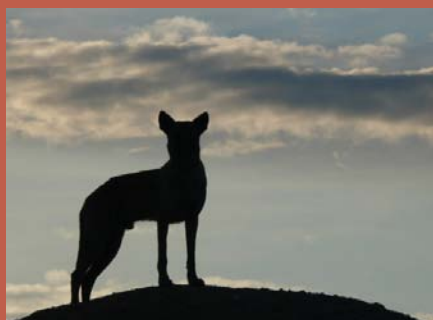




PESTSMART



Guidelines for preparing a working plan to manage wild dogs

Brown Book, 2nd Edition
an Invasive Animals CRC Project

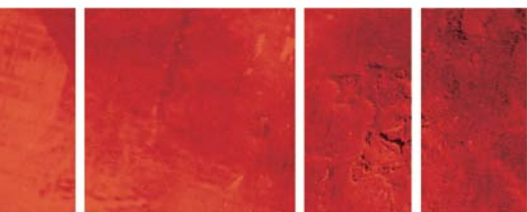
www.feral.org.au



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This document is a guide to completing the
Working Plan to Manage Wild Dogs (Green Book).



Website: www.feral.org.au/pestsmart

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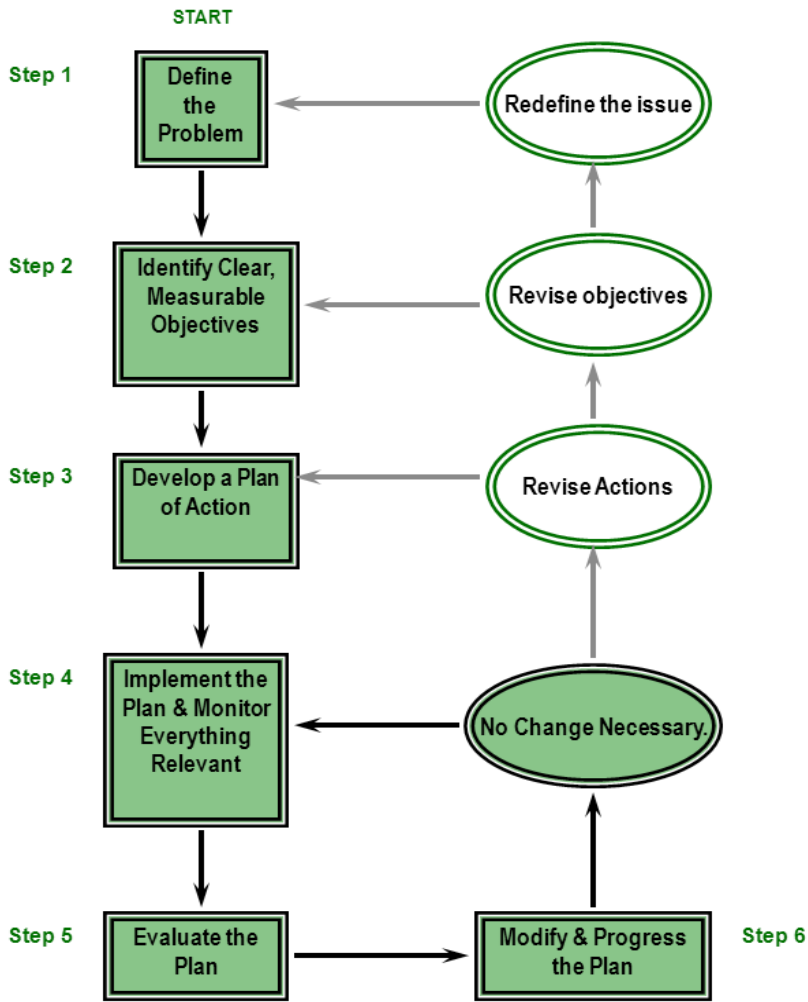
Cover image: A dingo from the Jabiru tip, NT by John Tracey, Biosecurity NSW. These guidelines have been used to write management plans for wild dogs around refuse tips.



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The strategic approach



Strategic Approach flow chart. Start at the top left and progress down the steps on the left side, following the black arrows. After reviewing and evaluating the plan in Step 6, progress up the ovals on the right side. If no changes are necessary, re-implement the plan. If there needs to be change, follow the grey arrows until you reach the point where changes need to be made. Go around again from the revised starting point.



Introduction - the strategic approach

The working plan

These *Guidelines for Preparing a Working Plan to Manage Wild Dogs (Brown Book)* have been produced as a companion to the *Working Plan to Manage Wild Dogs (Green Book)*, and can be used to help stakeholders complete a working plan to manage wild dogs for any purpose.

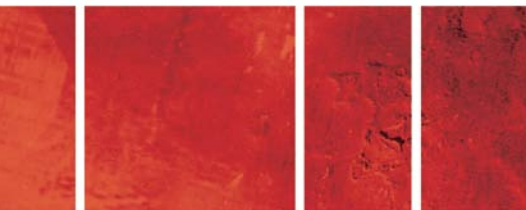
Together, these two documents outline a six-step approach to strategic management. The approach aims to help stakeholders develop a management plan specific to their local area.

Stakeholders are any individuals or groups involved who share a particular management problem. They can include landholders or leaseholders, members of wild dog control groups, representatives of local or state government agencies, natural resource management groups, wildlife conservation agencies and any other affected parties.

Although wild dog management often involves lethal control, dingo conservation is also an important objective in many plans.



This planning tool can be used to prepare a working plan to manage dingoes and other wild dogs for any purpose.



This document makes no distinction between pure dingoes, hybrids or other free-roaming dogs, collectively referring to them as 'wild dogs'. Some stakeholders may choose to differentiate between these subcategories if it is necessary for their plan.

Stakeholders developing a plan might also wish to address the wider issues of how wild dog management impacts on other animals, such as kangaroos, foxes, cats or threatened species. What people include as objectives in their plan is up to them, based on their needs.

Although the Guidelines and Working Plan are targeted at local area plans, the approach can be used to develop plans at all scales from the individual property level through to the regional level.

The strategic approach can also be used for any wildlife management issue, such as fox control or threatened species protection.

Benefits of a strategic approach

The primary aim of a strategic approach to management is to prevent problems from arising rather than having to deal with problems after they occur.

In the case of wild dog management, a common strategy is to reduce the chance that wild dogs will attack, by reducing wild dog numbers in the vicinity of animals that require protection. Such an approach does not exclude dingo conservation objectives, which can be addressed together with wild dog control in a strategic plan.

The planning process

This guide poses a number of questions to assist in strategic management. These form the basis of the planning process. This process defines the problem from different perspectives and helps stakeholders set agreed objectives and develop a management plan.

With the aid of maps, and using the cross-tenure approach outlined below, stakeholders should answer all questions and record those answers in the *Working Plan to Manage Wild Dogs (Green Book)*.

This process can be enhanced by using an independent facilitator to guide

your group's discussion and prompt people to discuss subtle, but important questions and issues. This role is particularly important if management-related conflict between stakeholders is either ongoing or likely.

Stakeholders might find as they progress through the working plan that additional questions and issues come up. Feel free to ask other questions if you think that those listed do not address your needs. This is a positive part of the planning process, and such issues should be addressed as they arise, and the working plan modified accordingly.

The importance of maps

As the process of strategic planning becomes more familiar, the value of maps and good records becomes obvious. A key principle in developing a successful strategic management plan is 'No map? No meeting'.

Regional topographic maps are useful, as are local maps specially generated with a computer geographic information system (GIS). Maps with aerial (or satellite) imagery can be particularly useful for identifying landscape features important to wild dogs (such as rivers, roads or areas with thicker vegetation).

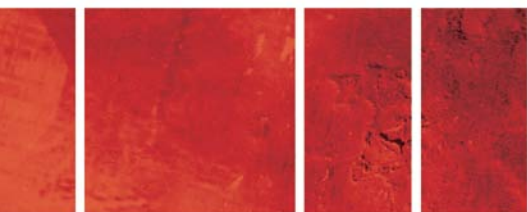
The advantage of GIS-generated maps is that they can be easily updated as new data become available.

Many topographic maps and aerial photos are publically available from government websites and other sites. For example, the Geoscience Australia website (www.ga.gov.au) allows users to freely view and download topographical and satellite data and maps using the 'mapconnect' feature.

The cross-tenure approach

The cross-tenure approach is a useful way of planning wild dog management activities on maps. It ensures that the working plan is best directed





towards managing wild dogs and planned in the specific context of wild dog management issues, rather than financial or other issues.

First, print maps showing areas of bushland, roads, rivers and other relevant landscape features and landmarks.

Next, draw in important information, such as locations of attacks on livestock, routes used historically by wild dogs, dog-proof fences or areas of past control actions.

Then, add in proposed control actions and strategic management activities as they relate to the information on the map, regardless of tenure. For example, identify where baiting or trapping should occur or areas of dingo conservation significance.

Finally, allocate resources and costs proportionally or according to some other agreed and equitable formula.



Step 1.

Define the problem

This first step is the most important as this is when all stakeholders work together to define the nature and extent of the problem. Setting agreed objectives later on will be more difficult if the problem is not clearly defined.

In this step, stakeholders need to identify what the problem is, where it occurs, what the causes are, their source, who has the problem, when it occurs and how critical it is. This step defines the problem from different perspectives to help the various stakeholders set agreed objectives and develop a workable management plan.

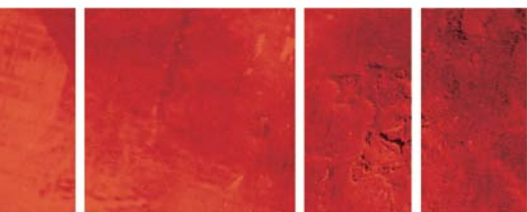
It also helps the various stakeholders understand the problems from other participants' perspectives.

Drawing information on maps and writing down the answers to all the questions in the working plan ensures that all stakeholders are familiar with agreed actions.

Use the following sections to help answer the questions in the working plan. Your answers could include these points and additional or alternative issues raised by your group.



Defining the problem is the most important step in developing a working plan.



What is the problem?

Wild dog problems may be economic, environmental or social, and might occur now or in the future. Stakeholders need to decide whether they are reacting to an ongoing problem, proactively trying to prevent a problem from occurring, or both.

For example, for managers of livestock or threatened species, the key problem might be one of predation. Perhaps livestock or native animals are being attacked right now? Alternatively, there might not be a problem now, but there may be concern one will occur in the future.

Alternatively, if someone is interested in conserving pure dingoes and preventing hybridisation with free-roaming domestic dogs, their problem might be keeping the two groups separated and/or finding and removing hybrid animals already in their management area.

In such cases, the associated problems could include identifying the pure animals, or even first identifying what the target of conservation is – is it some genetic trait, a particular appearance or a role in the environment?

What are the impacts?

Most stakeholders don't have a problem with wild dogs per se, but rather with what wild dogs do, or might do. The best way to tease out the real problems is to list the impacts that wild dogs have on various stakeholders – what do wild dogs do that is of concern or benefit?

It is useful to discuss whether good and bad impacts occur together or separately, and the relative size of the impacts. For example, livestock predation might be bad, but stakeholders might also believe that a positive impact for them is a reduction in kangaroo numbers. It is necessary to consider which impact is of greater importance.

List all impacts (good and bad), and then weigh up which ones are of greater importance.



Where are the problems?

Identifying where current problems are can sometimes be relatively easy compared to predicting where future problems will occur. Key questions include:

- ❑ Are the problems occurring only in one type of land system (eg open grazing land), or across different land systems (eg open land and thick bushland)?
- ❑ Is the problem unique to a specific place or situation, or is it widespread and common?
- ❑ Consider the history of the issue within, and surrounding, the management area. Are there isolated hotspots, or particular conditions associated with when the problem occurs?
- ❑ Matching the impacts with the appropriate scale is important. On what scale is management proposed, and necessary – on a single farm or in one valley, across a group of similar properties, or over a broad mix of land types and land uses?

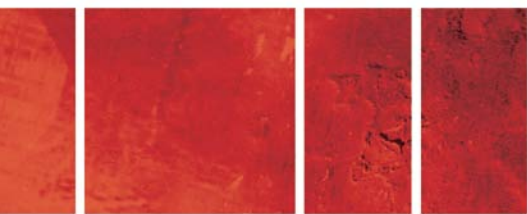
What is the source of the problem?

Once stakeholders have identified where problems are occurring, it's worth asking what the source of the problems are. This helps to identify where management actions should occur and how they will need to be implemented (more on this later).

Keeping in mind that 'all lands used by wild dogs are part of the problem' can help prevent this from becoming a finger-pointing exercise.

In some cases, impacts might be felt in one place but the source of the problem is somewhere else. For example, the loss of pure dingoes might be felt in a national park, but the source could be





from towns; that is, when people bring pet dogs into a national park.

It is important to be careful not to presume that wild dog problems come from ‘somewhere else’. Although wild dogs are capable of travelling long distances, they are equally capable of avoiding detection, even in places where there is lots of human activity.

It can be easy to look to other stakeholders’ land as the source of problems, but each stakeholder must remember that if dogs use their place, they too are part of the problem, and must act to be part of the solution.

Who has the problem?

List all affected stakeholders. Include those stakeholders who have the problem and those who may be a source of the problem. Include those parties who are involved in some other way, such as those agencies with responsibilities to participate in wild dog management.

Record names and contact details, including the names of organisations, phone numbers and email addresses. Be careful not to disclose these to others without the permission of the stakeholders themselves.

When does the problem occur?


Although there can be regular patterns to some wild dog problems, this might not always be the case. Keeping records of when problems occur (monitoring) will help to better define the problem.

At this stage, stakeholders should identify what they know about the frequency and severity of impacts, such as whether they are constant and minor, or uncommon but severe, and so on. It is also useful to note whether or not particular impacts can be predicted, and with what degree of certainty.

How critical is the problem?

This section helps to put the wild dog related problems into perspective. Each stakeholder should consider how severe the problems are, both for them and for others. Is each impact something that any stakeholder can be reasonably expected to tolerate? If not, what extent of change or intervention is needed to reduce negative impacts to an acceptable level?

Answering these questions will help stakeholders prioritise both impacts and their responses.



When the problem is severe and is happening now, collective action might be needed immediately. Alternatively, you might only need to monitor the situation until the problem exceeds an agreed threshold, before management actions are initiated.

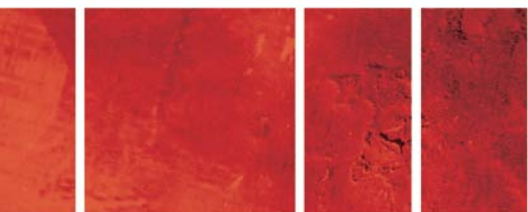
What are the constraints?

There are often constraints that prevent effective management and that maintain problems, such as legal considerations or access restrictions to certain areas. These need to be identified before appropriate management objectives can be set.

Are the most appropriate management techniques accessible? Do all stakeholders have the necessary skills, experience or qualifications? Are there relevant legal, environmental or physical barriers? Are there sufficient financial resources to achieve the agreed objectives?

At this point, it is also important to identify any social constraints to the problem, such as the attitudes of particular people or key groups. Ensuring that all stakeholders' opinions are respected, recorded and included in decision making is vital as planning continues.







Step 2.

Setting measurable objectives

Goals

Goals are general aims of the working plan, and need to be written down. They are broad statements of what stakeholders want to achieve from the plan.

Examples include: 'Minimise livestock predation by wild dogs', 'Maintain a population of dingoes in a particular area' or 'Prevent spread of disease by wild dogs'.

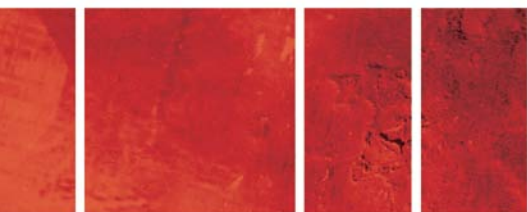
For each goal identified by stakeholders, a means of measuring it must also be determined. These measurements will allow the progress of the management actions to be monitored and assessed.

Goals are general aims of the working plan. Objectives are more specific and have a defined timeframe.

Unlike objectives (see below), goals do not have specific time limits attached to them. Monitoring goals is usually about numbers, such as:

- ☐ area covered by management activities
- ☐ stakeholders participating
- ☐ animal losses
- ☐ bait used
- ☐ people satisfied
- ☐ dollars spent
- ☐ time involved in management.

For goals related to livestock losses, lambing or calving percentages and numbers of animals that have been injured or killed might be the most appropriate measures. Similar measures can be recorded if a goal is to minimise predation of a native animal. Regardless of the animal type, it is important to try to collect this information from places not participating in control programs too, in order to make comparisons.



Objectives

Objectives are more specific than goals and have a defined timeframe. Objectives can be long or short term, and both should be included in the plan. Setting objectives helps to refine the necessary management actions. Having clear objectives also directs what types of monitoring are needed to measure and evaluate progress.

If a stakeholder goal is to keep wild dogs out of a particular area, a related short-term objective may be to erect a dog-proof fence around that area by a certain date. An associated long-term objective might be to check the fence weekly for the next year.

Another short-term objective to achieve the same goal could be to implement a trapping and baiting program to remove wild dogs living within the area by the end of the month, with an associated long-term objective of baiting within and around the area each season for the next year.

Importantly, each objective should relate to at least one goal, have a measurable number and a measurable timeframe. They must also be achievable. The key issue here is finding the balance between easy-to-achieve objectives that will do little to reach the goal, and objectives that would easily achieve the goal but are impossibly difficult.

Remember, if records of actions are not kept, then progress towards achieving objectives and goals can't be assessed for success.

Each objective should relate to at least one goal, have a measurable number and a measurable timeframe.

Step 3.

Develop a plan of action

This step turns stakeholders' definition of the problem and their ideas about measurable objectives and goals into a plan of action. The aim of this process is to achieve agreement on actions, including any reactive action that may be required.

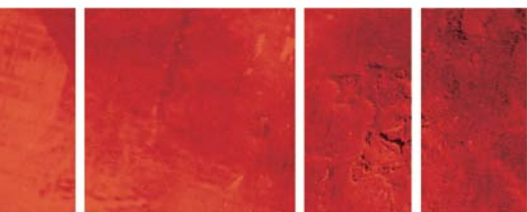
The earlier steps addressed why stakeholders are going to take action. Now is the time to discuss and agree upon key issues of who, what, when and where, with regard to undertaking specific actions. Stakeholders must estimate how much time and money the actions are expected to cost.

Using agreed objectives as the guide, stakeholders should record the details of their proposed actions in a table and draw them on a map.

Choosing the right person for the task is important for the plan's success, so it should be considered carefully. He/she will need to agree to do it, and their family or their boss might also need to agree. A key principle here is to ask, not assume.



The aim of this process is to achieve agreement on actions, including any reactive action that may be required.



Consider the following questions as a guide for formulating an action plan:

What can be done?

- ☐ strategic management – proactive actions to prevent problems occurring
- ☐ reactive management – responding to problems that have occurred
- ☐ a combination of both approaches

Where is management to be done?

- ☐ public lands
- ☐ private lands
- ☐ lands with absentee owners

Who will organise the management?

- ☐ state government staff
- ☐ contractors
- ☐ landholders and managers
- ☐ wild dog management groups

When is management to be done?

strategic (give timeframe, target dates or triggers)

- ☐ strategically timed
- ☐ regular
- ☐ occasional
- ☐ ongoing
- ☐ once-off

reactive (identify triggers)

- ☐ immediately
- ☐ later

What type of monitoring is to be done?

(Identify who will keep records and how and when they will provide these to other stakeholders)

- ☐ livestock damage records
- ☐ dog sighting records, dogs shot or trapped
- ☐ DNA samples
- ☐ time spent planning and conducting management
- ☐ money and other resources used on control
- ☐ animal abundance or activity records (native animals as well as pests)
- ☐ number of baits laid and taken, or traps set

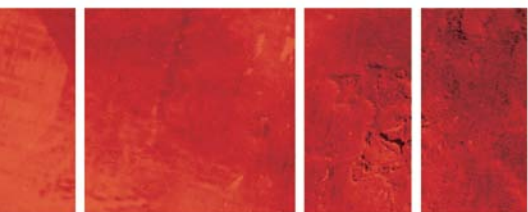
What actions are to be taken?

- ☐ fencing
- ☐ baiting — ground or aerial?
- ☐ trapping
- ☐ shooting — organised drives/ambushes /howling
- ☐ livestock guarding animals

What plans involving neighbouring groups does this plan link in with?

- ☐ wild dog control groups
- ☐ fox control groups
- ☐ Landcare groups
- ☐ other (regional or state plans, biodiversity/pest strategies)





Step 4.

Put the plan into action

During this stage the plan is implemented according to its timeframe.

It is important that the plan be monitored throughout, using a variety of effective methods. These can include recording stock losses, recording sightings and signs of activity and keeping records of costs. Procedures for monitoring should have already been identified in Step 3.

Effective monitoring

Stakeholders should be clear about what will be monitored. While the preceding steps cover what type of monitoring is to be done, there should also be discussion about exactly what

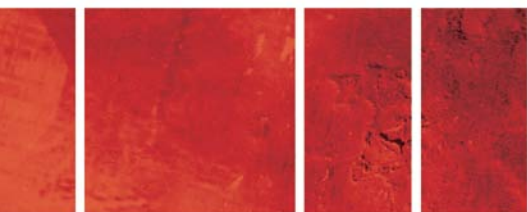
information must be collected, and why.

Some issues to consider before monitoring begins include:

- ☐ Who is the information for and how will they use it?
- ☐ Who will gather the information?
- ☐ Who will analyse the information?
- ☐ What type of strategy will be put in place to ensure collected data are promptly fed back (eg to landholders or agencies) in an appropriate and useful form?



Fencing, trapping and poisoning are all actions that can be integrated to control wild dogs and foxes



Measuring outcomes

To effectively evaluate the success of the plan, you will need to take measurements while the plan is implemented. This is so that changes can be detected and quantified.

For example:

Predation of livestock (record stock losses)

- ☐ stops
- ☐ reduces
- ☐ doesn't change
- ☐ increases

Wild dog abundance (record sightings and signs of activity)

- ☐ decreases
- ☐ doesn't change
- ☐ increases

Costs of managing the plan (draw a table of costs)

- ☐ labour and time
- ☐ other resources

Effective feedback

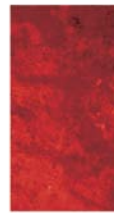
Feedback is an important part of this stage. Data need to be promptly returned to stakeholders in an appropriate form and be accessible to all parties involved in wild dog management in your area.

Suggested methods of feedback include:

- ☐ regular newsletters, printed and/or electronic
- ☐ a web site for group members
- ☐ use of maps in conjunction with reported data

Looking at wild dog management plans developed by other groups can help stakeholders decide upon what they need and how they would prefer to distribute it.

In any event, it is better to record more information and find out later that it was not needed, than to record too little.



Step 5. Evaluate the plan

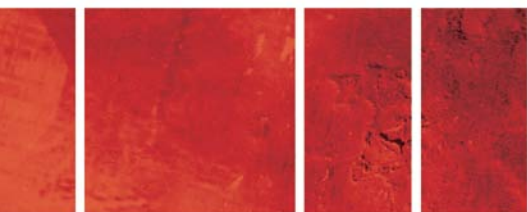
Evaluating the plan using the monitoring results allows stakeholders to make an informed decision about the plan's success and to identify any changes needed. Evaluation should involve all stakeholders to ensure their different perspectives are included.

Some questions that need answers in order for the plan to be evaluated are:

- ☐ How well did the plan work? That is, were the objectives achieved?
- ☐ Which actions worked and why?
- ☐ Which actions didn't work and why?
- ☐ Did the plan work within the timeframe? (consider extenuating circumstances)
- ☐ Should the timeframe be changed?
- ☐ What were the costs?
- ☐ Were there cost overruns or savings?
- ☐ Could money be better spent next time?
- ☐ Could the fieldwork be allocated more fairly or more appropriately?
- ☐ What changes/modifications can be made to make the plan work better?

Stakeholders' responses to these questions should be discussed constructively and recorded. Remember, in the future, other people might want to know why a particular decision was made. Evaluating the plan forms the basis for improving the next one, so be thorough.







Step 6.

Modify the plan and monitor it

Agreed changes arising from the stakeholders' evaluation must be incorporated into the revised plan. Consultation with and agreement by all stakeholders is still essential during this process. The results of cost monitoring can be used to prepare accurate budgets for the revised plan.

If the plan didn't work well, it is important to go back through the process to identify omissions (based on new knowledge/experience) or parts that were not done as planned. Like a perfect plan conducted poorly, a flawed plan conducted perfectly will not yield the results stakeholders wanted.

Ultimately it is important to resolve why particular objectives and goals were not achieved. Was a perfect plan conducted poorly or a flawed plan conducted perfectly? In practice, reality is often somewhere between the two.

By answering the following questions, stakeholders might be able to decide why particular problems occurred:

- ☐ Were you able to measure the outcomes?
- ☐ Were your objectives not properly matched to your goals?
- ☐ Did you have unrealistic expectations?

Continuing to cooperatively implement, review and refine plans ensures those plans remain relevant and also increases the chances of ongoing success.

Celebrate successes!
Management effort cannot be maintained if there is not some recognition of good work.



Further information

Several example wild dog management plans from each state are available at www.feral.org.au. The following books also provide useful information on the strategic approach to wild dog planning:

- ❑ Fleming P, Corbett L, Harden R and Thomson P (2001). **Managing the Impacts Of Dingoes And Other Wild Dogs**. Bureau of Rural Sciences, Canberra.
- ❑ Braysher M (1993). **Managing Vertebrate Pests: Principles and Strategies**. Bureau of Rural Sciences, Canberra.
- ❑ Braysher M and Saunders G (2003). **PESTPLAN: A Guide to Setting Priorities and Developing a Management Plan for Pest Animals**. Bureau of Rural Sciences, Canberra.





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Document history

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The document was further developed by attendees at a workshop in Armidale in 2001 who road tested the concept. Noelene Franklin and Rob Hunt devised the cross-tenure approach to mapping.

The Brindabella/Wee Jasper Wild Dog/Fox Working Group successfully brought the first plan to fruition. Helpful comments on earlier drafts were provided by Chris Lane, David Jenkins, Mike Braysher and Suzy Balogh. The working plan was drafted by Belinda Gersbach, and thanks also go to Jenny Tarleton and Kevin Pont.

The current document

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