



Australian Government
Department of the Environment and Heritage

EPBC Act Policy Statement 1.2 Significant Impact Guidelines



Actions on, or impacting upon, Commonwealth land,
and actions by Commonwealth agencies

May 2006



Shoalwater Bay Military Training Area, Queensland
Image: M O'Brien



Woolwich Dock, New South Wales
Image: courtesy of Sydney Harbour Federation Trust



Brisbane Airport, Queensland
Image: courtesy of Brisbane Airport Corporation Pty Ltd



Kingston and Arthurs Vale Commonwealth Tenure Area,
Norfolk Island
Image: Dr J Kerr

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For copies of this document, or more information about the EPBC Act, please contact the Department of the Environment and Heritage Community Information Unit on **1800 803 772**, or visit the web site at: www.deh.gov.au/epbc

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Table of contents

Introduction	3
Determining whether a referral is required under the EPBC Act	4
Environmental risk management by Commonwealth agencies	6
Self-assessment process	7
Introduction	7
Figure 1 – The self-assessment process	8
Step 1: Environmental context	9
Step 2: Potential impacts	12
Step 3: Impact avoidance, mitigation and management	15
Step 4: Are the impacts significant	16
The referral, assessment and approval process	19
Figure 2 – EPBC Act referral process	19
Figure 3 – EPBC Act assessment and approval process	21
Further sources of information	22
Glossary of terms	24
Appendices	
Appendix A – Environmental context list	25
Appendix B – Management of Commonwealth heritage places	29
Appendix C – Authorisations by Commonwealth agencies	30
Appendix D – Actions on Commonwealth land in Australian Government leased airports	31

Introduction

These guidelines apply to:

- 1) any person who proposes to take an action which is either situated on Commonwealth land or which may impact on Commonwealth land; and/or
- 2) representatives of Commonwealth agencies who propose to take an action that may impact on the environment anywhere in the world.

The purpose of these guidelines is to assist persons in the above categories to decide whether or not they should submit a referral to the Australian Government Department of the Environment and Heritage (the Department) for a decision by the Australian Government Environment Minister (the Minister) on whether assessment and approval is required under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).*

These guidelines may also assist members of the public or interest groups who wish to provide comments on actions which have been referred under the EPBC Act.

>> What is an action?

‘Action’ is defined broadly in the EPBC Act and includes: a project, a development, an undertaking, an activity or a series of activities, or an alteration of any of these things.

Actions include, but are not limited to: construction, expansion, alteration or demolition of buildings, structures, infrastructure or facilities; storage or transport of hazardous materials; waste disposal; earthworks; impoundment, extraction and diversion of water; research activities; vegetation clearance; military exercises and use of military equipment; and sale or lease of land.

Actions encompass site preparation and construction, operation and maintenance, and closure and completion stages of a project, as well as alterations or modifications to existing infrastructure.

A decision by a government body to grant a governmental authorisation (however described) for another person to take an action is not an action. However, the EPBC Act requires Commonwealth agencies or employees to obtain and consider advice from the Environment Minister before making a decision to authorise certain actions (see Appendix C) and prohibits Commonwealth agencies from authorising a person to do, or omit to do, anything that would contravene a plan for managing a Commonwealth Heritage place (see Appendix B).

* Note that an action does not require approval under the EPBC Act if it meets the criteria for the ‘prior authorisation’ or ‘continuing use’ exemptions. These criteria are explained in the Practice Guide entitled *Prior Authorisation and Continuing Use exemptions – Sections 43A and 43B*, available on the Department’s web site at: <http://www.deh.gov.au/epbc/publications/exemptions.html>

Further exemptions include:

- certain actions authorised under the *Great Barrier Reef Marine Park Act 1975* (EPBC Act section 43);
- certain forestry operations in Regional Forestry Agreement Areas (EPBC Act section 42); and
- certain actions requiring separate authorisation by an Australian Government agency or employee and subject to an alternative assessment and advice process under section 160 of the EPBC Act.

>> What is a referral?

'Referral' of an action involves filling out a referral form and sending it to the Department of the Environment and Heritage. A referral identifies the person proposing to take the action and includes a brief description of the proposal, the project location, the nature and extent of any potential impacts, and any proposed mitigation measures. The EPBC Act referral process is outlined in more detail at the end of these guidelines.

These guidelines should be considered in conjunction with the *Significant Impact Guidelines 1.1*, which deal with matters of national environmental significance. The matters of national environmental significance are:

- listed threatened species and ecological communities;
- migratory species protected under international agreements;
- Ramsar wetlands of international importance;
- the Commonwealth marine environment;
- World Heritage properties;
- National Heritage places; and
- nuclear actions.

You should consider separately whether or not your action is likely to impact on any of these matters of national environmental significance. However, if referral is necessary, you need only submit one referral that includes all relevant matters.

If you represent a Commonwealth agency which owns or controls land consisting of, or containing, a listed Commonwealth Heritage place, there are additional management responsibilities under the EPBC Act which are outlined in Appendix B.

Determining whether a referral is required under the EPBC Act

Under the EPBC Act approval is required for:

- 1) **An action taken by any person on Commonwealth land** that is *likely* to have a significant impact on the environment (subsection 26(1) of the EPBC Act);*
- 2) **An action taken by any person outside of Commonwealth land** that is *likely* to have a significant impact on the environment on Commonwealth land (subsection 26(2) of the EPBC Act);
- 3) **An action taken by a Commonwealth agency anywhere in the world** that is *likely* to have a significant impact on the environment (section 28 of the EPBC Act).

* In relation to actions proposed to be taken on Commonwealth land in an Australian Government leased airport, refer also to Appendix D.

>> What is the environment?

'Environment' is defined in the EPBC Act as:

- (a) ecosystems and their constituent parts including people and communities ('ecosystem' is defined in the EPBC Act as 'a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functioning unit');
- (b) natural and physical resources;
- (c) qualities and characteristics of locations, places and areas;
- (d) heritage values of places ('heritage value' is defined in the EPBC Act as including 'the place's natural and cultural environment having aesthetic, historic, scientific or social significance, or other significance, for current and future generations of Australians.' 'Indigenous heritage value' is defined as meaning 'a heritage value of the place that is of significance to Indigenous persons in accordance with their practices, observances, customs, traditions, beliefs or history'); and
- (e) the social, economic and cultural aspects of a thing mentioned in paragraphs (a), (b) or (c).

These guidelines outline a 'self-assessment' process to assist you in determining whether your action is likely to have a significant impact on the environment. If an action which you propose to take falls within one of the three categories outlined above, or if you are unsure, you should refer the action to the Environment Minister. A person who takes such an action which has not been approved by the Environment Minister and which has a significant impact on the environment may be subject to criminal and civil penalties.

>> What is a significant impact?

A 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts. You should consider all of these factors when determining whether an action is likely to have a significant impact on the environment.

>> When is a significant impact likely?

To be 'likely', it is **not** necessary for a significant impact to have a greater than 50% chance of happening; it is sufficient if a significant impact on the environment is a **real or not remote** chance or possibility.

If there is scientific uncertainty about the impacts of your action and potential impacts are serious or irreversible, the precautionary principle is applicable. Accordingly, a lack of scientific certainty about the potential impacts of an action will not itself justify a decision that the action is not likely to have a significant impact on the environment.

Environmental risk management by Commonwealth agencies

In addition to distributing this guideline, Commonwealth agencies should have in place procedures and protocols to ensure that all relevant staff understand and comply with the agency's obligations under the EPBC Act.

Agencies regularly undertaking actions that require assessment and approval under the EPBC Act should consider undertaking a strategic assessment under section 146 of the EPBC Act. Section 146 provides for the assessment of the impacts of actions under a policy, plan, or program agreed between the implementing agency and the Minister on a matter protected under Part 3 of the EPBC Act. The Minister can take a strategic assessment into account when deciding whether or not actions by the agency require approval under the EPBC Act and, if approval is required, what level of assessment is appropriate.

Self-assessment process

Introduction

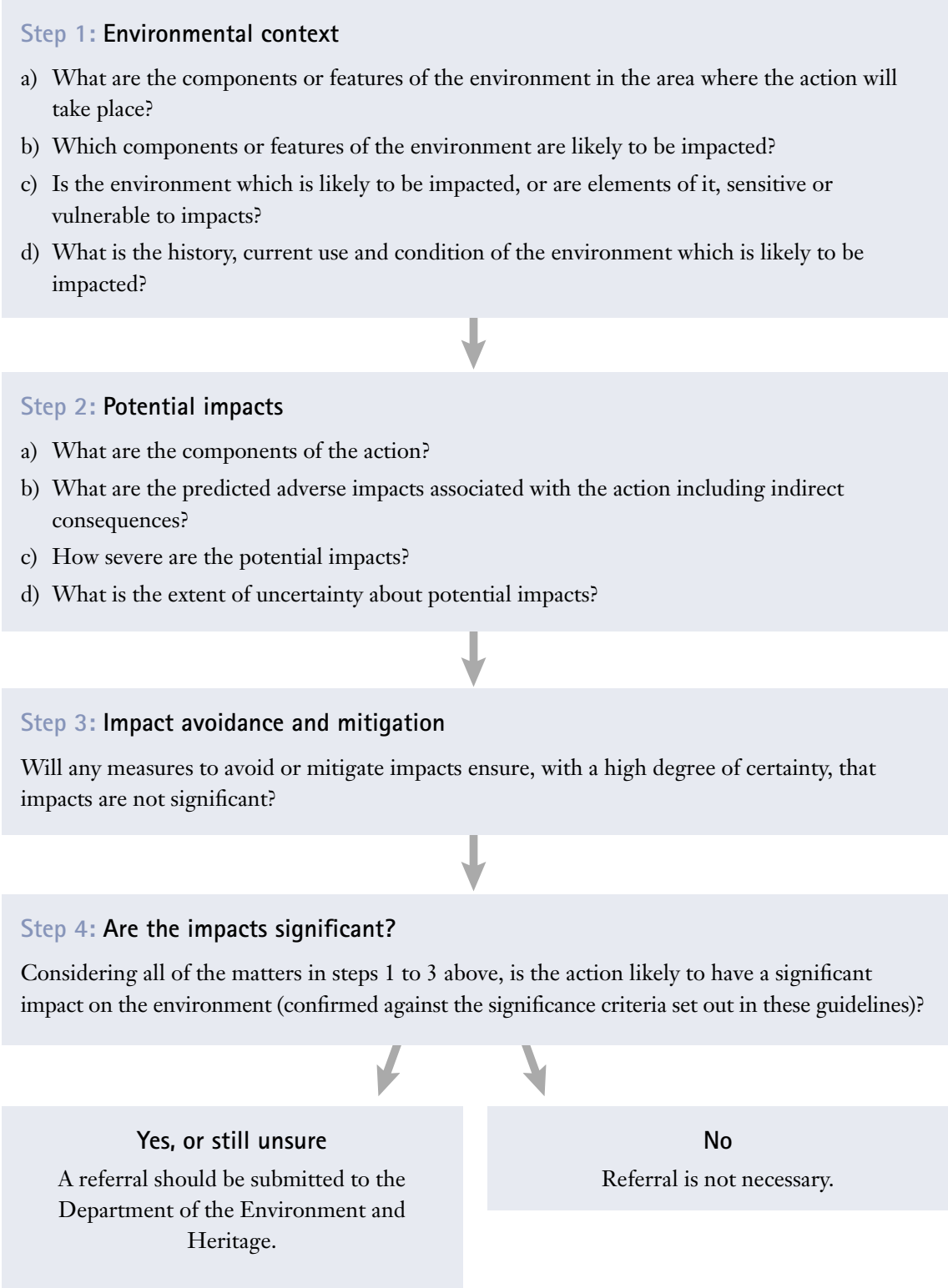
The 'self-assessment' process set out on the following pages is intended to assist you in deciding whether or not your action is likely to have a significant impact on the environment. Your self-assessment should be as objective as possible and based on sufficient information to make an informed judgement. If you complete the self-assessment process and you are still unsure whether the action you propose to take is likely to have a significant impact on the environment then you should refer the action to the Department of the Environment and Heritage. In considering taking this step, you may like to discuss the matter with the Department's Referrals Section. The Referrals Section can be contacted through the Department's Community Information Unit on **1800 803 772** or by emailing epbc.referrals@deh.gov.au.

>> In deciding whether or not the action that you propose to take is likely to have a significant impact you must consider:

- 1) the environmental context;
- 2) potential impacts likely to be generated by the action, including indirect consequences of the action;
- 3) whether mitigation measures will avoid or reduce these impacts; and
- 4) taking into consideration the above, whether the impacts of the action are likely to be significant.

The self-assessment process is summarised in Figure 1. Each step in the self-assessment process is discussed on the following pages.

Figure 1 – The self-assessment process



Step 1: Environmental context

The key to determining whether an action is likely to have a significant impact on the environment is to understand the environment which will be impacted (the 'environmental context'). When identifying the environmental context you should consider both the site of the action and adjacent, surrounding, downstream, or downwind areas that may be directly or indirectly affected by the action.

The key questions to consider when identifying the environmental context are:

- What are the components or features of the environment in the area where the action will take place?
- Which components or features of the environment are likely to be impacted by the action?
- Is the environment which is likely to be impacted, or are elements of it, sensitive or vulnerable to impacts, and/or are components of it, rare, endemic, unusual, important or otherwise valuable?
- What is the history, current use and condition of the environment which is likely to be impacted by the action?

What are the components or features of the environment?

The first step in identifying the environmental context of an action is to identify the general features of the environment in the area where the action will take place.

Which components of the environment are likely to be impacted?

Once components or features of the environment have been identified the second step is to identify which components or features of the environment are likely to be impacted by the action.

Is the environment sensitive or vulnerable to impacts?

The third step is to determine whether the environment which is likely to be impacted, or components or features of that environment, are sensitive or vulnerable to impacts. An action is more likely to have a significant impact on the environment if it will impact upon sensitive or vulnerable areas, components or features of the environment.

Areas, components or features of the environment may be vulnerable to all impacts or they may be especially vulnerable to certain kinds of impacts. Examples of environmental components which are likely to be vulnerable to all impacts include:

- environmental components which are physically fragile; for example, limestone formations or rock art;
- environmental components which have very specific environmental requirements; for example, some animal species, such as the Red-tailed black-Cockatoo, have very specific feeding and nesting requirements;
- environmental components which are non-renewable or very slow to reproduce or regenerate; for example, many heritage buildings or sites cannot be repaired or replaced if damaged or destroyed, some tree species such as Huon Pine are very slow growing and slow to regenerate.

In contrast, some environmental components are more robust and more able to withstand impacts. These include plant and animal species that occur in a wide range of environments or which have a high rate of reproduction or regenerative capacity, such as kangaroos.

Environmental components may also be vulnerable in relation to specific types of impacts. For example, a heritage building which is important for its aesthetic values is vulnerable to visual impacts (such as the erection of buildings or other structures in close proximity which are inconsistent with the heritage values of the building) but is less vulnerable to noise impacts. Alternately, environmental components may be more vulnerable to impacts at certain times, for example, many animals are more vulnerable during their breeding season.

Is the environment, or are components of it, rare, endemic, unusual, important or otherwise valuable?

It is also helpful to determine whether any components or features of the environment have special value. All components or features of the environment have values. Some of these values may be described as inherent values, which derive from the existence of each component and its interaction with other components in an ecosystem. Other values derive from the importance of those components or features of the environment to people. Components of the environment may have a range of different values, including both natural and cultural values.

Some components or features of the environment are considered to have special value. These include animal and plant species, landforms, heritage buildings, or other components of the environment which are unique or rare. Places may also be considered to have special value because they contain components or features, or combinations of components or features, which are unique or rare.

>> The relevance of threatened species, heritage and other lists

The EPBC Act provides protection for places and components of the environment which are unique, rare or considered to have special value at a national level. These include listed threatened species and ecological communities, listed migratory species, National Heritage places, Commonwealth Heritage places, World Heritage properties, and listed Ramsar wetlands.* State government protected species lists and heritage lists may also assist in identifying components of the environment with special value, and your local government may also have information about rare or otherwise important elements of the environment. However, when you are considering the environmental context of your action, all components of the environment should be considered and not merely those components which are identified and/or protected by local and State governments, or by the Australian Government. Many components of the environment, such as landforms, geological features, and water bodies, do not appear on formal lists or registers, but still have important environmental value.

* See 'Further sources of information' on pages 22-23

Places or components of the environment may also be considered to have special value because they have recreational values, tourism values, or other social or cultural values. These include parks, reserves, historic sites, and ceremonial or sacred sites. Alternately, elements of the environment may have special value because they are a source of important resources. Generally, an action which is likely to impact upon a place, or environmental elements, with special values is more likely to have a significant impact.

>> Heritage values

Heritage values include any element of a place's natural and cultural environment that has aesthetic, historic, scientific, social or other significance, for current and future generations. Elements to consider include significant buildings and structures, landscapes, sites, routes, aesthetic qualities, surface and sub-surface archaeology, sacred sites, traditions, significant plants, animals, ecological communities and geological formations. Consider their potential significance to Indigenous and non-Indigenous people. The sensitivity of heritage values will vary widely. A key question to consider is whether an action will affect the significance or value that the place holds for people, as well as simply the physical impacts on its fabric or condition.

Indigenous heritage value is that which is of significance to Indigenous persons in accordance with their practices, observances, customs, traditions, beliefs or history. The sensitivity and value of Indigenous heritage are best identified through consultation with the Indigenous people that are potentially affected. Impacts on particular species of plants or animals or on elements of the landscape may have a significant impact on Indigenous cultural heritage. Impacts on Indigenous cultural heritage can also occur without physical disturbance to a site.

As a starting point you should consider if there are any places listed on the World Heritage List, National Heritage List, Commonwealth Heritage List or the Register of the National Estate (<http://www.deh.gov.au/heritage/index.html>) in the area in which the proposed action will occur. You should also check State and local government heritage registers and any previous surveys that have been undertaken on the site or in its vicinity. The Australian Heritage Places Inventory allows you to search for places which are on Australian Government or State or Territory lists (<http://www.heritage.gov.au/ahpi/>).

What is the history, current use and condition of the environment which is likely to be impacted by the action?

The final step when considering the 'environmental context' for your action is to consider the history, current use and condition of the environment which is likely to be impacted by your action. The history and current use of the area in which the proposed action will occur is an important aspect of the environmental context. The history and use of the area affect the characteristics and the condition of the environment in that area. Generally, an action in a previously undeveloped area, particularly if it involves native vegetation clearance, is more likely to have a significant impact on the natural environment than an action in an area which is already developed.

The extent of consistency between the action and surrounding land-use is also an important consideration. Generally, an action is more likely to have a significant impact on the environment if it involves a land-use which is more intensive than other activities in the area, or if it is inconsistent with existing land-use in the area, particularly if the area has heritage values.

The condition of environmental elements depends upon the level of disturbance which an area has experienced. Factors which affect the condition of the environment include: the modification, removal or damage of environmental elements, such as vegetation clearance or diversion of water courses; the introduction of competing elements such as exotic weed species; and the introduction of pollutants or other substances which affect the ability of the environmental components to exist or function.

Generally, an action which is proposed to occur in an environment which is in good condition is more likely to have a significant impact than an action which is proposed to occur in an environment which is heavily degraded.

An important exception to the examples above is the possibility of significant cumulative impacts. An action which will take place in an area that is already developed, or which is consistent with existing land-use, may nevertheless have a significant impact on the environment if cumulative impacts are increased to unacceptable levels. For example, an action which involves the release of pollutants, chemicals or fertilisers to a river is more likely to have a significant impact on the environment if the addition of further pollutants, chemicals or fertilisers would result in the river exceeding important ecological thresholds (e.g. resulting in plant or animal deaths or algal blooms), or recognised water quality standards.

The ‘environmental context list’ in Appendix A contains a list of environmental components and specific questions in relation to those components which may further assist you in identifying the environmental context for your action.

Step 2: Potential impacts

What are the components of the action?

The first step in assessing the potential impacts of an action on the environment is to consider all components of the action individually. You should consider the action at its broadest scope. Most actions consist of a combination and/or series of smaller activities each with its own associated impacts. All components of an action should be considered, including any associated infrastructure (such as link roads, or linkages to reticulation systems or power networks). If an action consists of stages, it is also necessary to consider the impacts associated with the components of the action at each stage, for example, construction and operation stages.

What are the predicted adverse impacts associated with the proposed action?

Having identified the different components of the proposed action, consideration should be given to the potential adverse impacts resulting from them.

>> Adverse impacts and beneficial impacts

When deciding whether or not a proposed action is likely to have a significant impact on the environment, you should consider only the adverse impacts that the action is likely to have. Beneficial impacts cannot be offset against adverse impacts. For example, a hydro-electricity scheme may have both beneficial and adverse impacts on the environment, however, only the adverse impacts are relevant when determining whether assessment and approval is required under the EPBC Act. If a project does require approval, beneficial impacts are considered during the assessment and approvals stages of the process.

Potential adverse impacts can be predicted by considering individual components of the action in the context of the environmental components or features identified in accordance with Step 1 of the self-assessment process. You need to consider how different components of the action will interact with different components of the environment. The nature, location, timing and size of the action will determine what environmental components will be impacted. When identifying potential impacts associated with each component of an action, both onsite and offsite and direct and indirect impacts must be considered.

>> Indirect and offsite impacts

'Indirect' and 'offsite' impacts include:

- a) 'downstream' or 'downwind' impacts, such as impacts on wetlands or ocean reefs from sediment, fertilisers or chemicals which are washed or discharged into river systems;
- b) 'upstream impacts' such as impacts associated with the extraction of raw materials and other inputs which are used to undertake the action; and
- c) 'facilitated impacts' which result from further actions (including actions by third parties) which are made possible or facilitated by the action. For example, the construction of a dam for irrigation water facilitates the use of that water by irrigators with associated impacts.

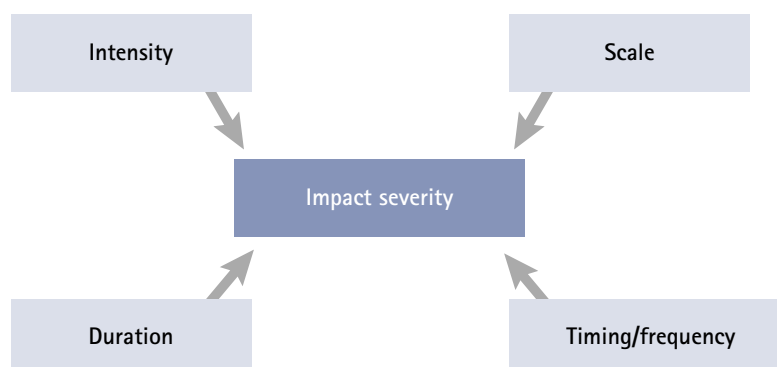
Consideration should be given to all adverse impacts that could reasonably be predicted to follow from the action, whether these impacts are within the control of the person proposing to take the action or not. Indirect impacts will be relevant where they are sufficiently close to the proposed action to be said to be a consequence of the action, and they can reasonably be imputed to be within the contemplation of the person proposing to take the action.

If the action which you propose to take does not have any direct impacts (such as a sale of land) you must still consider whether or not the action facilitates another action which is likely to have a significant impact on the environment. These are considered to be indirect impacts of the action and if these impacts are likely to be significant the action should be referred.

How severe are the potential impacts?

Once all the potential impacts of an action are identified, the next step is to consider how severe those impacts are likely to be. The following criteria are relevant:

- the scale of the action and its impacts;
- the intensity of the action and its impacts; and
- the duration and frequency of the action and its impacts.



Scale

The scale of the action and its impacts is a fundamental consideration when predicting the severity of impacts. Generally, a larger-scale action with widespread impacts is more likely to have a significant impact on the environment than a smaller-scale action with localised impacts. However, it is important to consider scale in conjunction with the intensity and duration/frequency of the impacts.

Intensity

Intensity refers to the strength and concentration of the impacts. Open cut mining, which involves comprehensive modification of the environment, is an example of an action with high intensity impacts. Low density grazing of livestock on native pastures is an example of an action with low intensity impacts in most circumstances.

Timing, duration and frequency

An action may consist of a continuous activity or it may consist of a series of periodic activities. The starting point is to consider the duration and frequency of each component of an action. However, it is most important to consider the duration and frequency of the impacts. It is necessary to consider the long term and indirect impacts of the proposal on the environment as well as the immediate impacts. Impacts may persist long after an action ceases, or may be irreversible. In order to assess the severity of impacts you should consider the total impact that can be attributed to the whole action over time. The timing of the activity may also be relevant when environmental elements have seasonal characteristics (e.g. migration, breeding seasons, etc) or when seasonal weather conditions affect impacts (e.g. periods of high rainfall or high winds).

In order to judge the severity of potential impacts, it is necessary to consider the likely scale, intensity, duration and frequency of impacts collectively. The following categories may assist in drawing a conceptual distinction between different levels of severity:

- **Severe:** Severe impacts generally have two or more of the following characteristics: permanent/irreversible; medium-large scale; moderate-high intensity.
- **Moderate:** Moderate impacts generally have two or more of the following characteristics: medium-long term; small-medium scale; moderate intensity.
- **Minor:** Minor impacts generally have two or more of the following characteristics: short term/reversible; small-scale/localised; low intensity.

Severity of impacts alone does not necessarily indicate significance. The potential impacts of the action must be considered in the context of the environment in which the action will take place, particularly if the action is likely to impact upon sensitive or valuable components of the environment.

What is the extent of uncertainty about potential impacts?

Predicting potential adverse impacts on the environment requires an exercise of judgement about complex relationships and processes of cause and effect, and uncertainty often arises. To manage uncertainty during the self-assessment process:

- Make conservative conclusions (i.e. assume that the effect is more rather than less adverse); and
- Seek further information about the environmental context to increase your understanding of the likely impacts.

Where there is scientific uncertainty the precautionary principle is relevant. Accordingly, where there is a risk of serious or irreversible damage, a lack of scientific certainty about the potential impacts of an action will not itself justify a decision that the action is not likely to have a significant impact on the environment.

Step 3: Impact avoidance, mitigation and management

It is important to consider the environmental impacts of the proposed action early in the planning of the proposal. Careful planning of the action can avoid, or reduce, the likelihood of a significant impact on the environment. Where possible and practicable it is best to avoid impacts. If impacts cannot be avoided they should be minimised or mitigated as much as possible.

In some cases it is possible to design an action in such a way that significant impacts can be avoided. You should consider environmental impacts in relation to the following:

- site selection and the location of activities or infrastructure on the selected site;
- the timing of the action or components of the action; and
- the design of the proposal and infrastructure.

Site selection

As outlined previously, the environmental context of an action is a substantial determinant of whether or not an action is likely to have a significant impact on the environment. If there are a number of possible sites for the action, you can reduce the environmental impacts by choosing a site which is already substantially disturbed or less sensitive to impacts.

The location of the activities or infrastructure on the particular site can also be planned to reduce or avoid impacts, for example by minimising the clearance of vegetation and/or avoiding proximity to sensitive areas or components of the environment, such as breeding grounds for animals or Indigenous heritage sites.

Timing

The timing of the proposed action or its components can be important in relation to some types of activity or components of the environment. For example, if aspects of the action have the potential to impact upon migratory birds or migratory marine species, planning the action to occur outside of the migration period for those species will avoid or substantially reduce the likelihood of impacts. Similarly, if the action involves earthworks and will take place in a monsoonal environment the timing of earthworks to occur during the dry season will reduce the likelihood of soil erosion and associated impacts.

Design of the proposal and infrastructure

The design of a proposal is an important determinant of ongoing environmental impacts. Environmental impacts can be reduced through choice of materials and machinery which are less energy intensive, less polluting and recyclable, or by incorporating passive design features that reduce resource consumption, such as energy efficient architecture, or by incorporating active features that reduce waste or pollution, such as wastewater recycling systems or flue gas cleaning systems.

If your action includes management or mitigation measures you should consider whether these measures are sufficient to avoid or reduce the likelihood of a significant impact. Further the relevant question is whether all *adverse* impacts of your proposed action are likely to have a significant impact on the environment. Measures to offset impacts, such as planting trees, are not relevant.

You should not conclude that a significant impact will not occur because of management or mitigation measures unless the effectiveness of those measures is well-established (for example through demonstrated application, studies or surveys) and there is a high degree of certainty about the avoidance of impacts or the extent to which impacts will be reduced.

Step 4: Are the impacts significant?

In order to determine whether or not an action is likely to have a significant impact on the environment it is necessary to consider the total adverse impact of the action in the context of the environment which will be impacted, particularly those elements of the environment which are sensitive or valuable. It is necessary to consider all of the considerations/criteria outlined in Steps 1 to 3 of the self-assessment process in determining whether an action is likely to have a significant impact on the environment. Further, the following criteria are intended to provide general guidance on the types of actions that are likely to have a significant impact on the environment. They are not intended to be exhaustive or definitive. The particular facts and circumstances of a proposed action will need to be taken into account in determining whether that action is likely to have a significant impact on the environment. However if you answer 'yes' to one or more of the questions below, then it would be expected that your action is likely to have a significant impact on the environment.

Impacts on landscapes and soils

Is there a real chance or possibility that the action will:

- substantially alter natural landscape features;
- cause subsidence, instability or substantial erosion; or
- involve medium or large-scale excavation of soil or minerals?

Impacts on coastal landscapes and processes

Is there a real chance or possibility that the action will:

- alter coastal processes, including wave action, sediment movement or accretion, or water circulation patterns;
- permanently alter tidal patterns, water flows or water quality in estuaries;
- reduce biological diversity or change species composition in estuaries; or
- extract large volumes of sand or substantially destabilise sand dunes?

Impacts on ocean forms, ocean processes and ocean life

Is there a real chance or possibility that the action will:

- reduce biological diversity or change species composition on reefs, seamounts or in other sensitive marine environments;

- alter water circulation patterns by modification of existing landforms or the addition of artificial reefs or other large structures;
- substantially damage or modify large areas of the seafloor or ocean habitat, such as sea grass;
- release oil, fuel or other toxic substances into the marine environment in sufficient quantity to kill larger marine animals or alter ecosystem processes; or
- release large quantities of sewage or other waste into the marine environment?

Impacts on water resources

Is there a real chance or possibility that the action will:

- measurably reduce the quantity, quality or availability of surface or ground water;
- channelise, divert or impound rivers or creeks or substantially alter drainage patterns; or
- measurably alter water table levels?

Pollutants, chemicals, and toxic substances

Is there a real chance or possibility that the action will:

- generate smoke, fumes, chemicals, nutrients, or other pollutants which will substantially reduce local air quality or water quality;
- result in the release, leakage, spillage, or explosion of flammable, explosive, toxic, radioactive, carcinogenic, or mutagenic substances, through use, storage, transport, or disposal;
- increase atmospheric concentrations of gases which will contribute to the greenhouse effect or ozone damage; or
- substantially disturb contaminated or acid-sulphate soils?

Impacts on plants

Is there a real chance or possibility that the action will:

- involve medium or large-scale native vegetation clearance;
- involve any clearance of any vegetation containing a listed threatened species which is likely to result in a long-term decline in a population or which threatens the viability of the species;
- introduce potentially invasive species;
- involve the use of chemicals which substantially stunt the growth of native vegetation;
- involve large-scale controlled burning or any controlled burning in sensitive areas, including areas which contain listed threatened species?

Impacts on animals

Is there a real chance or possibility that the action will:

- cause a long-term decrease in, or threaten the viability of, a native animal population or populations, through death, injury or other harm to individuals;
- displace or substantially limit the movement or dispersal of native animal populations;
- substantially reduce or fragment available habitat for native species;

- reduce or fragment available habitat for listed threatened species which is likely to displace a population, result in a long-term decline in a population, or threaten the viability of the species;
- introduce exotic species which will substantially reduce habitat or resources for native species; or
- undertake large-scale controlled burning or any controlled burning in areas containing listed threatened species?

Impacts on people and communities

Is there a real chance or possibility that the action will:

- substantially increase demand for, or reduce the availability of, community services or infrastructure which have direct or indirect impacts on the environment, including water supply, power supply, roads, waste disposal, and housing;
- affect the health, safety, welfare or quality of life of the members of a community, through factors such as noise, odours, fumes, smoke, or other pollutants;
- cause physical dislocation of individuals or communities; or
- substantially change or diminish cultural identity, social organisation or community resources?

Impacts on heritage

Is there a real chance or possibility that the action will:

- permanently destroy, remove or substantially alter the fabric (physical material including structural elements and other components, fixtures, contents, and objects) of a heritage place;
- involve extension, renovation, or substantial alteration of a heritage place in a manner which is inconsistent with the heritage values of the place;
- involve the erection of buildings or other structures adjacent to, or within important sight lines of, a heritage place which are inconsistent with the heritage values of the place;
- substantially diminish the heritage value of a heritage place for a community or group for which it is significant;
- substantially alter the setting of a heritage place in a manner which is inconsistent with the heritage values of the place; or
- substantially restrict or inhibit the existing use of a heritage place as a cultural or ceremonial site?

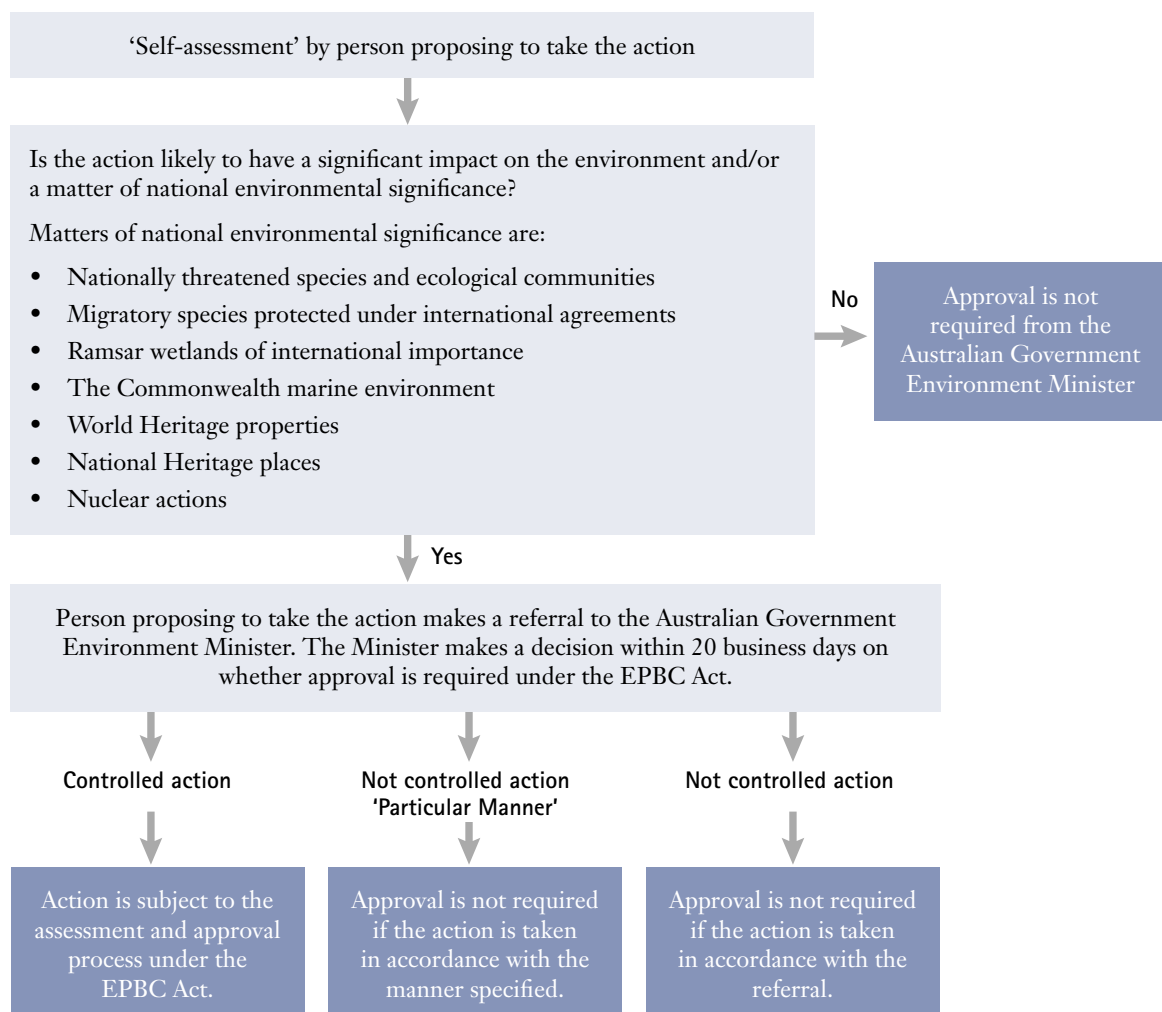
The referral, assessment and approval process

Referral process

If after undertaking a self-assessment you conclude that your action is likely to have a significant impact on the environment, or if you are unsure, you should refer the action to the Minister for the Environment and Heritage. Substantial penalties apply for taking an action without approval that has, will have or is likely to have a significant impact on a matter of national environmental significance or on the environment where the action is taken on, or may impact upon, Commonwealth land and/or the action is taken by a Commonwealth agency.

Referral forms and a guide to assist in filling out the referral form can be obtained from the Department's Community Information Unit on 1800 803 772, or from the Department's website at: <http://www.deh.gov.au/epbc/assessmentsapprovals/referrals/guide.html>. The EPBC Act referral process is summarised in Figure 2 below.

Figure 2 – EPBC Act referral process



After receiving a referral, the Minister will decide whether the action is likely to have a significant impact on the environment (and/or a matter of national environmental significance):

- if the Minister decides that the action is likely to have a significant impact, then the action requires approval under the EPBC Act (it is a **controlled action**);
- if the Minister decides that the action is not likely to have a significant impact, then the action does not require approval under the EPBC Act (it is a **not controlled action**).*

The Minister may also decide that an action is not likely to have a significant impact, and does not require approval under the EPBC Act, because it will be taken in a '**particular manner**'. However, the action must be undertaken in a way that is consistent with the manner specified in this decision, or penalties apply.**

The Minister is generally required to make a binding decision on whether an action requires approval within 20 business days of receiving a referral. If the Minister's decision is that an action does not require approval, a person will not contravene the Act if the action is taken in accordance with that decision.

Assessment and approval process

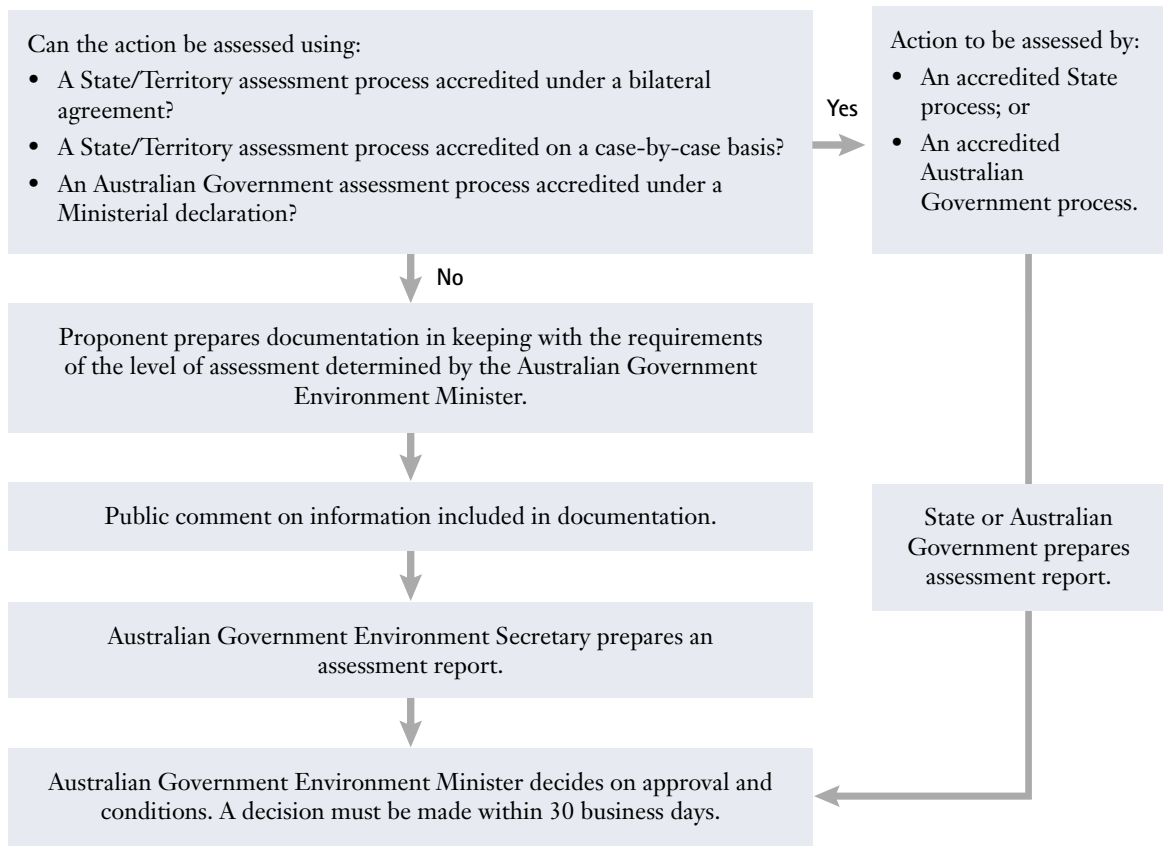
If the Minister decides that an action requires approval, then an environmental assessment of the action must be carried out. If a bilateral agreement is in place the action may be assessed by the State or Territory in which the action is to be undertaken, using the processes accredited under the bilateral agreement. If a Ministerial declaration is in place accrediting another Australian Government assessment process, the action may be assessed by the process accredited under that declaration. Otherwise, the assessment will be undertaken by one of a range of assessment approaches outlined under the EPBC Act. An assessment report will then be prepared.

After considering the environmental assessment report, the Australian Government Environment Minister decides whether to approve the action, and what conditions (if any) to impose. The EPBC Act assessment and approval process is summarised in Figure 3.

* Please note that, regardless of whether approval is required under the EPBC Act, separate environmental assessment and approval may be required under State/Territory and/or Local Government legislation.

** More information about particular manner decisions can be found in the Practice Guide entitled *Application of 'Particular Manner' decision making under the EPBC Act*, available on the Department's web site at: <http://www.deh.gov.au/epbc/publications/particularmanner.html>

Figure 3 – EPBC Act assessment and approval process



Further sources of information

EPBC Act Policy Statements

A range of other EPBC Act Policy Statements are available to assist you in determining whether you are likely to have a significant impact on the environment and/or matters of national environmental significance, including the following:

- *The Significant Impact Guidelines 1.1 – Matters of National Environmental Significance* provide guidance on whether or not an action is likely to have a significant impact on a matter of national environmental significance protected by the EPBC Act.
- The range of EPBC Act Policy Statements provide more detailed guidance in relation to particular industries or areas of activity, or particular protected matters. These Policy Statements can be obtained by contacting the Department's Community Information Unit on 1800 803 772 or can be downloaded from the Department's web site:
<http://www.deh.gov.au/epbc/policy/index.html>

The Australian Natural Resources Atlas

The *Australian Natural Resources Atlas* provides general information about soils, vegetation and biodiversity, water, and various land uses for Australia and different regions within Australia:
http://audit.deh.gov.au/ANRA/atlas_home.cfm

Search tool

The EPBC Act protected matters search tool allows you to search for matters of national environmental significance in an area where you propose to take an action:
<http://www.deh.gov.au/erin/ert/epbc/index.html>

There is also a range of information on the Department's web site which may assist you in understanding the environmental context for your action, including the following:

- World heritage properties:
<http://www.deh.gov.au/heritage/worldheritage/index.html>
- National heritage places:
<http://www.deh.gov.au/heritage/national/index.html>
- Commonwealth heritage places:
<http://www.deh.gov.au/heritage/commonwealth/index.html>
- Ramsar wetlands:
<http://www.deh.gov.au/epbc/matters/ramsar.html>
- Listed threatened species and ecological communities:
<http://www.deh.gov.au/biodiversity/threatened/index.html>
- Copies of recovery plans and threat abatement plans:
<http://www.deh.gov.au/biodiversity/threatened/recovery/index.html>
<http://www.deh.gov.au/biodiversity/threatened/tap/index.html>

- Migratory species:
<http://www.deh.gov.au/epbc/matters/migratory.html>
- Commonwealth National Parks, Commonwealth Reserves and Biosphere Reserves:
<http://www.deh.gov.au/parks/commonwealth/index.html>
<http://www.deh.gov.au/coasts/mpa/index.html>
<http://www.deh.gov.au/parks/biosphere/reserves/index.html>

There are established national criteria for some elements of the environment, for example the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (http://www.mincos.gov.au/pub_anzwq.html) or the *National Environmental Protection Measures* (NEPMs) published by the Environment Protection and Heritage Council (<http://www.ephc.gov.au/>). There may also be established criteria, such as State noise level criteria, as well as Australian Standards (www.standards.com.au), that may be relevant to understanding the impacts of an action. Standards and criteria should be used as a guide only. Compliance with relevant criteria does not necessarily mean that the impacts are not significant, particularly if the environment is particularly sensitive to impacts or if the impacts will compound existing impacts.

More information on the EPBC Act referral, assessment and approval process is available on the Department's web site at <http://www.deh.gov.au/epbc/about/index.html> or by contacting the Department's Community Information Unit on 1800 803 772.

>> Visit our website

Electronic copies of the EPBC Act and EPBC Regulations can be accessed from the Department's web site at: <http://www.deh.gov.au/epbc/about/index.html>

Glossary of terms

Action – is defined in section 523 of the EPBC Act as including a project, a development, an undertaking, an activity or a series of activities, or an alteration of any of these things.

A decision by a government body to grant a governmental authorisation (however described) for another person to take an action is not an action (for details see full exception in section 524 of the EPBC Act).

Commonwealth agency – means:

- a Minister; or
- a body corporate established for a public purpose by a law of the Commonwealth; or
- a body corporate established by a Minister otherwise than under a law of the Commonwealth; or
- a company in which the whole of the shares or stock, or shares or stock carrying more than one half of the voting power, is or are owned by or on behalf of the Commonwealth; or
- a person holding, or performing the duties of:
 - an office established by or under a law of the Commonwealth (except a judicial office or office of member of a tribunal); or
 - an appointment made under a law of the Commonwealth (except an appointment to a judicial office or office of member of a tribunal); or
- a person holding, or performing the duties of, an appointment made by the Governor General, or by a Minister, otherwise than under a law of the Commonwealth (with the exception of certain offices established by legislation for the self-governing territories and specific Aboriginal bodies. See full definition in section 528 of the EPBC Act for details); or
- a company prescribed by the *Environment Protection and Biodiversity Conservation Regulations 2000*.

Commonwealth land – includes land owned or leased by the Commonwealth or a Commonwealth agency (including land owned or leased by the Commonwealth on Norfolk Island), land in the Jervis Bay Territory, land in the following external Territories: Christmas Island, Ashmore and Cartier Islands, Coral Sea Islands, Cocos (Keeling) Islands, Australian Antarctic Territory and Heard and McDonald Islands, and any other area of land that is included in a Commonwealth reserve. In the Australian Capital Territory, Territory land is not Commonwealth land, unless it is leased by the Commonwealth or a Commonwealth agency (Territory land is all land in the ACT other than National Land).

Endemic – means restricted to a particular locality or region.

Environmental components – means the components or factors that collectively make up the environment, such as landforms, soils, water bodies, plants, animals, human communities, and heritage buildings or sites.

Environment Minister – refers to the Australian Government Minister for the Environment and Heritage.

Impact – is a change in the physical, natural or cultural environment brought about by an action. Impacts can be direct or indirect.

Appendix A



Environmental context list

The following list incorporates the questions above and is intended to assist you in identifying the environmental context for your action. Please note that the list is not exhaustive.

1) Landscapes and landforms

- a) What landscape features or landforms are present?
 - For example: plateaus; deserts; mountains; karst (limestone) areas; coastlines and dunes; glacial landforms; geological formations; caves; cliffs; river terraces; billabongs; estuaries; islands; shoals; reefs; seamounts.
- b) What landscape features or landforms are likely to be directly or indirectly impacted by the action?
- c) Are there any outstanding, rare, unusual, valuable or important landscape features or landforms?

2) Soil and other substrates

- a) What soils or other substrates are present?
 - What is the soil type/structure?
 - Are any other substrates present? For example: sand; gravel; rock.
- b) Is it likely that the soil/substrate will be directly or indirectly impacted by the action?
- c) Is the soil/substrate valuable, or does it contain objects that are rare or otherwise valuable?
 - For example: archaeological items with heritage value.
- d) Is the soil susceptible to impacts or will disturbance of the soil cause further impacts?
 - Are there steep slopes?
 - Is there evidence of previous erosion?
 - Is the soil/substrate friable (easily eroded)?
 - Are acid sulphate soils present?

3) Water

- a) What are the characteristics of the catchment area and what water bodies are present?
 - What water catchment area will the action be located in and what geographic area does the water catchment cover?
 - What water bodies are present (for example: rivers; creeks; lakes; groundwater; wetlands; estuaries, the ocean)?
- b) Is it likely that any water bodies will be directly or indirectly impacted by the action?
 - Does the action involve impoundment, diversion, or extraction of water?
 - Will the action alter drainage patterns?
 - Will the action create or increase pollutants, nutrients, or sediment?

- c) Will any sensitive, valuable or otherwise important water bodies be impacted?
 - For example: wetlands or other sensitive environments; drinking water supplies.
- d) What is the condition and current use of water bodies which may be impacted?
 - What is the water quality?
 - Are there competing uses?

4) Vegetation

- a) What general vegetation types and vegetation species are present?
 - Vegetation types: rainforest; forest; woodlands; grasslands; riparian (river side) vegetation; mallee vegetation; sub-alpine heath; coastal heath; mangroves.
 - Vegetation species: tree species; shrub species; grass species; marine plants.
 - Are any ecological communities present?
- b) Is it likely that vegetation will be directly or indirectly impacted by the action?
- c) Are there any vegetation types or associations that are rare, endemic or otherwise valuable?
 - For example, listed threatened plant species and ecological communities; habitat for listed threatened animal species or ecological communities;
- d) What is the condition and current use of the vegetation?
 - Is the vegetation remnant vegetation or regrowth?
 - Does the vegetation contain weed species? How many?

5) Animal species

- a) What animal species are present and what are their characteristics?
 - Terrestrial species/marine species/ecological communities?
 - Populations, movements, and breeding, feeding, and migration patterns/times
- b) Is the action likely to directly or indirectly impact upon animal species?
 - Will the action result directly or indirectly in animal deaths or injury?
 - Will the action impact upon habitat, water or other resources utilised by animals?
- c) Is the action likely to impact upon animal species that are rare, endemic or otherwise valuable?
 - For example, listed threatened species, listed migratory species.
 - Feeding, nesting, breeding areas.

6) Conservation and special use areas

- a) Are any conservation areas or special use places present?
 - For example: national parks, conservation reserves, state forests, parkland, marine protected areas.
- b) Is the action likely to directly or indirectly impact upon conservation or special use areas?
- c) What is the current use and condition of conservation areas or special use places that are likely to be impacted by the action?

7) Heritage places and items

- a) Are any heritage places or items present?
 - Are there places with cultural or natural heritage values including places with Indigenous heritage values?
 - Are there items with heritage value, such as historical artefacts or archaeological remains?
- b) Will the action directly or indirectly impact upon heritage places or items?
 - Will the action damage, destroy, remove, alter or modify a heritage place or item?
 - Is the action inconsistent with the heritage values of heritage places?
- c) Will the action impact upon heritage places or items which are very rare or have special value?
 - For example, National Heritage places, Commonwealth Heritage places.
- d) What is the condition and current use of the heritage place or items?

8) Renewable or non-renewable natural resources

- a) Are there any sources of renewable or non-renewable resources in the area?
 - For example: oil, gas, coal, sand or other minerals, forests or woodlands, ground or surface water, fish or crustaceans.
- b) Is the action likely to utilise, impact upon or restrict access to renewable or non-renewable resources, either directly or indirectly?
- c) Will the action impact upon renewable or non-renewable resources that are rare or have special value?
- d) What are the existing uses of renewable and non-renewable resources?
 - How are the resources currently used?
 - What is the current availability of resources?
 - What is the current level of demand for resources?

9) Utilities, energy, and transport, resources and infrastructure

- a) Is there existing energy and transport resources and infrastructure in the area?
 - For example, electricity and water supply, roads, public transport.
- b) Will the action utilise, impact upon, or restrict access to existing utilities, energy, and transport resources and infrastructure, or require additional resources or infrastructure?
- c) What are the existing uses of renewable and non-renewable resources?
 - How are the resources or infrastructure currently used?
 - What is the current availability of resources or infrastructure?
 - What is the current level of demand for resources or infrastructure?

10) People and communities

- a) Are there people or communities in the area?
- b) Is it likely that the action will directly or indirectly impact upon people or communities?
 - Will the action impact upon the existing social fabric/organisation, e.g. culture, demographics, jobs, income?
 - Will the action impact upon community resources, e.g. facilities, infrastructure, services, recreation areas?
 - Will the action impact upon public amenity?
 - What activities/uses exist in the area and how is it zoned?
 - Is the action inconsistent with existing uses?
- c) Is the action likely to impact upon sensitive land uses?
 - For example: schools, hospitals, retirement villages.
- d) What is the existing social and economic status of people and communities the action is likely to impact upon?

Appendix B

Management of Commonwealth heritage places

The EPBC Act provides for the Minister to include a place in the Commonwealth Heritage List if the place is in a Commonwealth area, or is owned or leased by the Commonwealth or a Commonwealth agency outside the Australian jurisdiction, and the Minister is satisfied that the place has one or more Commonwealth Heritage values.

Before a Commonwealth agency takes an action that has, will have, or is likely to have a significant impact on a Commonwealth Heritage place, the agency, in accordance with section 341ZD of the EPBC Act, must ask the Minister for advice about taking the action.

In addition to seeking advice from the Minister, a Commonwealth agency may still be required to seek the approval of the Minister if it proposes to take an action that will have, or is likely to have, a significant impact on the environment of a place, including its heritage values.

A Commonwealth agency is not required to ask for advice from the Minister if the agency has a plan for managing the Commonwealth Heritage place that is endorsed by the Minister and the action is provided for or taken in accordance with the plan (see section 341T of the EPBC Act for details about the requirements for getting endorsement of a management plan).

A Commonwealth agency must not contravene a plan made under the EPBC Act for managing a Commonwealth Heritage place or authorise another person to do, or omit to do, anything that would be inconsistent with such a plan.

If a Commonwealth agency does not have a management plan in force for a particular Commonwealth Heritage place under the Act, the Commonwealth and each Commonwealth agency must take all reasonable steps to ensure that its acts relating to the place are not inconsistent with the Commonwealth Heritage management principles. These principles are at Schedule 7B of the *Environment Protection and Biodiversity Conservation Regulations 2000*.

Appendix C

Authorisations by Commonwealth agencies

Section 160 of the EPBC Act requires a Commonwealth agency or employee to obtain and consider advice from the Environment Minister before authorising one of the following actions:

- entry into a contract, agreement or arrangement for the implementation of a project under Australia's foreign aid program that is likely to have a significant impact on the environment;
- adoption or implementation of a plan for aviation airspace management involving aircraft operations that are likely to have a significant impact on the environment;
- the adoption or implementation of a major development plan (as defined in the *Airports Act 1996*);
- an action authorised by a permit under the *Environment Protection (Sea Dumping) Act 1981*;
- an action authorised by a Basel permit, or by a variation of a Basel permit, under the *Hazardous Waste (Regulation of Exports and Imports) Act 1989*;
- an action authorised by a grant, renewal or variation of a permit or the grant of an exemption certificate under the *Sea Installations Act 1987*;
- an action authorised by a permit or authority (however described) under the *Great Barrier Reef Marine Park Act 1975* or the *Great Barrier Reef Marine Park Regulations 1983*.

The agency or employee must inform the Minister of the proposal to authorise the action. Once the Minister has been informed of the proposal to authorise the action, the action must be assessed in accordance with the environment assessment provisions in Part 8 of the EPBC Act. The Minister must give the Commonwealth agency or employee advice on protecting the environment from the action, within 30 days of receiving a report of the environmental assessment.

Appendix D

Actions on Commonwealth land in Australian Government leased airports

The *Airports Act 1996* (Airports Act) and associated *Airport (Environment Protection) Regulations 1997* requires Federally leased airports to develop and implement Master Plans and Airport Environment Strategies, which are approved by the Minister for Transport and Regional Services (Transport Minister). These statutory documents outline the airport-lessee company's (ALC) development objectives for the airport and govern the management of the airport site including the identification and management of environmentally significant areas.

A person who proposes to take an action on Commonwealth land in an Australian Government leased airport should contact the ALC to determine whether or not a Major Development Plan (MDP) is required for the proposed action as outlined in section 89 of the Airports Act. It is noted that an MDP needs to be consistent with the approved Airport Master Plan and Environment Strategy.

The requirement under the EPBC Act for approval of actions on Commonwealth land, which are likely to have a significant impact on the environment, does not apply in relation to actions that involve the adoption or implementation of a MDP. Consequently, an action which is the subject of a MDP, does not need to be referred under the EPBC Act by the person proposing to take the action.

Under section 160 of the EPBC Act (see Appendix C) the Transport Minister is required to seek the advice of the Minister for the Environment and Heritage (Environment Minister) before deciding to approve a draft MDP. The Transport Minister is responsible for referring a draft version of the MDP to the Environment Minister prior to it going out for the required public consultation period. The Environment Minister then decides what approach should be used to assess the environmental impacts of the proposal under the EPBC Act. After the public comment period has closed and the documentation is submitted for approval the environmental impacts of the proposal will be assessed and the Environment Minister will provide advice to the Transport Minister. The Transport Minister is then required to advise the Environment Minister on the outcome of his decision and how the Environment Minister's advice was taken into account.

A person who takes an action on Commonwealth land in an Australian Government leased airport, which is not in accordance with an approved MDP, and/or which is likely to have a significant impact on the environment, may be subject to civil or criminal penalties under the EPBC Act. If you are uncertain about whether your action is likely to be covered by the EPBC Act, it is advisable to consult with the Department of the Environment and Heritage.

