

2014 Review of the ACT Weeds Strategy 2009–2019:

Summary table of achievements.

GOAL ONE: PREVENT NEW WEED PROBLEMS				
OBJECTIVE	STRATEGIC ACTION	RESPONSIBILITY FOR ACTION	PERFORMANCE MEASURES	ACHIEVEMENTS
1.1 Prevent new weed incursions in the ACT through identifying and prioritising potential weed species, problems and causes.	1.1.1 Maintain vigilance and liaise with key stakeholders to minimise the risk of new weeds being introduced into the ACT.	All Stakeholders	<ul style="list-style-type: none"> ▪ Weed surveillance to be incorporated into weed control programs and land management operations. (2009-ongoing) ▪ A stakeholder forum, the ACT Land Managers Weeds Working Group (LMWG) is maintained. (2009-ongoing) 	<ul style="list-style-type: none"> ▪ Smartphone technology has been adopted to facilitate detection and mapping of weeds including early detection and rapid control of new incursions. <ul style="list-style-type: none"> - The ACT and Southern Tablelands Weed Spotter website and mobile Apps (iPhone and Android platforms) have been developed to allow the community to record weed sightings and weed control efforts across the region. Data are uploaded to the CSIRO Atlas of Living Australia and then to the ArcGIS ACT Parks and Conservation Weeds Atlas, and alerts of new and emerging weeds are forwarded by email to the ACT Parks and Conservation Service (PCS) Senior Weeds Officer and to weeds officers from 10 participating NSW Local Government Areas. The portal provides users with the capacity to identify weeds, using a LUCID-based Weed Identification Tool and also raises awareness about new and emerging weeds to support greater vigilance in their control. - Large-screen Smartphones or ‘Phablets’ are being used by some rangers and contractors for weed mapping including incursions, facilitated by an off-line Memory-Map App where there is no WiFi or 3G signal. Data are incorporated subsequently into the PCS ArcGIS ACT Parks and Conservation Weeds Atlas. ▪ Asset Acceptance and City Services (TAMS) meet regularly with the landscape industry to discuss landscape design issues, including notifying them of new weed incursions such as Madagascan Fireweed. ▪ No regular meeting of the LMWG has been held. Functions of the LMWG have been delivered through individual meetings between the PCS Senior Weeds Officer and groups of adjacent land managers during development of the annual Invasive Weeds Operations Plan (iWOP). There is also ongoing liaison with ACT leaseholders, the ACT Rural Landholders Association, ParkCare Coordinators and catchment groups. This direct liaison fulfils the role of more formal meetings although an ACT Weeds Forum was held in 2012 (see Strategic Action 3.2.4). In 2014, it is proposed to dissolve the LMWG and absorb remaining functions into the Weeds Advisory Group (WAG). A new Terms of Reference and membership have been drafted for agreement by TAMS and the WAG.
	1.1.2 Work with neighbours to minimise the risk of introduction of new weeds to the ACT.	All Stakeholders.	<ul style="list-style-type: none"> ▪ Cross-border and regional networks are established and maintained. (2009-ongoing) 	<ul style="list-style-type: none"> ▪ ACT has participated in the Serrated Tussock Working Party for NSW and ACT, Southern Tablelands and South Coast Noxious Plants Committee, Australian Alps Liaison Committee and the Weeds Society of NSW. The PCS Senior Weeds Officer has also worked directly with NSW National Parks and Wildlife Service rangers and Senior Noxious Weed officers, Transgrid, Air Services Australia, Cooma-Monaro Council, Southern Slopes County Council, Defence, Queanbeyan Council and the National Capital Authority for joint weed control work.

<p>1.1.3 Maintain participation in national and regional forums that seek to address weed problems.</p>	<p>ACT Government Agencies/WAG</p>	<ul style="list-style-type: none"> ▪ The ACT is represented on appropriate national and regional forums. (2009-ongoing) 	<ul style="list-style-type: none"> ▪ See Strategic Action 1.1.2 for regional forums. ▪ The ACT has been represented since 2009 on the Australian Weeds Committee (AWC) including participation in the review of the Australian Weeds Strategy (2007) and development of the new strategy, reporting of ACT activities related to Weeds of National Significance (WoNS), and national reporting of new weed incursions to the ACT (Ox-Eye Daisy, Madeira Vine, Madagascan Fireweed, <i>Sagittaria platyphylla</i>). Recent incursions of African Fountain Grass and Chinese Fairy Grass were reported at the AWC30 meeting on 5 September 2014. Since 2013, the AWC representative has also represented the ACT on the national Consultative Committee for Exotic Plant Incursions which is convened in the event of new national weed incursions (Red Witchweed) and to guide agreed national eradication programs for previous incursions (Siam Weed, Four Tropical Weeds Program). ▪ The NRM Regional Facilitator (EPD) participated in a workshop on the National Invasive Plants Surveillance Framework in March 2013. ▪ The PCS Senior Weeds Officer and City Services Pests and Weeds Officer (TAMS) presented ACT work on off-line Smartphone Apps at the 19th Australasian Weeds Conference, Hobart, 1-5 September 2014.
<p>1.1.4 Conduct risk analyses of weed species to identify and prioritise for action, including risks associated with climate change. (linked to action 2.4.1)</p>	<p>ACT Government Agencies/LMWG /WAG</p>	<ul style="list-style-type: none"> ▪ Pathways for weed introduction and spread are reviewed and assessed. (2009-ongoing) 	<ul style="list-style-type: none"> ▪ PCS engaged a consultant in 2013 to undertake a potential threat analysis for the ACT from new and emerging invasive plants. The project identified the main pathways that new plants are likely to arrive by in the ACT as part of 20 risk assessments undertaken for potential high-priority sleeper weeds, new incursions and alert species (species not yet in the ACT but already occurring in nearby NSW). Additional species of concern to the ACT Government and community groups were also identified and assigned priority for future consideration. Main pathways for the arrival of weeds into the ACT include sale at commercial outlets, markets and fetes (regulation of these outlets remains a problem), people, birds, other wild and feral animals, water, wind, vehicles, plant suckers and tubers, boats, garden refuse, and contaminated produce, fodder, turf and stock. Most species have multiple potential pathways for entry. ▪ Orange Hawkweed and Mouse-ear Hawkweed have been identified as very high-risk weed species for the alpine areas of the ACT's parks and reserves. A previous incursion of Mouse-ear Hawkweed in Namadgi National Park was eradicated through the removal of isolated plants in the late 1990s. A potential pathway is from wind-blown introduction of seed from neighbouring alpine areas in Kosciusko National Park and Victoria (Falls Creek). These species have been declared as 'Notifiable' and 'Prohibited' as part of the pest plant declaration update. Bushwalking groups and other alpine park users will be alerted to these species. ▪ Imported turf has been identified as a primary source of Madagascan Fireweed infestations. ▪ Urban landscape plantings have been identified as a potential source of invasive weed infestation. The WAG has agreed to review the 'Design Standards for Urban Infrastructure. 23. Plant Species for Urban Landscape Projects' in consultation with City Services with the aim of removing species with weed potential. ▪ The PCS Senior Weeds Officer and the City Services Pests and Weeds Officer have been monitoring the illegal sale of weed species such as Mexican Feathergrass online. These activities are considered to pose a serious risk of invasive weed spread and the Australian Government and AWC have been alerted to online Mexican Feathergrass sales. ▪ See also mowing considerations under Strategic Action 1.3.1.

	1.1.4 continued		<ul style="list-style-type: none"> Risk assessments are completed for all Weeds of National Significance that have the potential to occur in the ACT. (2009 - 2010) Risk assessments are incorporated into all weed management plans specified under the <i>Pest Plants and Animals Act 2005</i>. (2009 - 2010) 	<ul style="list-style-type: none"> Risk assessments have been completed either by PCS (preliminary) or by an external consultant (complete) for key WoNS species including Alligator Weed, Black Willow, Crack Willow, Blackberry, Chilean Needlegrass, Gorse, Madeira Vine, Serrated Tussock, African Boxthorn, Broom species, Madagascar Fireweed, Prickly Pear and Sagittaria. All WoNS except Silver Leaf Nightshade (to be added in the next update) have been declared as 'Prohibited' under the ACT <i>Pest Plants and Animals Act 2005</i> in accordance with the Standing Committee on Agriculture and Resource Management Meeting 17 Resolution 20 (7 March 2001). All WoNS are declared as 'Must be suppressed'. WoNS that are not already widespread in the ACT are also declared as 'Notifiable'. Risk assessments have been completed for other species as part of the potential threat analysis for the ACT from new and emerging invasive plants (see above). Pest Plant Management Plans (PPMPs) for Madagascar Fireweed and Chinese Fairy Grass are now Notifiable Instruments under the ACT <i>Pest Plants and Animals Act 2005</i>. Chinese Fairy Grass was declared as a pest plant under the Act to allow for this. A Serrated Tussock PPMP is waiting for final approvals. These three species have been determined as very high-risk species based on the NSW DPI Weed Risk Management System using ACT data.
1.2 Ensure early detection of, and rapid action against, new weed problems	1.2.1 Collect and maintain data on weed incursions and distribution in ACT, and disseminate information in a suitable format.	ACT Government Agencies/ LMWG /WAG	<ul style="list-style-type: none"> A weeds database is maintained within existing systems. (2009-10) Information on weed incursions is collected regularly and appropriately. (2009-ongoing) Appropriate information on weed incursions is provided to the public. (2009-ongoing) 	<ul style="list-style-type: none"> Planned weeds operations are recorded annually in summary tables in the iWOP. Actual areas controlled are recorded in a series of maps in the annual ACT Parks and Conservation Weeds Atlas (an ArcGIS project). These documents are made available to all government stakeholders and to the WAG. Weed densities are also recorded for the purpose of assigning priority to weed control operations and for detecting change in weed density in response to operations over time. Photo point monitoring is also undertaken to assess vegetation changes before and after weed control. Since 2009, there have been new incursions or 'break outs' of Mexican Feathergrass, Sulfur Cinquefoil, Spanish Heath, Himalayan Honeysuckle, African Fountain Grass, Hairy Willowherb, Artichoke Thistle, Madeira Vine, Madagascar Fireweed, Ox-eye Daisy, Tutsan, Bridal Creeper, Alligator Weed, African Fountain Grass and Chinese Fairy Grass. Infestations and areas controlled are mapped and recorded using standard processes in the ACT Parks and Conservation Weeds Atlas. New incursions were included in the potential threat analysis for the ACT from new and emerging invasive plants (Strategic Action 1.1.4). NSW weed risk management system scores, which include feasibility of control, priority category and pathways for spread, were identified for these species. General information sheets on selected weed species are provided on the TAMS website. See also Strategic Action 1.2.2.
	1.2.2 Establish a coordinated weed alert and early warning system for the ACT.	ACT Government Agencies/WAG	<ul style="list-style-type: none"> A coordinated system for weed alerts and warning is established and maintained. (2009 -2010) 	<ul style="list-style-type: none"> Media alerts for Madagascar Fireweed were issued on 7 September 2012, 16 August 2013 and during July 2014, and were subsequently posted on the ACT Open Government website. Four priority alert weed species were identified through the potential threat analysis for the ACT from new and emerging invasive plants (Strategic Action 1.1.4). NSW weed risk management system scores, which include feasibility of control, priority category and pathways for spread, were determined.
	1.2.3 Participate in the development of national approaches to weed problems.	ACT Government Agencies/WAG	<ul style="list-style-type: none"> The ACT has an appropriate level of participation on the Australian Weeds Committee and other national forums addressing weed issues. (2009-ongoing) 	<ul style="list-style-type: none"> See Strategic Action 1.1.3.

	1.2.4 Establish minimum standards for response to significant weed incursions.	ACT Government Agencies/ LMWG /WAG	<ul style="list-style-type: none"> Standard protocols are established and maintained for Territory wide responses to weed incursions to ensure early intervention. (2009-ongoing) 	<ul style="list-style-type: none"> Responses to weed incursions are currently <i>ad hoc</i>, but are guided by the recently developed biosecurity response plan and are mounted following detection of the incursion using methods suitable for the species concerned. Eradication is the aim for new and emerging weeds, containment is the aim for weeds with localised distribution, and asset-based protection is the aim for weeds that are widespread. Asset-based protection involves protecting priority sites or assets. Risk and feasibility of control feed into the management responses. Most incursion control is currently undertaken by the PCS Senior Weeds Officer and/or the City Services Pests and Weeds Officer and greater support is required to improve response capacity. In August 2014, City Services led the Incident Management Team to implement new biosecurity procedures to control a major new incursion of Madagascan Fireweed introduced in couch turf in new developments (activities are ongoing). Options for developing standard protocols (as species-specific response plans) and effectively addressing new weed incursions will be discussed by a subgroup of the Biosecurity Coordination Committee. For response protocols to emergency incursions see Strategic Action 1.3.2.
	1.2.5 Establish protocols for identification and response to sleeper weeds ¹ . (linked to action 1.2.4)	ACT Government Agencies/ LMWG /WAG	<ul style="list-style-type: none"> Protocols for sleeper weeds are established and maintained. (2009-ongoing) 	<ul style="list-style-type: none"> Nine priority sleeper weed species were identified through the potential threat analysis for the ACT from new and emerging invasive plants (Strategic Action 1.1.4). NSW DPI weed risk management system scores, feasibility of control, priority category and pathways for spread were determined. Protocols for managing sleeper weeds are to be established as species-specific response plans.
	1.2.6 Formalise arrangements with the Australian National Herbarium to rapidly and accurately identify plants species	ACT Government Agencies/WAG	<ul style="list-style-type: none"> Arrangements with the Australian National Herbarium are formalised and documented. (2009) 	<ul style="list-style-type: none"> Membership of the WAG includes a representative of the Australian National Herbarium.

¹ Sleeper weeds are non-native or non-endemic plants that have the potential to spread widely and have significant impacts on agricultural production, natural environments or public amenity. The issue of sleeper weeds is further complicated by the potential impacts of climate change.

1.3 Reduce the spread of weeds present within the ACT	1.3.1 Develop, review and implement control plans and programs to minimise the spread of weeds.	All Stakeholders	<ul style="list-style-type: none"> All weed control plans and programs are current and make use of the latest information available, including results of monitoring. (2009-ongoing) Pathways of weed spread in the ACT are identified and the associated risks assessed. (2009-ongoing) 	<ul style="list-style-type: none"> Development of the annual iWOP and ACT Parks and Conservation Weeds Atlas means that all weed control plans and programs are current and make use of the latest information available, including the results for monitoring and mapping. Both PCS and City Services (TAMS) have established hygiene protocols to reduce the risk of weed spread. PCS cleans fire vehicles every day, takes a portable wash down trailer to hazard reduction burns so that vehicles can be cleaned before leaving sites, cleans slashers and mowers between sites, works slashers and mowers from clean to infested areas, and completes roadside invasive grass spraying before mowing operations commence. City Services has a mower hygiene policy that requires mowers to be cleaned daily, move from clean to infested areas, and be cleaned before shifting to weed-free or native grass sites. The policy includes on-the-spot checks of mowing contractors.
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	1.3.2 Identify weed issues, including pathways for their spread, in natural resource, environmental and developmental management planning in the ACT and implement action.	ACT Government Agencies/WAG	<ul style="list-style-type: none"> All relevant ACT plans, strategies and policies appropriately address weed issues. (2009-ongoing) 	<ul style="list-style-type: none"> ACT Biosecurity 2013 Management Arrangements and Action Plan. Areas within the ACT Government with responsibility for weeds have been identified in the 2013 plan, including weeds policy and AWC representation (Natural Environment, EPD), AWC stakeholders, invasive weed incursion response and established weed management (Natural Resource Protection and Programs, TAMS), urban and amenity weed responses including management of aquatic weeds in urban lakes (Place Management, TAMS), and development of biosecurity emergency subplans for weed incursions (Security and Risk, TAMS). The management arrangements and action plan will be updated annually. ACT Biosecurity Emergency Response Plan 2013 – Sets out the command, control and coordination arrangements and responsibilities, and response and recovery requirements for an emergency weed incursion of national significance. The response may be part of a national cost-sharing arrangement established under the National Environmental Biosecurity Response Agreement. In the event of an incursion, the ACT representative on the AWC participates on the Consultative Committee for Exotic Plant Incursions for national coordination purposes. A compliance and investigations manual has been developed for the ACT <i>Pest Plants and Animals Act 2005</i> that outlines delegation of powers and functions in relation to pest plants, policies and procedures for direction notice use, and templates for pest management directions, notices and receipts as specified under the Act. The ACT Nature Conservation Strategy 2013-2023 recognises that implementation of the <i>ACT Weeds Strategy 2009-2019</i> is essential to managing threats to biodiversity in the ACT (Strategy 2 Action 1). Adequate weed control is required to reduce threats to lowland vegetation remnants, support restoration efforts, enhance connectivity, and assist in improving landscape resilience, including resilience to climate change. A number of initiatives and priority actions relating to weeds have been identified in the conservation strategy. Other plans and reports released since 2009 that recognise the importance of weed control include the Commissioner for Sustainability and the Environment Report on the ACT Lowland Native Grassland Investigation (2009) and the Bush Capital Legacy – Plan for Managing the Natural Resources of the ACT (2009).
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GOAL TWO: REDUCE THE IMPACT OF PRIORITY WEED PROBLEMS				
OBJECTIVE	STRATEGIC ACTIONS	RESPONSIBILITY FOR ACTION	PERFORMANCE MEASURES	ACHIEVEMENTS
2.1 Develop approaches to managing weeds based on the protection of environmental, cultural and production values and assets	2.1.1 Develop and implement site led approaches to manage weed threats in relation to key assets and values in the ACT.	ACT Government Agencies/LMWG /WAG	<ul style="list-style-type: none"> Annual weeds programs are developed and implemented which incorporate site led approaches. (Annual) Weed threats to environmental, cultural and production values are identified and assessed. (2009-ongoing) 	<ul style="list-style-type: none"> Priorities for weed control in the ACT are determined based on the NSW DPI Weed Risk Management System using ACT data. This system takes into account the location of the weed species along the invasion curve and corresponding appropriate actions for their management, likely feasibility for coordinated control and risks calculated for natural, primary production and recreational areas. Environmental, economic and social impacts are considered as part of the weed risk assessment process. A decision is made to take limited action, or monitor, manage sites, manage weeds, protect priority sites, contain spread, destroy infestations or eradicate incursions based on these factors. Priority environmental sites are also identified in the PCS Reserve Operations Plans that lists the conservation value of reserves (weed management actions for these sites are clearly indicated in the iWOP). Priority urban and recreational sites managed by government are based on public amenity and safety, including the control of aquatic weeds in urban waterways, lakes and ponds. Mapping of rural roadside weeds commenced in 2012-13.

	2.1.2 Build community support for development and implementation of site based plans for weed management.	ACT Government Agencies/LMWG /WAG	<ul style="list-style-type: none"> Community support mechanisms, developed through the LMWG/WAG and national NRM funding programs, are incorporated into Annual weeds programs. (2009-ongoing) 	<ul style="list-style-type: none"> PCS liaises with ACT leaseholders, ACT rural landholders, ParkCare and Urban Landcare coordinators, catchment groups, NSW Government staff and the public regarding weed management issues and priorities during development of the annual iWOP (Strategic Action 1.1.2). NRM Programs liaises with a similar range of stakeholders in relation to Commonwealth-funded programs and ACT Environment Grants that include support for weed control activities (see achievements under Objective 3).
2.2 Manage weeds within a consistent strategic and legislative framework.	2.2.1 Ensure existing weed management efforts are effectively targeted and coordinated.	ACT Government Agencies/LMWG /WAG	<ul style="list-style-type: none"> Annual weeds programs are developed in consultation with key stakeholders. (Annual) 	<ul style="list-style-type: none"> See Strategic Actions 1.1.1 and 2.1.2.
	2.2.2 Foster consistent and complementary weed management planning and priority setting.	ACT Government Agencies/LMWG /WAG	<ul style="list-style-type: none"> Through key stakeholder forums, ensure that weed management approaches in the ACT are complementary and that there is consistency in their application (2009-ongoing). 	<ul style="list-style-type: none"> A Weed Forum was held for stakeholders in 2012 (see Strategic Action 3.2.4). Consistent and complementary weed action is also fostered through direct consultation with key stakeholders (Strategic Actions 1.1.1. and 2.1.2).
	2.2.3 Clearly define, communicate and implement weed management roles and responsibilities of the ACT Government and other key stakeholders for directly managed lands.	ACT Government Agencies/LMWG /WAG	<ul style="list-style-type: none"> Roles and responsibilities for weed control and management are established and clearly articulated. (2009 -2010) The ACT WWG/WAG meets on a regular basis to ensure coordinated approaches across land management boundaries. (2009-ongoing) 	<ul style="list-style-type: none"> Government roles and responsibilities for weed control, management and policy are articulated in the ACT Biosecurity Plan 2013 (Strategic Action 1.3.2). Roles and responsibilities for community group weed control programs are as agreed by the community group, in accordance with funding requirements (Strategic Action 3.1.3), or as negotiated with PCS. It is proposed that the LMWG will be disbanded and key-non government stakeholders are being consulted directly during the development of the iWOP (Strategic Action 1.1.3), Commonwealth-funded grants and ACT Environment Grants (Strategic Action 3.1.3). The WAG will continue to provide a range of advice to support weed management activities.

2.3 Implement coordinated and cost-effective solutions for priority weeds and weed problems	2.3.1 Ensure that appropriate levels of resources are targeted towards weed management priorities. <i>(linked to action 2.2.1)</i>	ACT Government Agencies/LMWG /WAG	<ul style="list-style-type: none"> ▪ Resources for weed management are matched to priority actions and control measures through annual weeds programs. (2009-ongoing) ▪ Through ongoing review and evaluation, ensure that resources are secured and directed toward weed management priorities (2009-ongoing). 	<ul style="list-style-type: none"> ▪ Annual environmental weed operations budgets have provided consistent resourcing over the 2009-14 period of the strategy with resources matched to priority actions and sites through development of the iWOP, ACT Parks and Conservation Weeds Atlas and risk assessment processes (Strategic Actions 1.2.1 and 2.1.1). Budgeted amounts were \$1.4 million (2009-10), \$2.0 million (2010-11), \$2.5 million (2011-12), \$2.6 million (2012-13) and \$2.4 million (2013-14), with planned expenditure of around \$2.1 million in 2014-15. Budget increases over 2011-13 reflect funding initiatives for the removal of willows and other woody weeds, and rehabilitation of river banks with native trees and shrubs in the Queanbeyan and Molonglo rivers (Waterways Restoration Program). The sum of \$55,000 (included in the above totals) was allocated in 2013 for willow and alder removal in Jerrabomberra Creek and subsequent rehabilitation with native species. ▪ Estimated ranger hours (supervising weed control contractors and undertaking weed control directly) and ParkCarer hours were 5,487 and 4,811, respectively, in 2011-12, 6,135 and 4,800 in 2012-13, and 5,921 and 4-5,000 in 2013-14. For 2014-15, it is estimated that there will be between 10,000 and 13,000 ranger hours dedicated to weed control with a further 4,000 hours of ranger time supervising weed control contracts (equivalent to seven rangers working on weed contracts). ParkCare groups will undertake approximately 5,000 hours of weed control activities during 2014-15. The large increase in ranger hours reflects better record keeping and increased on-ground control work. ▪ Annual invasive weed control operations covered 8,903 hectares in 2009-11 (underestimated due to inconsistent mapping), 8,575 hectares in 2012-13 and 16,637 hectares in 2013-14, with further control of 8,000 to 11,000 hectares expected in 2014-15. This included over 3,000 hectares of roadside weed control in 2013-14, with a further 3,000 hectares of roadside control anticipated for 2014-15. ▪ Review and evaluation of weed management priorities currently occurs annually through the production of the ACT Parks and Conservation Weeds Atlas and planning for the following year's iWOP. The process for assessing risk and assigning priority to operations has been described in detail in the 2012-13 iWOP. ▪ Targeting of resources for invasive weed control in urban areas is based on iWOP priority species.
	2.3.2 Review and update plans for the management of priority weeds and weed problems for action as per the <i>Pest Plants and Animals Act 2005</i> . <i>(linked to action 1.3.1)</i>	ACT Government Agencies/LMWG /WAG	<ul style="list-style-type: none"> ▪ Weed management plans specified under the <i>Pest Plants and Animals Act 2005</i>, are current and make use of the best information available. (2007-ongoing) ▪ Undertake a five year rolling program to review existing management plans (2009–ongoing) 	<ul style="list-style-type: none"> ▪ PPMPs for Madagascan Fireweed and Chinese Fairy Grass are now Notifiable Instruments under the <i>ACT Pest Plants and Animals Act 2005</i>. A PPMP for Serrated Tussock is in draft form and awaits final approvals (Strategic Action 1.1.4). ▪ The plans above represent the first PPMPs developed under the Act. There has been no requirement for review of management plans during the 2009-2014 period of the strategy. ▪ The role and efficacy of PPMPs will be considered as part of the review of this legislation.

	<p>2.3.3 Develop and implement improved management practices for priority weed problems at landscape scales, and promote adoption of best management practice.</p>	<p>ACT Government Agencies/LMWG /WAG</p>	<ul style="list-style-type: none"> ▪ Best available management practices are utilised to address weed problems across the ACT. (2009-ongoing) ▪ The adoption of best management practices is promoted through key stakeholder forums. (2009-ongoing) 	<ul style="list-style-type: none"> ▪ Utilisation of the best available management practices has been facilitated through the use of the NSW DPI Noxious and Environmental Weed Control handbook. The handbook provides herbicide prescriptions and general information on when control methods are best applied, withholding periods following herbicide application, and disposal of unwanted herbicides and their containers. A supplement is attached with information for ACT rangers and field officers (contract templates, no-spray register, safety, permit requirements, etc.), weed risk assessment processes and control options for individual weed species. Follow-up control is recognised as an essential tool in annual weed operations to secure the benefits of effective weed reduction achieved through primary control efforts. For example, in the 2014-15 iWOP, 65 per cent of the invasive weed control budget is dedicated to follow-up control of previously treated areas. ▪ Over the 2009-2014 period there have been several innovative approaches adopted for weed control, including: <ul style="list-style-type: none"> i) application of granular fluproponate selectively to Serrated Tussock to give lasting control in the root zone, including in areas that spray vehicles cannot access, and to treat incidental sightings; ii) supplementary control of high-risk Broom and Gorse species (both WoNS) through the release of highly host-specific biological control agents including the Scotch/English Broom Gall Mite and the Gorse Spider Mite; iii) use of an amphibious eight-wheel-drive vehicle Argo 800 with a 200 litre spray tank in rough terrain around waterways to manage otherwise inaccessible weed infestations (eg, Blackberry, Tree of Heaven); iv) supply of rangers with 'Find It, Fix It' kits containing granular herbicides and gelled woody weed herbicides to treat small weed infestations when rangers encounter them in remote areas; v) use of specialist remote area weed controllers to deal with isolated weed infestations, for example, abseiling to control Prickly Pear outbreaks in Molonglo Gorge and Blackberry control in upper Rendezvous Creek; and vi) winter control of invasive grasses when they are more obvious and there are fewer off-target impacts on native warm season grasses.
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2.4 Implement risk management practices to respond to environmental change	2.4.1 Prioritise weed species and incursions for action, through risk analysis. <i>(linked to action 1.1.4)</i>	ACT Government Agencies/WAG	<ul style="list-style-type: none"> Weeds problems in the ACT are prioritised according to the risks they pose to environmental, cultural and production assets. (2009-ongoing) 	<ul style="list-style-type: none"> See Strategic Action 2.1.1.
	2.4.2 Through monitoring, develop, review and implement appropriate responses to weed incursions to minimise their impacts.	ACT Government Agencies/LMWG /WAG	<ul style="list-style-type: none"> An enhanced monitoring program is developed and implemented that considers weed control in terms of impact on weed species, impacts on biodiversity, and economic returns. (2009-ongoing) Weed control programs across the ACT are continually refined through monitoring and evaluation. (2009-ongoing) 	<ul style="list-style-type: none"> Conservation Planning and Research (EPD) has provided evidence of the success of invasive weed control operations by comparing woodland condition in 2013 in reserves and other areas against condition mapped between 2001 and 2004. Since that time there has been significant overall improvement in condition. There has been a greater than 50 per cent increase in the extent of high-quality woodland and a 20 per cent reduction in the area of poor-quality woodland. This improvement in condition is also reflected by an overall substantial increase in the distribution and abundance of rare plant species. This improvement is related directly to invasive weed control in the surveyed areas, which, when combined with rabbit control, has allowed good native plant regeneration. This evidence highlights the benefits of a prioritised weed control program that ensures follow-up control work is not missed. Improved mapping of weed control operations through the ACT Parks and Conservation Weeds Atlas and recording of weed density has enhanced the capacity to analyse the success of monitoring programs.

GOAL THREE: ENHANCE OUR CAPACITY AND COMMITMENT TO SOLVE WEED PROBLEMS

OBJECTIVE	STRATEGIC ACTIONS	RESPONSIBILITY FOR ACTION	PERFORMANCE MEASURES	ACHIEVEMENTS
3.1 Raise awareness and motivation to gain commitment from the ACT Community to act on weed problems	3.1.1 Develop and implement targeted weed awareness activities for all stakeholders, including industry and the community.	ACT Government Agencies/LMWG /WAG	<ul style="list-style-type: none"> Awareness raising activities are incorporated into annual weeds programs. (Annual) Awareness raising activities are held in conjunction with key stakeholder group activities. (2009-ongoing) 	<ul style="list-style-type: none"> Public awareness of annual weeds programs activities has been raised through periodic media releases reporting on the extent of invasive weed control and specific projects such as willow and Prickly Pear removal, restoration of Jerrabomberra Creek, adoption of new technologies (amphibious vehicles, SmartPhone App, Weed Spotter website and Apps), release of biological control agents, forthcoming Weed Swap and Bush Friendly Garden events, and weed alerts. The Madagascar Fireweed incident management team rapid response is a new initiative for the ACT that received good publicity. Weed Swap is a biannual event held to promote the removal of woody weeds by Canberra residents from urban gardens to prevent their invasion into adjacent bushland and nature reserves. The event is a partnership between the Australian Native Plants Society Canberra Region and the ACT Government. The ACT Government also supports the annual Bush Friendly Garden display at Floriade which is run in partnership with the assistance of ParkCare and Australian Native Plant Society members. The purpose of the Bush Friendly Garden display is to raise public awareness about invasive weeds and to showcase alternative, non-invasive native species that are desirable as garden plants.
	3.1.2 Recognise and reward community achievements in weed management in the ACT.	ACT Government Agencies/WAG	<ul style="list-style-type: none"> Through key stakeholder forums, pursue nominations for community members/groups for awards recognising outstanding achievement (ie. landcare awards). (Annual) 	<ul style="list-style-type: none"> Biennial ACT Landcare Awards have recognised community groups for their weed management efforts including the Red Hill Regenerators, Friends of Mt Majura, Mt Ainslie Weeders, Watson Woodlands Working Group, Southern ACT Catchment Group (2011), the Yurung Dhaura Aboriginal Land Management Team, Hughes Garran Woodland Group and the Northern Belconnen Landcare Group (2013).

	3.1.3 Develop and implement incentive programs in partnership with national NRM funding programs.	ACT Government Agencies/LMWG/WAG /ACT NRM Council	<ul style="list-style-type: none"> Weed projects are implemented through Government and community partnerships supported by national NRM funding programs. (2009-ongoing) 	<p>ACT Environment Grants with a weed management focus are listed below.</p> <ul style="list-style-type: none"> Biodiversity enhancement of Tuggeranong Creek Homestead creek-line (2008-09). ACT community weed control assistance through provision of training and a weed trailer (2010-11). Grass Weeds Fact Sheet (2011-12). Revegetation of a portion of Jerrabomberra Creek (2011-12). Camp Cottermouth weed control and rehabilitation (2012-13). African Love Grass containment and control in 'Booroomba' and upper reaches of the Paddy's River (2012-13). Grassy ecosystem restoration on national lands in central Canberra (2013-14). Weed control assistance for Paddy's River Tharwa Region Rural Lessees (2013-14). African Love Grass, Blackberry, and Serrated Tussock Control on 'Booroomba' (2013-14). <p>Weeds of National Significance Grants</p> <ul style="list-style-type: none"> The ACT NRM Council with support from the Commonwealth Caring for our Country program has provided grants (totalling \$300,000) targeting the control of WoNS within the ACT, including Blackberry, Chilean Needle Grass, Serrated Tussock, Alligator Weed, Gorse, Willow, Broom and African Boxthorn. A number of regionally significant weeds (eg, African Love Grass) were also targeted through the program. Weed control occurred on over 33,000 hectares of land during this grants program. <p>ACT Rural Grants – Taking the Next Step The first round of the ACT Rural Grants program, funded by the Australian Government, includes support for the projects below.</p> <ul style="list-style-type: none"> Cropping and pasture establishment to address African Love Grass on three properties, covering 136 hectares. Serrated Tussock control and native pasture establishment across three properties in north Canberra covering 900 hectares. <p>Other</p> <ul style="list-style-type: none"> PCS's 20 year partnership with the Canberra Bushwalking Club to remove Scotch/English Broom from Namadgi National Park is continuing. The 2014-15 iWOP identifies 185 of the 764 environmental weed control projects planned for 2014-15 as being joint control projects with rural landholders.
3.2 Strengthen the ACT's capacity to address weed problems and improve weed management.	3.2.1 Create opportunities for training and development in weed management skills.	ACT Government Agencies/LMWG	<ul style="list-style-type: none"> Training requirements and capacity development are assessed. (2009-ongoing) Training opportunities are provided as part of annual weed programs. (2009-ongoing) 	<ul style="list-style-type: none"> In 2014-15, the ProFarm Recognising Grasses course will be held for PCS and City Services staff, ParkCare volunteers and contractors to raise their skills in invasive grass recognition. In 2015-16, it is proposed to run a diploma level ProFarm course – Identifying Grasses - that builds on the Recognising Grasses course.
	3.2.2 Support the operation of ACT networks for community-based, on-ground action.	ACT Government Agencies/LMWG/WAG /ACT NRM Council	<ul style="list-style-type: none"> Support mechanisms for community involvement in on-ground action developed and implemented through national NRM funding programs and partnerships. (2009-ongoing) 	<ul style="list-style-type: none"> See Strategic Action 3.1.3.
	3.2.3 Identify, facilitate and promote new technologies, research and approaches to weed problems through collaborative arrangements.	ACT Government Agencies/WAG	<ul style="list-style-type: none"> Collaborative partnerships with research and development organisations are developed, enhanced and maintained. (2009-ongoing) 	<ul style="list-style-type: none"> The release of the Scotch/English Broom Gall Mite at Williamsdale and in Namadgi National Park in 2013 was arranged through a partnership between the ACT Government, CSIRO, the Australian Government Broom Control Taskforce, NSW DPI and the Palerang Council. The ACT Weeds Forum (Strategic Action 3.2.4) included keynote addresses from noted scientists representing external research organisations.

	3.2.4 Provide ready access to high quality weed management information and knowledge.	ACT Government Agencies/WAG	<ul style="list-style-type: none"> Information and knowledge relating to weed problems and management practices is appropriately presented and disseminated to relevant stakeholders. (2009-ongoing) 	<ul style="list-style-type: none"> An ACT Weeds Forum was hosted by the ACT Natural Resources Management Council and organised by the EPD Natural Resource Management Facilitator on 9 March 2012 supported by the Australian Government Caring for our Country program and the ACT Government. The forum drew on and distilled the expertise, experience and practical insights of a range of stakeholders and explored fresh approaches to further reducing the prevalence and spread of existing weeds and the incursion of new species in a changing climate. Stakeholders included representatives from all areas of the ACT Government, the NRM Advisory Committee, Commonwealth representatives from the NCA, DAFF, Defence and ABARES, a range of ACT and regional NSW community groups (catchment groups, ParkCare groups, ACT rural landholders) and non-profit organisations (eg, Greening Australia), NSW state and local government representatives (eg, WoNS program coordinators), research institutions (CSIRO, UC) and ACTEW. An extensive list of recommended actions emerged as an outcome of the workshop which should be considered by the WAG. The development of the Weeds Spotter Website (Strategic Action 1.1.1) was an outcome of this forum. A similar forum will be organised every three years.
	3.2.5 Reduce the barriers to adoption of best management practices.	All stakeholders	<ul style="list-style-type: none"> Best management practices for weed control are adopted across the ACT. (2009-ongoing) 	<ul style="list-style-type: none"> Best management practices for weed control have been summarised in the NSW DPI Noxious and Environmental Weeds handbook and ACT supplement (Strategic Action 2.3.3). Adoption of best practice management and innovative activities to improve best practice management are included in the criteria for assessment of ACT and Australian Government grants relating to weed management (Strategic Action 3.1.3).
3.3 Monitor, evaluate and report against progress of weed management and control efforts.	3.3.1 Develop, implement and maintain consistent auditing of weed distribution, impacts and management.	ACT Government Agencies/ LMWG /WAG	<ul style="list-style-type: none"> Annual weeds monitoring programs are undertaken based on a scientific monitoring framework. (Annual) 	<ul style="list-style-type: none"> The ACT Parks and Conservation Weeds Atlas is currently the main method for monitoring of invasive weed control operations in priority areas (Strategic Action 1.2.1). Mapping of weed distribution will be enhanced by the recent application of SmartPhone technology and the development of the Weed Spotter portal (Strategic Action 1.1.1). Data on invasive weed control operations are summarised at Strategic Action 2.3.1. Weed density classes have been assessed periodically for priority sites, with density data recorded in the 2012-13 and 2013-14 versions of the ACT Parks and Conservation Weeds Atlas. Rangers and ParkCarers occasionally use before and after photo points to show the impact and success of weed control.
	3.3.2 Monitor and evaluate the implementation of the annual weeds programs.	ACT Government Agencies/ LMWG /WAG	<ul style="list-style-type: none"> The existing monitoring programs are revised and enhanced to ensure they provide a scientific framework for the evaluation of the effectiveness and efficiency of the weed control programs on biodiversity, productivity and public amenity. (2009 - 2010) Monitoring results are analysed as required to ensure best practice weed control management is implemented. (2009-ongoing) 	<ul style="list-style-type: none"> See Strategic Action 3.3.1.
	3.3.3 Monitor and evaluate the implementation of the ACT Weeds Strategy.	ACT Government Agencies/ LMWG /WAG	<ul style="list-style-type: none"> Implementation of the ACT Weeds Strategy is periodically evaluated, with evaluations incorporated into Annual reports. (2009-ongoing) Evaluation outcomes are used to guide annual weeds programs. (2009-ongoing) 	<ul style="list-style-type: none"> This 2009-14 review of the weeds strategy has been based on annual reports (iWOPS and the ACT Parks and Conservation Weeds Atlas) produced by the PCS Senior Weeds Officer, other ACT Government documents and public media releases. The evaluation will be used to guide the implementation of strategic actions for the 2015-19 period of the strategy.
	3.3.4 Report periodically on achievements in weed management and control in ACT.	ACT Government Agencies/ LMWG /WAG	<ul style="list-style-type: none"> Annual reports are prepared by ACT Government Agencies and the LMWG for endorsement and public release. (Annual) 	<ul style="list-style-type: none"> The 2011-12 Environmental Weeds Annual Report is publicly available on the TAMS website. Annual reports produced since that time in the form of the iWOP and ACT Parks and Conservation Weeds Atlas have been provided to ACT weed stakeholders.