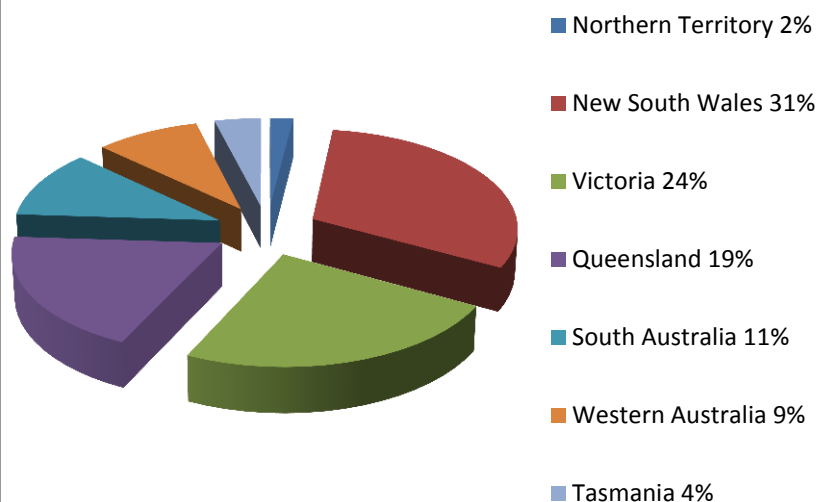
More farmers (88%) didn't have written pest management plans than those who didn't have weed management plans. Of those who did have a pest management plan, 89% said that it guided their management significantly over the last 12 months (the adoption of plans ranged from 19% of horticulturalists to 9% of beef producers).

Survey Participant Breakdown

The survey was conducted via telephone interviews of 500 farmers in May 2013 by Rural Press. Farmers were selected from all states and territories (excluding ACT) and covered sheep, beef cattle, dairy, cropping and horticulture.



Breakdown by State



Breakdown by Age



The National Landcare Facilitator Program is an initiative of the Australian Government through the Department of Agriculture



Australian Government

Nationally coordinated weed management – it's working at the local level

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Summary This paper demonstrates that a nationally coordinated approach to Australia's worst weeds can be effective, efficient and enduring, using the Weeds of National Significance program as an example. This approach uses education, extension and decision support tools as drivers that engage weed managers to help them provide long-lasting innovative change to reduce the impact of weeds.

A nationally coordinated and strategic approach with an engaged community fosters ownership, innovation and allows for enormous value to be added to any government financial commitment.

It must be recognised, however, that a reduction in weeds on the ground occurs not because of government programs but because of work done at the local level, by farmers, land managers, Landcare groups and others. Government leadership and investment in nationally coordinated weed management can derive a large return on investment, at the economic, environmental and social level. This paper discusses how national weed coordination can deliver benefits at both the local and national level. It will also demonstrate the huge leveraging of external funding, and in-kind support, that can be demonstrated if leadership and community involvement are the main drivers.

Keywords Community, Landcare, Weeds of National Significance, coordinated weed management, farmers, Tamar NRM, WoNS.

INTRODUCTION

The perennial question of who is responsible for weed management is a never ending argument, with most layers of Government attempting to divert responsibility to another entity. To overcome this vacuum, the Australian Government over the last 10 years has delivered a range of programmes, processes and structures aimed at fostering nationally coordinated management, with varying degrees of success.

One such initiative is the Weeds of National Significance (WoNS) program, which has prompted a gradual move from direct funding for local initiatives to a more strategic and nationally coordinated approach to weed management. This paper provides examples of local successes facilitated by national leadership through the WoNS initiative, and makes a case for continued leadership in strategic weed

management from the community and from governments at all levels.

Current issues What has been consistent over the last 10 years in weed management is inconsistency; this is apparent in the vast number of structures, processes, and projects that have been trialled over this time. What is desperately needed is leadership, and an integrated approach that involves the community and industry through adoption, planning, implementation and evaluation to win the war against weeds.

Because of the historical start stop approach, we now have a large proportion of the community disengaged or disillusioned, with many leaving the field and taking their corporate knowledge with them. We know the cost of re-engaging people and building trust is a high one and does not happen overnight. Thus there is considerable value in supporting strategic coordinated efforts over the long term, as opposed to providing a few years of funding and then starting a new program that requires re-engagement.

Another area of concern is the lack of understanding or recognition for the land manager contributions and the massive community efforts through Landcare, Coastcare, and the community groups of many descriptions who are waging a war on weeds that Governments could not buy for love nor money.

What Governments and community nearly always forget is that it is the land managers, who manage over 70% of the landscape, who also bear the financial burden of weeds. Part of these costs are then transferred to the community through an increase in the cost of goods, increased taxes, and a decrease in public and private amenity, to name a few.

We also have a culture in parts of our community and indeed some state governments where there is a mendicant attitude of either cost shifting or not taking action unless there is cash or in-kind payment; this thinking has to stop. Even if we were not in financially constrained times, governments would not be able to afford to control all weeds, nor should they; ultimately weed control is the land manager's responsibility.

To do nothing is not an option, as the cost would be too high in lost production, lost aesthetics and damage to biodiversity. It is clear there needs to be substantial change: We need engagement and leadership. This

should come from government and industry, and needs to involve all stakeholders. There needs to be a two-way conversation, a new inclusive structure and governments need to look at the big picture.

As in business, governments do not generate wealth; that is the role of business. It is the same with weeds. Governments do not get rid of weeds; that is the role of land managers. However it is governments' role to make an operating environment that is conducive to business, and similarly, to create structures and programs that allow effective, efficient weed management.

DISCUSSION

On 1 June 1999 the Weeds of National Significance initiative was launched with the inaugural list of 20 weeds announced. These 20 weeds were then brought under national coordination with the aim of reducing the impacts, restricting the spread and/or eradicating these weeds from parts of Australia. Each weed had a strategic plan and management committee or task force made up of an independent chair and members who were both skilled and sectorial based. Implementation of the strategic plans, with guidance from the task forces, was outcome focused and achieved enormous successes from national to local levels. For example, the Gorse (*Ulex europaeus* L.) Taskforce was able to foster local, regional and state actions such as:

- Establish twenty 25 year Memorandums of Understanding (MoUs) for targeted gorse eradication in five states.
- Establish the Gorse Baton Programme that allows local residents to 'risk manage' the 25 year agreements and ensure action.
- Cooperate with land managers across Western Australia, South Australia, Tasmania, Victoria and New South Wales to secure 220,000 square kilometres under MoUs to maintain the areas gorse free.
- Undertake targeted control to achieve significant measurable reduction in key outlying infestations of gorse.
- Research, develop and produce the National Gorse Best Practice Manual (10,000 copies with 9,000 in circulation).
- Produce and launch a television 'Weedmercial' to raise awareness of gorse.
- Increase in the awareness of weeds generally, with a focus on economic and environmental impacts.
- Establish a gorse management achiever recognition, where we formally recognised those in the community who had been leading by example.
- Produce a legacy document that outlined our successes and failures, a 'warts and all' document,

which was made available for others to learn from.

Interestingly 90% of the on ground action was done without any additional funding, but rather by working with land managers to reprioritise actions to achieve more strategic outcomes. As with the other WoNS taskforces, the aim was to be strategic, use best practice and create an environment so people will take on responsibility after the initial education, extension and tools have been delivered.

There are multiple examples of other such successes from the ten-plus years of national WoNS coordination (Cherry *et al.* 2012). However it is sometimes the outputs and measurable value adding that are not considered when assessing success. While it is difficult to measure exactly, statistics from 2003 to 2009 show that WoNS awareness raising activities, such as workshops, training, and presentations reached 16,688 people. In addition, over 525,000 extension materials and weed management resources were delivered across Australia.

Perhaps the best example of the value of investment in national coordination is the comparison of Australian Government versus all other stakeholder investment for this same six year period. The Australian Government invested approximately \$6.1 million in supporting national WoNS coordination. This was matched by a co-investment of over \$116 million from all other stakeholder sources (including local, regional and community effort). This latter figure is conservative, as it was measured over a shorter time frame than the whole program and did not include expenditure on all the WoNS weeds. In anyone's language, this is huge leveraging power and an enormous return on investment.

These examples are at the national level; however it is important to understand how this translates at the local level. There is a range of evidence to support the concept that national leadership and coordination translates to significant outcomes at the local level. All around Australia farmers, Landcare and other groups are dealing with weeds at the local level, and in many cases, national coordination has been the catalyst for local action.

In this instance I will use Tamar Natural Resource Management (Tamar NRM), who are situated in northern Tasmania and supported by the three local councils of Launceston City, George Town and West Tamar, and the community. This dynamic award winning group is a perfect example of how national coordination works at the local level and value adds the national effort. It needs to be recognised that this type of engagement at the local level is not unusual and is mirrored across Australia.

Over the last ten years Tamar NRM, in conjunction with farmers, Landcare and the general community, have organised strategic weed activities based on both WoNS and local weeds, in which the learnings from the WoNS program have applied to successfully manage local weeds. Examples include:

- Boneseed (*Chrysanthemoides monilifera* subsp. *monilifera* (L.) Norl): The 'Boneseed Blitz', which takes place each September. Tamar NRM assists community groups to hold up to 20 activities across the region, with the aim of eradicating boneseed from the community. So successful were the activities over the last eight years, that there is now an eradication plan in place that is being implemented by the three local government areas.
- Serrated Tussock (*Nasella trichotoma* (Nees) Hack.): The Tamar Valley has been declared a serrated tussock weed-free zone due to concerted and coordinated efforts. This is backed up with education, awareness, early detection and sustained eradication activities.
- Crack willow (*Salix fragilis* L.): A best practice demonstration site has been developed in an area of Pipers River that provides the community with exemplary guidance on how to eradicate crack willow and rehabilitate the river.
- Bridal creeper (*Asparagus asparagoides* (L.) Druce): The Tamar community are determined to eradicate this weed, using best practice techniques, education, awareness, and decision support tools. A strategic plan is being implemented across the region.
- Blackberry (*Rubus fruticosus* L.): Coastal communities like Weymouth now have the tools and best practice techniques to eradicate blackberry from their community, and they are doing it!

There are a range of other weeds now being successfully managed using learnings from the WoNS program. Importantly, all these activities are done with little or no money from government funding sources: most of the funding is private.

Local level action in this instance would not be possible if it were not for Tamar NRM, Launceston City, George Town and West Tamar Councils, Department of Primary Industries and Water, Parks and Wildlife Service and most importantly, farmers and

the community working together. This local action happens because of the leadership shown at the local level, but also because of the trust that is generated by having a national program such as WoNS that supports local and regional groups to implement strategic weed control.

Some things need national coordination and leadership; precedents are plenty. Examples exist in health, taxation, education, water reform and salinity. We have past programs to learn from, and it is clear that a well-designed program can value add to government investment, as well as achieve on-ground outcomes such as weed control. But a new, re-designed program needs to happen now to ensure momentum continues. This will require a change in thinking in government departments, and a defining leadership role by government, industry, and community at both the national and local level.

It is clear there needs to be a refinement on how we implement cost-effective weed management, including how we strategically plan, how we deliver on ground works, how we integrate science and research, how we monitor and evaluate, and most importantly, how we include industry and the community in the whole process. Leadership, trust and community involvement are the main drivers for on ground action at a local scale. But that must be supported by a robust national framework; it is the role of governments to make that happen. To say it is too costly is not a valid argument, as the evidence to date show that return on strategic investment far outweighs the initial costs.

ACKNOWLEDGMENTS

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