



Environment,
Climate Change
& Water

Wilderness Assessment Guidelines



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1 Introduction

The term 'wilderness' is currently used to describe a large natural area of land that, together with its native plant and animal communities, has remained essentially unchanged by modern human activity.

Wilderness areas are important because they represent the most intact and undisturbed expanses of natural landscapes, as well as providing opportunities for solitude and self-reliant recreation. These large pristine areas are also important for ameliorating the impacts of climate change on biodiversity.

The importance of wilderness is recognised by the *Wilderness Act 1987* (the Act), which provides for its proposal, identification and declaration. The assessment of wilderness in NSW is a responsibility of the NSW Department of Environment, Climate Change and Water (DECCW) through its administration of the Act.

The Wilderness Assessment Guidelines (the guidelines) describe the framework and methodology for undertaking wilderness assessments consistent with the requirements of the Act. They replace the NPWS Wilderness Assessment Manual (1995).

In all its work, DECCW recognises the inherent rights and custodial interests of Aboriginal people in Country, including their unique responsibility to care for the landscape of NSW, its biodiversity and places of cultural significance. This Aboriginal connection is to all NSW land and coastal waters, including areas designated as wilderness. These guidelines aim to facilitate this right through consultation with Aboriginal communities and recognition of Aboriginal use of wilderness areas in wilderness assessments.

The guidelines build upon the methods used in previous wilderness assessments undertaken in NSW and take into account key recommendations from the NSW Ombudsman's report, *Investigation concerning the analysis and reporting in the Southern CRA Wilderness Assessment Summary and Analysis Report of Submissions from Public Exhibition and Declaration Recommendations Report 2002* (NSW Ombudsman 2004).

These guidelines are intended for use by DECCW staff involved in wilderness assessments. This section provides an introduction, sections 2 to 4 provide background discussion on the issues relevant to each stage of the wilderness process, and section 5 provides a step-by-step process of how to conduct a wilderness assessment. Section 6 deals with issues that may arise after a wilderness decision has been made.

Wilderness assessment has three stages:

- consideration of proposals (or nominations) for wilderness
- wilderness identification
- wilderness declaration.

In the consideration of proposals stage, a wilderness nomination is examined and a decision made on whether or not to proceed with a wilderness assessment and the area involved.

The wilderness identification stage involves a detailed assessment to determine whether the nominated lands support the wilderness values outlined in the Act: lands are assessed for their degree of naturalness, size, and capacity to provide opportunities for solitude and self-reliant recreation. Areas found to support these wilderness values can be formally identified as wilderness by the Director General of DECCW (the Director General).

In the wilderness declaration stage, social, economic and management considerations are used to determine what part, if any, of the identified wilderness should be 'declared' as wilderness under the Act. Only declared wilderness is legally required to be managed as wilderness under the terms of the Act.

Identified wilderness is not required by the Act to be managed in any particular way. An area of land may be identified as wilderness by the Director General if it meets the criteria of naturalness, size and opportunities for self-reliant recreation and solitude as set out in section 6 of the Act. Wilderness may be identified on private land and many categories of public land.

Declared wilderness must be managed in a way that maintains its wilderness values as set out in section 9 of the Act. Only the minister responsible under the Act (currently the Minister for Climate Change and the Environment (the Minister)) may declare land as wilderness, and that land must also have been identified as wilderness. Almost all declared wilderness is within the national parks system and is managed by DECCW.

2 Consideration of wilderness proposals

Wilderness proposals, or nominations, can be generated in two ways. Section 7 of the Act provides for any person or organisation to submit a written wilderness proposal to the Director General. This is called a public proposal. It is also possible for DECCW to initiate and assess areas independent of any public proposal.

Wilderness proposals can incorporate any area of land, irrespective of tenure, except lands subject to an Integrated Forestry Operations Approval (IFOA) and lands covered by selected zonings under the *Brigalow and Nandewar Community Conservation Area Act 2005* (BNCCA Act).

The Act requires public proposals to be considered and for advice to be provided to the Minister within two years of receipt of the proposal.

Before a formal wilderness assessment is undertaken, consideration is given to whether the area of land specified in the public proposal warrants assessment and, if so, to set appropriate boundaries for this assessment. This helps to ensure DECCW does not go on to assess areas that cannot possibly be deemed wilderness.

DECCW has a statutory obligation to advise affected landholders of a wilderness proposal. If a nomination is accepted, all landholders within the proposed assessment area must be notified in writing. Written notification may also be provided to other stakeholders affected by the proposal or with an interest in the area. At this stage, landholders and stakeholders are invited to provide information to assist in assessing the area's suitability to be identified as wilderness.

3 Identification of wilderness

Areas eligible to be identified as wilderness are assessed against three criteria, as set out in section 6 of the Act. These are that the area is:

- together with its plant and animal communities, in a state that has not been substantially modified by humans and their works or is capable of being restored to such a state hereafter referred to as 'naturalness'
- of sufficient size to make its maintenance in such a state feasible
- capable of providing opportunities for solitude and appropriate self-reliant recreation.

DECCW will undertake this stage without consideration of social, economic, management and land tenure issues, or competing land-use interests. The only exception is lands subject to an IFOA or the BNCCA Act, which cannot be proposed, identified or declared as wilderness. Reserve management issues are not considered at this stage, but basic design principles for reserves are considered in delineating the boundaries of study areas.

Although all three of the wilderness assessment criteria must be met for an area to be identified as wilderness, the primary yardstick for distinguishing wilderness from other protected areas is naturalness.

Many large 'natural' areas may exist in NSW, but only a subset of these satisfy the naturalness criterion of the Act of having 'not been substantially modified by humans and their works'. Figure 1 outlines the step-by-step application of the Act's criteria during wilderness identification, and sections 3.1 to 3.3 of these guidelines describe the framework for the application of each criterion. Areas found by DECCW to meet the criteria of the Act may be identified as wilderness, and identified areas may be considered for declaration as wilderness.

3.1 Assessing naturalness

3.1.1 Criterion as per the *Wilderness Act 1987*

Section 6 of the Act provides the following criterion for the assessment of an area:

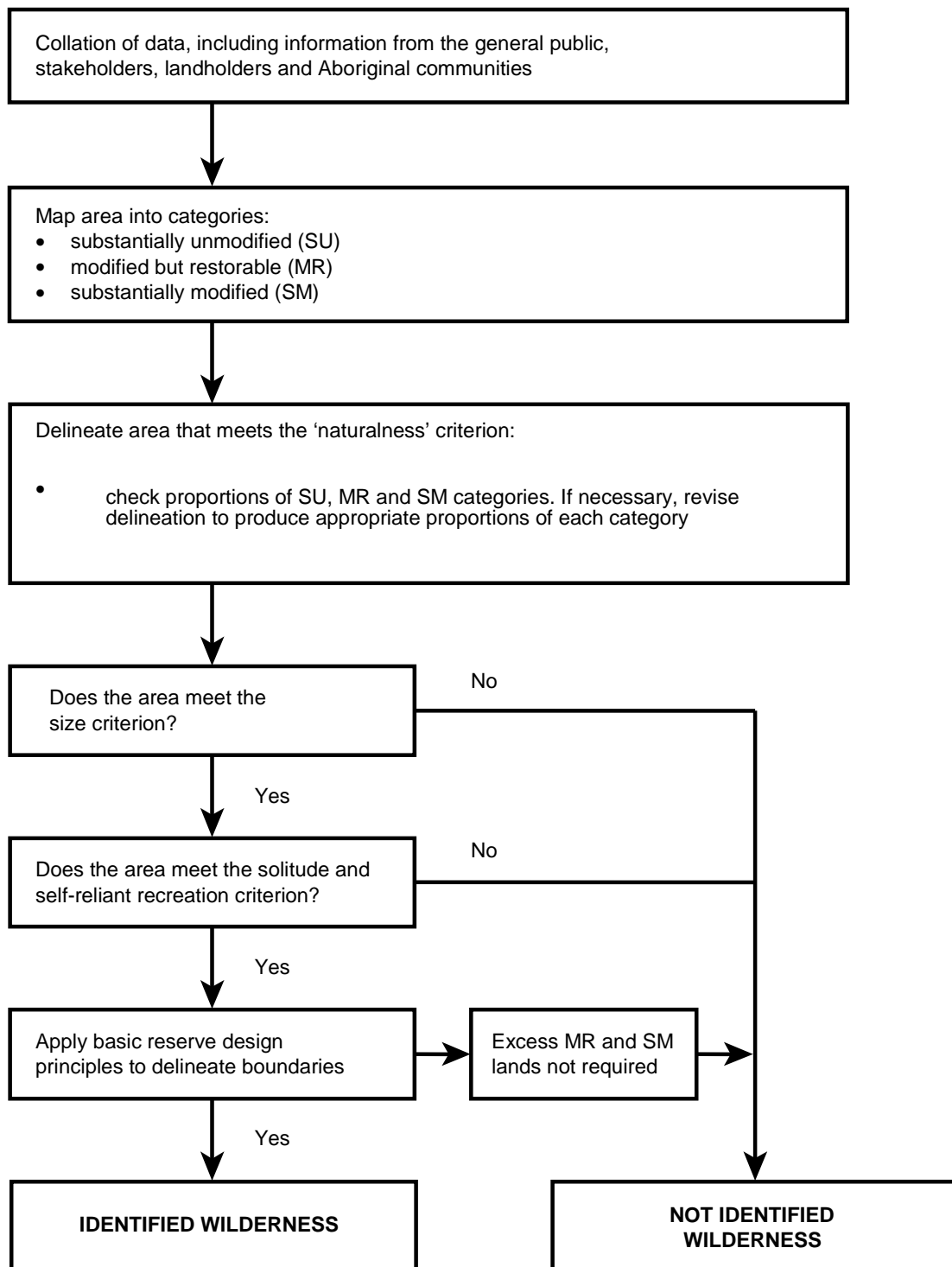
'The area is, together with its plant and animal communities, in a state that has not been substantially modified by humans and their works or is capable of being restored to such a state' (section 6(1)(a)).

In these guidelines, DECCW will refer to this concept as 'naturalness'.

Application of this criterion (along with all criteria under section 6(1) of the Act) requires consideration of the following three subcriteria:

- The period of time within which the area of land could reasonably be restored to a substantially unmodified state (section 6(2)(a))

Figure 1: Step-by-step application of the Act’s wilderness identification criteria.



- Whether or not, despite development that would otherwise render it unsuitable, the area of land is needed for the management of an existing or proposed wilderness area (section 6(2)(b))
- Any written representations received by the Director General from any person (including a statutory authority) as to whether or not the area of land should be identified as wilderness (section 6(2)(c)).

3.1.2 Discussion

The naturalness of an area primarily relates to its persistence in a state substantially unmodified by modern human activity. In identifying wilderness, naturalness assessment focuses on modification by modern technological society rather than modification by Aboriginal people over the longer term. Naturalness assessment is not a test of the absence or presence of modification but a measure of the degree of modification within an apparently natural area.

Three specific categories of naturalness, or 'disturbance classes', can be extracted from section 6 of the Act. These are:

- substantially unmodified ('SU')
- modified, but capable of restoration to a substantially unmodified state within a reasonable time ('MR')
- substantially modified ('SM') land generally not capable of being identified as wilderness.

SM lands not capable of restoration in a reasonable time are sometimes needed within the identified area in order to create a logical boundary.

The landscape context of a site may have implications for its condition and recoverability and, as such, could be considered an element of naturalness assessment. However, context is best considered after the classification of land units into disturbance classes so that the largest possible area may be considered for identification.

The background to ecosystem impacts and recovery and how this relates to the classification of land into the three disturbance classes is discussed below.

Ecosystem impacts and recovery

The historical and contemporary disturbances in an area are considered by ecologists in terms of how they are expressed in key functional components of natural systems. These functional components include:

- ecosystem processes, such as nutrient cycling, water filtration and reservoiring
- structure (the spatial arrangement and distribution of species)
- composition, such as species diversity, abundance and age-class range
- successional patterns (changes over time).

Changes in structure and composition of vegetation communities are the most readily measured of these components. Although structure and composition are not necessarily the most important components in naturally dynamic ecosystems, they are often the only practical surrogates for measuring ecosystem condition and function. Soil structure and condition are also good indicators of ecosystem health.

All ecosystems are dynamic and adapted to a complex pattern of natural disturbances. These patterns of disturbance and an ecosystem's capacity to respond to them are intrinsic and fundamental components of natural systems. The primary indicator of naturalness is the predominance and persistence of natural ecological processes, which is often expressed as relatively deep and consistent soils, a mature structure and a diversity of vegetation. However, where this is not the case, optimal ecological processes may also be expressed as a broad, consistent and vigorous response to recent disturbance where ecological processes appear intact. Given the natural variability of ecosystems, as long as natural processes are intact, a certain level of variation in vegetation structure may be considered natural.

The rate of recovery of an ecosystem following human disturbance is determined by the nature of the disturbance and its duration, scale and frequency, as well as the resilience, stability and productivity of the ecosystem. Ecologists are skilled in estimating disturbance history and assessing whether an area's response to human disturbances is optimal, suboptimal or significantly retarded. This is necessary to determine whether or not an area is capable of being restored to a substantially unmodified state.

In wilderness assessments, available evidence and observations enable study areas to be classified into the three disturbance classes (SU, MR and SM) using the following criteria:

- the extent of late succession vegetation cover
- the extent of soil development
- the degree and extent of disturbed areas and the grouping of these into natural or human-induced disturbances
- the possibility of, and likely time required for, restoration.

The rate of recovery is a critical factor in determining whether or not an area is recoverable within a reasonable time frame. Of relevance here is the rate of recovery from natural disturbances within similar ecosystems. Consider the example of a remote high montane forest in south-east Australia. Conditions may cause the rapid cycling of an even-aged, dense and fast-growing snow gum substorey. This substorey may be blown down every 10 to 15 years by winter winds when the snow gums reach a certain size. Above this, an open canopy of less populous old-growth mountain gums persists through almost any winter weather because of the size of the trees and their ability to shed and regrow extremities. However, the challenging growing conditions mean recruitment to the canopy is slow and, over a very long time, rare but severe fires slowly consume the oldest specimens.

Understanding such cycles in areas documented to be relatively undisturbed by humans allows ecologists to study similar locations and to draw conclusions about the natural rate of recovery. This knowledge is critical in classifying wilderness study areas into disturbance classes. In less productive areas, such as in low rainfall areas of western NSW, landscape recovery from disturbance takes longer and different

time frames may be considered 'reasonable' compared to more productive systems in eastern NSW.

SM lands are so degraded that they are not able to recover to their original state within a reasonable time frame. Examples include where the 'A' soil horizon has been completely lost, where there is uncharacteristic erosion, or when a whole structural layer of the original vegetation or trophic level of fauna is missing through disturbance.

Distinguishing SU from MR lands is sometimes problematic because topographic and random variation of disturbance factors may make it difficult to observe differences between similar natural sites on the basis of natural or human impacts. Nevertheless, MR represents the condition between SM and SU and, as such, the signs of some degeneration in ecological function can be indicative of a modified but recoverable condition.

Deduction is sometimes used to decide the disturbance class to which a particular section of land should be allocated. For example, where species composition and numbers are different on the edge of a national park compared with a similar but more remote area, it may be deduced, following review of anecdotal and survey evidence, that the lands adjacent to the private land are MR. This might be because low temperature fires regularly escape from the private land during clean-up operations and significantly modify the understorey of the adjacent park but do not inhibit recovery in the short- to medium-term if the fires are controlled.

The thresholds for the three naturalness classes within the context of local productivity conditions must be established (and preferably piloted) prior to any assessment of wilderness.

Naturalness (or disturbance) classes

Broad descriptive categories of native vegetation disturbance have been developed by Laut et al. (1977) and adapted for use by DECCW. These categories reflect the impact of disturbance and the likelihood of restoration. They are used in wilderness identification to expand upon the SU, MR and SM disturbance classes in the Act and provide first principles for assessing naturalness:

SU (substantially unmodified):

This is vegetation by and large in its natural state. Where there has been disturbance (such as grazing or logging), this has taken place sufficiently long ago for substantial recovery to have occurred (equivalent to the Laut et al. (1977) category of 'undisturbed natural').

MR (modified but restorable):

Vegetation that has been used for limited-impact activities (such as selective timber harvesting or light grazing) but where the original composition and structure remain basically intact, and which is likely to recover within a relatively short period should these disturbances cease (equivalent to the Laut et al. (1977) category of 'disturbed natural').

SM (substantially modified):

This category incorporates a gradient of lands from modified agricultural landscapes to urban landscapes as follows:

- Vegetation has been intensively used, its basic structure has changed and recovery is likely to be a long process if it occurs at all. There has been no direct

or deliberate attempt by humans to replace native species with introduced species or to effect change through fertilisers (equivalent to the Laut et al. (1977) category of 'disturbed natural').

- Native vegetation has been largely or completely replaced by an exotic vegetation community (such as pine plantation or introduced pastures) (equivalent to the Laut et al. (1977) category of 'cultural').

Substantially modified or developed land, which would otherwise render it unsuitable, is sometimes needed for the management of an existing or proposed wilderness area, such as where it is surrounded by substantially undisturbed land or where including a sliver of SM would bring an identified boundary up to a logical boundary, such as a river, gorge, track or road.

Section 5 discusses the operational guidelines for undertaking classification of land into SU, MR and SM.

3.2 Assessing size

3.2.1 Criterion as per the Act

Section 6 of the Act provides the following criterion for the assessment of an area's size:

'The area is of a sufficient size to make its maintenance in such a [not substantially modified] state feasible' (section 6(1)(b)).

3.2.2 Discussion

The Act does not specify a minimum area for wilderness declaration. In their decision making, DECCW will consider the requirements of the Act in the context of current research.

Large size has historically been considered an essential attribute of wilderness (Helman et al. 1976). However, there has been a clear trend over decades for a progressive reduction in wilderness threshold sizes (Lesslie 1999). A fundamental factor underlying this has been the changing supply and demand for remote and natural land. In both Australia and the US, there has been a progressive decline in size thresholds in response to increased competition for a declining resource (Lesslie 1999).

Generally, two size criteria have been used. An area should be large enough:

- to sustain its natural systems
- for users to 'feel satisfied they have established contact with the wilderness' (Helman et al. 1976).

The issue of wilderness size can thus be seen as an extension of the naturalness criterion, specifically the requirement of the Act that an area is large enough to be feasibly sustained in a substantially unmodified natural state. This emphasis on biocentric considerations is consistent with the directions and intent of the Act.

Research in the field of island biogeography demonstrates that the size of an area can be an important determinant of species diversity in both true islands and habitat islands (where natural vegetation is surrounded by modified environments) (Slatyer

1975), although this relationship may be more a consequence of history and stochastic processes than any causal relationship per se (Pimm 1986). Hence the criteria for the design of nature reserves based on island biogeography have been subject to criticism (e.g. Higgs and Usher 1980; Margules et al. 1982; and Boeklen and Gotelli 1984).

Reserved natural areas should contain populations of plants and animals that are both large and diverse enough to represent the genetic variability of those populations, and to persist indefinitely (barring natural extinction). This becomes a matter of determining minimum viable population (MVP) sizes for 'target' species: those with requirements that would simultaneously provide for the rest of the area's biota (Recher et al. 1986). Top-level predator species are usually chosen. This theory also suggests that increased habitat heterogeneity will buffer populations against environmental variation (Gilpin and Soule 1986). The theory, however, may also be seen as a simplistic approach. As Gilpin and Soule (1986) state: 'The probability of extinction cannot be pegged to population size alone ... there will be no 'magic number', no single MVP that is universally applicable to all species'.

On the basis of these theories and a limited number of Australian studies, Helman et al. (1976) concluded that a wilderness 'core' area of about 25,000 hectares with a 'buffer' area of similar size may be at, or near, the lower size limit necessary to protect wilderness values in forested country in eastern Australia. This work has considerably influenced the survey of, and debate on, wilderness size in Australia. As a minimum critical size for wilderness, this recommendation has gained wide and often unquestioning acceptance. In NSW, however, the size criterion is based on the JANIS criteria of 8000 hectares (Commonwealth of Australia 1997), arising from the National Forest Policy Statement (Commonwealth of Australia 1992).

Furthermore, the concept of a buffer or management zone has not been followed in recent studies of wilderness (Wilderness Working Group 1986; and Lesslie et al. 1987) and has no legislative basis in the Act.

A number of more contemporary guidelines on the size of natural areas offer a more useful framework for DECCW's consideration of the size requirement. These include:

- a large natural area is more likely to capture and maintain the diversity of features, species and genes within a region than a small area
- a large proportion of any remaining natural area within a highly fragmented landscape should be targeted for protection in order to avert (or at least minimise) the biotic collapse that models suggest can occur in such systems
- large fragments will often be the only refuge for species that exist at low densities or are habitat specialists
- large fragments often serve as sources of immigrants for marginal populations in neighbouring small fragments
- the trend is for large fragments to be eroded unless protected (Wilcove et al. 1986)
- small parcels of habitat require more active and costly management to ensure that wildlife populations maintain their full complement of genes, species and functions (Ryan 1992), without any guarantee of success (Wolke 1991)

- small parcels or even large areas with convoluted boundaries are more susceptible to invasion by exotic plant and animal species and to broad area disturbance such as fire
- the protection of entire upper hydrological catchments reduces impacts on natural areas downstream.

The overall picture to emerge from considerations of size is that larger areas are likely to be more robust and contain greater ecosystem, species and genetic diversity than smaller areas. They are thus better able to recover from natural disturbances and support evolutionary processes. Consequently, these areas will have a greater probability of remaining in a 'natural' and 'unmodified' state in the long term than smaller areas. Such areas are also more likely to be self-sustaining and certainly easier to maintain in an SU state.

However, since continuous areas meeting the naturalness criterion do not function in isolation from surrounding areas, wilderness sustainability may be enhanced or diminished by landscape context. Indeed, most wilderness areas that have been identified or declared in NSW occur in the context of wider forested areas. The analysis of shape and context (management design) is appropriately applied after review of land against the three assessment criteria.

NSW has adopted JANIS report criteria of 8000 hectares as a minimum size for wilderness in forested landscapes, with smaller areas acceptable where they adjoin the sea or existing wilderness areas (Commonwealth of Australia 1997). The JANIS report also proposed that larger thresholds may be more appropriate within regions where wilderness is extensive. The 8000 hectare threshold may not be suitable for landscapes in western NSW.

DECCW usually applies the size criterion during identification and again during the declaration process to ensure that the areas identified or declared meet the minimum size criteria. If the area would otherwise meet the wilderness criteria but is significantly less than the JANIS minimum size, DECCW may recommend not proceeding with identification or declaration.

3.3 Assessing solitude and recreation

3.3.1 Criterion as per the Act

Section 6 of the Act provides the following criterion for the assessment of an area's ability to provide opportunities for solitude and self-reliant recreation:

'The area is capable of providing opportunities for solitude and appropriate self-reliant recreation' (section 6(1)(c)).

3.3.2 Discussion

There have been several approaches to defining the recreational and experiential indicators for wilderness on the basis of size or remoteness (Helman et al. 1976; Lesslie et al. 1987). However, the Act only requires that wilderness areas be 'capable of providing opportunities for solitude and appropriate self-reliant recreation'.

The Act does not contain a definition of 'solitude'. It is a highly anthropocentric and subjective attribute that varies from person to person. The *Macquarie Dictionary* defines 'solitude' as 'remoteness from habitation, as of a place; absence of human life or activity'. Opportunities for solitude, in this sense, cannot be adequately or

reliably quantified as part of the wilderness assessment process. An enthusiastic bushwalker may only experience solitude when immersed in bush a full week's walk from the nearest point of access. Others may experience the same sensation by walking into a wilderness a few hundred metres from their vehicle on a boundary road or at a peripheral picnic area overlooking a wilderness vista. There is no justification or legislative requirement to class one experience as more important or fulfilling than the other nor more legitimate or useful in the identification of a wilderness area.

Indicators that attempt to measure this aspect of the criterion (such as in Lesslie et al. 1987) tend to be artificial, arbitrary and often ambiguous. Any area that is capable of affording even the most basic feeling of solitude meets this requirement of the Act. This attribute is most readily identified by existing recreational activities that meet the criteria of self-reliance and the lack of evidence of human activity. These situations may be found in a wide range of landscapes, not all of which meet the other criteria of the Act.

Historically, particularly in the US, many wild areas were originally reserved for their value as recreational areas (Hendee et al. 1990 and Robertson et al. 1992), with little or no consideration given to their ecological values. This approach largely ignores the significant biocentric roles and values of wilderness areas, as well as the important anthropocentric values of these areas that are not based on direct on-site activities.

Wilderness assessments in NSW do not usually reject areas on the sole basis that solitary feelings may be disturbed (e.g. because of proximity to roads and other audible disturbances or views of disturbed landscapes).

As with solitude, the definition of appropriate 'self-reliant' recreation is subjective. The *Macquarie Dictionary* defines 'self-reliant' as 'reliant on oneself or one's own powers'. It is not defined in the Act. DECCW takes this to mean any form of recreation that, firstly, does not use motorised transport in the place of walking or similar human-scale low-key activities (i.e. self-reliant) and, secondly, does not diminish the biological integrity of an area (i.e. appropriate).

Areas that only meet one or two of the criteria cannot be included – all criteria must be met. However, there are very few circumstances where lands that meet the naturalness criteria do not also meet the solitude and self-reliant recreation criteria. For this reason, DECCW's assessment of the solitude and self-reliant recreation criteria is usually quick and easy.

3.4 Delineation of identified wilderness

Following consideration of the Act's criteria, identified wilderness must be delineated. The classified land units are firstly coalesced into a core workable wilderness area. This area is then adjusted to take into account reserve design principles.

DECCW deems that an area delineated as identified wilderness includes all contiguous areas classified as SU, plus as much of the MR land as is necessary to ensure that the area will be resilient to outside impacts and readily manageable. As a guide, MR land should constitute a maximum of 25% of the final identified area including any existing identified or declared wilderness. DECCW should generally prioritise MR lands for inclusion as follows:

1. Areas of MR surrounded by delineated SU
2. Areas of MR adjacent to delineated SU
3. Other areas that improve reserve design or manageability of the delineated area.

DECCW should generally avoid SM lands where not enclosed by SU and MR, unless required for reserve design and management purposes. Small islands of SM lands surrounded by significant areas of SU lands, such as small agricultural clearings or disused mine sites surrounded by undisturbed forests, are generally acceptable. Tracks, trails, minor utility easements and removable towers may also be included.

Reserve design considerations are applied after the naturalness, size, solitude and self-reliant recreation criteria have been addressed (see Figure 1).

Spatial context and shape are relevant factors in determining whether an area is of 'sufficient size' to be maintained in an SU state. Where an area is approaching but does not meet the JANIS size thresholds, consideration should be given to the surrounding landscape. For example, is the area ecologically isolated by highly disturbed land or barriers such as major highways, or is it part of a larger, well-connected natural area?

Delineation of areas based on basic reserve design principles may help to maintain the integrity of the area in the long term. In summarising well-established empirical observations concerning the spatial configuration of habitat, Lesslie (1999) provides the following generalisations:

- habitat that is more widely distributed across its original range is more likely to persist than habitat confined to small parts
- large blocks of habitat are superior to small blocks
- blocks of habitat close together are better than blocks far apart
- contiguous habitat is better than fragments
- interconnected blocks of habitat are better than isolated blocks
- blocks of habitat that are road-free or otherwise inaccessible to humans are better than roaded or accessible habitat blocks.

Wilderness areas encompassing ecologically functioning topographic units provide protection for downstream water quality by limiting upstream disturbances and their effects. The inclusion of whole catchments, or subcatchments, within an area to be managed for wilderness protection is an important management and sustainability consideration. Efforts will be made to extend wilderness boundaries to achieve this.

Where only a minor portion of a catchment or subcatchment is classified as SM, it would be appropriate to include this in the wilderness area to ensure the entire catchment is included as wilderness. However, it is not appropriate to substantially reduce the wilderness boundary to meet a catchment or subcatchment boundary.

DECCW recommends a maximum of 25% of MR and 10% of SM up to a combined total of 25% of the final area. These percentages are a guide only. It should be remembered that the primary focus of wilderness is SU land, and modified lands should be included in as much as they contribute to resilience to outside impacts and the ready management of the final wilderness area. This flexibility will not be used to

extend identified boundaries into areas that are very unlikely to be declared because of management design considerations. Allocation of these 'spare' lands will be held back until the end phase of the delineation and used by degrees to best fill out areas that require additional hectares of disturbed land to achieve the largest and most rational wilderness boundary.

The inclusion of narrow projections, peninsulas and isthmuses should generally be avoided. However, if these narrow projections can sustain wilderness qualities because they are largely undisturbed, isolated topographically from adjacent disturbed lands and suit solitude and self-reliant recreation activities, their inclusion will be considered. For example, a proposed wilderness boundary along the edge of a steep and narrow gorge where, due to the rugged nature of the landscape, there has been little or no modern human disturbance and recreation activities can only be self-reliant (such as some of the narrow gorges of the upper Apsley–Macleay River system). Another example would be an escarpment or steep upland that also maintains wilderness qualities and receives little disturbance from adjacent lands, such as the sandstone uplands of north Wollemi. However, in general, projections less than one kilometre wide are not considered appropriate.

After following the above steps, the area remaining of the total SU should be at least 75% of the final delineated area, including any existing identified or declared wilderness.

Because social and economic factors, such as land tenure and alternative land-use interests, are not generally considered when identifying wilderness, it may not be possible or desirable to manage all areas of identified wilderness for the protection of their wilderness values. Therefore, not all parts of the identified wilderness may be recommended for declaration as wilderness. This is resolved during the ensuing declaration stage.

4 Declaration of wilderness

DECCW uses social, economic, reserve design and management factors to determine which parts of an area identified as wilderness DECCW will recommend to the Minister for declaration as wilderness. These factors include:

- land tenure
- competing and incompatible land uses
- effective conservation management.

These factors and their relative weighting may be influenced by numerous other matters and vary over time and across the state.

In assessing whether to propose an area for declaration as wilderness, consideration is to be given to the three management principles for wilderness set out in the Act. Section 9 of the Act requires that 'A wilderness area shall be managed so as:

- to restore (if applicable) and to protect the unmodified state of the area and its plant and animal communities;
- to preserve the capacity of the area to evolve in the absence of significant human interference; and
- to permit opportunities for solitude and appropriate self-reliant recreation.'

4.1 Land tenure

4.1.1 DECCW estate

All lands reserved under the *National Parks and Wildlife Act 1974* (NPW Act) are eligible for wilderness nomination, identification and declaration. State Conservation Areas (SCAs) are not generally declared because the management principles for SCAs in the NPW Act, which permit mining, are not consistent with wilderness management principles. Every five years, the Minister reviews the status of each SCA and considers whether or not it should remain as an SCA or be reserved as some other category under the NPW Act. This process requires consultation with Industry and Investment NSW (I&I NSW) (Minerals and Petroleum) and where a change in category proceeds, there may be opportunities to declare wilderness.

Land tenures adjacent to a DECCW estate may be used to set the extent of the wilderness area. Wilderness boundaries are often set back from private land to allow for the maintenance of fencing and boundaries.

4.1.2 Lands subject to Integrated Forestry Operations Approvals (IFOAs)

The *Forestry and National Parks Estate Act 1998* (FNPE Act) prevents the proposal, identification and declaration of any lands in which forestry operations authorised by an IFOA may be carried out. The IFOAs are periodically amended. The latest versions of IFOAs should be consulted where there is any doubt about whether land may be proposed, identified or declared as wilderness.

4.1.3 Lands subject to the *Brigalow and Nandewar Community Conservation Area Act 2005*

Lands zoned as 1, 2, 3 or 4 under the *Brigalow and Nandewar Community Conservation Area Act 2005* (BNCCA Act) are not eligible to be identified or proposed for identification, or declared, as a wilderness area. However, this does not preclude the protection and management of wilderness values through reserve plans of management.

4.1.4 Crown leasehold and freehold lands

Wilderness may be nominated and identified on Crown lands not subject to an IFOA or selected zonings under the BNCCA Act. However, Crown leasehold land not subject to an IFOA or the BNCCA Act may only be declared with the consent of the owner, lessee or mortgagee and relevant Minister. This consent takes the form of a Conservation Agreement or a Wilderness Protection Agreement under section 10(1) of the Act.

The Act prevents declaration of wilderness over freehold land without the written consent of the landowner. This consent takes the form of a Conservation Agreement under section 69B(1C) of the NPW Act.

These agreements to declare wilderness on freehold or leasehold are made between the landholder or relevant authority for the land and the Minister. The terms of the agreements must be consistent with the management principles for wilderness areas as set out in section 9 of the Act.

To date, there has been only one case in NSW where wilderness has been declared over land through a Conservation Agreement and no Wilderness Protection Agreements have been entered into.

Freehold and Crown leasehold lands not subject to an IFOA that are identified as wilderness may be voluntarily offered to the government for possible purchase.

4.1.5 Other lands controlled by government or a statutory authority

Crown and other land owned or under the control of a statutory authority or government department (e.g. I&I NSW or the Land and Property Management Authority (LPMA)) are suitable for declaration:

- where a Wilderness Protection Agreement has been entered into under the Act (section 10(1))
- where the state forest or Crown land is being transferred to DECCW for reservation or dedication under the NPW Act, as consideration is normally given at that time to possible wilderness declaration and any IFOA will cease to apply.

Some Crown lands are under renewable licences such as Permissive Occupancies and Occupational Permits. Such lands may be nominated and identified where they are not subject to an IFOA or selected zoning under the BNCCA Act.

4.1.6 Water bodies

Although the bed of a water body may lie in national park or on land covered by a Wilderness Protection Agreement or Wilderness Conservation Agreement, Maritime NSW (previously the NSW Waterways Authority) controls the movement of water

vessels in NSW. While it may be desirable to declare a wilderness over a body of water, the use of the area by powered watercraft may be incompatible with the management of the area's wilderness values. For example, such activities may impact on riparian areas and interfere with visitors' experiences of solitude. Any restrictions on powered watercraft can only be made by Maritime NSW and negotiation with this authority will be required.

4.2 Competing land uses and activities

An area assessed and identified as wilderness may also be able to support a number of other land uses besides wilderness conservation. Some uses, such as timber harvesting, surface mining or quarrying, grazing and inappropriate or non self-reliant recreation, are generally incompatible with wilderness protection. Lands that continue to support these activities are therefore unsuitable for wilderness declaration. Other uses, such as catchment protection, natural and cultural heritage conservation and appropriate self-reliant recreation activities are compatible with wilderness protection and do not diminish an area's suitability for declaration.

Determining the most suitable use for all or part of an area of identified wilderness entails government consideration of social and economic factors, including the consequences of declaration for any existing or proposed industry, and the effect on communities and recreation opportunities.

Six competing land uses and activities are considered below; however, there may be others that are relevant to particular wilderness assessments that could be considered. For the current versions of relevant policies refer to the *Park Management Policy Manual*.

4.2.1 Timber harvesting

Timber harvesting is not compatible with wilderness protection and is not permitted in areas declared as wilderness. As stated in section 4.1.2 above, wilderness may not be identified or declared on state forest affected by an IFOA. In other areas, identification may take place. In cases where the forests contain low or no commercial timber or other natural resource values, I&I NSW (Forests) may be willing to enter into a Wilderness Protection Agreement or, as has been more usual, to revoke an area's state forest dedication, allowing its reservation or dedication under the NPW Act.

4.2.2 Recreation

Wilderness areas must be managed to allow opportunities for solitude and appropriate self-reliant recreation (section 9(c) of the Act). However, any recreation permitted must also be consistent with the other wilderness management principles of the Act. These include restoring (if applicable) and protecting the area's unmodified state and its plant and animal communities (section 9(a)), and preserving the capacity of the area to evolve without significant human interference (section 9(b)).

During its assessment, DECCW lists and describes the existing and planned recreational uses within identified wilderness and the surrounding region that are not compatible with managing the wilderness. Current DECCW policies on specific recreational activities should be checked to determine compatible uses. Popular horse-riding and 4WD trails and routes taken by any licensed commercial tour operations will be mapped as part of the assessment process.

4.2.3 Aboriginal use and interests

Areas subject to Aboriginal land claims under the *Aboriginal Land Rights Act 1983* will not be considered for declaration until all claims are resolved.

Some Aboriginal cultural heritage activities are permissible in declared wilderness, and current DECCW policies should be consulted.

The declaration of wilderness does not override native title rights. Where native title has been proven over an area of declared wilderness, the native title rights will take precedence over wilderness management where there is an inconsistency. Declaration of wilderness will also not override rights that are later proved to exist. Where there is an Indigenous Land Use Agreement with native title claimants, it may have specific approval requirements or conditions on the exercise of those native title rights.

Aboriginal owners are not required to obtain DECCW's consent to undertake cultural resource use activities in wilderness areas that cover parks subject to Aboriginal ownership and leaseback. In such cases, the approval of the Boards of Management (or other authorised officers) may still be required, subject to the lease agreement or plan of management for the reserve.

4.2.4 Extractive industry

Extractive industry, including logging, mining and quarrying, is incompatible in declared wilderness areas. Wilderness declaration would prevent any future extractive activity in the declared area, but does not stop geological survey. Because wilderness is usually only declared over reserves made under the NPW Act, these activities will already be excluded except in the case of SCAs where mining may be permitted. SCAs should not be declared wilderness.

DECCW refers wilderness reports to I&I NSW (Minerals and Petroleum) to determine the extent of its interest in an identified wilderness. For areas not currently subject to active mining or exploration, I&I NSW usually provides advice on their 'prospectivity', using broad categories from very high to low.

4.2.5 Public utilities, roads and tracks

Roads, powerlines, pipelines and telecommunication towers may occupy easements and licensed areas, many of which are not suited to wilderness declaration.

The relocation of public utilities might theoretically be possible to allow declaration, but in reality this is unlikely to occur, and under normal circumstances there will not be wilderness declaration over these features. Maintenance access to powerlines and towers by heavy equipment is usually protected by law.

Public roads in Crown Road Reserves are protected under the *Roads Act 1993* and *Crown Lands Act 1989* and cannot be closed without set procedures being followed, including, on occasions, public consultation. Local roads and park roads and trails not in road reserves do not have this protection; however, any moves to close or modify these roads and trails require consideration of any potential conflicts with existing reserve plans of management. Some major (scheduled) roads are not located in road reserves but are still afforded the protection of the *Roads Act 1993*. In relation to Crown road reserves, note that where a road is, or will be, within terrestrial DECCW estate, and there are no access issues involving other parties, then it may be reserved under the NPW Act without the need to negotiate with the LPMA. Staff should contact the Manager of the Reserve Establishment and Land Information Unit

within DECCW to check on the latest procedures in regard to such circumstances. Any road providing the only practical means of access to a private property cannot be closed, even if it lies fully within a gazetted park's area.

Existing interest rights under section 39 of the NPW Act and sections 8(5) and 8(6) of the Act preserve legal access entitlements within declared wilderness through a national park, historic site, nature reserve, state conservation area and karst conservation area, at least for the term and to the extent of the current legal interest. However, such interests are generally not transferable or assignable beyond the current owners of that interest. A decision to declare or not to declare over an access road for an inholding should be made on a case-by-case basis and take into account factors such as frequency of access and implication of not declaring the road.

Downgrading of local roads and large tracks may allow some SM areas to be reclassified as MR. Local tracks may be classified as MR and can be declared closed if the landowner approves.

In some extraordinary circumstances, the Minister may agree to the exclusion of a track from a wilderness area to allow a low-key activity of national or state significance to continue (e.g. the Bicentennial National Trail). Such exclusions may split the wilderness into two parts, leaving them under-sized.

4.2.6 Beekeeping

Another existing use in a proposed wilderness area may be apiary licences. Although the existence of beekeeping sites may have been considered in the naturalness assessment, especially where apiarists have created artificial ponds and pools to supply water for their bees, the potential impact on beekeepers will be considered as part of the social and economic assessment.

For further information, consult the latest DECCW policy on beekeeping, which is available through the *Park Management Policy Manual*.

4.3 Reserve management principles

The boundaries of identified wilderness areas are delineated using basic reserve design principles that include, where possible, whole subcatchments, enable on-ground definition and consider edge and shape issues. These design principles are applied to ensure the protected area remains in an unmodified state over time.

Delineation of areas suitable for declaration requires consideration of reserve management needs to ensure the area can be effectively managed in keeping with the requirements of the NPW Act. Considerations will include DECCW's responsibilities to manage reserves for:

- the conservation of a range of natural values including biodiversity, ecosystem function, geological and geomorphological features, natural phenomena and the maintenance of natural landscapes
- the conservation of objects, places and features of cultural value
- (in the case of national parks) sustainable visitor or tourist use and enjoyment that is compatible with the conservation of the national park's natural and cultural values

- (in the case of nature reserves) the promotion of public appreciation, enjoyment and understanding of the nature reserve's natural and cultural values, or
- (in the case of Aboriginal areas) provision for sustainable visitor or tourist use and enjoyment that is compatible with the Aboriginal area's natural and cultural values and the cultural values of the Aboriginal people.

It is highly desirable that boundaries are logical and able to be readily defined and located on the ground. This greatly assists land managers, including DECCW, other government agencies and nearby landholders, in locating wilderness boundaries for planning and on-ground management. Easily located declared wilderness boundaries also assist and inform wilderness users and other park visitors.

In summary, declaration boundaries should be drawn with the aim of:

- balancing competing land uses and management requirements
- following ecological and reserve features, such as escarpments, hydrological catchment boundaries, water courses, trails and tracks, cleared easements and other obvious physically defined landscape features, and have appropriate set-backs, such as 20 or 50 metres from management structures like public roads to provide for their ongoing maintenance and operation
- minimising boundary-area ratios
- excluding narrow peninsulas and isthmuses (generally areas less than one kilometre wide, but wider where a number of peninsulas or isthmuses are closely located), although inclusion will be considered when the identified areas are topographically discrete (such as gorges or ramparts) or their exclusion would jeopardise the immediate declaration of large adjoining areas of identified wilderness.

It is generally necessary to review management considerations regularly as the declaration stage progresses. Efforts will be made to consolidate the core wilderness area so that, to the greatest extent, more intensive land uses and disturbed areas are located beyond the wilderness boundary. Creating linear exclusion zones or 'key-holes' that bisect wilderness will be avoided where possible.

5 Operational guidelines on wilderness assessment and the determination of a wilderness declaration boundary

Wilderness assessment and subsequent steps are undertaken in three stages (as detailed in Table 1):

1. Consideration of a wilderness proposal
2. Wilderness identification
3. Wilderness declaration.

Table 1: Stages of wilderness assessment

Stage of wilderness assessment	Component steps
Consideration of a wilderness proposal	<ul style="list-style-type: none"> Receipt of a wilderness proposal Validation of the proposal resulting in its acceptance or rejection Delineation of an assessment area Development of a communications strategy Notification of landholders affected by proposal and key stakeholders including Aboriginal communities and organisations Call for information relevant to wilderness identification from the community
Wilderness identification	<ul style="list-style-type: none"> Assessment of naturalness, size, solitude and self-reliant recreation Reserve design principles considered Preparation of proposed wilderness declaration map Preparation and exhibition of Wilderness Assessment Report
Wilderness declaration	<ul style="list-style-type: none"> Analysis of public submissions Detailed consideration of declaration issues (social, economic and management issues) in consultation with local DECCW staff Preparation of Public Submissions Analysis and Wilderness Declaration Report Wilderness declaration by the Minister Further discussion with landholders interested in protecting wilderness values or selling property

5.1 Consideration of a wilderness proposal

5.1.1 Receipt of a wilderness proposal

Wilderness proposals received from the public by DECCW are acknowledged in writing to the proponent and the Minister is notified. The Director General is required to consider the proposal and advise the Minister in relation to the proposal within two years of receiving it (section 7(4) of the Act).

Key tasks	Key outputs
Public-initiated wilderness assessment proposals received and registered by DECCW.	Acknowledgment of receipt of proposal forwarded to proponent by DECCW.

5.1.2 Validation of the proposal and delineation of an assessment area

DECCW conducts a preliminary investigation to determine whether the proposal should be accepted for assessment, and if so, what the boundaries of the assessment area should be. This includes investigating whether or not:

- any or all of a proposal has been assessed previously
- the area is of a sufficient size
- the area is largely free of extensive modern human disturbance(s) that bisect the area, such as major roads or transmission lines
- the area includes lands that are excluded from nomination as wilderness under the FNPE Act (see section 4.1.2 of these guidelines)
- the area includes lands not eligible for identification or declaration as wilderness under the BNCCA Act (see section 4.1.3 of these guidelines).

Any of these matters may result in the rejection of all or part of a proposal.

Where a proposal includes areas that have been previously nominated, the processes described in section 6.1 of these guidelines apply.

Determination of appropriate and logical boundaries for an assessment area involves rapid consideration of the proposal to ensure all lands with potential or possible wilderness values are included. The resulting assessment area is often larger than the proposal, with logical boundaries usually defined by physical features, such as cleared or otherwise obviously disturbed land, transmission lines and roads.

Key tasks	Key outputs
<p>Check public proposals against previous proposals and assessments to determine whether all or part of an area has already been nominated or assessed.</p> <p>Determine whether the area is worthy of investigation: that is, the condition of the area may be natural and of a sufficient size to be wilderness. This is generally carried out using resources such as satellite imagery and aerial photos, field surveys, literature and local knowledge.</p> <p>Delineate an assessment area with logical boundaries.</p>	<p>For valid proposals a digitised map of the assessment area with logical boundaries.</p> <p>A briefing note with an indicative map and details for consideration by the Director General, along with recommendation for acceptance and/or rejection of all or part of the proposal and the reasons why.</p> <p>Notification of proponents of DECCW's decision to accept or reject the proposal in whole or part, and the reasons why parts of the area proposed may have been rejected.</p>

5.1.3 Development of a communications strategy

Where a wilderness proposal has been accepted, DECCW will develop a communications strategy with the aim of:

- outlining a process by which affected landholders, stakeholders, politicians and the community can be fully informed of the wilderness determination process and how it operates
- outlining a process for liaison with Aboriginal communities and organisations
- outlining a process for keeping the proponents of the wilderness area informed at key stages or regular intervals of the wilderness assessment
- ensuring media are informed of the wilderness process
- engaging landholders, stakeholders and the community to provide information relevant to the assessment.

Key outputs
Communications strategy developed.

5.1.4 Notification of the community and invitation to provide information on the proposal

DECCW has a statutory obligation to advise owners of land who may be affected by a wilderness proposal (section 7(3)). This will occur in accordance with the requirements of section 7 of the Act. All owners or lessees with land wholly or partially within the assessment area will receive written notification of the wilderness proposal. Wherever possible, there will also be telephone and personal interaction with landholders. The identity and contact details for affected landholders are obtained through a title search by the relevant local government and from regional DECCW offices if necessary.

Written notification will also be provided to relevant Aboriginal organisations and community members. Other stakeholders affected by, or with interests in, the area (such as local councils, relevant government agencies, industry, and conservation groups) may also be notified in writing. An advertisement in state-wide and local papers will notify the public that a wilderness assessment will be carried out. Notification includes provision of an indicative map of the proposal or assessment area or, in the case of the advertisement, makes reference to a map.

All of these forms of notification will be accompanied by an invitation to provide DECCW with information that can be used to identify wilderness in the assessment area in line with the identification criteria. The invitation will make clear that this is the only opportunity to provide information that will contribute to the process of identifying wilderness.

A closing date for the receipt of responses will be specified, preferably at least six weeks from the date of notification. Written submissions received by DECCW in response to notification and invitation will be taken to be representations in accordance with section 6(2)(c) of the Act about whether the area of land should be identified as wilderness. Issues and comments made in submissions at this stage, which are relevant to the declaration stage (rather than the identification

stage), will be retained and considered in the wilderness declaration stage. All submissions made at the declaration stage will be reported on in the DECCW Submissions Analysis and Wilderness Declaration (SA&WD) Report (see section 5.3 of these guidelines).

See Appendix I for an example of an invitation to the public (including stakeholders and landholders) to provide information during the wilderness identification stage.

The output from this step includes a map of the assessment area showing land tenure and a database of affected landholders and other stakeholders.

Key tasks	Key outputs
<p>Identify and obtain contact details for all owners and lessees with land wholly or partially within the assessment area.</p> <p>Clarify and collate contact details for other stakeholders affected by, or with interests in, the area, including local councils, state government agencies, relevant industry and conservation groups, and Local Aboriginal Land Councils.</p> <p>Provide written notification of the proposal, with a map of the assessment area, to all relevant stakeholders, and allow at least six weeks for them to comment on the identification of the wilderness area.</p> <p>Invite the community at large to also provide relevant information for the wilderness identification stage.</p> <p>Begin engagement with Aboriginal communities.</p>	<p>Advertisement in local and state papers notifying the community that an assessment is being conducted and asking for information relevant to the identification of wilderness.</p> <p>Letters notifying all owners and lessees with land wholly or partially within the assessment area that an assessment is being conducted and asking for information relevant to the identification of wilderness.</p> <p>Land tenure/ownership map and database of the assessment area and written submissions from stakeholders for consideration in the assessment.</p>

5.2 Wilderness identification

This stage is designed to determine whether a given area of land can meet the criteria for identification of wilderness outlined in the Act. Social and economic factors, such as land tenure and competing land-use interests, are not considered during this stage. Areas that satisfy all three criteria of subsection 6(1) of the Act may be 'identified' as wilderness by the Director General.

Table 2 outlines the various stages and tasks in identifying wilderness. The most complex element of identification is the assessment of naturalness.

Table 2: Stages of wilderness identification

Stages of wilderness identification	Components
Assess naturalness	Collect and/or collate disturbance information Derive decision rules (expert involvement required) Apply decision rules to disturbance data to delineate levels of disturbance into three classes: SU, MR and SM
Assess size	Check that size criterion is satisfied
Assess solitude and self-reliant recreation	Check that solitude and self-reliant recreation criterion is satisfied
Boundary considerations	Align boundary with definable features where possible but with regard to obligations to maximise inclusion of MR Consider removing narrow projections Avoid unnecessarily cutting circuit or through trails
Prepare Wilderness Assessment Report	Peer review of Wilderness Assessment Report WA Report endorsed by Director General
Community review of Wilderness Assessment Report	Seek submissions on declaration of wilderness

It is important that each stage of wilderness identification be well-documented. The identification stage will produce a wilderness assessment report outlining the process (including the types of information and decision processes used), and maps of the areas that are to be recommended for identification as wilderness.

5.2.1 Assessing naturalness

The Act states that naturalness indicates 'The area is, together with its plant and animal communities, in a state that has not been substantially modified by humans and their works or is capable of being restored to such a state' (section 6(1)(a)).

The best available data will be used to classify an area into disturbance classes (SU, MR and SM). Data is required for all likely past disturbances within the study area, including agriculture, pastoralism, forestry, exotic species, roads and other infrastructure. Because of the range of data required, usually across large areas, significant resources are needed for assessing naturalness. The way in which the assessment is undertaken will depend on the availability and reliability of disturbance and natural heritage information for the area.

Two approaches are possible. The first is where spatial mapping of landscape condition, usually derived from remote-sensing information, provides sufficient information to determine levels of disturbance in the landscape. This was the case in the Northern and Southern Wilderness Assessments (NPWS 2001c; and NPWS 2000) where data on vegetation condition was available and could be used as the primary data source for the naturalness study. Digital data of this nature can be supplemented from other sources and will require field checking to establish thresholds for disturbance classes. For an example of how a geographical

information system (GIS) disturbance analysis might be undertaken, see the *Northern Wilderness Assessment Report* (NPWS 2001c).

Another approach is for data 'poor' areas, such as in the assessment of the Yengo Wilderness (NPWS 2001b). Here, little spatial mapping was available and other sources of data was required to be examined and used. These other data sources may include grazing records, timber harvesting and forestry records, mining records, local government records (which may include land use and infrastructure records), land title information including maps, fire history records, pest species records, museum records, university studies and records, aerial and site photos, satellite images, topographic maps, records held by DECCW regional offices, and information collected directly from landowners and stakeholders. If the data is deemed relevant it can be converted into GIS layers to assist with classification.

Logical, regionally appropriate decision rules, based on the opinions of experts in restoration ecology and existing rule sets, will be applied to the available disturbance information so that land units can be allocated to the three disturbance classes and mapped for the study area. DECCW will select expert ecologists who have a detailed understanding of disturbance factors relevant to the study area and the region. It is essential they understand that they are being asked at this stage to comment only on the land's 'naturalness' and recoverability. They are not being asked to comment on social, economic or management issues; however, they may do so through a submission later in the declaration stage of the process.

DECCW considers that the role of an expert ecologist at this stage is to provide recommendations on the appropriate disturbance thresholds and background information on restorability of environments within the study area and surrounds, following various disturbance regimes. It is important that these experts are aware of the attributes, including limitations, of the available data before they consider restorability factors.

In considering fire disturbance, consideration will be given to ecologically sustainable fire thresholds for vegetation formations (e.g. Kenny et al. 2004) as a coarse guide, noting that fire intensity as well as frequency is a relevant factor in determining the level of disturbance.

Completed wilderness assessment reports provide examples of the application of quantitative and qualitative decision rules.

These examples provide a useful basis for setting decision rules for new assessments, although the rules should be adjusted for each wilderness assessment to take into account data availability and accuracy, local ecology, land productivity, recoverability of vegetation and so on. Rules should be developed with expert input and testing before the commencement of the disturbance classification of the study area.

Key tasks	Key outputs
<p>Identify and collate disturbance data relevant to assessment area.</p> <p>Seek advice on disturbance and restorability from expert ecologists.</p> <p>Derive logical decision rules based on ecologists' advice. Apply decision rules to disturbance data to delineate the assessment area into three disturbance classes: SU, MR and SM.</p> <p>Delineate area, with logical boundaries based on reserve design principles, which is generally comprised of at least 75% SU land.</p> <p>Where it will enhance the potential for wilderness protection, MR and SM lands may be included. As a general guide, MR lands should make up no more than 25% of the delineated area, and SM no more than 10% of the delineated area, with a combined total (MR plus SM) of no more than 25%.</p> <p>Attempt to include geographic features such as the headwaters of catchments, ridgelines and creeks, extending over MR and SM if necessary within the percentage guides.</p> <p>Remove projections unless topographic attributes enhance its wilderness qualities.</p>	<p>Map of assessment area delineated according to the three disturbance classes.</p> <p>GIS map showing the naturalness of the assessment area and a delineated area with logical boundaries.</p>

5.2.2 Assessing size

'The area is of a sufficient size to make its maintenance in such a state feasible' (section 6(1)(b)).

The Act does not specify what constitutes sufficient size. However, a wilderness area must generally be large enough to allow maintenance of its natural processes. The actual size required will depend, among other things, on the area-to-boundary ratio, characteristics of the natural processes occurring in the area, and activities and processes occurring on adjacent lands and waters.

In establishing wilderness areas for identification or declaration, the following principles will be applied:

- As a general guide, stand-alone wilderness areas will be at least 8000 hectares where the area occurs in a fragmented landscape, and at least 5000 hectares for coastal areas contiguous with marine ecosystems.
- Areas at or approaching these sizes can be identified or declared where it can be reasonably argued that the area will be viable as wilderness or that the stand-alone areas are adjacent to secure interstate reserves managed in a way that will maintain their wilderness values and the total area across the state borders is at least 8000 or 5000 hectares (as applicable).

The second of these principles, however, does not automatically validate nominations of areas that are significantly less than 8000 or 5000 hectares: The area must still be large enough to be able to maintain wilderness values.

The above guidance is based on studies and policies relating to forested environments along the eastern seaboard and may need to be adjusted where wilderness is being assessed in western NSW. DECCW will continue to refer to current literature and recent developments both in Australia and overseas to review the issue of suitable minimum size thresholds for all of NSW.

Key tasks	Key outputs
<p>Calculate the size of the delineated area of land that fulfils the naturalness criterion.</p> <p>Where this meets the 8000/5000 hectares threshold, map the area as meeting both naturalness and size criteria.</p> <p>Where the area is under the recommended thresholds, determine whether there are grounds for applying a smaller threshold using the principles set out in section 5.2.2 above.</p>	<p>GIS map of area that meets both the naturalness and size criteria.</p>

5.2.3 Assessing solitude and self-reliant recreation

‘The area is capable of providing opportunities for solitude and appropriate self-reliant recreation’ (section 6(1)(c)).

Solitude is a highly anthropocentric and subjective experience that varies from person to person and even for a single person over time. Opportunities for solitude, in this sense, cannot be adequately or reliably quantified as part of the wilderness assessment process. Any area that is capable of affording even the most basic feeling of solitude meets this criterion. In most cases, this is demonstrated by the presence of existing recreational uses meeting the standards of self-reliance and low levels of environmental disturbance. However, any current absence of such a use does not preclude an area from meeting this criterion.

Key tasks	Key outputs
<p>Determine whether the delineated area supports appropriate self-reliant recreation activities or exhibits characteristics and features similar to other known locations for these activities.</p>	<p>Map of areas that meet all three criteria of the Act.</p>

5.2.4 Potential declarable area boundary

Tenure, competing land uses and activities, and management considerations (see section 4) require scrutiny following completion of the above assessment stages prior to the release of the Wilderness Assessment Report for full public comment (see section 5.2.5). The output of these considerations is the ‘potential declarable wilderness’.

The potential declarable boundary is a boundary presented for discussion and, in many cases, will change. The preliminary consideration of social and economic factors that occurs as part of this stage will be subject to review following public exhibition.

Note that the percentages of SU, MR and SM land that are used to make up the identified wilderness do not have to apply when delineating the potential declarable wilderness. However, as a general guide when developing the final boundary, no more than 25% of modified land (MR and SM) should be included in the final declared wilderness area.

Consultation with other agencies

During the preliminary declaration stage and the declaration stage, DECCW may negotiate with other agencies as necessary to determine whether the removal of public utilities is possible where such structures coincide with identified wilderness. Roads vested in the Minister or other authorities may also need to be investigated to ascertain whether or not they can be acquired for wilderness and rehabilitated. In relation to Crown road reserves, note that in some circumstances these roads may be reserved under the NPW Act without the need to negotiate with the LPMA (see section 4.2.5).

Where wilderness has been proposed on I&I NSW (Forests) land not covered by an IFOA, I&I NSW (Forests) will be consulted once the proposal has been accepted. Consultation will also occur prior to the identification of state forest as wilderness. If, after assessment, I&I NSW (Forests) land is identified as meeting the wilderness criteria, negotiations may proceed to ascertain whether I&I NSW (Forests) is willing to enter into a Wilderness Protection Agreement under section 10(1) of the Act or, as has been more usual, to revoke the area’s state forest dedication, allowing its reservation or dedication under the NPW Act.

Issues of interest to I&I NSW are likely to include:

- the importance of, and social and economic consequences associated with, potential loss of an area of resource extraction (including forestry) in the regional, state and national context, compared with declaration of the area as wilderness
- the extent, quality, significance and likelihood of resource extraction (including forestry and mining)
- the willingness of I&I NSW to relinquish mining, exploration and forestry interests in the area.

I&I NSW will be contacted during the naturalness assessment to determine whether or not there are any mining or exploration interests, particularly within SCAs.

Key tasks	Key outputs
<p>Exclude areas of freehold and leasehold tenure that cannot be voluntarily acquired or protected through Voluntary Conservation Agreements.</p> <p>Identify competing land uses and activities and negotiate with relevant agencies where necessary. Exclude areas where incompatible activities will continue.</p> <p>Revise the potential declarable boundary according to general ecological and reserve design principles.</p>	<p>Revised map of the ‘potential declarable wilderness’.</p>

5.2.5 Wilderness assessment reports

DECCW produces a wilderness assessment (WA) report for each proposal or group of proposals. Each WA report describes the assessment and includes maps of the areas assessed, the areas identified and the potential declarable area. Multiple options for declaration are not recommended for inclusion in WA reports or the public exhibition. Different declaration options have been presented in the past; however, they have not been helpful in focusing public comment as intended and, in some cases, only led to confusion.

The various factors that have been taken into consideration, and the ways in which they were weighed and balanced in determining the potential declarable area, will be explained in full. The main points of consideration should be:

- conservation and reserve design issues
- management requirements
- competing land uses and activities
- legislative and policy requirements
- social and economic factors.

The Director General endorses each WA report and formally identifies areas as wilderness.

In the past, WA reports have been large documents providing substantial background and historical detail on the wilderness process in general, related legislation and methodology. Much of this information will be provided on the DECCW website and will no longer need to be repeated in WA reports.

By simplifying WA reports and placing more attention on the proposed wilderness areas in question, DECCW hopes to elicit more locally focused and constructive comments from the community.

It is preferable to avoid multi-region or comprehensive regional assessment-style WA reports. The production of single-area or single-region reports is likely to be less confusing and confronting for the public and, again, likely to elicit more focused and relevant responses from the community.

Peer review of WA reports

Drafts of WA reports are submitted to an internal DECCW wilderness working group for review. This peer review serves to ensure DECCW has a consistent approach to wilderness assessment across the state. The reviewers consider such issues as:

- reliability of data sources
- methodology used and its consistency with DECCW policy
- soundness of the disturbance thresholds used to classify SU, MR and SM

- whether or not the identification process has considered only those factors relevant to this stage of the process (e.g. avoiding social and economic considerations).

This working group also peer reviews submission analysis and wilderness declaration reports in the wilderness declaration stage (see section 5.3.6). Other matters relevant to the specific wilderness assessment at hand may be referred to the wilderness working group as required.

Public exhibition

Although not a requirement of the Act, it is government policy to publicly exhibit WA reports, usually for at least six weeks, to allow review and comment by the community. Special effort will be taken to ensure that the owners and lessees of land within or adjacent to the study area and relevant Aboriginal communities are given the opportunity to comment on the report.

All neighbours who own or manage land within the identified wilderness area will be sent a copy of the report, as will all major land management agencies, Aboriginal communities and interest groups. Additional displays such as 1:25,000 topographic maps with cadastral and identified wilderness boundaries may also be displayed at selected locations. The exhibition may be publicised via an advertisement in state-wide and local papers and media releases as appropriate. The report will be placed on the DECCW website.

Public meetings may be conducted during the exhibition period. These must be run in a way that allows attendees to air any of their issues. Meetings should also provide information that different groups may use to comment on each other's positions in their submissions.

Closed meetings may also be considered to allow representatives from interest groups to outline key issues for the different sides of the debate. Without this, the DECCW task of weighing up arguments for and against declaration over particular areas becomes much more difficult.

In accordance with its Cultural Heritage Community Consultation Policy, DECCW will make special effort to identify the interests of Aboriginal people in the areas proposed for declaration through dedicated consultation, meetings and interviews where appropriate. In conducting this work, DECCW will also follow its policies on gathering cultural information, and any other relevant policies and guidelines.

At the close of the exhibition period, DECCW summarises, analyses and documents submissions on the WA Report in a Submissions Analysis and Wilderness Declaration (SA&WD) Report and database. The purpose of this report is described in section 5.3.1.

Procedure where no declaration is possible

When determining eligibility for declaration, it may be found that the potential declaration area is too small to meet the size criteria in the Act and that a wilderness declaration is therefore not feasible. Such situations may be temporary and will be reviewed periodically, particularly after any lands neighbouring the DECCW estate have been acquired. In such cases, the public exhibition of the WA Report may be delayed until declaration becomes feasible.

If the declaration is not feasible, DECCW will forward the WA Report to the Minister and recommend there be no declaration of wilderness. If the situation is temporary, a time frame for a review of this recommendation will be outlined. All stakeholders notified during the assessment stage and the nominees of the wilderness proposal will be notified of the recommendation.

Public exhibition of the WA Report is discretionary in cases where no declaration is proposed (see also section 6.1.3).

Key messages about making submissions on an exhibited WA Report

The public is to be informed that the key purpose of submissions is to provide factual information that is relevant to deciding what land will be declared wilderness.

Comments relevant to wilderness declaration include the social and economic implications (positive or negative) of a wilderness area being declared. Philosophical or personal statements regarding the concept of wilderness will not assist in the delineation of wilderness boundaries. Similarly, criticisms of the Act or established DECCW wilderness assessment methods are beyond the scope of DECCW's deliberations.

The public need to be made aware that information or issues relating to the wilderness qualities of the identified lands, the boundaries of identified wilderness, and the processes used to address the criteria of naturalness, size and opportunities for solitude and self-reliant recreation are not being sought at this stage. Input into these issues was sought via public advertisement in the early part of the 'identification' stage (see section 5.1.4).

The public must be advised that the submission and analysis process is not a vote-counting exercise. Final wilderness recommendations will not be based on the number of submissions received for or against wilderness declarations. Declaration boundaries (see Section 5.3) will be based on balancing estimated social, economic and conservation losses and gains as a result of wilderness declaration and DECCW obligations to the public under both the Act and NPW Act, including implications for management.

Most importantly, the public will be told how their submission will be used and how the wilderness decision will be made. It will also be made explicit that, to the greatest extent possible, the environmental values of the land have been assessed and reported on in the WA Report. Omissions relating to particular areas of high conservation value or which are considered to be sensitive to certain uses are of interest to DECCW, but any claims to this effect should be backed up by credible information.

See Appendix II for a sample pro-forma for inviting public submissions ('Making a public submission to the wilderness assessment report').

Key tasks/outputs
Prepare, peer review, and publicly exhibit WA Report.

5.3 Wilderness declaration process

5.3.1 Submissions Analysis and Wilderness Declaration Report

The Submissions Analysis and Wilderness Declaration (SA&WD) Report is an internal report developed by DECCW.

The purpose of the SA&WD Report is to:

- identify factually correct issues regarding wilderness declaration that are relevant to the area in question
- analyse and report on these issues and concerns in an explicit way, including a statement of the various considerations that were weighed and balanced in formulating the recommendations for identifying the declared boundary (NSW Ombudsman 2004)
- provide the Minister with a factual and succinct report on the conservation, social and economic impacts (positive and negative) a wilderness declaration is likely to have, based on information from the community, scientific and factual data collected by DECCW, and DECCW management considerations
- review and succinctly report on criticism of the wilderness identification (NSW Ombudsman 2004) noting that the SA&WD Report will not revise the boundaries of identified wilderness
- provide final wilderness declaration recommendations to the Minister.

The report will be concise, simply structured, explicit and transparent, and allow the reader to establish clear and logical links from the summaries and discussions through to the final decisions.

5.3.2 Approach to decision-making

Decision-making will be a process of weighing up competing land-use issues, including protection of wilderness, to determine where wilderness should or should not be declared. The SA&WD Report will state how important a given issue is in terms of its influence on the wilderness declaration recommendations (NSW Ombudsman 2004). Justification of the recommendations will be explicit, detailing the full record of the various considerations that were weighed and balanced (see section 5.3.6). The identification of wilderness is not open to review in the SA&WD Report.

Qualitative, issues-based analysis is the approach to be taken in analysing submissions, as this will give a deducible and reasoned summary presentation of the likely social, economic and reserve management impacts. Qualitative, issue-based analysis simply extracts the issues from each submission, categorising them according to the most applicable social, economic or reserve management subject or theme then discussing these issues in terms of their authenticity, relevance and implications for declaration recommendations. Issues may be grouped into topic headings so that the analysis and summary of submissions can pass from a detailed review of issues to a more general synthesis of public sentiment as required.

5.3.3 Numerical analysis

Counts of submissions and issues raised in submissions for or against wilderness need to be interpreted with caution. Great efforts have been made during some

wilderness exhibitions to rally numerous submissions in favour or against a wilderness declaration. The difficulty is that the number of submissions expressing a particular opinion does not necessarily reflect the relative popularity of that view in the wider community. It could instead be a reflection of the resources and mustering power of a particular interest group. Consequently, the submission process is never to be interpreted as a ballot. Quantitative information is, however, useful to some degree as it may provide some indication of the level of public interest in social and economic factors relating to wilderness issues, and show the scale of specific campaigns organised by interest groups.

The SA&WD Report will provide a brief summary of the:

- number and relative percentages of each type of submission (petition, personal letter or form letter, with petitions counted as form letters)
- number and relative percentages of submissions received in support of and against the wilderness proposal
- geographical distribution of these submissions
- issues raised with the number of submissions referring to each issue also shown (see section 5.3.5).

If a submission is not clearly either pro- or anti-wilderness or raises a number of issues both in support and against wilderness declaration, it will be considered neutral.

In analysing the geographical distribution of submissions, postcodes may be used to assist in describing geographic trends, as they can identify submissions from the local area, the region or specific areas of interest in other parts of NSW.

5.3.4 Treatment of different types of submissions

All submission details will be entered into a database regardless of their content or origin, and all issues will be extracted, listed and analysed no matter what their perceived validity or relevance. Submissions will be numbered on the top right hand corner so they can be easily referred to if required. Details recorded from each submission will include name and contact details, including postcode, type of submission (form letter, petition, etc.), general stance (for or against wilderness) and issues raised by category (see section 5.3.5).

It is preferable that submissions have a legible name, address and signature, as indicated in the advice to the public (Appendix II). Submissions without legible names and addresses will still be registered, and the issues they raise considered. However, as pointed out in Appendix II, if no details are provided this may lead to the issues raised being dismissed as unsubstantiated because there is no way to verify them. There are provisions for people who wish for their personal details to remain anonymous (see section 5.3.7).

Letters clearly intended to be a submission, but addressed directly to the Premier, the Minister, a Member of Parliament, the Director General or a DECCW officer will also be accepted as submissions.

Letters may be classed according to type: 'personal submissions' or 'form letters'. This classification gives some indication of the numbers of letters received due to public campaigns. No one class of letter will be considered more important than another.

All DECCW submission pro-forma, business, individual, government agency, organisation and club letters are considered as individual personal submissions.

Form letters, that is those written, printed or photocopied letters that are identical in content, are accepted if they bear a name, address and signature. Each form letter is to be counted as an individual form letter submission.

Submissions with paragraphs from form letters mixed with personal comments will be considered personal letters if they contain an issue that is distinct from the issues presented in the form letter paragraphs, otherwise they will be counted as individual form letters.

Each participant in a petition will be registered as a form letter provider as long as the petition bears every individual's name, address and signature, and each page of the petition contains in full the written issue that the signatories are supporting.

Duplicate submissions (identical submissions from the same person) are to be considered as one submission.

Public submissions

The SA&WD Report will include a summary of all submissions relating to the wilderness assessment received after the announcement that the assessment is taking place and before the close of the public exhibition period. Submissions covering areas that include but go beyond the current assessment area will also be considered as far as they relate to the assessment at hand.

The SA&WD Report will not include submissions received in response to earlier assessments that may have been performed over the same area. This is because it would not be feasible nor practical to re-analyse potentially thousands of submissions (some of which may have become irrelevant over time) for the renomination of an area previously assessed. However, there will be reference to the previous SA&WD Report to ensure a consistent approach to major common issues.

Major public or government agency submissions

Major public submissions (substantial and detailed submissions from non-government organisations) and government agency submissions are to be fully examined to identify, record and analyse issues. Major campaigns (e.g. where submissions from an organisation are supported by petitions or form letters) will be noted and reported in the SA&WD Report. However, it is the issues identified, rather than the number of supporters, that will be used for delineating the proposed wilderness declaration boundary and the issues raised in these submissions will be analysed under their appropriate issue categories.

Submissions from meetings

Meetings conducted with the public are often useful during wilderness assessments to explain and promote better both wilderness protection and DECCW's position or policies, to rectify misunderstandings, and to elicit constructive comment in relation to the WA Report.

Notes and minutes recorded at a public meeting can be used as a submission only if the contributor records their name, address and signature after having read and agreed that the content is correct. The name, address and signature will be directly

under or beside the submitter's comments. The section of minutes or notes relating to each contributor will also be distinguished and sectioned off from other notes and content.

However, it is preferable to encourage people to make separate written submissions rather than recording submissions during a public meeting or forum and this will be stated at the beginning of the meeting.

Consultation and information from DECCW staff

DECCW staff, including staff who directly manage the assessed areas, will provide advice in determining the boundaries proposed for declaration, and comment on the likely implications for declaring wilderness on park management, visitation and conservation. As official correspondence, this information must be free of personal views on wilderness.

These submissions will be recorded and incorporated into the SA&WD Report, with the identity of staff protected.

5.3.5 Categorisation of issues

An appropriate categorisation of issues is central to the outcome of the analysis. The number of categories depends on whether the assessor splits issues into many categories or pools issues into a few categories. Too many issue categories will over-emphasise minor issues and may obscure the link between submission comments and the declaration recommendations. Too few categories may cause loss of important details. A list of headings used in previous SA&WD Reports or in planners' reports from the exhibition of reserve plans of management may be a useful guide. A classification system will be piloted on a small random subset of submissions to test its efficacy before data entry begins.

Issues will be categorised and listed separately as common issues and local issues.

'Common' issues are those that relate to all wilderness areas or the wilderness process, such as fire management, pest species control, public access, conservation values and tourism. These issues do not identify the specific locality discussed in the WA Report.

'Local' issues are those that convey information about an issue specific to a particular wilderness area or location, such as a rare ecological community found at a particular site or a particular fire trail associated with an access issue.

Regional issues will be included in the local issues category unless they are numerous, when an additional 'regional' issues category can be added. Issues are analysed and reported on in these categories with an emphasis on local and common issues, based on personal knowledge, as requested in the public exhibition information sheet (see Appendix II).

Table 3 provides an example of how common and local issues raised from submissions could be summarised against the topic headings and presented in a SA&WD Report. This table is only an example of how this could appear in a report and is not detailed enough to be used for analysis.

Table 3: Example summary of issues for inclusion in SA&WD reports

Common / local issues	Support wilderness	Oppose wilderness	Neutral stance	Total
Wilderness process	(No. of submissions)	(No. of submissions)	(No. of submissions)	(No. of submissions)
Wilderness identification				
Fire management				
DECCW management				
Pest species				
Timber/forestry				
Mining issues				
Cultural heritage				
Tourism				
Ecological				
Agriculture/grazing				
Major public submissions				
Recreation				
Scenic and visual				
Infrastructure				
Water				
Urban				
Public health				
Others as required				

Where a number of people are involved in collating and analysing submissions, an inter-observer reliability test will be performed to demonstrate objectivity when splitting issues into categories. The people selected to perform the categorisation of issues will each be asked to categorise at least ten randomly selected submissions. A level of at least 90% category agreement between observers needs to be reached to demonstrate an acceptable level of reliability (based on Trochim (2002)). Results below this level will be analysed by observers and reasons for differences discussed and resolved. Additional tests will be performed to ensure 90% reliability before proceeding with the full categorisation of issues.

Where many submissions are received in support of a major public submission or campaign, this will be noted but not used for making recommendations.

All issues will at least be recorded in the initial database used to collate submission details. When preparing the SA&WD Report, a brief discussion will outline the types of issues raised that were considered beyond the scope of the submission analysis and reasons for their omission.

5.3.6 Submission analysis and recommendations for wilderness

Analysis of submissions and NPWS declaration recommendations for wilderness for the public consultation and display of the *Northern Wilderness Assessment Report* (NPWS 2001a) provides an example of how the summary and discussion of issues and subsequent declaration recommendations might be formatted and detailed. Other approaches may be developed to suit local circumstances and submission characteristics.

A possible structure for considering each issue raised in the report would be:

- description of issue
- discussion – a qualitative analysis of all the public submissions received on the issue and a general summary of community sentiment
- DECCW's position on the issue and justifications for that position.

Justification of DECCW's position on an issue will detail all the information taken into account, such as socioeconomic factors, management requirements, competing land uses and activities, legislative and policy requirements, or conservation and reserve design issues, where these have not already been covered by the WA report. A weighing up of the validity, relevance and merits of the points of view raised and other information, and the consequences for declaring or not declaring wilderness, will be provided. Where land units within the potential declarable area are in contention, analysis of the losses and gains as a result of including (or excluding) each, or combinations of these units, will be provided.

Efforts will be made to substantiate issues raised in submissions and report on their validity where possible. It is understood that this may take up significant staff time and resources, but it is important that issues are not accepted on face value.

Common issues raised may often be associated with value judgements or political stances or opinions. The validity, merit and relevance of such comments will be discussed in the context of the Act and the fact that local and specific issues were requested because they better inform the delineation of wilderness boundaries.

DECCW will coordinate a peer review of the draft SA&WD Report by the wilderness working group (see section 5.2.5). This review serves to ensure DECCW has a consistent approach to submission analysis and to determining what areas are suitable for declaration, and that the methods and report are consistent with DECCW policy.

The reason for the final recommendations, including those on particularly contentious issues, will be reported to the Director General when the wilderness recommendation package is submitted.

The Minister will be briefed on the likely recommendations. The SA&WD Report is then provided to the Minister for approval. The Minister may request changes to the declaration boundary prior to approval.

The SA&WD Report is made publicly available following the government's decision.

Key tasks	Key outputs
<p>Receive, collate and analyse public submissions.</p> <p>Prepare SA&WD Report and have it peer reviewed.</p> <p>Present to the Minister a declared wilderness boundary seeking approval for its declaration.</p>	<p>SA&WD Report.</p> <p>Wilderness recommendations presented to the Minister.</p>

5.3.7 Privacy issues

The registration, storage and use of submission material must be in accordance with the requirements of the *Privacy and Personal Information Protection Act 1998* (PPIP Act).

By following these requirements, DECCW will:

- keep the information for only as long as necessary for the purposes for which it was originally collected and used
- protect the information against misuse and unauthorised access
- store submissions in a secure environment (with locked facilities)
- make submissions available for public inspection only under supervision
- not allow submissions to be taken from the designated office of use and storage unless authorised by a DECCW regional manager or a more senior officer
- not allow submissions to be taken by a member of the public (photocopies acceptable)
- store submissions for possible review by the public for a period of two years after the final wilderness decision has been made by the government
- formally destroy submissions according to the Records Disposal Schedule and relevant *Records Management Standards and Guidelines* (DEC 2005)

- take care to ensure personal details are not available for viewing if a request is made for this to be kept confidential (meaning that the person's name is not recorded in the database and details on the submission itself are blacked out before it is made available for public inspection).

DECCW has endorsed the principle of making submissions open to the public to enhance transparency in government decision-making. Individuals are made aware of this in Appendix II. As long as individuals are informed that their submission may be disclosed, the disclosure is acceptable under the PPIP Act.

Submissions will be available for public access for a period of two years after the government has made final decisions on wilderness boundaries. After this time, submissions will be archived and stored in accordance with *Records Management Standards and Guidelines* (DEC 2005).

The public may inspect the submissions and take notes at no cost but it must be under the supervision of a DECCW staff member. The public can request photocopies of submissions charged at the current DECCW hourly rate or part thereof.

The identity of those making submissions can be recorded in computerised spreadsheets, which must also be stored and used in accordance with the PPIP Act and the associated policy. Care must be taken to exclude personal details from viewing as required.

Individuals do have the right to request that their personal details are not disclosed to the public. In these cases, personal details on submissions will be masked if members of the public wish to view them. This could be an onerous task. Recording submissions into computer spreadsheets allows the rapid viewing of submission issues and easy concealment of personal details. Therefore, inspection of the database will be encouraged in the first instance. There have been cases where there have been inspections of submissions followed by harassment of those who have made the submissions. Even if individuals have not requested confidentiality, viewing of the actual submissions will be discouraged unless there are mitigating factors.

Submission of personal or identifying information is voluntary, but there may be difficulties in using the information in anonymous submissions supplied without these details. This includes DECCW's inability to verify issues and the claims made, which may render issues unsubstantiated, thereby giving them little or no weight in formulating recommendations. This is explained in the advice to the public (Appendix II).

Individuals have the right to have access to, and correct, personal information once collected.

5.4 Post-assessment

The Minister makes the wilderness declaration. If the Minister decides to declare the wilderness area, papers are returned to DECCW to prepare a gazettal notice for the declared area. The notice is approved by the Minister and published in the *Government Gazette*. This constitutes formal declaration under the Act. Any land tenure changes associated with the declaration are also gazetted.

Key tasks	Key outputs
<p>Prepare and publish gazettal notices for any necessary tenure changes, such as I&I NSW (Forests) or vacant Crown land to DECCW.</p> <p>Prepare and publish gazettal notices for declaration.</p> <p>Prepare and publish gazettal notices for any wilderness Voluntary Conservation Agreements.</p> <p>Follow up landholder interest in Voluntary Conservation Agreements or acquisition.</p>	<p>Wilderness area(s) formally declared.</p> <p>Tenure changed.</p> <p>Offers to sell are prioritised within existing acquisition program.</p> <p>Voluntary Conservation Agreements signed.</p> <p>Wilderness areas announced and Ministerial and DECCW media statements circulated and posted on the DECCW website.</p>

6 Issues arising after wilderness declaration

6.1 Renomination and reassessment

6.1.1 Proposals for areas previously assessed but not identified

DECCW may consider reassessing an area under the following circumstances:

- where DECCW has strong evidence indicating that the naturalness of an area has significantly altered since the original assessment or found it to be capable of restoration to the extent where it may now meet the naturalness criterion in the Act
- the size of the area that may be assessed and identified may now meet the size criterion in the Act
- renominations of areas for which ‘... supporting information [is] available that was not fully considered in the past ...’ (NSW Ombudsman 2004).

For new nominations incorporating areas that have undergone assessment previously as well as those that have not, there are two practical options:

- accept the nomination only for the area that has never been assessed
- accept the proposal for both the new and the previously assessed areas, but only in particular circumstances. Namely, when there have been a number of wilderness assessments where, for legislative or government policy reasons, the assessment area has been defined by tenure boundaries rather than encompassing all adjacent lands that may support wilderness. As a result, the assessment area may have been too small or too fragmented to be identified as wilderness. In these cases, reassessment of part or all of the original assessment area within the context of a larger, revised assessment area will be undertaken. This option must only be selected if there is evidence to suggest that the area identified for reassessment has a reasonable chance of being found to support wilderness within an expanded assessment area.

The passage of time since the commencement of the Act means that many wilderness assessments have been undertaken in areas that have since been studied in greater detail, bringing about a range of new information relevant to wilderness assessments. However, the provision of new information in itself is not grounds for reassessment.

6.1.2 Proposals for areas previously assessed and identified but not declared

There are many areas of identified wilderness not in the DECCW estate and not declared as wilderness. In the absence of a landholder voluntarily entering one or other of the wilderness conservation agreement mechanisms under the Act (depending on the tenure), DECCW is not in a position to recommend declaration of the areas as wilderness. In all practicality, these areas will only progress towards declaration when DECCW can acquire the lands.

There are also many wilderness areas in the DECCW estate that have been identified as wilderness but have not been declared. Most of these are adjacent to declared wilderness but some may be stand-alone areas. Examples of where this occurs include cases where:

- the Minister has determined that the area is not suitable for declaration due to social and economic considerations
- the Minister has decided that no part of the identified wilderness can reasonably be declared as wilderness due to size constraints or an incapacity to manage the area consistent with the Act.

Reconsideration for declaration of an area of identified wilderness is only appropriate where the original grounds for not pursuing declaration have changed. This may occur for many reasons, some of which are listed below:

- where an area of identified wilderness was previously bisected by a public access road that has subsequently been closed
- where an area of the DECCW estate within the identified wilderness was originally too small to meet the size criteria in the Act and the estate has subsequently been expanded
- where mining, recreational, timber or other interests have been removed.

The reasons for not declaring or recommending declaration of the identified wilderness may not have always been documented in the original assessment process. In this case, DECCW can proceed with the declaration process provided there are no known impediments.

The situation may be further complicated where land has undergone significant disturbance since it was identified as wilderness. In these cases, consideration will be given to the degree of disturbance that has occurred and whether the land still meets the criteria for wilderness identification. If this question is not easily resolved, the area will be comprehensively assessed for wilderness values, using the standard wilderness assessment process with a new or revised identification report prepared.

Where lands were previously identified as wilderness but no longer meet the wilderness criteria, it is not appropriate to proceed with declaration and DECCW will notify the Minister of the situation. No further action is required.

Where an area of identified wilderness is reassessed and found to support wilderness values, the standard process for progressing wilderness protection applies.

Where a request to reassess or reconsider previous wilderness decisions has been made by a member of the public, the proposal will be considered in light of the above requirements and the applicant notified about whether or not the proposal will be considered.

6.1.3 Public exhibition of renominations

The intention of publicly exhibiting a WA Report is to invite comment on the social, economic and reserve management impact of wilderness declaration. Comment from the public on the wilderness qualities of land is made as part of the wilderness assessment phase prior to identification (see section 5.1.4).

Public exhibition of proposals may be warranted where:

- DECCW is considering substantial new areas for declaration
- the proposed declarations are minor but may significantly alter existing usage for multiple users (such as public road closure) if it is declared
- the area was identified some years previously and there is a need to re-engage the public on the issue of its declaration.

Public exhibition may not be warranted where:

- the proposed addition to declared wilderness is minor, such as where one property has been acquired, and/or it is unlikely to affect existing usage
- no wilderness declaration is feasible for some years
- the issue is thought to be of little or no interest to the public.

Where DECCW does not recommend any area for declaration, the WA Report does not need to go on exhibition. However, DECCW will notify key stakeholders of the decision, including the nominator, neighbours, Aboriginal communities or special interest groups and landholders whose lands are affected by the renomination.

6.2 Boundary alterations and revocations

6.2.1 Identified wilderness

Because wilderness identification provides no additional statutory protection, it may be degraded over time through various land management practices such as logging or clearing. In some cases, lands previously identified as wilderness may no longer meet the wilderness criteria. While there are no provisions that specifically deal with this issue in the Act, revocation or variation of wilderness identification is considered possible under the functions and powers granted to the Director General in the Act. Legal advice should be sought where it is deemed necessary to revoke or vary wilderness identification.

6.2.2 Declared wilderness

Procedures for altering the boundary of declared wilderness vary according to the tenure of the area.

Within DECCW land, section 8(4a) of the Act states that existing declared wilderness may be varied by a further notification from the Minister published in the *Government Gazette*, but may not be revoked except by an Act of Parliament.

Examples of boundary variations include minor road realignments required for safety purposes, addition of a newly acquired area to existing wilderness, or where a minor track or trail was originally gazetted in error.

The judgment about whether or not a given boundary adjustment is a 'variation' or a 'revocation' will be made on a case-by-case basis and may require reference to the original assessment documents to establish the intention of that declaration.

As for the DECCW estate, wilderness subject to Wilderness Protection Agreements may be varied by a notification published in the *Government Gazette*, but may not be revoked except by an Act of Parliament (section 8(3)).

In contrast, declared wilderness subject to Conservation Agreements may be varied or revoked by notification published in the *Government Gazette* (section 8(4)).

7 Appendices

Appendix I

Invitation to provide information during the wilderness identification stage

The following text is an example of the letter sent to landholders, stakeholders and community groups, and may also be used for public advertisements in local and state-wide newspapers.

Advice on making a submission to assessment of wilderness identification

The Department of Environment and Climate Change (DECCW) is carrying out an assessment of areas in the [name of area/region] that have been nominated as wilderness. DECCW invites stakeholders and members of the public to submit information relating to the wilderness areas.

The purpose of this invitation is to gather information that will help DECCW determine whether or not the nominated areas meet the identified wilderness criteria set out in the *Wilderness Act 1987* (outlined below). Any information you can provide will be gratefully accepted.

Your information will be more useful if it provides accurate and factual information in relation to the criteria, and where it is of direct relevance to the study area(s).

Wilderness criteria:

Naturalness

'The area is, together with its plant and animal communities, in a state that has not been substantially modified by humans and their works or is capable of being restored to such a state.'

Information relevant to this criterion may include land-use history, such as logging, clearing and grazing, or mining. Also, any information relating to the degree of this disturbance may be relevant.

Size

'The area is of a sufficient size to make its maintenance in such a state feasible.'

Solitude and appropriate self-reliant recreation

'The area is capable of providing opportunities for solitude and appropriate self-reliant recreation.'

Wilderness identification is a technical process involving two stages: 'identification of wilderness' and 'declaration of wilderness'. Only factual information relevant to the criteria in the Act may be used in the 'identification of wilderness' stage. Personal statements regarding the Wilderness Act or wilderness in general will not assist in this stage and will not be considered as part of DECCW's deliberations.

Additional information or opinions received during the 'identification of wilderness' stage that is relevant to the 'declaration' stage (e.g. related to the social, economic

and reserve management consequences of wilderness) will be considered later in the assessment.

For full details on the wilderness assessment process, including how DECCW will use information and analyse public submissions, please refer to the DECCW *Wilderness Assessment Guidelines* available at [insert full web address]. You may request a hard copy to be sent to you by telephoning DECCW on [insert telephone number] or writing to DECCW at [insert address].

It is important to provide your full name and address to assist DECCW in verifying information.

Where to find a map of the study area:

- on the DECCW website at [insert full web address]
- by telephoning DECCW on [insert telephone number]
- by writing to DECCW at [insert address].

The closing date to provide information is [insert date].

Please address your submission to:

The Director [insert relevant branch]
Environment Protection and Regulation Group
[insert PO Box or street address]
[insert town state and postcode]

Please provide information that is:

- typed or handwritten, including a legible name, address and signature
- concise and clear.

Privacy

Information you provide will only be used for this wilderness assessment process. The information will be held and used by DECCW in accordance with the *Privacy and Personal Protection Information Act 1998*.

You may request that your personal details be kept confidential if you have a legitimate reason. Any identifying information will then be masked out prior to any public viewing. Those who request access to the masked out details will need to apply for access under the *Freedom of Information Act 1989*.

Appendix II

Making a public submission to the wilderness assessment report

The following is an example of the guidance provided to landholders, stakeholders and community groups on making a submission to the wilderness assessment report, including a pro-forma with a suggested submission structure.

Advice on making a submission to the wilderness assessment report

The [insert name] Wilderness Assessment Report has been prepared and placed on public exhibition. All stakeholders and members of the public are now invited to express their views on which parts of the identified wilderness (that is, those areas found to support wilderness values) should be declared and managed as wilderness. Comment is invited on the social, economic and reserve management consequences, both positive and negative, that wilderness declaration may have.

The report has been placed on public display following the formal identification of [Insert either the name(s) or number of] wilderness area(s) by the Director General of the NSW Department of Environment and Climate Change (DECCW).

Identified wilderness areas have the wilderness qualities set out in the *Wilderness Act 1987* (the Act), which are:

- a high degree of naturalness
- a sufficiently large size
- a capacity to support experiences of solitude and appropriate self-reliant recreation.

DECCW is seeking input on the proposed declaration area(s) presented in section X of this report, which includes a map of the area(s). All areas proposed for wilderness declaration are DECCW reserves. No freehold or leasehold land is included in the proposed wilderness declaration.

The final declared wilderness boundaries may be different to this/these map(s) and description(s) depending on the outcome of the public exhibition and the Minister's discretion.

Although DECCW and the NSW Government will consider all views on what should be and should not be declared wilderness, emphasis will be placed on those issues relevant to the area under consideration and which are substantiated by facts or evidence. You may be contacted by DECCW to gather further information or to ascertain the authenticity of your issues and claims.

Submissions received in response to this report and earlier submissions received in the course of the assessment will be analysed together.

Personal views regarding the Act or general opinions for or against wilderness will not assist in the delineation of wilderness. These issues are beyond the scope of DECCW's deliberations, as DECCW is bound by legislation to identify, protect and manage wilderness. Issues or claims that have no relevance to the areas that are the

focus of this Wilderness Assessment Report will be noted, but will not be used for DECCW's recommendations to government on wilderness declaration.

Your submission:

- can be typed or handwritten and should include a legible name, address and signature
- should be concise and clear
- should state whether you agree or disagree with any statements in the text, giving your reasons and sources of information, and suggesting alternatives to deal with any issue with which you disagree
- can be as long or as short as is necessary for you to present your arguments in relation to the identified wilderness areas.

Your submission will be more useful for recommendation decision-making if it:

- provides additional, accurate and factual information of direct relevance to the wilderness areas proposed for declaration
- presents clear and valid arguments for or against the declaration of certain areas
- indicates omissions, inaccuracies or lack of clarity in the Wilderness Assessment Report.

Your submission will be individually considered and DECCW's deliberations and recommendations on wilderness declaration will be written up in a Submission Analysis and Wilderness Declaration Report. This report is provided to the Minister for Climate Change and the Environment for a final wilderness decision and will also be made available to the public.

Make sure your submission is posted before the exhibition period closes on [insert closing date].

Privacy

Submissions should have a legible name, address and signature so that it can be registered and replied to if necessary.

Information you provide will only be used for this wilderness assessment process. Your submissions will be held and used by DECCW in accordance with the *Privacy and Personal Protection Information Act 1998*.

DECCW allows public inspection of submissions to enhance transparency in government decision-making. Your submission will therefore be available for public access for a period of two years after final wilderness decisions have been made.

You may request that your personal details be kept confidential. Any identifying information will then be masked out prior to any public viewing. Those who request access to the masked out details will need to apply for access under the NSW *Government Information (Public Access) Act 2009*.

Treatment of major public submissions and petitions

Major submissions from interest groups and other organisations may be supported by a petition or form letters. However, DECCW stresses that its recommendations to government will not be based on a ballot. Recommendations will be based on issues relevant to the area under investigation coupled with scientific data collected by DECCW and other management considerations.

For full details on the wilderness assessment process, including how DECCW will use information and analyse public submissions, please refer to DECCW's *Wilderness Assessment Guidelines* available at [insert full web address]. You may request a hard copy of these guidelines by telephoning DECCW on [insert telephone number] or writing to DECCW at [insert address].

Remember

- The closing date for submissions is [insert date]
- DECCW's recommendations to government will be based on issues, not on the numbers of people supporting an issue or claim
- Submissions must, where possible, be substantiated with evidence and facts.

Send your submission to:

[Insert name of] Wilderness Assessment Exhibition
[Insert PO Box or street address]
[Insert town state and postcard]

You may choose to use the following pro-forma or the electronic pro-forma at [insert web address] to write your submission.

Electronic submissions will be accepted; however, you must supply your full name, address and any other contact details so that DECCW can verify your claims if necessary.

For further information, please contact [insert name of unit or DECCW officer] or [insert phone number] or call in at [insert office address].

PRO-FORMA TEXT

Please ensure you have thoroughly read and understood the attached 'Advice on Making a Submission to the Wilderness Assessment Report' before lodging a submission.

[insert name of] Wilderness Assessment Report SUBMISSION FORM

You may choose to use this form to write your submission.

If there is not sufficient space below please attach additional sheets of paper.

PLEASE NOTE:

For the purposes of the NSW *Privacy and Personal Information Protection Act 1998*, any comments about the [insert name] Wilderness Assessment Report, particularly those that contain your personal details, will be a matter of public record and will be stored in the DECCW records system. If you do not wish to have your personal details recorded or disclosed to members of the public, please indicate this below and your details will remain confidential to DECCW.

Yes, please ensure my personal details are confidential to DECCW.

- The area(s) eligible for wilderness declaration that are of concern to you are:

.....

- What are the issues or concerns you have regarding the area(s) eligible for wilderness declaration? (Remember DECCW is most interested in issues that can be supported by facts and issues that relate to the proposed wilderness areas presented in the *Wilderness Assessment Report*).
- What facts or evidence do you have to support your issues or concerns?
- Do you have suggested alternatives or proposals to address your concerns?

DECCW does not usually send an individual response for each submission received. However, if you would like to know that we have received your submission, please fill in the form below and include it with your submission and we will send you an acknowledgment.

This receipt is to certify that DECCW has received your submission on the [insert name] Wilderness Assessment Report.

Name:

Address:

Postcode:

Club/association:

Signature:

Date:

8 References

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Relevant legislation

Wilderness Act 1987

National Parks and Wildlife Act 1974

Crown Lands Act 1987

Forestry and National Park Estate Act 1998

Forestry Act 1916

Relevant documents

Park Management Policy Manual

Wilderness Policy, 2002 NSW National Parks and Wildlife Service

Privacy and handling public submissions

Integrated Forestry Operations Approvals (IFOAs)