

Australian Weeds Strategy and Australian Pest Animal Strategy 2017–2027

Summary of submissions



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Introduction

On 2 September 2016 the Department of Agriculture and Water Resources and the Invasive Plants and Animals Committee (IPAC) released the *Australian Weeds Strategy 2017-2027* (AWS) and *Australian Pest Animal Strategy 2017-2027* (APAS) for public consultation. The strategies provide national guidance on best practice vertebrate pest animal and weed management.

The strategies were open for public comment from 2 September 2016 to 14 October 2016. The department invited submissions from landholders, governments, industry, natural resource management (NRM) groups and the wider community with an interest in pest animal and weed management.

The department received 24 submissions for the AWS, comprising 6 submissions from state governments, 2 submissions from NRM groups, 3 submissions from industry, 2 submissions from researchers, 5 submissions from community groups, 4 submissions from landholders and 2 submissions from individuals (Appendix A).

The department received 50 submissions for the APAS, comprising 4 submissions from state government, 2 submissions from local government, 2 submissions from NRM groups, 2 submissions from businesses, 7 submissions from researchers, 22 submissions from community groups, 4 submissions from landholders, and 7 submissions from individuals (Appendix B).

This report summarises stakeholders' responses to the questions raised in the consultation and steps taken to address feedback under the following themes:

- roles and responsibilities of all stakeholders
- goals and priorities
- the link between Australia's biosecurity system and pest animal/weed management
- general feedback.

The report also provides explanations for where changes have or have not been made in response to stakeholder feedback. Specific changes to the strategies are set out in the tables provided at <u>Appendix C</u> and <u>Appendix D</u>.

Australian Weeds Strategy: views on proposed roles and responsibilities of government and other stakeholders

The *Australian Weeds Strategy 2017-2027* (AWS) outlines the roles and responsibilities for the Australian Government, state and territory governments, local governments, industry and community groups, regional natural resource management (NRM) groups and landholders. Stakeholders were asked to provide comment on whether the roles and responsibilities of key stakeholders in weed management described in the strategy were clear.

Stakeholders supported the roles and responsibilities outlined in the strategy and suggested improvements to improve clarity and accountability for achieving the strategy's goals and priorities. The majority of stakeholder suggestions have been picked up through minor amendments to the roles and responsibilities. Some suggestions were not taken up to ensure that the roles and responsibilities descriptions remained high level and not overly prescriptive.

One stakeholder sought clarification about organisations which have primary responsibilities for collecting, collating, managing, sharing and analysing weed data. Responsibility for data collection lies with all stakeholders.

Schedule 3 of the <u>Intergovernmental Agreement on Biosecurity (IGAB)</u> details a collaborative approach to collecting, collating, analysing, storing and sharing biosecurity information to improve decision making and enhance efficiency of biosecurity operations. The National Biosecurity Information Governance Expert Group under the <u>National Biosecurity Committee</u> (NBC), is currently exploring ways to implement the sharing of biosecurity information nationally.

An independent review of the IGAB is being undertaken in 2016/17. The review will help ensure Australia's biosecurity system remains current, efficient and flexible. Further information on the review is available on the <u>department's website</u>.

Role of landholders

Stakeholders supported the roles and responsibilities that are outlined in the strategy for landholders with minor changes.

Stakeholders suggested changing the section heading to 'the role of landholders (public and private) and co-existing land users' as co-existing land users, such as the resource sector and public utilities, also play an important role in weed prevention and management. The section heading has been changed to reflect the responsibilities of land users in managing biosecurity risks.

As suggested by stakeholders, the roles and responsibilities of landholders have been amended to include managing biosecurity risks and implementing weed hygiene procedures.

Stakeholders viewed the coordination of weed management across tenures as a worthy goal but were concerned about how conflicts would be resolved. Priority 2.2 has been amended to reflect that this is one of the many challenges of weed management.

One stakeholder suggested that the roles and responsibilities of industry and landholders for weed and pest animal management could be clarified by providing additional guidance in both strategies. Clarification for alignment of outcomes with other frameworks including the biosecurity continuum is already captured in Figure 2. This figure has been updated to include all schedules of the IGAB. This now picks up the National Biosecurity RD&E strategy under Schedule 8 of the IGAB.

In response to stakeholder feedback, 'understand the need for multiple species approaches and the cause and effect relationships that apply to weed problems' has been changed to 'understand the need to use multiple approaches (for example, chemical, physical and biological) to prevent weeds from adapting to existing controls'.

Role of Australian Government

Overall, stakeholders supported the roles and responsibilities outlined in the strategy for the Australian Government.

However, criticisms were raised about a perceived shift from government-led action to community-led action and a decreased accountability for specific action items. The role of the Australian Government is to support collective action by others. This is consistent with the IGAB and the *National Policy Framework for the Management of Established Pests and Diseases of National Significance*. In streamlining cooperative efforts, consistency and transparency in decision-making, the framework ensures limited government resources are directed to best serve the national interest and provide the best return on investment.

Action items that were present in the previous strategy have not been included in the revised AWS. This approach recognises that the strategy provides high level goals and priorities to guide the development of shorter term action items to be led and undertaken by each stakeholder group. As an example, the Invasive Plants and Animals Committee (IPAC), which has oversight of the AWS, will use the AWS as a guide when determining actions for its annual work plan.

Additional roles were suggested for the Australian Government. For example, strengthening international links. The Australian Government's roles have been amended to include the following role: 'honour international treaties and to contribute to global environmental and trade initiatives'.

Other suggested additions included maintaining a network of skilled biosecurity officers and overseeing pesticide regulation. Maintaining a network of skilled biosecurity officers was not added because it is broadly covered under the roles outlined for the Australian Government, which include the provision of leadership and coordination for emergency responses to weed incursions and undertaking enforcement actions and regulatory interventions when necessary. 'Overseeing pesticide regulation' has been added. The Australian Pesticides and Veterinary Medicines Authority (AVPMA) is an Australian Government statutory authority established in 1993 to centralise the registration of all agricultural and veterinary chemical products in Australia. Previously each state and territory government had its own system of registration.

Role of state and territory governments

Stakeholders were supportive of the roles and responsibilities that are outlined in the strategy for state and territory governments with minor changes.

A stakeholder suggested adding 'of state significance and take all reasonable steps to eradicate state-prohibited weeds' to 'lead and coordinate emergency responses to priority weed incursions' (dot point 1) and adding 'state' to 'manage weed problems on government land, state-managed corridors and waterways, in cooperation with other landowners' (dot point 4). Dot point 1 has been amended as suggested. 'State and territory' has been added to dot point 4.

Role of local governments

Stakeholders were supportive of the roles and responsibilities that are outlined in the strategy for local governments.

Stakeholders suggested removing 'exercise statutory duties' from local government responsibilities because in some jurisdictions statutory duties lie with the state government or NRM groups. A sentence has been added to the precis of the roles and responsibilities, noting that roles and responsibilities may vary across jurisdictions.

Role of industry and community groups

Following stakeholder feedback, the roles and responsibilities of industry and community have been separated from each other in recognition that each group operates differently and has different motivations for managing weeds.

Role of regional natural resource management groups

Stakeholders supported the roles and responsibilities of regional resource management groups. The heading of this section has been changed to 'Natural Resource Management Bodies' in recognition of the work undertaken by the 56 <u>regional NRM groups</u> and other NRM groups, as suggested by stakeholders.

The role 'show leadership by working with landholders and government to develop effective regional weed management programs', has been brought higher in the list of roles to reflect the importance of natural resource management groups as knowledge brokers.

The important role NRM bodies play in information gathering and on-ground delivery is recognised under 'assist with data collection and information exchange' (dot point 5).

Other feedback on roles and responsibilities

Stakeholders commented that the revised strategy does not reflect the national and state shift towards collaborative networks and everyone being responsible for managing their own biosecurity risks. A sentence has been added to the roles and responsibilities precis recognising that all stakeholders are responsible for managing potential biosecurity risks.

Stakeholders suggested that the strategy should define roles and responsibilities according to the delivery of goals rather than weed management and suggested that the AWS could clarify funding responsibilities. Stakeholders also suggested that the strategy should be clear about where resourcing is needed so that it can act as an investment guide to enable all levels of

government to prioritise funding. Changes were not made to the strategy because the strategy is not tied to funding. The strategy outlines three goals for management of weeds in Australia and each goal has a set of priorities. Stakeholders can use the goals and priorities to identify where investments should be made in weed management.

It was suggested that there could be a greater focus on post-border weed incursions to prevent spread to other areas within Australia and suggested that the roles and responsibilities needed to more extensively cover pre-, at- and post-border weed management. For simplicity, the roles and responsibilities cover all stages of pre-, at- and post-border weed management as described in the <u>Generalised Invasion Curve</u>.

Stakeholders also suggested that the strategy could identify who will be responsible for formulating and delivering educational material to ensure all Australians understand and take responsibility for mitigating the adverse impacts of weed invasions on all aspects of Australian society and the environment. Building awareness and delivering public education programs for weeds is a role for multiple parties including the Australian Government, state and territory and local governments and NRM and community groups. This role includes providing risk creators with a better understanding of the consequences of particular behaviours. 'Supporting and building public awareness about weed issues' has been added to local government, industry and NRM and community groups for both groups. The *Australian Pest Animal Strategy 2017-2027* (APAS) has also been updated with similar wording.

Australian Weeds Strategy: views on goals and priorities of strategy

The revised Australian Weeds Strategy 2017-2027 (AWS) outlines three goals:

- 1) prevention, detection and early intervention
- 2) minimise the impact of established weeds
- 3) enhance Australia's capacity and commitment to weed management.

Overall, stakeholders were supportive of the goals of the strategy. Some stakeholders were concerned about the absence of actions in the strategy and felt that it would be difficult to measure any progress against the strategy's goals without actions to evaluate progress against. See Implementation of the strategy.

Stakeholders commented that the strategy did not capitalise on the lessons learned in weed management over the past 10 years. Appendix A of the strategy broadly covers national weed management achievements and lessons. There have been many lessons learned in weed management over the past decade however not all of them have been included in the strategy because there is not a one size fits all approach to weed management and tools and lessons learned may vary between situations. A sentence has been added explaining that each goal is addressed by a suite of priorities that builds on the experience and achievements in weed management over the past decade.

Stakeholders suggested that eradication should be one of the goals of the strategy. Eradication was not added as a goal of the strategy because it is not always possible depending on scale of incursion. Some factors which determine the likelihood of success in eradicating a weed include capacity of the target species to produce seeds or other propagules, seed bank longevity, amount of time that the target species has been naturalised, detection time and infestation size (Department of Environment, Land Water and Planning Victoria, 2016). Prevention of new weeds entering Australia is proven to be the most cost effective way to manage weeds. See Generalised Invasion Curve.

It was suggested that the name of the strategy should be changed to the Australian Pest Plants Strategy. The title of the strategy has remained the same, in order to help avoid confusion with plant pest policy documents.

Goal 1—Prevention, detection and early intervention

It was suggested that Goal 1 of the AWS should describe high-risk pathways and articulate which pathways will expand over the next 10 years. In line with the strategy goals being high level, the overview of primary weed-spread pathways in Australia has not been moved into the goals section. Rather, the primary weed-spread pathways section remains under the Impact of Weeds in Australia section.

In response to feedback that information about restricting new weed introductions via internet trade (legal and illegal) was limited in the AWS, a case study has been included which focuses on

the trade of ornamental seeds and plants through web-based retailers such as eBay and Gumtree.

Goal 2—Minimise impact of established weeds

Stakeholders commented that prioritisation of weeds should take place at national and subnational levels (parks and park networks). In response, the term 'national significance' has been removed from principle 4 'prioritisation of weed management must be informed by a risk based approach, considering feasibility, likelihood of success, impact and national significance'.

Goal 3—Enhance Australia's capacity and commitment to weed management

Overall, stakeholders supported the strategy's third goal 'to enhance Australia's capacity and commitment to weed management'. Stakeholders suggested that a key role of the revised strategy should be to address the deficit and gaps in public education regarding weeds. The Australian Government, state and territory governments, local governments, natural resource management (NRM) and community groups all have a role in building public awareness and knowledge of weeds issues. Building public awareness of weed issues and capacity to manage weed problems is listed as a priority under Goal 3 (Priority 3.1).

Australian Weeds Strategy: views on link between Australia's biosecurity system and weed management

The *Australian Weeds Strategy 2017—2027* (AWS) translates biosecurity and other related policies into a strategy that governments, landholders, industry and the community can use to guide weed planning and management. Stakeholders were asked if the link between Australia's biosecurity system and weed management was clear in the strategy and to explain why if the link was not clear.

Stakeholders found the link between the management of weeds and Australia's biosecurity system to be clear. A small number of stakeholders felt that the strategy would not add any value to Australia's biosecurity system because it does not include any action items. See Implementation of the strategy.

Some stakeholders felt that the section covering the Intergovernmental Agreement on Biosecurity (IGAB) and other policy documents needs to be simplified to assist those without a long term background in weed or pest management. The text on page 7–9 remains largely unchanged because the IGAB has been endorsed by the National Biosecurity Committee (NBC) and the wording is consistent with this.

Stakeholders requested greater clarity with regard to Australia's biosecurity role and the weed strategy. In response, an explanation of how the Invasive Plants and Animals Committee (IPAC) will use the AWS to guide development of its annual work plan has been added to the Purpose of the Strategy section.

Stakeholders commented that Figure 2 was useful in showing the context for the strategy and how it aligns with other related strategies and plans and suggested that it could be improved by including links to other weed management documents such as the Weeds of National Willows Management Guide. A reference to WoNS management plans has been included in Figure 2.

Stakeholders recommended that the AWS should provide further clarification on the linkages between Australia's biosecurity system and area-wide management of endemic weeds that are resistant to one or more groups of herbicides. No change has been made under this recommendation as while herbicide resistance is a significant issue, it is covered under Priority 2.4: 'Enhance weed control techniques and integrate management options'.

General feedback on *Australian Weeds*Strategy

Feedback received on other aspects of the Australian Weeds Strategy 2017-2027 (

AWS) includes:

- native plants as weeds
- the impact of climate on weed distribution
- a deed for exotic production weed
- review timeframe for the strategy
- Established Pests and Diseases of National Significance Framework
- Generalised Invasion Curve
- implementation of the strategy
- Weeds of National Significance.

Native plants as weeds

Stakeholders suggested that the strategy needs to clarify whether native plants which can become weeds are included in the scope of the strategy. The AWS recognises a weed as a plant which requires some form of action to reduce its negative effects on the economy, the environment, human health or amenity but it does not specify if native plants are included.

A sentence has been added to the scope of the strategy explaining that in some instances native plants can become weeds. For the purposes of this strategy the focus will be on preventing the establishment of exotic weed species and managing established weeds. Native plants as weeds are to be managed in accordance with state and territory legislation.

Impact of climate on weed distribution

Stakeholders noted that there was no mention of the potential/likely impact of climate change on modifying weed distribution and rate of invasion (due to increasing temperature and CO2 levels) in the revised strategy. A reference to the impact of climate on the distribution of weeds has been added under primary weed-spread pathways.

A deed for exotic production weeds

Through the AWS consultation process, concern was raised that a response agreement for exotic production weed incursions will interfere with prompt responses to these incursions due to red tape. The National Biosecurity Committee (NBC) is developing a response agreement for exotic weeds which impact on agricultural production to help parties function more efficiently and effectively during a response.

There are currently three arrangements for responding to exotic pest and disease incursions:

- one for incursions that affect animal industries, (the Emergency Animal Diseases Response Deed)
- one for plant industries (the Emergency Plant Pest Response Deed)
- one where the impact is environmental (National Environmental Biosecurity Response Agreement).

These agreements provide stakeholders with a tested platform for preparing for incursions and responding quickly when incursions occur.

In recent years there have been a number of incursions of 'exotic production weeds' into Australia, such as red witchweed (*Striga asiatica*). However, the existing three incursion response agreements do not cover these exotic production weed incursions. This lack of formal agreement has hampered the ability of governments and industry to respond promptly and effectively to contain and eradicate production weed incursions. Without a formal agreement in place these incursions can take a long time to negotiate, leading to more inefficiencies or red tape than where a deed is in operation.

Review timeframe for the strategy

A concern was raised about the length of time before the strategies would be reviewed and the lack of opportunity to continually provide feedback on the implementation of the strategies. The strategies will be reviewed at mid-point after five years and at the end of the strategy to allow stakeholder input on priorities whilst reducing the burden on parties to consider the strategies too frequently. No changes have been made to the review timeframe.

Established Pests and Diseases of National Significance Framework

Some stakeholders were concerned that the strategy places too much emphasis on action by state/territory governments, industry and the community and the Australian Government does not have enough responsibility in this area.

The Established Pests and Diseases of National Significance Framework is a key deliverable of the Intergovernmental Agreement on Biosecurity. (IGAB) The framework has been developed to provide a consistent policy approach to the identification and management of pests and diseases of national significance. It aims to streamline cooperative efforts, promote consistency and transparency in decision-making and ensure limited government resources are directed to best serve the national interest and provide the best return on investment.

NBC sectoral committees are using the framework to assess and formally 'list' established pests and diseases, which are considered to be in the national interest to have a national approach, plan or strategy.

The endorsed framework is available on the <u>Department of Agriculture and Water Resources</u> website, along with the summary of stakeholder consultation on the discussion paper.

Generalised Invasion Curve

The economic returns on investment ratios presented at the bottom of the Generalised Invasion Curve was confusing to a number of stakeholders. The curve provides a way to demonstrate the

invasion continuum and the associated gradient in return on investment along the continuum. The economic return on investment ratios are indicative only and are used to illustrate the scale of return on investment. However, given the curve is primarily used in the AWS to illustrate the four generalised types of weed management options, the ratios have been removed from Figure 3 to avoid confusion.

Implementation of strategy

Stakeholders were concerned about the strategy not including specific actions to achieve the goals and priorities set out in the strategy. The 2007 AWS contained 45 strategic actions that outlined how the goals and objectives would be delivered and associated outcomes. Action items will not be included in the AWS so that stakeholders at all levels can develop their own plans to manage weeds which align with the goals and priorities. The Invasive Plants and Animals Committee (IPAC) has oversight of the AWS and will use the strategy to guide development of its annual work plan.

Weeds of National Significance

Stakeholders were concerned that delisting Weeds of National Significance (WoNS) would undo the efforts already made in controlling these highly invasive weeds, as land managers would no longer see them as a priority. Stakeholders were also concerned about the commitment to WoNS as a national coordination process, because the web links to the WoNS Strategic Plan, WoNS determination processes and Weeds Australia website appear to be no longer active. In Appendix B of the strategy a link has been added to the WoNS material which is available on the Atlas of Living Australia.

Australian Pest Animal Strategy: views on proposed roles and responsibilities of government and other stakeholders

The Australian Pest Animal Strategy 2017-2027 (APAS) outlines the roles and responsibilities for Australian Government, state and territory government, local government, industry and community groups, regional natural resource management (NRM) groups, keepers of exotic species and landholders. Stakeholders were asked to provide comment on whether the roles and responsibilities of key stakeholders in pest animal management described in the strategy were clear. Most stakeholder suggestions have been picked up through minor changes made to the roles and responsibilities. Some suggestions were not taken up to ensure the roles and responsibilities descriptions remained high level and not overly prescriptive.

Overall, stakeholders found that the roles and responsibilities outlined in the strategy were clear. Some stakeholders found the roles and responsibilities were difficult to read because of layout and suggested the use of a diagram instead of dot points. The layout of the roles and responsibilities was not changed to ensure compliance with <u>web accessibility guidelines</u>.

Some stakeholders requested clarity on the role that recreational hunters play in the strategy. Roles and responsibilities were not added for recreational hunters because there are many stakeholder groups in pest animal management which are also not acknowledged.

The strategy makes reference to the sharing of responsibilities across prevention, eradication, containment and asset based protection but stakeholders were unclear about how this would work, for example, who would ensure that others carry out their stated responsibilities. The strategy provides a general overview of the roles and responsibilities of the key stakeholders involved in pest management but responsibility for undertaking the duties outlined rests with the stakeholder.

Role of landholders

Stakeholders supported the roles and responsibilities that are outlined in the strategy for landholders.

A stakeholder commented that some landholders will have the control of pest animals as a low priority. A sentence has been added under roles and responsibilities recognising that there are challenges ensuring that all stakeholders undertake their responsibilities in pest animal management.

The section heading has been changed to the 'role of landholders (public and private) and coexisting land users' to maintain consistency with the *Australian Weed Strategy 2017–2027 (AWS*).

To maintain consistency with the AWS, 'understand the need for multiple species approaches and the cause and effect relationships that apply to pest animal problems' has been changed to

'understand the need to use multiple approaches (for example, chemical, physical and biological) to prevent pest animals from adapting to existing controls.

Role of Australian Government

Overall, stakeholders supported the roles and responsibilities outlined in the strategy for the Australian Government.

A stakeholder requested clarity on Australia's role in meeting and contributing to future global targets. 'Honour international treaties and to contribute to global environmental and trade initiatives' has been included as a responsibility of the Australian Government.

A stakeholder suggested including 'systematically assess both the positive and negative impacts of animals and consider positive impacts when developing management options' under Australian Government responsibilities. This activity is undertaken by all jurisdictions. A sentence has been added to the scope explaining that 'the strategy recognises that some species may also have positive impacts so the management of these species will need to consider both impacts'.

Role of state and territory governments

Stakeholders supported the roles and responsibilities of state and territory governments with minimal changes.

A stakeholder suggested including 'systematically assess both the positive and negative impacts of animals and consider positive impacts when developing management options' under state and territory responsibilities. This activity is undertaken by all jurisdictions. A sentence has been added to the scope explaining that 'the Strategy recognises that some species may also have positive impacts so the management of these species will need to consider both impacts'.

Role of local governments

Stakeholders supported the roles and responsibilities outlined in the strategy for local governments.

A stakeholder suggested rewording 'represent community interests in pest animal management' and 'support the activities of local groups undertaking pest animal management' as councils need to take into account their legislative requirements, regional priorities and resources and will vary in their capacity to support the activities of particular local groups. These responsibilities have been reworded to 'the role of councils is to support local initiatives and directions where they are representative of the Australian Pest Animal Strategy's direction and regional and local priorities'.

A stakeholder commented that the role of local governments in pest management varies according to the jurisdiction. A sentence has been added to the roles and responsibilities precis noting that roles and responsibilities may vary across jurisdictions.

Role of industry and community groups

A stakeholder suggested that industry and community roles should be separated because these groups operate differently and have different motivations for managing pest animals. The roles

and responsibilities of industry and community groups have been separated to maintain consistency with the AWS (<u>See AWS—Local Government</u>).

Role of regional natural resource management groups

Stakeholders supported the roles and responsibilities of regional resource management groups.

A stakeholder suggested changing the section heading 'Regional Natural Resource Management Groups' to 'Natural Resource Management Bodies' in the AWS. The section heading has been changed in the APAS to maintain consistency between the two strategies (<u>See AWS—Regional Natural Resource Management Groups</u>).

Role of keepers of exotic species

Stakeholders were supportive of the roles of keepers of exotic species. No changes have been made to the roles and responsibilities for keepers of exotic species.

Australian Pest Animal Strategy: views on goals and priorities of strategy

The revised *Australian Pest Animal Strategy 2017-2027 (APAS)* outlines three goals, with each goal having a set of priorities. The three goals of the strategy are:

- improve leadership and coordination for the management of pest animals
- minimise the impact of established pest animals
- prevent the establishment of new pest animal species.

Stakeholders were asked to provide comment on whether the goals and priorities of the strategy were focused in the necessary areas. Overall, the goals of the strategy were seen to be clear and focussed in the necessary areas. The implementation of the goals and priorities was seen as deficient as there were previously actions associated with the goals. One stakeholder suggested that a set of 5 year targets and an evaluation section that sets out the metrics should be added to evaluate the success of the strategy. See <u>Implementation of the strategy</u>.

Goal 1—Improve leadership and coordination for management of pest animals

All stakeholders supported the improvement of leadership and coordination for the management of pest animals as a goal of the strategy. Stakeholders suggested that preventing the establishment of new pest animals (Goal 3), should be the first goal. Goal 1 has been changed to 'preventing the establishment of new pest animals'. This change is consistent with the <u>Generalised Invasion Curve</u>, which recognises that the prevention is the most cost effective way to manage pest animals.

Priority 1.1—develop knowledge, capacity and commitment of stakeholders to take responsibility for pest animal management

Stakeholders identified that for a national vocational, educational and training (VET) system for pest animal management to be successful, jurisdictional differences will need to be accounted for.

A stakeholder identified that is not practical to undertake pest management training through recognised educational institutions for the following reasons:

- availability of training providers
- comprehensiveness of required training
- course length to cover all aspects
- · course cost
- distance required for travel
- unreliability of internet connections for remote training
- cost of setting up the course and training appropriate course providers.

It was also suggested that mandatory training in pest animal management would be counterproductive to the aim of the strategy. The strategy does not specify mandatory training, rather it recognises that training is needed to build stakeholder capacity to effectively manage pest animals.

Availability of nationally consistent pest management training is one of the many challenges of pest management in Australia and requires a collaborative approach between all parties to ensure that training is available where needed.

Priority 1.2—Improve information collection and sharing mechanisms to support effective pest animal management

A stakeholder suggested that data must be open access, meet best practice standards and also be readily available to policy makers, managers and researchers. Trade and market sensitivities limit when it is appropriate to make data available to stakeholders about the presence of a pest or disease on a property. Priority 1.2 has been changed to include references to 'best available data'.

Goal 2—Minimise impact of established pest animals

A stakeholder suggested that education programs and promotional elements should be included in Goal 2 because it is not clear whether these are included as a part of best practice. Changes were not made to Goal 2 because the goal already includes educational elements. Under Priority 2.2 (develop and improve best practice) the strategy states that research, development and extension also helps to develop and update best practice, and to customise it for different stakeholders.

Goal 3—Prevent establishment of pest animals

A stakeholder suggested that Goal 3 should include a reference to high-risk entry points. A sentence has been added in regards to knowledge or all modes of entry which includes high-risk entry points.

Australian Pest Animal Strategy: views on link between Australia's biosecurity system and pest animal management

The *Australian Pest Animal Strategy 2017 to 2027* (APAS) translates biosecurity and other related policies into a strategy that governments, landholders, industry and the community can use to guide pest animal planning and management. Stakeholders were asked if the link between Australia's biosecurity system and pest animal management was clear in the strategy and to explain why if the link was not clear.

Stakeholders found the link between Australia's biosecurity system and pest animal management easy to understand. Some stakeholders found the text on pages 7-9 about the Intergovernmental Agreement on Biosecurity (IGAB) difficult to understand. The text on page 7-9 remains largely unchanged because the IGAB has been endorsed by the National Biosecurity Committee (NBC) and the wording is consistent with this.

An independent review of the IGAB is being undertaken in 2016/17. The review will help ensure Australia's biosecurity system remains current, efficient and flexible. Further information on the review is available on the <u>department's website</u>.

Some stakeholders also found that Figure 2 was too crowded and that the font was too small. The font size has been increased and the information provided in Figure 2 has been simplified to improve readability.

Stakeholders were also concerned about the use of rabbit biocontrol. See <u>Current control</u> methods including biocontrol and baiting.

One stakeholder commented that the link is easy to understand, but it is not translating to issues on the ground. The strategy is intended to be high level and is not a 'how to' guide on how to undertake pest animal management. See Implementation of the strategy.

General feedback on *Australian Pest Animal Strategy*

Feedback received on other aspects of the *Australian Pest Animal Strategy 2017-2027* (APAS) includes:

- the definition of pest animal
- the responsibilities of risk creators
- the implementation of the strategy
- the inclusion of native animals, marine vertebrates, freshwater fish and invertebrates in the scope.

Definition of pest

It was suggested that the definition of a pest animal is changed to 'a pest is also defined as numbers exceeding the ability of the landscape to sustain, or where one or few species dominate a landscape, essentially the landscape loses it resilience to natural or man-made perturbations'. The definition of pest animal has not been changed as this is already included in the strategy. For example, kangaroos can become a pest by competing with livestock or other native animals for food.

Risk creators

Some stakeholders felt that the strategy did not sufficiently include risk creators such as those having a species under their control or those carrying out activities which may give rise to an invasive species risk. A sentence has been added to the precis, that all stakeholders have the responsibility to ensure actions do not increase the risks posed by invasive species.

Implementation of strategy

Stakeholders were concerned about the strategy not including specific actions to achieve the goals and priorities set out in the strategy. The 2007 APAS contained 27 strategic actions that outlined how the goals and objectives would be delivered and associated outcomes. Action items will not be included in the APAS so that stakeholders at all levels can develop their own plans to manage weeds which align with the goals and priorities. The Invasive Plants and Animals Committee (IPAC) has oversight of the APAS and will use the strategy to guide development of its annual work plan.

Scope of strategy

Stakeholders were unclear about whether native animals, marine vertebrates and freshwater invertebrates are included under the scope of the strategy. It was not also clear how the strategy's principles apply to the management of pest fish. The scope has been amended to clearly state that marine vertebrate pests are not included in the scope of the strategy.

A sentence has been added to the scope of the strategy explaining that in some instances native animals such as kangaroos and some possums can become pests, however, for the purposes of this strategy the focus will be on preventing the establishment of exotic animal species and

managing established pest animals. Native animals as pests are to be managed in accordance with state and territory legislation.

Freshwater fish and freshwater invertebrates are included in the scope of the strategy. A case study has been added to demonstrate how the strategy applies to management of freshwater fish (National Carp Control Plan).

Reintroduction of a bounty system for all vertebrate pest animals

A stakeholder suggested that a bounty system should be reintroduced for all vertebrate pests within all states and territories and all regional public lands should be opened to licenced, managed hunting. The introduction of bounties has not been promoted in the strategy as pest animal management is primarily the responsibility of states and territories and landholders. Any decision to introduce bounties in public lands would need to consider the safety of multiple land users and would be at the discretion of the jurisdiction. Landholders will also need to provide consent for suitable pest management activities to be undertaken on their land by external parties. Additionally, bounties may create a market for pest animals and encourage illegal breeding of pest species and this would be counterproductive to ongoing pest animal control efforts.

Ecological importance of the dingo

Some stakeholders expressed their concerns about the strategy not recognising the ecological importance of the dingo. A paragraph has been added to the case study explaining that dingoes can have positive impacts by regulating prey abundance in undisturbed habitats and controlling other introduced species which may indirectly benefit native species.

Appropriateness of current control methods

Stakeholders expressed their concerns about the use of biological control agents to control pest animals such as rabbits. Pest animal management is complex and many factors including government resourcing, technical, environmental, social and animal welfare matters are considered when developing appropriate policies and solutions. Biological control agents are sometimes a necessary option for controlling pest animals, particularly where traditional control techniques have proven costly and have limited effectiveness in the long term.

All biological control agents undergo rigorous testing and regulatory approval before being allowed in Australia for use. Biological control agents are used as a part of an integrated pest management approach to ensure that they remain effective in the long term. Without control, the cost of wild rabbit populations to agriculture alone is estimated to be in excess of \$2 billion in production losses each year.

Animal welfare

A large number of stakeholders were concerned about animal welfare, particularly in relation to the use of biological control on rabbits. Stakeholders suggested that the animal welfare aspect of the strategy could be improved by adding 'more humane' to the roles and responsibilities for the Australian Government and state and territory governments which relate to pest animal management, mandating the adoption of Codes of Practice and Standard Operating Procedures

for pest management in all jurisdictions and including humaneness in Priority 2.2 'Continue to develop and improve best practice management methods and increase overall adoption of these practices among landholders'.

Stakeholders also suggested that animal welfare should consider both the pest and prey. Changes were not made as the strategy explains that methods used to control pest animals must uphold animal welfare considerations. Codes of Practice and Standard Operating Procedures are intended to be a complimentary tool, they do not override legislation.

Funding for pest animal management

Stakeholders expressed their concerns that funding was not being adequately distributed to areas where it is needed. The strategy recognises that managing pest animals can be costly and that risk based prioritisation is needed to determine the best use of finite resources.

Appendix A: Submissions to *Australian Weeds Strategy*

All submissions to the *Australian Weeds Strategy 2017–2027* (AWS) consultation draft are published on the Department of Agriculture and Water Resources website, except where the submission has been marked as confidential or the submission contains inappropriate content.

- Adelaide and Mounty Lofty Ranges Natural Resources Management Board
- AgForce Queensland
- Alexander Arbuthnot
- Barbara Waterhouse
- Cotton Australia
- Council of Australasian Weed Societies
- Department of Tourism and Culture (Parks and Wildlife Commission, NT)
- Henry Detjen
- · Leila Huebner
- Melodie McGeoch
- Nature Conservation Society of South Australia
- North East Catchment Management Authority
- Office of Environment and Heritage (NSW)
- Peter Douglas
- Primary Industries and Regions South Australia
- Richard Busby
- Ten Deserts Initiative
- Trevor Armstrong
- Victorian Blackberry Taskforce

Appendix B: Submissions to Australian Pest Animal Strategy

All submissions to the *Australian Pest Animal Strategy 2017-2027* (APAS) consultation draft are published on the Department of Agriculture and Water Resources website except where the submission has been marked as confidential or the submission contains inappropriate content.

- Adelaide and Mount Lofty Ranges Natural Resource Management Board
- AgForce Queensland
- Ashlee Greaves
- Australian Veterinary Association
- Barry Porter
- Euan Ritchie
- Federation of Hunters Club
- Fisheries Scientific Council (NSW)
- Haydn Washington
- I Bucknell
- Invasive Animals Cooperative Research Centre
- Jamie Neal
- Janice McDonald
- Iodie Sills
- Justin Luke
- Lesley Palmer
- Maree Hamming
- Melodie McGeoch
- Nature Conservation Society of South Australia
- North East Catchment Management Authority
- Office of Environment and Heritage (NSW)
- Peter Thompson
- Primary Industries and Regions South Australia
- Rachael Mulcahy
- Richard Busby
- Royal Society for the Prevention of Cruelty to Animals

- Sharyn Bartlett
- Shooters Union Australia
- Sporting Shooters' Association of Australia
- Stephen Andrew
- Timothy Sills
- Vegan Australia

Appendix C: List of changes to Australian Weeds Strategy

Table A1 Roles and responsibilities

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Clarify who has primary responsibility for collecting, collating, managing, sharing and analysing weed data.	Summary document—explain that all stakeholders have a role in data collection and how department is implementing process of sharing biosecurity information nationally.	na
Include the national or state shift to collaborative networks and everyone being responsible for managing biosecurity risks.	Strategy—A sentence has been added explaining that all stakeholders are responsible for managing potential biosecurity risks.	14
Identify where resourcing is needed and funds should be invested.	Summary document—explain that the strategy is not tied to funding. The Strategy is a guide, to help stakeholders invest.	na
Increase focus on post border weed incursions and coverage of pre-, at- and post-border weed management.	Summary document—explain that the roles and responsibilities cover all stages of the generalised invasion curve.	na
Identify who is responsible for delivering educational material.	Summary Document—explained that this is a role for multiple parties including the Australian Government, state and territory governments, local governments, industry and natural resource management (NRM) and community groups.	16-17
	Strategy—added 'Supporting and building public awareness about weed issues under roles and responsibilities for local governments, industry and NRM and community groups.	

na not applicable.

Table A2 Australian Government

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Strengthen international links.	Strategy—added 'Honour international treaties and to contribute to global environmental and trade initiatives' to Australian Government responsibilities.	14
Explain governments shift to community-led action.	Summary document—explained that the shift to community-led action is consistent with the Established Pests and Diseases of National Significance (EPDNS).	na
Clarify how the strategy will be implemented.	Summary document—explained that the Invasive Plants and Animals Committee (IPAC) has oversight of the AWS and will use the strategy to guide development of its annual work plan.	na
Clarify how the strategy will be implemented.	Strategy—added that the Invasive Plants and Animals Committee has oversight of the AWS and	2

	will use the strategy to guide development of its annual work plan.	
Include maintaining a national network of biosecurity officers and overseeing pesticide regulation and safety processes.	Summary document—explained that maintaining a network of biosecurity officers is broadly covered under several Australian Government roles. The Australian Pesticides and Veterinary Medicines Authority (APVMA) is an Australian Government statutory body responsible for regulating all agricultural and veterinary chemical products in Australia. Strategy—overseeing pesticide regulation added to roles and responsibilities.	14-15

na not applicable.

Table A3 State and territory government

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Include 'of state significance and take all reasonable steps to eradicate State prohibited weeds' in 'lead and coordinate emergency responses to priority weed incursions' (dot point 1) and 'state' to 'manage weed problems on government land, state managed corridors and waterways, in cooperation with other landowners' (dot point 4).	Strategy—Dot point 1 has been amended as suggested. 'State and territory' has been added to dot point 4.	15

Table A4 Local government

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Remove 'exercise statutory duties' from local government responsibilities'.	Strategy—A sentence has been added explaining that roles and responsibilities may vary across jurisdictions.	14

Table A5 Industry and community groups

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Separate responsibilities for industry and community groups.	Strategy—The roles and responsibilities for industry and community groups have been separated.	15–16

Table A6 Landholders

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Change the heading to the role of landholders (public and private) and co-existing land users.	Strategy—heading has been changed as suggested.	14
Include managing biosecurity risks and implementing weed hygiene procedures.	Strategy—The roles and responsibilities of landholders have been amended to include managing biosecurity risks and implementing weed hygiene procedures.	14
Clarify how conflicts in priorities to manage weeds are resolved.	Strategy—Priority 2.2 has been amended to reflect that this is one of the many challenges of weed management.	22
Delete or reword 'understand the need for multiple species approaches and the cause and effect relationships that apply to weed problems' (dot point 7).	Strategy—reworded to 'understand the need to use multiple approaches (e.g. chemical, physical and biological) to prevent weeds from adapting to existing controls.	14
Clarify: a detailed process for how leadership and coordination will be provided alignment with the National Biosecurity RD&E strategy alignment of outcomes, capacity and capability with other frameworks/strategies/plans along the biosecurity continuum	Summary document—Explained that clarification for alignment of outcomes with other frameworks including the biosecurity continuum is already captured in Figure 2. Strategy—Figure 2 has been updated to include all schedules of the IGAB. This now picks up the National Biosecurity RD&E strategy under Schedule 8 of the IGAB.	12

Table A7 Regional natural resource management groups

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Change section heading to Natural Resource Management bodies.	Strategy—Regional Natural Resource Management Groups' changed to 'Natural Resource Management' Bodies'.	17
Include role of NRM bodies as knowledge brokers.	No change—already covered in the strategy.	na
Include role of NRM bodies in information gathering and on-ground delivery.	No change—already covered in the strategy.	na

na not applicable.

Table A8 Goals and priorities

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Explain absence of actions in the strategy.	Summary document—explained that the Invasive Plants and Animals Committee has oversight of the AWS and will use the strategy to guide development	na

	of its annual work plan. Also explained that the strategy is high level to assist stakeholders to develop their own goals which align with the strategy.	
Explain why the strategy has not capitalised on the lessons learned in weed management over the past 10 years.	Summary document—explained that there is not a one size fits all approach to weed management. Strategy—add that each goal is addressed by a suite of priorities which builds on experiences and achievement in past decade.	18
Include eradication as one of the goals of the strategy.	Summary document—explained why eradication is not always possible. Strategy—added under Goal 1 of AWS that eradication where technically feasible is one aspect of the goal	18
Change the name of the strategy to the Pest Plants Strategy	No change—explained that the name wasn't changed to prevent confusion with plant pests policy documents.	na

na not applicable.

Table A9 Goal 1—Prevention, detection and early intervention

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Describe high risk pathways and explain which ones will expand over the next 10 years.	Strategy—added a case study on e-commerce or trade of ornamental plants and seeds.	8
Include restricting new weed introductions via internet trade.	Strategy – added a case study on e-commerce or trade of ornamental plants and seeds.	8
Amend wording in Case study 1— Mouse ear hawkweed eradication.	Strategy—a request was provided from the submitter of this case study to slightly amend the wording.	21

Table A10 Goal 2—Minimise impacts of established weeds

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Include prioritisation at sub-national levels.	Strategy—removed national significance from principle 4.	4

Table A11 Goal 3—Enhance Australia's capacity and commitment to weed management

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Include public education and awareness.	Summary Document—explained that this is a role for multiple parties including the Australian Government, state and territory governments, local governments, industry and NRM and community groups.	14-18

Strategy—added 'Supporting and building public awareness about weed and/or pest animal issues' under roles and responsibilities for local governments, industry and NRM and community	
groups.	

Table A12 Link to biosecurity system

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Include action items in the strategy.	Summary document—explained that the IPAC has oversight of the AWS and will use the strategy to guide development of its annual work plan.	na
Clarify Australia's role in achieving the goals and priorities of the strategy.	Summary document—explained that the Invasive Plants and Animals Committee has oversight of the AWS and will use the strategy to guide development of its annual work plan.	na
Include links to WoNS management plans in Figure 2.	Strategy—added link to Weeds of National Significance (WoNS) management plan included in Figure 2.	12
Clarify the linkages between Australia's biosecurity system and area-wide management of endemic weeds.	No change—covered under priority 2.4.	na

na not applicable.

Table A13 General feedback

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Clarify whether native weeds are in scope.	Summary document—explained that the focus of the strategy is on established exotic weeds (prevention and management) and native weeds are to be managed in accordance with state and territory legislation.	3
	Strategy—a sentence has been added to the scope of the strategy explaining that native plants can become weeds. The focus of the strategy will be on preventing the establishment of exotic weed species and managing established weeds. Native plants as weeds are to be managed in accordance with state and territory legislation.	
The return on investment ratio needs to be changed.	Strategy—the ratios have been removed from Figure 3 to avoid confusion.	13
Include impact of climate change on weed distribution.	Strategy—a reference to the impact of climate on the distribution of weeds has been added under primary weed-spread pathways.	7
Change the review timeframe of the strategy as it is too long.	No change—strategy will be reviewed midway and at an endpoint which is sufficient for stakeholders provide input without being burdened by the review process.	na

Clarify commitment to Weeds of National Significance initiative.	Strategy—Appendix B now contains link to WoNS material, which is available on the <u>Atlas of Living Australia web page</u> .	31
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na not applicable.

Appendix D: List of changes to Australian Pest Animal Strategy

Table B1 Roles and responsibilities

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Describe the roles and responsibilities as a diagram.	No change—layout adheres with <u>web accessibility</u> <u>guidelines</u> .	na
Clarify role of recreational hunters.	Strategy—a sentence has been added to the opening paragraph of the roles and responsibilities acknowledging that there are others involved in pest management where the roles and responsibilities are not outlined.	13
Clarify how roles and responsibilities will be shared across prevention, eradication, containment and asset based protection.	No change—stakeholders are responsible for ensuring they carry out prescribed duties.	na

na not applicable.

Table B2 Australian Government

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Clarify Australia's role in meeting and contributing to future global targets.	Strategy—added 'Honour international treaties and to contribute to global environmental and trade initiatives' to Australian Government responsibilities.	13
Include 'systematically assess both the positive and negative impacts of animals and consider positive impacts when developing management options'.	Summary Document—explained that this activity is undertaken by all jurisdictions. Strategy—a sentence has been added to the scope explaining that 'the Strategy recognises that some species may also have positive impacts so the management of these species will need to consider both impacts'.	3

Table B3 State and territory governments

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Include 'systematically assess both the positive and negative impacts of animals and consider positive impacts when developing management options'.	Summary Document—explained that this activity is undertaken by all jurisdictions. Strategy—a sentence has been added to the scope explaining that 'the Strategy recognises that some species may also have positive impacts so the management of these species will need to consider both impacts'.	3

Change 'After the border' to 'post	Change made as suggested.	38
border'.		

Table B4 Local government

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Reword 'represent community interests in pest animal management' and 'support the activities of local groups undertaking pest animal management'.	Strategy—changed to 'the role of councils is to support local initiatives and directions where they are representative of the Australian Pest Animal Strategy's (APAS) direction and regional and local priorities'.	15
Comment that role of local governments in pest management varies according to the jurisdiction.	Strategy —a sentence has been added explaining that roles and responsibilities may vary across jurisdictions.	13

Table B5 Industry and community groups

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Separate responsibilities for industry and community groups (feedback from the AWS).	Strategy—the roles and responsibilities for industry and community groups have been separated.	15

Table B6 Landholders

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Comment that landholders will have the control of pest animals as a low priority.	Strategy—added a sentence explaining that there are challenges ensuring that all stakeholders undertake their responsibilities in pest animal management.	13
Change the heading to the role of landholders (public and private) and co-existing land users (raised through consultation of the AWS only).	Strategy—heading has been changed as suggested.	13
Delete or reword 'understand the need for multiple species approaches and the cause and effect relationships that apply to weed problems' (dot point 7) (raised through consultation of the AWS only).	Strategy—reworded to 'understand the need to use multiple approaches (e.g. chemical, physical and biological) to prevent weeds from adapting to existing controls.	13

Table B7 Regional natural resource management groups

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Change section heading to Natural Resource Management bodies (raised through consultation of the AWS only).	Strategy—Regional Natural Resource Management Groups' changed to 'Natural Resource Management' Bodies.	15

Table B8 Goals and priorities

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
The implementation of the goals and priorities were deficient due to absence of actions.	Summary document—explained that the strategy is high level and the Invasive Plants and Animals Committee (IPAC) has oversight of the APAS and will use the strategy to guide development of its annual work plan.	na
	Strategy—added that the IPAC has oversight of the APAS and will use the strategy to guide development of its annual work plan.	

na not applicable.

Table B9 Goal 1—Improve leadership and coordination for the management of pest animals

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Suggest that Goal 3 'prevent the establishment of new animals' should be Goal 1.	Strategy—Goal 1 changed to 'prevent the establishment of new animals' and Goal 3 changed to 'Improve leadership and coordination for the management of pest animals'.	17
 Comment on Priority 1.1: it is not practical to undertake pest management training through an education provider mandatory training will be counterproductive to the strategy jurisdictional differences will need to be accounted for when developing a national VET education program. 	Summary document and strategy—added a sentence explaining that availability of pest management training is one of the many challenges of pest management in Australia and requires a collaborative approach between all parties to ensure that pest management training is available where needed.	18
Suggest that data must be open access, meet best practice standards and also be readily available to policy makers, managers and researchers.	Strategy—a number of references have been made to 'best available' data.	31

Table B10 Goal 2—Minimise the impact of established pest animals

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Include education programs and promotional elements in Goal 2.	No change—Goal 2 already includes educational elements. Under Priority 2.2 (develop and improve best practice) the strategy states that research, development and extension also helps to develop and update best practice, and to customise it for different stakeholders.	na

Table B11 Goal 3—Prevent the establishment of pest animals

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Include a reference to high-risk entry points.	Strategy—a sentence has been added in regards to knowledge or all modes of entry "which include high-risk entry points".	20

Table B12 Link to biosecurity system

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
The IGAB text was difficult to understand.	Summary document—explain that the IGAB wording cannot be changed as it is consistent with that approved by NBC.	7
Figure 2 was too crowded and the font was too small.	Strategy—changed font size and simplified text.	11
Concern about the use of rabbit biocontrol.	Summary document—explain why current biocontrol methods are being used.	na
The link is not translating to issues on the ground.	Summary document—explained that the strategy is high level, not an instruction manual for pest management.	na

na not applicable.

Table B13 General feedback

Stakeholder suggested changes	How the comment was addressed	Australian Weeds Strategy page no.
Suggest including 'a pest is also defined as numbers exceeding the ability of the landscape to sustain, or where one or few species dominate a landscape, essentially the landscape loses it resilience to natural or man-made perturbations' in definition of pest.	No change—this is covered under the scope. Kangaroos are given as an example, competing with livestock for food (two species competing for the same resource and/or one species dominating a landscape and its resources are not enough to sustain all populations).	na
Include risk creators in strategy.	Strategy—a sentence has been added to the precis, that all stakeholders have the responsibility to ensure actions do not increase the risks posed by invasive species.	13
Clarify whether native animals, freshwater fish and invertebrates, and marine pests included in scope.	Strategy—added a case study for freshwater fish (National Carp Control Plan) Added sentence under the scope explaining that for the purposes of this strategy, the focus is on preventing new exotic pest animal problems and managing existing exotic established pest animal problems. Native animals should be managed in accordance with relevant state and territory legislation. Explained marine pests are not in scope and oversight is by the Marine Pests Sectoral Committee.	3 and 24
	Summary document—explain that for the purposes of the strategy, the focus is on exotic pest animals. Native animals are to be managed in accordance	

	with relevant state and territory legislation. Marine pest animals are outside the scope of the strategy.	
The Return on Investment ratio needs to be changed (raised through consultation of the AWS only).	Strategy—the ratios have been removed from Figure 3 to avoid confusion.	12
Reintroduce a bounty system for pest animals.	Summary document—explained that pest animal management is primarily the responsibilities of states and territories and landholders and would be at the discretion of the relevant jurisdiction. Considerations would need to be made for the safety of multiple land users of public lands. Landholders would need to provide consent for suitable pest management activities to be undertaken on their lands. Introducing a bounty may create a market for pest animals.	na
Include the ecological importance of the dingo.	Strategy—paragraph has been added to the case study explaining that dingoes can have positive impacts by regulating prey abundance in undisturbed habitats and controlling other introduced species which may indirectly benefit native species.	28
Appropriateness of current control methods.	Summary document—added explanation about why biological controls are being used.	na
Animal welfare, including humaneness in roles and responsibilities, mandating CoPS and SOPs, prey welfare.	No change—the APAS explains that methods used to control pest animals must uphold animal welfare considerations.	na
Funding not adequately being distributed to where it is needed.	No change—already covered in strategy.	na

na not applicable.