



Australian Government
Department of the Environment

Matters of National Environmental Significance

Significant impact guidelines 1.1
Environment Protection and Biodiversity Conservation Act 1999



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Photo:

Front – Budgee Creek in the Barmah State Forest (John Baker)

Back – Carnaby's black cockatoo (Leonie McMahon)

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Introduction

The purpose of these guidelines is to assist any person who proposes to take an action to decide whether or not they should submit a referral to the Australian Government Department of the Environment (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)¹.

Under the EPBC Act an action will require approval from the minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance.

These guidelines outline a ‘self-assessment’ process, including detailed criteria, to assist persons in deciding whether or not referral may be required. Important terms and phrases are explained in the shaded boxes. The appendix to the guidelines provides further assistance for specific industry sectors.

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

¹ 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: www.environment.gov.au/epbc/publications/exemptions.html

Further exemptions include:

- certain activities allowed in the Great Barrier Reef Marine Park “as of right” (that is, without a permission) under a *Great Barrier Reef Marine Park Act 1975* (GBRMP Act) zoning plan (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 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; industrial processes; mineral and petroleum resource exploration and extraction; storage or transport of hazardous materials; waste disposal; earthworks; impoundment, extraction and diversion of water; agricultural activities; aquaculture; research activities; vegetation clearance; culling of animals; and dealings with 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.

An action may have both beneficial and adverse impacts on the environment, however only adverse impacts on matters of national environmental significance are relevant when determining whether approval is required under the EPBC Act.

What are matters of national environmental significance?

The matters of national environmental significance are:

- world heritage properties
- national heritage places
- wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed)
- nationally threatened species and ecological communities
- migratory species
- Commonwealth marine areas
- the Great Barrier Reef Marine Park
- nuclear actions (including uranium mining)
- a water resource, in relation to coal seam gas development and large coal mining development.

A person who proposes to take an action that will have, or is likely to have, a significant impact on a matter of national environmental significance must refer that action to the minister for a decision on whether assessment and approval is required under the EPBC Act. Substantial penalties apply for taking such an action without approval (civil penalties up to \$5.5 million or criminal penalties up to seven years imprisonment).

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 matters of national environmental significance.

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.

What is a referral?

'Referral' of an action involves filling out a referral form and sending it to the Department of the Environment. 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.

If you represent a Commonwealth agency or you propose to take an action which is either situated on Commonwealth land or which may impact upon Commonwealth land, you should also refer to the *Significant impact guidelines 1.2: Actions on, or impacting upon, Commonwealth land and actions by Commonwealth agencies*. However, if referral is necessary, you need only submit one referral that includes all relevant matters.

Determining whether an action is likely to have a significant impact on a matter of national environmental significance

These guidelines are intended to assist you in undertaking a 'self-assessment' to decide whether or not your action is likely to have a significant impact on any matters of national environmental significance. Your self-assessment should be as objective as possible and based on sufficient information to make an informed judgement. If you complete a self-assessment and you are still unsure whether the action you propose to take is likely to have a significant impact on a matter of national environmental significance then you should refer the action to the Department of the Environment. In considering taking this step, you may like to discuss the matter with the Department's referral business entry point. The referral business entry point can be contacted through the Department's community information unit on **1800 803 772** or by emailing **epbc.referrals@environment.gov.au**

To make a decision as to whether or not to refer an action to the Minister, you should consider the following:

1. Are there any matters of national environmental significance located in the area of the proposed action (noting that ‘the area of the proposed action’ is broader than the immediate location where the action is undertaken; consider also whether there are any matters of national environmental significance adjacent to or downstream from the immediate location that may potentially be impacted)?
2. Considering the proposed action at its broadest scope (that is, considering all stages and components of the action, and all related activities and infrastructure), is there potential for impacts, including indirect impacts, on matters of national environmental significance?
3. Are there any proposed measures to avoid or reduce impacts on matters of national environmental significance (and if so, is the effectiveness of these measures certain enough to reduce the level of impact below the ‘significant impact’ threshold)?
4. Are any impacts of the proposed action on matters of national environmental significance likely to be significant impacts (important, notable, or of consequence, having regard to their context or intensity)?

1. Are there any matters of national environmental significance located in the area of the proposed action?

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 action². The search tool is located on the Department’s web site: www.environment.gov.au/erin/ert/epbc/index.html

Lists of threatened species and ecological communities can be accessed from the following web page: www.environment.gov.au/epbc/protect/species-communities.html

A list of migratory species can be accessed from the following web page: www.environment.gov.au/epbc/protect/migratory.html

A list of Australia’s Ramsar Wetlands and a map showing their location can be accessed from the following web page: www.environment.gov.au/epbc/protect/wetlands.html

Information about the Commonwealth marine environment can be found at: www.environment.gov.au/epbc/protect/marine.html

A list of Australia’s World Heritage properties and a map showing their general location can be found at: www.environment.gov.au/epbc/protect/heritage.html

A list of National Heritage places and a map showing their general location can be found at: www.environment.gov.au/epbc/protect/heritage.html

Information about the Great Barrier Reef Marine Park can be found at www.gbrmpa.gov.au

Information about a water resource, in relation to coal seam gas development and large coal mining development can be found at www.environment.gov.au/epbc/about/water-trigger.html.

² In relation to listed threatened species and ecological communities and listed migratory species, the EPBC Act protected matters search tool is intended to be of guidance only and should not be regarded as definitive. Surveys in the area where you propose to take an action can assist in verifying the results of the EPBC Act protected matters search tool. It is also important to note that some species may be detectable at certain times of the year only. Surveys should be timed appropriately, and undertaken for a suitable period by a qualified person.

2. Considering the proposed action at its broadest scope, is there potential for impacts on matters of national environmental significance?

If there are matters of national environmental significance in the vicinity of your proposed action, you need to consider whether there is potential for your proposed action to impact upon those matters.

The proposed action should be considered at its broadest possible scope. This includes all stages and components of the action, all related activities, and all related infrastructure such as roads and powerlines, if applicable.

If the action consists of a series of activities or a number of related activities, you should consider the impacts of each activity, and then consider the combined impacts of those activities.

It is also necessary and important to consider off-site and indirect impacts of your proposed action on matters of national environmental significance (refer to shaded box on page 6).

3. Are there any proposed measures to avoid or reduce impacts on matters of national environmental significance?

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 matters of national environmental significance. Where possible and practicable it is best to avoid impacts. If impacts cannot be avoided then they should be minimised or mitigated as much as possible.

You should consider impacts on matters of national environmental significance in relation to the following:

- site selection and the location of buildings or activities on the selected site
- the timing of the action or its component activities, and
- the design of any buildings, or other structures or infrastructure.

However you should not conclude that a significant impact is not likely to 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.

4. Are any impacts of the proposed action on matters of national environmental significance likely to be significant impacts?

In order to decide whether an action is likely to have a significant impact, it is necessary to take into account the nature and magnitude of potential impacts. In determining the nature and magnitude of an action's impacts, it is important to consider matters such as:

- the sensitivity of the environment which will be impacted
- the timing, duration and frequency of the action and its impacts
- all on-site and off-site impacts
- all direct and indirect impacts
- the total impact which can be attributed to the action over the entire geographic area affected, and over time
- existing levels of impact from other sources, and
- the degree of confidence with which the impacts of the action are known and understood.

Indirect and offsite impacts

When considering whether or not an action is likely to have a significant impact on a matter of national environmental significance it is relevant to consider all adverse impacts which result from the action, including 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. Likewise, the construction of basic infrastructure in a previously undeveloped area may, in certain circumstances, facilitate the urban or commercial development of that area³.

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.

It may be helpful to consider the following:

- 'But for' the proposed action would the indirect impacts occur?
- Is the proposed action a 'material and substantial' cause of the indirect impacts?
- Are the potential impacts of any subsequent or third party actions known, or would they be expected to be known, by the person proposing to take the action (particularly where the subsequent or third party actions are an intended outcome of the proposed action)?

If the answer to these questions is 'yes', then it is necessary to consider whether these impacts are likely to occur, and whether they are likely to have a significant impact on a matter of national environmental significance. If so, as much information as possible should be provided to assist the minister in determining whether the impacts are relevant, and whether approval under the EPBC Act is required.

Notes:

- When deciding whether or not a proposed action is likely to have a significant impact on a matter of national environmental significance, 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 a matter of national environmental significance.
- When deciding whether or not a proposed action is likely to have a significant impact on a matter of national environmental significance, 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 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.

3 Note that consideration of the impacts of 'facilitated actions' during the assessment and approval of the original action has no effect on the requirement of the proponent of the facilitated action to make a referral when that action eventuates, if that action will have, or is likely to have, a significant impact on a matter of national environmental significance.

Significant impact criteria

The 'significant impact criteria', set out on the following pages, for each matter of national environmental significance, are intended to assist you in determining whether the impacts of your proposed action on any matter of national environmental significance are likely to be significant impacts.

The criteria are intended to provide general guidance on the types of actions that will require approval and the types of actions that will not require approval. They are not intended to be exhaustive or definitive. If you are still unsure whether the action you propose to take is likely to have a significant impact on a matter of national environmental significance you should refer the action to the Department of the Environment for a binding decision on whether approval is required.

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 a matter of national environmental significance. Remember that the general test for significance is whether an impact is 'important, notable or of consequence, having regard to its context or intensity'.

Listed threatened species and ecological communities

An action will require approval if the action has, will have, or is likely to have a significant impact on a species listed in any of the following categories:

- extinct in the wild
- critically endangered
- endangered, or
- vulnerable.

An action will also require approval if the action has, will have, or is likely to have a significant impact on an ecological community listed in any of the following categories:

- critically endangered, or
- endangered.

Notes:

- Species in the extinct and conservation dependant categories of species listed under the EPBC Act, and listed ecological communities in the vulnerable category of ecological communities listed under the EPBC Act, are not matters of national environmental significance for the purposes of Part 3 of the EPBC Act (requirements for environmental approvals).
- Species and ecological communities listed under the EPBC Act may differ from those listed under State and Territory legislation. This is due to the different status of some species and ecological communities in the different States and Territories, and nationally.

Extinct in the wild species

Significant impact criteria

An action is likely to have a significant impact on extinct in the wild species if there is a real chance or possibility that it will:

- adversely affect a captive or propagated population or one recently introduced/reintroduced to the wild, or
- interfere with the recovery of the species or its reintroduction into the wild.

Critically endangered and endangered species

Significant impact criteria

An action is likely to have a significant impact on a critically endangered or endangered species if there is a real chance or possibility that it will:

- lead to a long-term decrease in the size of a population
- reduce the area of occupancy of the species
- fragment an existing population into two or more populations
- adversely affect habitat critical to the survival of a species
- disrupt the breeding cycle of a population
- modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline
- result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat
- introduce disease that may cause the species to decline, or
- interfere with the recovery of the species.

What is a population of a species?

A 'population of a species' is defined under the EPBC Act as an occurrence of the species in a particular area. In relation to critically endangered, endangered or vulnerable threatened species, occurrences include but are not limited to:

- a geographically distinct regional population, or collection of local populations, or
- a population, or collection of local populations, that occurs within a particular bioregion.

What is an invasive species?

An 'invasive species' is an introduced species, including an introduced (translocated) native species, which out-competes native species for space and resources or which is a predator of native species. Introducing an invasive species into an area may result in that species becoming established. An invasive species may harm listed threatened species or ecological communities by direct competition, modification of habitat or predation.

What is habitat critical to the survival of a species or ecological community?

'Habitat critical to the survival of a species or ecological community' refers to areas that are necessary:

- for activities such as foraging, breeding, roosting, or dispersal
- for the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators)
- to maintain genetic diversity and long term evolutionary development, or
- for the reintroduction of populations or recovery of the species or ecological community.

Such habitat may be, but is not limited to: habitat identified in a recovery plan for the species or ecological community as habitat critical for that species or ecological community; and/or habitat listed on the Register of Critical Habitat maintained by the minister under the EPBC Act.

Vulnerable species

Significant impact criteria

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:

- lead to a long-term decrease in the size of an important population of a species
- reduce the area of occupancy of an important population
- fragment an existing important population into two or more populations
- adversely affect habitat critical to the survival of a species
- disrupt the breeding cycle of an important population
- modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline
- result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat
- introduce disease that may cause the species to decline, or
- interfere substantially with the recovery of the species.

What is an important population of a species?

An 'important population' is a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and/or that are:

- key source populations either for breeding or dispersal
- populations that are necessary for maintaining genetic diversity, and/or
- populations that are near the limit of the species range.

Critically endangered and endangered ecological communities

Significant impact criteria

An action is likely to have a significant impact on a critically endangered or endangered ecological community if there is a real chance or possibility that it will:

- reduce the extent of an ecological community
- fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines
- adversely affect habitat critical to the survival of an ecological community
- modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns
- cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting
- cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to:
 - assisting invasive species, that are harmful to the listed ecological community, to become established, or
 - causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community, or
- interfere with the recovery of an ecological community.

Further information on listed threatened species and ecological communities

The following information on listed threatened species and ecological communities is available on the Department's web site:

- General information: www.environment.gov.au/biodiversity/threatened/index.html
- Copies of recovery plans and threat abatement plans:
www.environment.gov.au/biodiversity/threatened/recovery.html
www.environment.gov.au/biodiversity/threatened/tap/index.html
- Species profile and threats database (information about individual listed threatened species and ecological communities): www.environment.gov.au/sprat

Listed migratory species

An action will require approval if the action has, will have, or is likely to have a significant impact on a listed migratory species. Note that some migratory species are also listed as threatened species. The criteria below are relevant to migratory species that are not threatened.

Significant impact criteria

An action is likely to have a significant impact on a migratory species if there is a real chance or possibility that it will:

- substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat for a migratory species
- result in an invasive species that is harmful to the migratory species becoming established in an area of important habitat for the migratory species, or
- seriously disrupt the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of a migratory species.

What is important habitat for a migratory species?

An area of 'important habitat' for a migratory species is:

- a. habitat utilised by a migratory species occasionally or periodically within a region that supports an ecologically significant proportion of the population of the species, and/or
- b. habitat that is of critical importance to the species at particular life-cycle stages, and/or
- c. habitat utilised by a migratory species which is at the limit of the species range, and/or
- d. habitat within an area where the species is declining.

What is an ecologically significant proportion?

Listed migratory species cover a broad range of species with different life cycles and population sizes. Therefore, what is an 'ecologically significant proportion' of the population varies with the species (each circumstance will need to be evaluated). Some factors that should be considered include the species' population status, genetic distinctiveness and species specific behavioural patterns (for example, site fidelity and dispersal rates).

What is the population of a migratory species?

'Population', in relation to migratory species, means the entire population or any geographically separate part of the population of any species or lower taxon of wild animals, a significant proportion of whose members cyclically and predictably cross one or more national jurisdictional boundaries including Australia.

Further information on Listed Migratory Species

- General information on listed migratory species is available on the Department's website: www.environment.gov.au/epbc/protect/migratory.html

Wetlands of international Importance

Approval is required for an action occurring within or outside a declared Ramsar wetland if the action has, will have, or is likely to have a significant impact on the ecological character of the Ramsar wetland.

A 'declared Ramsar wetland' is an area that has been designated under Article 2 of the Ramsar Convention or declared by the minister to be a declared Ramsar wetland under section 16 of the EPBC Act.

The 'ecological character' is the combination of the ecosystem components, processes and benefits/ services that characterise the wetland at a given point in time. The phrase 'at a given point in time' refers to the time of designation for the Ramsar List.

Descriptions of the ecological character of listed Ramsar wetlands can be obtained from the Australian wetlands database at: www.environment.gov.au/water/wetlands/database/index.html

Significant impact criteria

An action is likely to have a significant impact on the ecological character of a declared Ramsar wetland if there is a real chance or possibility that it will result in:

- areas of the wetland being destroyed or substantially modified
- a substantial and measurable change in the hydrological regime of the wetland, for example, a substantial change to the volume, timing, duration and frequency of ground and surface water flows to and within the wetland
- the habitat or lifecycle of native species, including invertebrate fauna and fish species, dependant upon the wetland being seriously affected
- a substantial and measurable change in the water quality of the wetland – for example, a substantial change in the level of salinity, pollutants, or nutrients in the wetland, or water temperature which may adversely impact on biodiversity, ecological integrity, social amenity or human health, or
- an invasive species that is harmful to the ecological character of the wetland being established (or an existing invasive species being spread) in the wetland.

Further information on Ramsar wetlands

The following information on Ramsar wetlands is available on the Department's web site:

- General information: www.environment.gov.au/epbc/protect/wetlands.html
- Ramsar wetlands fact sheet (including list and general location map):
www.environment.gov.au/water/publications/environmental/wetlands/ramsar.html
- Australian wetlands database (including location maps and information for individual wetlands):
www.environment.gov.au/water/wetlands/database/index.html

The Commonwealth marine environment

An action will require approval if:

- the action is taken in a Commonwealth marine area and the action has, will have, or is likely to have a significant impact on the environment, or
- the action is taken outside a Commonwealth marine area and the action has, will have, or is likely to have a significant impact on the environment in a Commonwealth marine area.

A 'Commonwealth marine area' is defined in section 24 of the EPBC Act. Maps showing Commonwealth marine areas are available through the Department's website at www.environment.gov.au/epbc/protect/marine.html or by contacting the Department's community information unit on 1800 803 772.

Marine protected areas are marine areas which are recognised to have high conservation value. Actions in or near marine protected areas, or other areas with high conservation value, have a greater likelihood of significant impacts on the Commonwealth marine environment. A map of marine protected areas is available on the Department's web site:

www.environment.gov.au/coasts/mpa/index.html

Significant impact criteria

An action is likely to have a significant impact on the environment in a Commonwealth marine area if there is a real chance or possibility that the action will:

- result in a known or potential pest species becoming established in the Commonwealth marine area
- modify, destroy, fragment, isolate or disturb an important or substantial area of habitat such that an adverse impact on marine ecosystem functioning or integrity in a Commonwealth marine area results
- have a substantial adverse effect on a population of a marine species or cetacean including its life cycle (for example, breeding, feeding, migration behaviour, life expectancy) and spatial distribution
- result in a substantial change in air quality⁴ or water quality (including temperature) which may adversely impact on biodiversity, ecological integrity; social amenity or human health
- result in persistent organic chemicals, heavy metals, or other potentially harmful chemicals accumulating in the marine environment such that biodiversity, ecological integrity, social amenity or human health may be adversely affected, or
- have a substantial adverse impact on heritage values of the Commonwealth marine area, including damage or destruction of an historic shipwreck.

Further information on Commonwealth marine areas

The following information relevant to Commonwealth marine areas is available on the Department's web site:

- General information: www.environment.gov.au/epbc/protect/marine.html

World Heritage properties

Approval under the EPBC Act is required for any action occurring within or outside a declared World Heritage property that has, will have, or is likely to have a significant impact on the World Heritage values of the World Heritage property.

A 'declared World Heritage property' is an area that has been included in the World Heritage list or declared by the minister to be a World Heritage property. World Heritage properties are places with natural or cultural heritage values which are recognised to have outstanding universal value.

Example of World Heritage values – Kakadu National Park World Heritage property

The Kakadu National Park World Heritage property, located in the far north of Australia's Northern Territory, has both natural and cultural World Heritage values. These values include:

- diverse, expansive and relatively undisturbed natural landscapes, including coastal areas, river systems and floodplains, lowlands, wetlands, plateau complexes, escarpments and outliers
- diverse and relatively unmodified vegetation types, including open mangrove swamps, forest and woodlands, lowland and sandstone rainforests, shrubland and heath, wetland, riverine, floodplain and coastal vegetation
- diverse, endemic, relict and abundant plant and animal species
- extensive and diverse habitats, including open forest and woodlands, monsoon rainforest areas, heaths and shrublands, freshwater wetlands, mangrove and estuarine areas, foreshore and beach areas
- significant plant associations and plants with conservation significance
- animals with conservation significance, including mammals, reptiles, birds, invertebrates and fish
- exceptional natural beauty
- outstanding, diverse, unique and ancient Indigenous archaeological remains and rock art recording a continuous cultural development and environmental change, and
- a rich collection of Indigenous cultural sites with strong spiritual associations and connections to continuing practice of traditional beliefs.

A more comprehensive description of the World Heritage values of Kakadu National Park World Heritage Area can be found at: www.environment.gov.au/heritage/places/world/kakadu/values.html

4 The Commonwealth marine area includes any airspace over Commonwealth waters.

Significant impact criteria

An action is likely to have a significant impact on the World Heritage values of a declared World Heritage property if there is a real chance or possibility that it will cause:

- one or more of the World Heritage values to be lost
- one or more of the World Heritage values to be degraded or damaged, or
- one or more of the World Heritage values to be notably altered, modified, obscured or diminished.

Examples

The following examples provide an indication of levels of impact on World Heritage values that are likely to be significant. They are not intended to be exhaustive.

World Heritage properties with natural heritage values

An action is likely to have a significant impact on natural heritage values of a World Heritage property if there is a real chance or possibility that the action will:

Values associated with geology or landscape	<ul style="list-style-type: none">• damage, modify, alter or obscure important geological formations in a World Heritage property• damage, modify, alter or obscure landforms or landscape features, for example, by excavation or infilling of the land surface in a World Heritage property• modify, alter or inhibit landscape processes, for example, by accelerating or increasing susceptibility to erosion, or stabilising mobile landforms, such as sand dunes, in a World Heritage property• divert, impound or channelise a river, wetland or other water body in a World Heritage property, and• substantially increase concentrations of suspended sediment, nutrients, heavy metals, hydrocarbons, or other pollutants or substances in a river, wetland or water body in a World Heritage property.
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Biological and ecological values	<ul style="list-style-type: none">• reduce the diversity or modify the composition of plant and animal species in all or part of a World Heritage property• fragment, isolate or substantially damage habitat important for the conservation of biological diversity in a World Heritage property• cause a long-term reduction in rare, endemic or unique plant or animal populations or species in a World Heritage property, and• fragment, isolate or substantially damage habitat for rare, endemic or unique animal populations or species in a World Heritage property.
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Wilderness, natural beauty or rare
or unique environment values

- involve construction of buildings, roads, or other structures, vegetation clearance, or other actions with substantial, long-term or permanent impacts on relevant values, and
- introduce noise, odours, pollutants or other intrusive elements with substantial, long-term or permanent impacts on relevant values.

World Heritage properties with cultural heritage values

An action is likely to have a significant impact on cultural heritage values of a World Heritage property if there is a real chance or possibility that the action will:

Historic heritage values

- permanently remove, destroy, damage or substantially alter the fabric⁵ of a World Heritage property
- extend, renovate, refurbish or substantially alter a World Heritage property in a manner which is inconsistent with relevant values
- permanently remove, destroy, damage or substantially disturb archaeological deposits or artefacts in a World Heritage property
- involve activities in a World Heritage property with substantial and/or long-term impacts on its values
- involve construction of buildings or other structures within, adjacent to, or within important sight lines of, a World Heritage property which are inconsistent with relevant values, and
- make notable changes to the layout, spaces, form or species composition in a garden, landscape or setting of a World Heritage property which are inconsistent with relevant values.

5 'Fabric' means physical material including structural elements and other components, fixtures, fittings, contents and items with historic value

Other cultural heritage values
including Indigenous heritage values

- restrict or inhibit the existing use of a World Heritage property as a cultural or ceremonial site causing its values to notably diminish over time;
- permanently diminish the cultural value of a World Heritage property for a community or group to which its values relate
- alter the setting of a World Heritage property in a manner which is inconsistent with relevant values
- remove, damage, or substantially disturb cultural artefacts, or ceremonial objects, in a World Heritage property, and
- permanently damage or obscure rock art or other cultural or ceremonial features with World Heritage values.

Notes:

- The above examples are general examples and their application will depend on the individual values of each World Heritage property. Alteration or disturbance which is small in scale may have a significant impact if a feature or component of a World Heritage property embodies values that are particularly sensitive or important.
- To have a significant impact on World Heritage values, it is not necessary for an action to impact upon the whole of a World Heritage property, all of the values of a World Heritage property, or a whole value of a World Heritage property. It is sufficient if an action is likely to have a significant impact on a part, element, or feature of a World Heritage property, which embodies, manifests, shows, or contributes to the values of that property.

Further Information on World Heritage properties

The following information on World Heritage properties is available on the Department's web site:

- General information: www.environment.gov.au/heritage/about/world/index.html

National Heritage places

Approval under the EPBC Act is required for any action occurring within, or outside, a National Heritage place that has, will have, or is likely to have a significant impact on the National Heritage values of the National Heritage place.

The National Heritage List contains places or groups of places with outstanding heritage value to Australia – whether natural, Indigenous or historic⁶ or a combination of these.

Example of National Heritage values—Brewarrina Aboriginal fish traps (Baiaimes Ngunnhu)

The Brewarrina Aboriginal fish traps on the Barwon River in New South Wales, have indigenous National Heritage values. These values include:

- providing an example of a dry-stone fish trap of rare size, design and complexity
- demonstrating an unusual and innovative development in pre-European Aboriginal technology, which exhibits a thorough understanding of dry stone wall construction techniques, river hydrology and fish ecology
- providing a strong social, cultural and spiritual association with Aboriginal people
- demonstrating a delineation of responsibility for use and maintenance of particular traps between different aboriginal groups under Aboriginal law in accordance with the wishes of the ancestral creation being, Baiame
- historical and current use as a significant meeting place for Aboriginal people with connections to the area, and
- demonstrating an unusual aspect of Indigenous tradition, arising from the association between an ancestral being and the creation of the built structures of the fish traps.

A more comprehensive description of the National Heritage values of the Brewarrina Aboriginal Fish Traps can be found at: www.environment.gov.au/heritage/places/national/brewarrina/index.html

Significant impact criteria

An action is likely to have a significant impact on the National Heritage values of a National Heritage place if there is a real chance or possibility that it will cause:

- one or more of the National Heritage values to be lost
- one or more of the National Heritage values to be degraded or damaged, or
- one or more of the National Heritage values to be notably altered, modified, obscured or diminished.

⁶ For historic built heritage places in the National Heritage List that are within the Australian jurisdiction, approval will be required where an action that has, will have or is likely to have a significant impact on the National Heritage values of the place will be taken by: a constitutional corporation; the Commonwealth or a Commonwealth agency; or a person for the purposes of trade or commerce between Australia and another country, between States, between Territories, or between a State and a Territory. There are no restrictions on the application of the EPBC Act in relation to natural or Indigenous heritage places in the National Heritage List, or places in a Commonwealth area or Territory, or outside the Australian jurisdiction.

Examples

The following examples provide an indication of levels of impact on National Heritage values that are likely to be significant. They are not intended to be exhaustive.

National Heritage places with natural heritage values

An action is likely to have a significant impact on natural heritage values of a National Heritage place if there is a real chance or possibility that the action will:

Values associated with geology or landscapes	<ul style="list-style-type: none">• damage, modify, alter or obscure important geological formations in a National Heritage place• damage, modify, alter or obscure landforms or landscape features, for example, by clearing, excavating or infilling the land surface in a National Heritage place• modify, alter or inhibit landscape processes, for example, by accelerating or increasing susceptibility to erosion, or stabilising mobile landforms, such as sand dunes in a National Heritage place• divert, impound or channelise a river, wetland or other water body in a National Heritage place, and• substantially increase concentrations of suspended sediment, nutrients, heavy metals, hydrocarbons, or other pollutants or substances in a river, wetland or water body in a National Heritage place; permanently damage or obscure rock art or other cultural or ceremonial features with World Heritage values.
Biological and ecological values	<ul style="list-style-type: none">• modify or inhibit ecological processes in a National Heritage place• reduce the diversity or modify the composition of plant and animal species in a National Heritage place• fragment or damage habitat important for the conservation of biological diversity in a National Heritage place• cause a long-term reduction in rare, endemic or unique plant or animal populations or species in a National Heritage place, and• fragment, isolate or substantially damage habitat for rare, endemic or unique animal populations or species in a National Heritage place.

Wilderness, aesthetic, or other rare
or unique environment values

- involve construction of buildings, roads or other structures, vegetation clearance, or other actions with substantial and/or long-term impacts on relevant values, and
- introduce noise, odours, pollutants or other intrusive elements with substantial and/or long-term impacts on relevant values.

National Heritage places with cultural heritage values

An action is likely to have a significant impact on historic heritage values of a National Heritage place if there is a real chance or possibility that the action will:

Historic heritage values

- permanently remove, destroy, damage or substantially alter the fabric⁷ of a National Heritage place in a manner which is inconsistent with relevant values
- extend, renovate, refurbish or substantially alter a National Heritage place in a manner which is inconsistent with relevant values
- permanently remove, destroy, damage or substantially disturb archaeological deposits or artefacts in a National Heritage place
- involve activities in a National Heritage place with substantial and/or long-term impacts on its values
- involve the construction of buildings or other structures within, adjacent to, or within important sight lines of, a National Heritage place which are inconsistent with relevant values, and
- make notable changes to the layout, spaces, form or species composition of a garden, landscape or setting of a National Heritage place in a manner which is inconsistent with relevant values.

Other cultural
heritage values

- restrict or inhibit the continuing use of a National Heritage place as a cultural or ceremonial site causing its values to notably diminish over time
- permanently diminish the cultural value of a National Heritage place for a community or group to which its National Heritage values relate
- destroy or damage cultural or ceremonial, artefacts, features, or objects in a National Heritage place, and
- notably diminish the value of a National Heritage place in demonstrating creative or technical achievement.

7 'Fabric' means physical material including structural elements and other components, fixtures, fittings, contents and items with historic value

National Heritage places with Indigenous heritage values

An action is likely to have a significant impact on Indigenous heritage values of a National Heritage place if there is a real chance or possibility that the action will:

Indigenous heritage values

- restrict or inhibit the continuing use of a National Heritage place as a cultural or ceremonial site causing its values to notably diminish over time
- permanently diminish the cultural value of a National Heritage place for an Indigenous group to which its National Heritage values relate
- alter the setting of a National Heritage place in a manner which is inconsistent with relevant values
- remove, destroy, damage or substantially disturb archeological deposits or cultural artefacts in a National Heritage place
- destroy, damage or permanently obscure rock art or other cultural or ceremonial, artefacts, features, or objects in a National Heritage place
- notably diminish the value of a National Heritage place in demonstrating creative or technical achievement
- permanently remove, destroy, damage or substantially alter Indigenous built structures in a National Heritage place, and
- involve activities in a National Heritage place with substantial and/or long-term impacts on the values of the place.

Notes:

- The above examples are general examples and their application will depend on the individual values of each National Heritage place. Alteration or disturbance which is small in scale may have a significant impact if a feature or component of a National Heritage place embodies values that are particularly sensitive or important.
- To have a significant impact on National Heritage values, it is not necessary for an action to impact upon the whole of a National Heritage place, all of the values of a National Heritage place, or a whole value of a National Heritage place. It is sufficient if an action is likely to have a significant impact on a part, element, or feature of a National Heritage place which embodies, manifests, shows, or contributes to the values of that place.

Further information on National Heritage places

The following information relevant to National Heritage places is available on the Department's web site:

- General information: www.environment.gov.au/epbc/protect/heritage.html
- Australian heritage places inventory: www.heritage.gov.au/ahpi

Nuclear actions

A nuclear action will require approval if it has, will have, or is likely to have a significant impact on the environment.

Significant impact criteria

All nuclear actions, as detailed in section 22 of the Act, should be referred to the Department of the Environment for a decision on whether approval is required.

These actions are:

- establishing or significantly modifying a nuclear installation or a facility for storing spent nuclear fuel
- transporting spent nuclear fuel or radioactive waste products arising from reprocessing;
- establishing or significantly modifying a facility for storing radioactive waste products arising from reprocessing
- mining or milling uranium ore
- establishing or significantly modifying a large-scale disposal facility for radioactive waste
- de-commissioning or rehabilitating any facility or area in which an activity described above has been undertaken, or
- establishing, significantly modifying, decommissioning or rehabilitating a facility where radioactive materials at or above the activity level specified in regulation 2.02 of the Environment Protection and Biodiversity Conservation Regulations 2000 (EPBC Regulations) are, were, or are proposed to be stored.

Electronic copies of the EPBC Act and EPBC Regulations can be accessed from the Department's web site at:

www.environment.gov.au/epbc/about/index.html

Great Barrier Reef Marine Park

An action will require approval if:

- the action is taken in the Great Barrier Reef Marine Park and the action has, will have, or is likely to have a significant impact on the environment, or
- the action is taken outside the Great Barrier Reef Marine Park and the action has, will have, or is likely to have a significant impact on the environment in the Great Barrier Reef Marine Park.

The Great Barrier Reef Marine Park is established under the *Great Barrier Reef Marine Park Act 1975*. Maps showing the Great Barrier Reef Marine Park are available from www.gbrmpa.gov.au.

The Great Barrier Reef Marine Park is an area recognised to have high conservation value.

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, place 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).

Significant impact criteria

An action is likely to have a significant impact on the environment of the Great Barrier Reef Marine Park if there is a real chance or possibility that the action will:

- modify, destroy, fragment, isolate or disturb an important, substantial, sensitive or vulnerable area of habitat or ecosystem component such that an adverse impact on marine ecosystem health, functioning or integrity in the Great Barrier Reef Marine Park results
- have a substantial adverse effect on a population of a species or cetacean including its life cycle (for example, breeding, feeding, migration behaviour, life expectancy) and spatial distribution
- result in a substantial change in air quality or water quality (including temperature) which may adversely impact on biodiversity, ecological health or integrity or social amenity or human health
- result in a known or potential pest species being introduced or becoming established in the Great Barrier Reef Marine Park
- result in persistent organic chemicals, heavy metals, or other potentially harmful chemicals accumulating in the marine environment such that biodiversity, ecological integrity, or social amenity or human health may be adversely affected, or
- have a substantial adverse impact on heritage values of the Great Barrier Reef Marine Park, including damage or destruction of an historic shipwreck.

Other protected matters potentially relevant to the Great Barrier Reef

- **The values of World Heritage properties** – The Great Barrier Reef is a World Heritage property
- **The values of National Heritage places** – The Great Barrier Reef is a National Heritage place
- **The ecological character of a Ramsar wetland** – a number of Ramsar wetlands are located adjacent to the Marine Park, including Shoalwater and Corio Bays and Bowling Green Bay
- **Listed threatened species and ecological communities** – a number of listed threatened species are located in the Marine Park
- **Listed migratory species** – a range of listed migratory species are found in the Marine Park
- **Commonwealth land** – a number of islands within the Marine Park are Commonwealth land
- **The environment of a Commonwealth marine area** – The majority of the Marine Park is within the Commonwealth marine area, and
- **Nuclear actions.**

Further information on the Great Barrier Reef Marine Park

- Further information on the Great Barrier Reef Marine Park is available on the Great Barrier Reef Marine Park Authority (GBRMPA) website: www.gbrmpa.gov.au
- General information: www.gbrmpa.gov.au

Note:

For actions/activities taken within the Great Barrier Reef Marine Park a permission may be required under the *Great Barrier Reef Marine Park Act 1975* (GBRMP Act). A permission under the GBRMP Act may be required even if significant impact on the environment of the Great Barrier Reef is not likely. Further information is provided on the Great Barrier Reef Marine Park web site at www.gbrmpa.gov.au

Protection of water resources from coal seam gas development and large coal mining development

Information on the protection of water resources from coal seam gas development and large coal mining development

The draft *Significant Impact Guidelines: Coal seam gas and large coal mining developments—Impacts on water resources* provides further details on the protection of water resources from coal seam gas and large coal mining developments website: www.environment.gov.au/epbc/about/water-trigger.html.

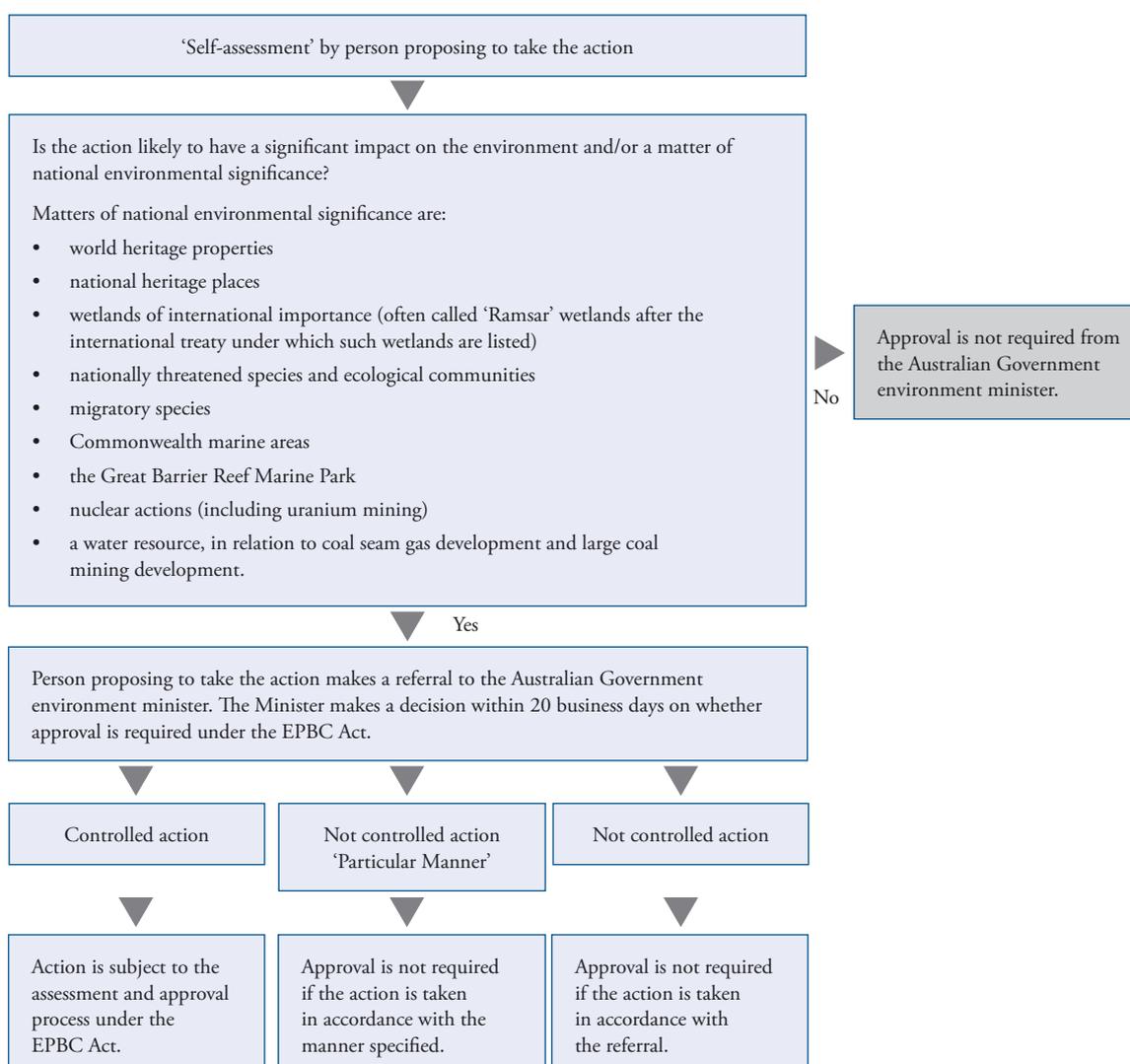
The referral, assessment and approval process

Referral process

If after undertaking a self-assessment you conclude that your action is likely to have a significant impact on a matter of national environmental significance, or if you are unsure, you should refer the action to the Australian Government environment minister. Substantial penalties apply for taking an action that has, will have or is likely to have a significant impact on a matter of national environmental significance without approval.

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: www.environment.gov.au/epbc/assessments/referral-form.html. The EPBC Act referral process is summarised in Figure 1 below.

Figure 1: EPBC Act referral process



After receiving a referral, the minister will decide whether the action is likely to have a significant impact on a matter of national environmental significance:

- if the minister decides that the action is likely to have a significant impact on a matter of national environmental significance, then the action requires approval under the EPBC Act (it is a controlled action), and
- if the minister decides that the action is not likely to have a significant impact on a matter of national environmental significance, then the action does not require approval under the EPBC Act (it is a not controlled action).⁸

The minister may also decide that an action is not likely to have a significant impact on a matter of national environmental significance, 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.⁹

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

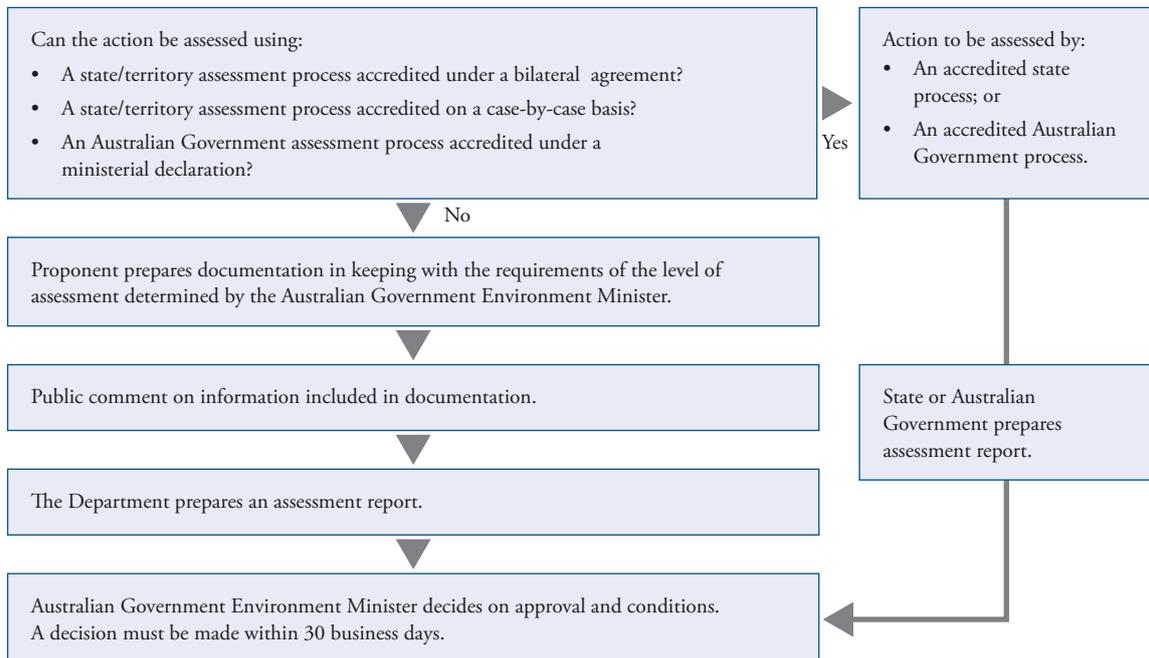
If the minister decides that an action requires approval, then an environmental assessment of the action must be carried out. If a bilateral agreement is in place the action may be assessed by the state or territory in which the action is to be undertaken, using the processes accredited under the bilateral 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 2.

⁸ 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.

⁹ 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: www.environment.gov.au/epbc/publications/manner.html

Figure 2: EPBC Act assessment and approval process



General information

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 a matter of national environmental significance.

EPBC Act Policy Statements can be obtained from the Department's community information unit on 1800 803 772 or can be downloaded from the Department's web site at: www.environment.gov.au/epbc/publications/guidelines.html

The Australian Natural Resources Atlas provides national, state and regional information about a range of environmental and land-use attributes: www.anra.gov.au/

Please note that the Department does not hold all of the information that may be required to assess the impacts of your action. state and territory government agencies also have a range of information that may be useful, including geographic information.

The sectoral information contained in the Appendix to these guidelines is intended to illustrate the application of the criteria for matters of national environmental significance in relation to specific industry sectors, and should be read in the context of, and in conjunction with, the significant impact criteria in these guidelines.

Appendix – Information for industry sectors

The purpose of this Appendix is to provide more detailed assistance in relation to whether, and in what circumstances, some selected sectoral activity is likely to have a significant impact on a matter of national environmental significance.

The examples in this appendix should be read in conjunction with the significant impact criteria in the guidelines and should not be taken to be conclusive.

This guidance relates to the following sectoral activities:

- mineral exploration
- urban development
- local government, and
- marine activities.

EPBC Act policy statements which provide further guidance in relation to specific industry sectors¹⁰ are available from the Department's community information unit or the Department's web site:

www.environment.gov.au/epbc/publications/guidelines.html

Mineral exploration activity

Terrestrial exploration

Surface geological mapping examining rock outcrops and exposures, which may involve the taking of small samples, would not normally be expected to have a significant impact on a matter of national environmental significance.

Surface geochemical sampling, using both regular grid pattern and irregular pattern methods to collect small samples, would not normally be expected to have a significant impact on a matter of national environmental significance.

Surface geophysical surveys including airborne surveys, gravity, magnetic and electromagnetic surveys, would not normally be expected to have a significant impact on a matter of national environmental significance.

Other geophysical surveys that include seismic surveys would not normally be expected to have a significant impact on matters of national environmental significance. However, an action involving seismic surveys (shot hole method or vibroseis) may have a significant impact on an endangered or critically endangered species if, for example, it is likely to damage habitat critical to the survival of the species or disrupt the breeding cycle of a population of the species. Such an action may also have a significant impact on listed threatened ecological communities where, for example, it adversely impacts on habitat. (See the criteria relating to endangered and critically endangered species and ecological communities.)

¹⁰ Industry-specific guidelines that have been, or are being, developed include guidelines for offshore seismic operations, offshore aquaculture, wind farms, agricultural land clearance, urban development, and actions undertaken by local government.

All exploratory drilling (including new field, wildcat, and appraisal drilling, auger, rotary air blast (RAB), open hole percussion, reverse circulation (RC), diamond drilling and wide diameter drilling), including the construction of drill pads, would not be expected to have a significant impact on a matter of national environmental significance where the discharges, emissions and waste from the drilling are contained and managed in an environmentally sensitive manner. However, an action involving exploratory drilling may have a significant impact on an endangered or critically endangered species if, for example, it is likely to damage habitat critical to the survival of the species or disrupt the breeding cycle of a population of the species. Such an action may also have a significant impact on listed threatened ecological communities where, for example, it adversely impacts on habitat. (See the criteria relating to endangered and critically endangered species and ecological communities.) Such an action may also have a significant impact if it occurs within a National Heritage place, for example, if it disturbs Indigenous burial grounds or artefacts with National Heritage values. It will also be necessary to consider the Ramsar criteria if the exploratory drilling is to occur in or immediately adjacent to a Ramsar wetland.

Costeaning and trenching (small scale) would not be expected to have a significant impact on a matter of national environmental significance where small trenches are excavated using hand tools. However, an action involving costeaning and trenching (small scale) may have a significant impact on an endangered or critically endangered species if, for example, it is likely to damage critical habitat for the species or disrupt the breeding cycle of a population of the species. Such an action may also have a significant impact on listed threatened ecological communities where, for example, it adversely impacts on habitat. (See the criteria relating to endangered and critically endangered species and ecological communities.) It will also be necessary to consider the National Heritage criteria and the Ramsar criteria if the costeaning or trenching is to occur in or immediately adjacent to a National Heritage place or a Ramsar wetland.

Costeaning and trenching (large scale), surface bulk sampling (such as establishing a trial pit, sinking shafts or driving decline tunnels deep into the target) and underground exploration and development (such as underground sampling, drilling and mine construction): whether or not these exploration activities are likely to have a significant impact on a matter of national environmental significance will depend upon the particular facts and circumstances of the proposed activity. It is necessary to apply the criteria in the guidelines to assist in determining when an action is likely to have a significant impact on a matter of national environmental significance. For example, if surface bulk sampling occurs in an area that is not in or near a Ramsar wetland, and if it is not damaging the habitat of a threatened species or important habitat for a migratory species, then the proposed exploration activity is not likely to have a significant impact on a matter of national environmental significance. However, if the proposed activity will result in the pollution of a Ramsar wetland then it is likely to have a significant impact on the ecological character of the Ramsar wetland.

Offshore exploration

Aerial surveys and diving for samples would not normally be expected to have a significant impact on a matter of national environmental significance.

Offshore exploratory drilling would be expected to have a significant impact if it is undertaken in an area that contains habitat for threatened or migratory species and the seismic activity is likely to interfere with breeding, feeding or migration, or if habitat critical to the survival of the species (or important habitat for a migratory species) is damaged by the drilling. Offshore exploratory drilling would also be expected to have a significant impact on a Ramsar wetland or the Commonwealth marine environment if drilling occurs in a sensitive area (for example, sea mounts and other areas with high biodiversity value or which contain important habitat). Offshore exploratory drilling may also potentially have a significant impact on historic shipwrecks in the Commonwealth marine area.

Other issues

The above discussion does not address issues associated with mineral exploration activity in a World Heritage property or National Heritage place. In addition, it does not take into account any impacts associated with gaining access to the exploration site, especially where heavy machinery is used.

Urban development

Repairing, maintaining, or making alterations to **commercial and domestic buildings and properties** would not be expected to have a significant impact on a matter of national environmental significance, unless the repairs, maintenance or alterations are being made to a World Heritage property or a National Heritage place and are inconsistent with the values of the property or place.

Repairing and maintaining existing distribution infrastructure for **utilities for power, water and sewage** would not normally be expected to have a significant impact on a matter of national environmental significance, unless there is a substantial expansion or modification of these utilities.

Establishing a **new subdivision** in an existing suburb, with established infrastructure designed to manage environmental impacts, upstream of a large Ramsar wetland (such as the Moreton Bay Ramsar wetland) would not be expected to have a significant impact on the wetland.

By contrast, establishing a **new subdivision** in the vicinity of a smaller Ramsar wetland is likely to have a significant impact on the wetland if it involves extensive vegetation clearing, clearing riparian vegetation, modifying the flow of water to or within the wetland, or if it will result in significant discharges of pollutants into the wetland.

Establishing a **new subdivision** within or adjacent to the Great Barrier Reef Marine Park, a World Heritage property or a National Heritage place is likely to have a significant impact on the World or National heritage values of that property or place.

Building a house on land in an existing subdivision in the vicinity of a Ramsar wetland or a World Heritage property would not normally be expected to have a significant impact on these matters of national environmental significance.

However, **building a house** in close proximity to a National Heritage place may have a significant impact on the values of the place, in particular where the place is located in a non-urban environment or where the proposed development would obstruct or detract from the viewing axes of the heritage place, where applicable.

Proposed urban development for a **housing subdivision or an industrial estate** on an area which contains nationally listed threatened species or ecological communities, or immediately adjacent to the Great Barrier Reef Marine Park, is likely to be significant under the EPBC Act and should be referred to the minister.

Local government

Maintaining existing facilities such as visitor centres and roadside facilities would not be expected to have a significant impact on a matter of national environmental significance.

Routine vegetation management to maintain existing roads in or adjacent to a World Heritage property, a National Heritage place, a Ramsar wetland or a listed threatened species or ecological community would not normally be expected to have a significant impact on a matter of national environmental significance.

A proposed **new road** through a World Heritage property, a National Heritage place, or a Ramsar wetland or a road that would require clearing of native vegetation that contains nationally listed threatened species or ecological communities is likely to be significant under the EPBC Act and should be referred to the minister. It will also be necessary to consider the environment of the Great Barrier Reef Marine Park if the proposed new road occurs immediately adjacent to the Great Barrier Reef Marine Park.

Where **road verge maintenance** is carried out regularly (for example, every one or two years) it would not be expected to have a significant impact on a critically endangered or endangered plant species.

On the other hand, if a population of a **critically endangered or endangered plant species** becomes established on a road verge (because the verge has not been graded or weeded for a number of years), then clearing that road verge is likely to have a significant impact on a matter of national environmental significance.

Widening an existing road would not normally be expected to be significant under the EPBC Act where the road verge has previously been cleared or the vegetation beside the road has been heavily modified. However, if road widening would require removal of native vegetation that contains critically endangered or endangered plant species or ecological communities, it is likely to have a significant impact and should be referred to the minister.

Development of a tourist resort in or adjacent to the Great Barrier Reef Marine Park, a World Heritage property or a National Heritage place is likely to be significant under the EPBC Act and should be referred to the minister. However, a **residential development** such as a block of units or other accommodation in an existing city or coastal town would not normally be expected to have a significant impact on an adjacent World Heritage property.

Marine activities

Otherwise lawful **recreational fishing and recreational boating** would not normally be expected to have a significant impact on a matter of national environmental significance.

Routine ship transits where appropriate precautions have been taken against translocating potential pest species would not normally be expected to have a significant impact on a matter of national environmental significance.

Ballast water operations from vessels in Australian waters, undertaken in accordance with an approved Australian Government arrangement for the management of ballast water, would not normally be expected to have a significant impact on the Commonwealth marine environment.

Small scale infrastructure projects such as new jetties within an existing port would not normally be expected to have a significant impact on a matter of national environmental significance.

Large scale infrastructure projects such as a large pontoon, new aquaculture proposals, construction of a jetty, or a tourist facility (for example, a marina) in the Great Barrier Reef Marine Park may have a significant impact on the environment of the Great Barrier Reef Marine Park and should be referred to the minister.

Expansion of an existing port which requires land reclamation or spoil disposal in a World Heritage property, a National Heritage place, in or adjacent to the Great Barrier Reef Marine Park, a Ramsar wetland or an area containing nationally listed threatened species or ecological communities, or which involves modifying an area of important habitat for a nationally listed migratory species, is likely to have a significant impact on a matter of national environmental significance.

Construction of a new port in a Commonwealth marine area, in or adjacent to the Great Barrier Reef Marine Park, a World Heritage property, or a National Heritage place is likely to have a significant impact on a matter of national environmental significance.

Dredging of a new shipping channel through a World Heritage property, a National Heritage place, through or next to the Great Barrier Reef Marine Park, a Ramsar wetland, or an area containing nationally listed threatened species or ecological communities, or which involves modifying an area of important habitat for a nationally listed migratory species, is likely to have a significant impact on a matter of national environmental significance.

Dredging to maintain existing navigational channels would not normally be expected to have a significant impact on the environment where the activity is undertaken as part of normal operations and the disposal of spoil does not have a significant impact.

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