Australian Government

Department of the Environment

EPBC Act referral guidelines for the Outstanding Universal Value of the Great Barrier Reef World Heritage Area

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Image credits

Photograph by © Allan Fox. Image taken at the Great Barrier Reef.

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Important notice for proponents

Please note that these guidelines are general in nature and do not remove your obligation to consider whether you need to make a referral to the Australian Government Minister for the Environment (the Minister) under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act).

While these guidelines provide information to help you decide whether to refer your action, the possible impacts of your proposal will depend on the particular circumstances of the action. Beyond direct impacts on the Great Barrier Reef World Heritage Area, these circumstances may include factors such as the proximity of the action to the Great Barrier Reef; direct, indirect (consequential) and cumulative impacts; and proposed avoidance and mitigation measures.

These guidelines were developed on the basis of the best information available at the time of writing. However, impacts of proposals will be assessed by the Department on the basis of the best information available at that point in time, which may differ from the information on which these guidelines are based.

These guidelines also do not provide guidance on requirements under state and local government laws. Information on Queensland and local government laws can be obtained from the Queensland Government and councils in or near the proposed project area.

How to use these guidelines

These guidelines are intended to assist you in determining whether your action needs to be referred to the Minister. They should be read in conjunction with *Significant impact guidelines 1.1 – Matters of National Environmental Significance* (www.environment.gov.au/epbc/publications/nes-guidelines.html). The Significant impact guidelines 1.1 outline a self-assessment process, including detailed criteria, to assist in deciding whether referral may be required for matters protected under the EPBC Act.

These guidelines do not attempt to cover all the matters of national environmental significance that should be taken into account when considering whether to make a referral. These guidelines apply only to the Outstanding Universal Value of the Great Barrier Reef World Heritage Area. The Great Barrier Reef World Heritage Area is one of the matters of national environmental significance under the EPBC Act. There are other matters of national environmental significance that may also need to be considered in deciding whether to make a referral – for example, if the action is likely to have a significant impact on the environment, including cultural heritage values, in the Great Barrier Reef Marine Park; or on a listed threatened or migratory species, including those found in the Great Barrier Reef World Heritage Area.

Given the linkages between many of these matters of national environmental significance, and the need to consider any proposed action against all relevant matters protected under the EPBC Act, all matters are assessed concurrently to increase efficiency. If your proposed action is likely to have a significant impact on one or more matters of national environmental significance, one referral covering all potentially impacted matters must be submitted to the Minister for consideration.

If you plan to undertake an action that you think has, will have or is likely to have a significant impact on the Outstanding Universal Value of the Great Barrier Reef World Heritage Area, you must refer the proposal to the Minister before commencing. The Minister will then decide within 20 business days whether assessment is required under the EPBC Act. The potential significance of each action is judged on a case-by-case basis. Substantial penalties apply for undertaking an action without approval where approval is required under the EPBC Act (current civil penalties up to $8.5 million and criminal penalties up to seven years imprisonment). More information on referral, assessment and compliance is available at www.environment.gov.au/epbc/.

The decision tree in Figure 1 and the rest of these guidelines are designed to assist you in determining whether your proposed action needs to be referred. You may also refer your proposed action if you are uncertain about the need to refer, or contact the Department by emailing epbc.referrals@environment.gov.au or calling 1800 803 772.

Possible exceptions to the need to refer

Certain actions are exempt from the requirement of assessment and approval under the EPBC Act. These include lawful continuations of a use of land, sea or seabed that started before 16 July 2000 and actions that were legally authorised before 16 July 2000. There are a number of criteria that must be satisfied to rely on any such exemptions. More information on exemptions under the EPBC Act is available at www.environment.gov.au/epbc/publications/exemptions.html.

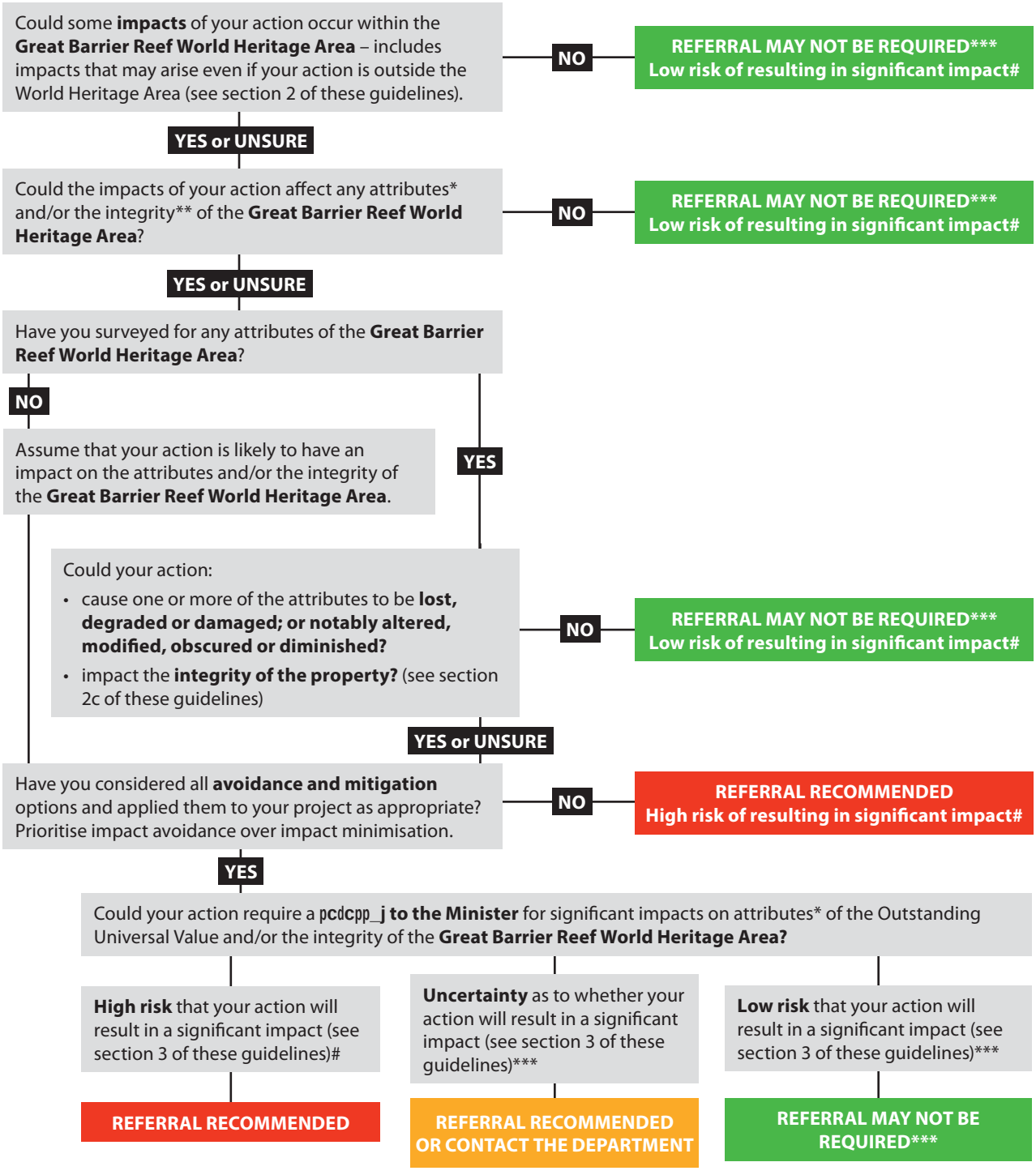
Where to get more information

Other EPBC Act policy statements and referral guidelines are available to help you understand the EPBC Act and your obligations. These are available from the Department's website at www.environment.gov.au/epbc/guidelines-policies.html or by contacting the community information unit by email at ciu@environment.gov.au or by phone on 1800 803 772. The Department can provide assistance in ensuring your action complies with the EPBC Act, especially when contacted early in the planning process.

The Department's Environmental Impact Assessment Client Service Charter outlines its commitments in administering environmental impact assessment under the EPBC Act. This is available from the Department's website at http://www.environment.gov.au/epbc/publications/eia-client-service-charter.html.

The Protected Matters Search Tool, available on the Department's website at www.environment.gov.au/epbc/pmst/index.html, can provide a good starting point for determining whether there are likely to be matters of national environmental significance in your area. State and territory government agencies may also hold relevant information including habitat and species distribution information.

Figure 1: Decision making for the Great Barrier Reef World Heritage Area



* World Heritage attributes are specific elements or features of a World Heritage property that contribute to its Outstanding Universal Value. They collectively link to one or more criteria for World Heritage listing.

** Integrity is a measure of the wholeness and intactness of the property's natural and/or cultural heritage and its attributes.

*** Although it may appear that there is a low risk of a significant impact, and that a referral may not be required, you may still choose to refer your proposed action. If you are uncertain about the need to refer then you can contact the Department to discuss your action by emailing epbc.referrals@environment.gov.au. NOTE: A permit may still be required under the *Environment Protection (Sea Dumping) Act 1981* and the *Great Barrier Reef Marine Park Act 1975* even if a referral under the EPBC Act is not required.

Risk is the chance of something happening that will have a [significant] impact on objectives [e.g. protecting matters of national environmental significance] (adapted from Australian / New Zealand Risk Management Standard ISO 31000:2009).

1. Outstanding Universal Value

a. What is Outstanding Universal Value?

World Heritage properties are matters of national environmental significance under the EPBC Act, and all World Heritage properties have Outstanding Universal Value.

The concept of 'Outstanding Universal Value' (often shortened to OUV) underpins the World Heritage Convention. The World Heritage Convention provides the basis for listing properties on the World Heritage List and protecting and managing World Heritage properties. Broadly, the meaning of Outstanding Universal Value follows the common sense interpretation of the words:

Outstanding: For properties to be of Outstanding Universal Value they should be exceptional or superlative: they should be the most remarkable places on earth.

Universal: Such properties need to be outstanding from a global perspective. World Heritage listing does not aim to recognise properties that are remarkable from solely a national or regional perspective.

Value: What makes a property outstanding universally is its 'value': its natural and/or cultural worth. This value is determined based on standards and processes in the *Operational Guidelines for the Implementation of the World Heritage Convention* (the Operational Guidelines).

The term Outstanding Universal Value is used repeatedly in the Operational Guidelines, where it is defined (in paragraph 49) as 'cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity'. Properties on the World Heritage List are considered an irreplaceable legacy deserving protection into the future.

For a property to be recognised as having Outstanding Universal Value and to be inscribed on the World Heritage List, it must:

- meet one or more of the 10 criteria for Outstanding Universal Value
- meet the conditions of integrity (for natural properties) or authenticity (for cultural properties) or both (for mixed natural and cultural properties)
- have an adequate system of protection and management to safeguard their future.

The Operational Guidelines recognise that 'no area is totally pristine and that all natural areas are in a dynamic state and to some extent involve contact with people' and that human activities 'may be consistent with the Outstanding Universal Value of the area where they are ecologically sustainable' (Operational Guidelines, paragraph 90).

For more information see the fact sheet 'Understanding World Heritage: What is Outstanding Universal Value?' available on the Department's website at http://www.environment.gov.au/system/files/resources/70d3290e-be32-4efa-93da-594948f5df9e/files/outstanding-values-factsheet.pdf.

b. Criteria for Outstanding Universal Value

The criteria for assessing whether cultural and natural heritage areas are of Outstanding Universal Value have evolved over time. However, the underlying concepts have remained stable.

Currently the Operational Guidelines specify that a World Heritage property must meet one or more of the following criteria:

(i) represent a masterpiece of human creative genius;

(ii) exhibit an important interchange of human values, over a span of time or within a cultural

area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

(iii) bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

(iv) be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

(v) be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

(vi) be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria);

(vii) contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;

(viii) be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features;

(ix) be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;

(x) contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation.

c. What is a Statement of Outstanding Universal Value and why is it important?

A Statement of Outstanding Universal Value is the official statement adopted by the World Heritage Committee outlining how, at the time of listing, the property met the criteria for Outstanding Universal Value, integrity and/or authenticity, and protection and management. A Statement of Outstanding Universal Value is either adopted by the Committee at the time of inscription of a property on the World Heritage List or, in the case of World Heritage properties inscribed before the need for a Statement of Outstanding Universal Value was mandated in 2005, written retrospectively and adopted by the Committee at a later date.

The primary purpose of a Statement of Outstanding Universal Value is to be 'the key reference for the future effective protection and management of the property' (Operational Guidelines, paragraph 51) and to provide the 'basis for future protection and management of the property' (Operational Guidelines, paragraph 155) by indicating the types of attributes that need to be protected to maintain its Outstanding Universal Value. The Statement of Outstanding Universal Value is also the benchmark against which the state of conservation of a World Heritage property is assessed by the World Heritage Committee.

d. What is integrity and why is it important?

In addition to meeting the criteria described in section b above, to be of Outstanding Universal Value a property must meet the conditions of integrity (natural properties), authenticity (cultural properties) or both integrity and authenticity (mixed natural and cultural properties). As the Great Barrier Reef World Heritage Area is inscribed on the World Heritage List as a natural property, these guidelines will not address authenticity.

The Operational Guidelines (paragraph 88) state that integrity is a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes.

Examining the condition of integrity therefore requires assessing the extent to which the property:

a) includes all elements necessary to express its Outstanding Universal Value

b) is of adequate size to ensure the complete representation of the features and processes that convey the property's significance

c) suffers from adverse effects of development and/or neglect.

e. Protection and management requirements

All properties inscribed on the World Heritage List must have adequate protection and management mechanisms in place. How a country chooses to protect and manage its properties can vary, so long as it does so effectively.

All Australian properties on the World Heritage List are 'declared World Heritage properties' under the EPBC Act.

It is important to note that:

- World Heritage values are protected as a matter of national environmental significance under Part 3 of the EPBC Act
- section 12(3) of the EPBC Act defines World Heritage values as 'the natural heritage and cultural heritage contained in the property'
- section 12(4) of the EPBC Act further defines cultural heritage and natural heritage as 'having the meaning given by the World Heritage Convention'; articles 1 and 2 of the World Heritage Convention define cultural and natural heritage of Outstanding Universal Value.

In most cases, both the Australian and state or territory governments are responsible for the management and protection of Australia's World Heritage properties, with state/territory agencies taking responsibility for on-ground management where relevant. Each property usually has state/territory legislation protecting it in addition to Commonwealth laws, primarily the EPBC Act. In the case of the Great Barrier Reef Marine Park, the *Great Barrier Reef Marine Park Act 1975* (Cth) is the primary Commonwealth legislation but is augmented by the EPBC Act. The Great Barrier Reef World Heritage Area was listed as a National Heritage place in 2007. National Heritage places are a matter of national environmental significance under Part 3 of the EPBC Act.

The Operational Guidelines state:

- 'Protection and management of World Heritage properties should ensure that their Outstanding Universal Value, including the conditions of integrity and/or authenticity at the time of inscription, are sustained or enhanced over time' (Operational Guidelines, paragraph 96)
- 'All properties inscribed in the World Heritage List must have adequate long-term legislative, regulatory, institutional and/or traditional protection and management to ensure their safeguarding' (Operational Guidelines, paragraph 97)
- 'The State Party and partners must ensure that such sustainable use does not adversely impact the Outstanding Universal Value, integrity and/or authenticity of the property' (Operational Guidelines, paragraph 119)
- 'The Statement of Outstanding Universal Value provides the basis for the future protection and management of the property' (Operational Guidelines, paragraph 155).

The Australian World Heritage management principles are set out in Schedule 5 of the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth). They cover matters relevant to the preparation of management plans, the environmental assessment of actions that may affect the property, and community consultation processes.

2. The Great Barrier Reef World Heritage Area

The Great Barrier Reef World Heritage Area is one of the world's largest World Heritage properties, extending approximately 2000 kilometres along the Queensland coast and covering approximately 348 000 km^2 of the north-east continental shelf.

The Great Barrier Reef World Heritage Area extends from just north of Fraser Island in the south up to the tip of Cape York Peninsula (see Figure 2 below). It includes areas from the low water mark on the mainland eastwards past the continental shelf and includes all islands and internal Queensland and Commonwealth waters.

The Great Barrier Reef Marine Park Authority Strategic Assessment Report explains how the boundary of the Great Barrier Reef World Heritage Area differs from the boundaries of the Great Barrier Reef Region and the Great Barrier Reef Marine Park.

The report states that:

- the Great Barrier Reef World Heritage Area includes all islands; all waters seaward of the low water mark, including some internal waters of Queensland; and all Marine Park exclusion areas adjacent to the Queensland coast (primarily designated port areas)
- the Great Barrier Reef Region does not include internal waters of Queensland or Queensland islands
- the Great Barrier Reef Marine Park does not include internal waters of Queensland, Queensland islands, or exclusion areas adjacent to the Queensland coast (primarily designated port areas).

Figure 2: Map of Great Barrier Reef Region, Marine Park and World Heritage Area

a. Inscription of the Great Barrier Reef on the World Heritage List

In 1981 the Great Barrier Reef was internationally recognised by the World Heritage Committee as having Outstanding Universal Value and was included on the World Heritage List.

The Great Barrier Reef was assessed as meeting all of the four natural World Heritage criteria in place at the time, as well as having integrity.

b. What is the Outstanding Universal Value of the Great Barrier Reef World Heritage Area?

The Outstanding Universal Value of the Great Barrier Reef World Heritage Area is defined by the Statement of Outstanding Universal Value adopted by the World Heritage Committee (see Attachment A).

Since the adoption of the Statement of Outstanding Universal Value in 2012, knowledge about the Reef has continued to grow; for example, we now know that there are 1050 islands, and 1625 fish species in the Great Barrier Reef World Heritage Area.

Further information relevant to understanding the Outstanding Universal Value of the Great Barrier Reef World Heritage Area, including studies on the attributes of Outstanding Universal Value, is available in section 6 of these guidelines.

c. Integrity of the Great Barrier Reef World Heritage Area

The Statement of Outstanding Universal Value recognises that:

> The ecological integrity of the Great Barrier Reef is enhanced by the unparalleled size and good state of conservation across the property. At the time of inscription it was felt that to include virtually the entire Great Barrier Reef within the property was the only way to ensure the integrity of the coral reef ecosystems in all their diversity.

When assessing the effects of a proposed action on the integrity of the Great Barrier Reef World Heritage Area, relevant considerations include potential impacts on the wholeness and intactness of the property and whether the action is likely to present a threat to its Outstanding Universal Value. This should include consideration of proposed reclamation, as the 2012 *Mission report: Reactive monitoring mission to Great Barrier Reef (Australia)* by the UNESCO World Heritage Centre and the International Union for the Conservation of Nature stated that 'continued reclamation is a specific concern in relation to integrity' and recommended that further consideration be given to the extent of reclamation within the boundaries of the property and its impact on the integrity of the property.

The Operational Guidelines (paragraph 90) state that for all properties nominated under criteria (vii)–(x), bio-physical processes and landform features should be relatively intact. The Operational Guidelines identify a corresponding condition of integrity under criteria (vii)–(x), as outlined below (Operational Guidelines, paragraphs 92–95).

- Properties proposed under **criterion (vii)** should include areas that are essential for maintaining the beauty of the property.
- Properties proposed under **criterion (viii)** should contain all or most of the key interrelated and interdependent elements in their natural relationships.
- Properties proposed under **criterion (ix)** should have sufficient size and contain the necessary elements to demonstrate the key aspects of processes that are essential for the long-term conservation of the ecosystems and the biological diversity they contain.
- Properties proposed under **criterion (x)** should be the most important properties for the conservation of biological diversity. Only those properties which are the most biologically diverse and/or representative are likely to meet this criterion. The

properties should contain habitats for maintaining the most diverse fauna and flora characteristic of the bio-geographic province and ecosystems under consideration.

d. What are the key attributes of the Great Barrier Reef World Heritage Area?

Examples of the key attributes that contribute to the Outstanding Universal Value of the Great Barrier Reef World Heritage Area are identified in the Statement of Outstanding Universal Value (see Attachment A) and are outlined below. It should be noted that attributes may not be expressed equally over the whole Great Barrier Reef World Heritage Area. It is also important to note that attributes representing Outstanding Universal Value can change over time as new information comes to light.

Criterion (vii) – 'contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance'

Examples of attributes that contribute to the Outstanding Universal Value of the Great Barrier Reef World Heritage Area in relation to this criterion include:

- superlative natural beauty above and below the water
- string of reef structures
- mosaic patterns of reefs, islands and coral cays that produce an unparalleled aerial panorama of seascapes
- green vegetated islands
- spectacular sandy beaches
- azure waters
- vast mangrove forests
- vegetated mountains
- lush rainforest gullies
- breeding colonies of seabirds and marine turtles
- green turtle breeding
- over-wintering butterflies
- coral assemblages of hard and soft corals
- thousands of species of reef fish
- coral spawning
- migrating whales
- nesting turtles
- significant spawning aggregations of many fish species.

Criterion (viii) – 'be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features'

Examples of attributes that contribute to the Outstanding Universal Value of the Great Barrier Reef World Heritage Area in relation to this criterion include:

- continental shelf
- flat-topped hills of eroded limestone
- continental islands
- coral cays
- new phases of coral growth
- old massive corals
- coral reef ecosystem
- inshore fringing reefs, mid-shelf reefs, and exposed outer reefs, including examples of all stages of reef development
- processes of geological and geomorphologic evolution
- unique and varied seascapes and landscapes
- continental slope
- deep oceanic waters
- abyssal plains.

Criterion (ix) – 'be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals'

Examples of attributes that contribute to the Outstanding Universal Value of the Great Barrier Reef World Heritage Area in relation to this criterion include:

- significant diversity of reef and island morphologies that reflects ongoing geomorphic, oceanographic and environmental processes
- cross-shelf, longshore and vertical connectivity
- coral reefs, sand banks and coral cays
- beds of *Halimeda* algae
- evolution of hard corals
- other fauna, including microfauna
- over 4000 species of molluscs and over 1500 species of fish, plus a great diversity of sponges, anemones, marine worms, crustaceans, and many others
- vegetation on the cays and continental islands
- important role of birds, such as the pied imperial pigeon, in processes such as seed dispersal and plant colonisation.

Cultural attributes

Although the Great Barrier Reef World Heritage Area is not inscribed on the World Heritage List under cultural criteria, the Statement of Outstanding Universal Value for the property acknowledges:

> Human interaction with the natural environment is illustrated by strong ongoing links between Aboriginal and Torres Strait Islanders and their sea-country, and includes numerous shell deposits (middens) and fish traps, plus the application of story places and marine totems.

It is important to note that many other important natural, cultural and Indigenous values of the Great Barrier Reef are protected under Australia's national environmental law, the EPBC Act, the *Great Barrier Reef Marine Park Act 1975* (Cth), and various other Commonwealth and Queensland (state) legislation. Cultural heritage values are considered to be a value of the Great Barrier Reef Marine Park and therefore protected as a matter of national environmental significance. For information on how to consider impacts on cultural heritage values under the Great Barrier Reef Marine Park trigger under the EPBC Act, contact the Great Barrier Reef Marine Park Authority on 07 4750 0700 or at info@gbrmpa.gov.au.

In addition, where Indigenous stakeholders are likely to be affected by a proposed action, the referral submitted to the Minister for consideration under the EPBC Act must describe any consultations undertaken with Indigenous stakeholders. The referral form also requires a description of the project area and the affected area, including information about the Indigenous heritage values potentially impacted.

Consideration of impacts on this aspect of the property should be guided by the principle that Indigenous people are the primary source of information on the value of their heritage and that active participation of Indigenous people in identification, assessment, management and use of Indigenous heritage places and values is integral to the effective protection of Indigenous heritage values. *Ask First: A guide to respecting Indigenous heritage places and values* provides practical guidance on engaging effectively with Indigenous people in this kind of process; it is available at http://www.environment.gov.au/resource/ask-first-guide-respecting-indigenous-heritage-places-and-values.

Criterion (x) – 'contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation'

Examples of attributes that contribute to the Outstanding Universal Value of the Great Barrier Reef World Heritage Area in relation to this criterion include:

- diversity supporting marine and terrestrial species (global conservation significance)
- coral reefs (400 species of corals in 60 genera)
- diversity of mangroves
- diversity of seagrass
- dugong
- species of whales
- species of dolphins
- humpback whale calving
- marine turtle
- green turtle breeding
- marine turtle rookeries
- 242 species of birds
- 22 seabird species breeding (cays and some continental islands have globally significant breeding sites)
- plant species diversity and endemism
- coral cays.

e. Current and potential threats to the Outstanding Universal Value of the Great Barrier Reef World Heritage Area

As current and potential threats can change over time, you should be aware that the following information is simply a summary of known threats at the time of publication.

There are a number of potential threats that should also be taken into account when considering whether to refer your proposed action. The known and potential threats include:

- land use change that contributes to sediment, nutrient and pesticide run-off to the property
- severe weather events, including floods and cyclones
- crown-of-thorns starfish outbreaks
- loss of physical and ecological connectivity between habitats
- altered hydrology and salinity
- barrier to hydrological flows
- modification of natural coastal and riverine processes
- habitat degradation and fragmentation
- shipping and boating incidents, including collisions with marine mammals and/or sea turtles
- poor water quality and pollution (for example from land-based erosion, dredging, run-off and waste discharge)
- marine debris and litter
- illegal fishing
- introduction of exotic plants and animals
- altered aesthetic environment
- increased human presence (for example disturbance of sea turtle and bird nesting sites through noise, direct harassment, lighting and increasing vessel traffic)
- the potential effects of climate change.

3. Impacts on the Outstanding Universal Value of the Great Barrier Reef World Heritage Area

a. Key considerations when determining whether your action is likely to have a significant impact

The Significant impact guidelines 1.1 define a significant impact as an impact that is important, notable or of consequence, having regard to its context or intensity. Whether an action is likely to have a significant impact may depend on the environmental context of the area, including relevant cumulative impacts, the sensitivity, value and quality of the affected environment; and the intensity, duration (temporal scale), magnitude and geographic extent (spatial scale) of the impacts.

To have a significant impact on a World Heritage property, it is not necessary for an action to impact on the whole of the property, all of the attributes of the property, or a whole attribute of the property. It is sufficient if an action is likely to have a significant impact on an attribute of a World Heritage property, that embodies, manifests, shows, or contributes to the Outstanding Universal Value and/or integrity of the property.

Subject to specified limited exceptions, 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 Outstanding Universal Value and/or integrity of a World Heritage property. You should consider all of these factors when determining whether an action is likely to have a significant impact on the attributes contributing to the Outstanding Universal Value of the Great Barrier Reef World Heritage Area.

An action is likely to have a significant impact on the Outstanding Universal Value of a World Heritage property if there is a real chance that, at the site of the action or elsewhere as a result of the action, it will:

- cause one or more of the attributes to be lost
- cause one or more of the attributes to be degraded or damaged
- cause one or more of the attributes to be notably altered, modified, obscured or diminished, or
- impact on the integrity of the property.

The significance of an impact also depends on the context of other developments: an apparently small impact may still have a significant impact if there are substantial cumulative effects. You will need to factor in existing and reasonably foreseeable prospective actions based on the present condition of the area and its attributes and/or integrity.

You should consider the direct, the indirect and any relevant cumulative impacts of your proposed action. For guidance on indirect consequences and defining an action, see:

- Guidance Note 3 – Definition of 'action': sections 523, 524 and 524A of the EPBC Act (http://www.environment.gov.au/resource/guidance-note-3-definition-action-section-523-section-524-and-section-524a-epbc-act)
- Guidance Note 5 – 'Indirect consequences' of an action: section 527E of the EPBC Act (http://www.environment.gov.au/resource/guidance-note-5-indirect-consequences-action-section-527e-epbc-act).

For information on the levels of impacts that are likely to be significant, see *Significant impact guidelines 1.1 – Matters of National Environmental Significance* (www.environment.gov.au/epbc/publications/nes-guidelines.html).

i. Attributes

You should consider the following questions in relation to impacts on attributes of Outstanding Universal Value when determining whether your proposed action has the potential to have a significant impact on the Outstanding Universal Value of the Great Barrier Reef World Heritage Area.

Criterion (vii)

Will the proposed action of itself, or in combination with other relevant impacts, result in loss or degradation of areas that are essential for maintaining the beauty of the property? (Operational Guidelines, paragraph 92)

For example, the unique, rare or superlative natural phenomena, formations or features or areas of exceptional natural beauty.

Criterion (viii)

Will the proposed action of itself, or in combination with other relevant impacts, impact on the key interrelated and interdependent elements in their natural relationships? (Operational Guidelines, paragraph 93)

For example, attributes that represent major stages of earth's evolutionary history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features.

Criterion (ix)

Will the proposed action of itself, or in combination with other relevant impacts, result in the loss of necessary elements that are essential for the long-term conservation of the area's ecosystems and biodiversity? (Operational Guidelines, paragraph 94)

For example, attributes representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.

Criterion (x)

Will the proposed action of itself, or in combination with other relevant impacts, result in the loss or degradation of habitats required for maintaining the diverse fauna and flora of the region? (Operational Guidelines, paragraph 95)

For example, those supporting threatened species of Outstanding Universal Value from the point of view of science or conservation.

ii. Integrity

You should consider the following questions in relation to impacts on the integrity of the Great Barrier Reef World Heritage Area when determining whether your proposed action has the potential to have a significant impact on the Outstanding Universal Value of the property. These questions are based on the components of integrity: **wholeness**, **intactness** and **threats**.

Wholeness

Will the proposed action of itself, or in combination with other relevant impacts, result in the loss of any elements necessary for the property to express its Outstanding Universal Value? (Operational Guidelines, paragraph 88(a))

Will the proposed action of itself, or in combination with other relevant impacts, reduce the size or change the boundary of the property? (Operational Guidelines, paragraph 88(b))

Will the proposed action of itself, or in combination with other relevant impacts, impact on any of the features and processes that convey its Outstanding Universal Value? (Operational Guidelines, paragraph 88(b))

Intactness

Will the proposed action of itself, or in combination with other relevant impacts, result in a 'greenfield' development or the fragmentation, loss and/or degradation of any ecological, physical or chemical processes or of the

key features, processes and attributes of the property that express its Outstanding Universal Value? (Operational Guidelines, paragraph 88(a))

Will the proposed action of itself, or in combination with other relevant impacts, impact on the key interrelated and interdependent attributes or their natural relationships within the property? (Operational Guidelines, paragraph 93)

Threats

Will the proposed action of itself, or in combination with other relevant impacts, result in increased adverse effects of development, neglect or any other degrading process? (Operational Guidelines, paragraph 88(c))

Will the proposed action of itself, or in combination with other relevant impacts, result in an increase in processes that may cause deterioration? (Operational Guidelines, paragraph 89)

b. Considerations for other matters of national environmental significance

In addition to impacts on the Outstanding Universal Value of the Great Barrier Reef World Heritage Area, you need to consider the potential for your action to have a significant impact on other matters of national environmental significance such as:

- Great Barrier Reef National Heritage Place
- Wetlands of International Importance (Shoalwater and Corio Bays Area and Bowling Green Bay Area)
- Listed threatened species and communities
- Listed migratory species
- Great Barrier Reef Marine Park
- Commonwealth Marine Area.

Many attributes of Outstanding Universal Value may also be matters of national environmental significance in their own right or be important habitat for matters of national significance. For example:

- Green turtles are a listed threatened species and a listed migratory species, as well as an attribute of Outstanding Universal Value.
- Seagrass meadows are an attribute of Outstanding Universal Value that provide important feeding habitat for listed threatened and listed migratory species.

For more information on matters of national environmental significance in the Great Barrier Reef Region see Chapter 4 of the Great Barrier Reef Region Strategic Assessment Report, available at http://www.environment.gov.au/topics/environment-protection/strategic-assessments/great-barrier-reef.

c. Examples of actions that may require a referral

Table 1 contains examples of actions (and associated impacts) that may have a significant impact on the Outstanding Universal Value of the Great Barrier Reef World Heritage Area. Actions encompass the whole of its life cycle, site preparation and construction, operation and maintenance, and closure and completion stages of a project, as well as alterations or modifications to existing infrastructure. The table provides examples only and is not exhaustive.

Table 1: Examples of possible significant impacts arising from actions/activities likely to occur in or adjacent to the Great Barrier Reef World Heritage Area[1]

Activity		Possible impacts
Coastal development	Includes urban, rural, tourism and/or industrial development	Coastal development may impact on feeding, breeding and refugia for many species; on coastal processes; and on connectivity between the marine and terrestrial environments. This may result from clearing or modifying coastal and marine habitats through reclamation, habitat degradation and fragmentation. Other associated impacts include loss of ecosystem function and changing hydrological processes leading to increased erosion that releases nutrients and sediments that may flow into the Great Barrier Reef World Heritage Area and affect water quality.
Coastal reclamation	May involve creation of new land for residential, commercial (including marinas) or industrial developments (including ports)	Coastal reclamation may alter the boundary of the World Heritage property, causing loss of marine habitats and affecting the quality of adjacent waters; alter ocean currents and erosion and deposition processes; impede natural drainage; alter groundwater levels; and expose acid sulfate soils.
Dredging	Includes capital and maintenance dredging[1] and is usually associated with port development, shipping channels, marinas, boat ramps, bridges, maintenance of river openings, and installation of infrastructure (cables, pipelines etc.)	Dredging may have direct effects on water quality and organisms in the Great Barrier Reef, and may cause species avoidance of breeding and feeding areas (from turbidity and noise). Dredging may also result in the direct removal of benthic habitat, e.g. seagrass.
Dredge material disposal	As above for dredging	Disposal and resuspension of dredged material may impact on water quality and smother and/or bury habitats and organisms; affect the structure and function of habitats, including reefs and seagrass meadows; and alter physical and biological processes.
Substantive land use change	May involve agricultural, silviculture and/or grazing activities, or changing from rural use to urban development	Substantive land use change may result in soil degradation; soil erosion; and the transport of eroded materials, fertilisers and pesticides to the Great Barrier Reef. Activities that involve substantive land use change to existing practices, such as intensification of activities or a change in land use that culminates in a change in water quality, may require referral under the EPBC Act.
Industrial developments	May involve factories, gas or minerals processing facilities and/or infrastructure	Industrial development may result in the clearing or modification of coastal habitats, coastal reclamation, increased shipping, and water quality impacts in the Great Barrier Reef.
Changes to natural water regime	May involve water infrastructure e.g. dams, weirs and other artificial barriers to riverine/estuarine flow	Changes to the natural water regime may result in altered natural environmental flow into the Great Barrier Reef affecting breeding, feeding and survival of marine species.

1 If a capital dredging proposal is likely to require consequential maintenance dredging, this should be included as part of the action referred to the Department, to ensure all impacts are adequately considered.

Activity		Possible impacts
Port development and/or expansion	May include construction of port infrastructure, coastal reclamation, dredging and dredge material disposal and resuspension	Port development and/or expansion may result in increased vessel traffic and associated risks such as ship groundings, discharge of ballast, and increases in vessel strike and displacement of turtles and marine mammals.
Transport infrastructure	This may include developments such as roads and railways	Transport infrastructure may result in changed hydrological process, loss of habitat, erosion, and increased run-off into the Great Barrier Reef; and indirect impacts such as increased shipping.
Aquaculture developments	Developments such as prawn, fish and oyster farms	Aquaculture developments may result in the discharge of high concentrations of suspended solids and nutrients with potential impacts on the water quality and other associated ecological processes of the Great Barrier Reef.
Mining and extractive industries	Includes construction, operation and/or expansion of mines, including coal seam gas proposals	Mining and extractive industries may result in direct and/or indirect impacts on the quality of water entering the Great Barrier Reef and on other associated ecological processes.
Residential and tourism developments	Includes terrestrial and/or marine-based residential and tourism developments both on the coastal zone and within the Great Barrier Reef Region	Residential and tourism developments may result in altered aesthetic value, increased human presence, loss or modification of habitat, impacts on marine wildlife and terrestrial species, and increased run-off into the Great Barrier Reef.
Shipping	Increased shipping usually associated with port development and/or expansion	While the Great Barrier Reef is one of the world's most regulated shipping areas, there is still potential for impacts from shipping operations. These include groundings of large vessels, with associated physical damage and pollution from anti-foulant paints, oil spills or chemical spoils; vessel strikes on wildlife; vessel-based waste discharge; introduction of exotic species through ballast discharge or marine debris; and impacts associated with ship anchorages such as disturbance to benthos, impacts to aesthetics etc.

Notes:

- The impacts associated with different phases of an action (e.g. construction, operation and maintenance, decommissioning) are likely to differ. All relevant impacts should be considered when submitting a referral to the Minister for consideration under the EPBC Act.
- 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. Should the proposal require assessment, all relevant impacts (including adverse and beneficial) will be considered at this stage.
- 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 attributes of the World Heritage property.

4. What to do if you determine your action is likely to have a significant impact

As the person proposing the action, it is your responsibility to decide whether to refer your action.

If you believe your action is or may be at risk of having a significant impact on the Outstanding Universal Value of the Great Barrier Reef World Heritage Area, you should refer the action to the Minister. Even if you think that your action will not have a significant impact on the Outstanding Universal Value of the Great Barrier Reef World Heritage Area, you may also refer it or contact the Department for advice. Where limited information is available on which to make an assessment of the impacts of a particular action, the Department recommends referring the action on a precautionary basis so potential issues can be addressed if necessary through the EPBC Act assessment process.

When referring a proposed action, you may wish to consider any feasible alternatives to the action – such as not taking the action, different timeframes, different locations or other activities.

Table 2 provides examples of actions that carry a high risk, uncertain risk or low risk of requiring referral to the Department. These are examples only; they are to be used as guidance and should not be taken as a comprehensive list. Other types of actions or impacts may constitute varying degrees of risk. In determining the potential significance of your action, the Department will consider the particular circumstances of your referral.

Table 2: Examples of actions with potential significant impact on the Outstanding Universal Value of the Great Barrier Reef World Heritage Area

High risk of significant impact: referral recommended
• Port development and/or expansion, e.g. reclamation, dredging, shipping. • Major tourism and/or residential development within (including islands) or adjacent to the Great Barrier Reef World Heritage Area, e.g. infrastructure involving clearing, marina facilities, golf courses. • Mining operations, dams and/or other infrastructure that may have downstream impacts on the Great Barrier Reef World Heritage Area. • Construction and/or large-scale expansion of marinas within (including Islands) or adjacent to the Great Barrier Reef World Heritage Area. • Substantive land use change in the catchments of the Great Barrier Reef World Heritage Area. • Development in largely or relatively undeveloped areas, especially where other associated infrastructure will be needed e.g. roads, sewerage, power and water. • Construction of new or large-scale renewal of existing infrastructure, e.g. roads, rail, power and water that can affect the hydrological process in and adjacent to the Great Barrier Reef World Heritage Area.
Uncertain risk of significant impact: referral recommended or contact the Department
• New tourism ventures or activities, particularly in areas already well serviced by existing tourism companies and facilities. • Tourism and/or residential development in potentially high-risk areas, e.g. coastal or floodplain areas where a water source flows into the Great Barrier Reef World Heritage Area. • Reconstruction and/or maintenance activities in or adjacent to the Great Barrier Reef World Heritage Area, e.g. sea walls and breakwaters that may impact on the marine environment.
Low risk of significant impact: referral may not be required
• Works conducted within previously cleared areas where actions will not result in increased run-off or additional pollution to the Great Barrier Reef World Heritage Area. • Construction and road projects where impacts on or alteration to hydrological processes are largely avoided and run-off is confined to the project area. • Telecommunication towers that do not impact on the aesthetic value of the Great Barrier Reef World Heritage Area.

Note:

- For detailed assistance in relation to whether, and in what circumstances, a selected sectoral activity is likely to have a significant impact on a matter of national environmental significance, see *Significant impact guidelines 1.1 – Matters of National Environmental Significance* (www.environment.gov.au/epbc/publications/nes-guidelines.html).

5. Considerations when reducing/ managing impacts on Outstanding Universal Value

When designing your proposed action, your principal aim should be to avoid impacts on the attributes of the Outstanding Universal Value, including integrity, of the Great Barrier Reef World Heritage Area.

Table 3 outlines examples of attributes of Outstanding Universal Value, potential actions that may impact on them, and considerations for reducing and/or managing impacts. It is not intended to be exhaustive or prescriptive.

Table 3: Considerations for reducing/managing impacts on Outstanding Universal Value

Outstanding Universal Value	Examples of attributes	Examples of actions that may have significant impact	Examples of types of considerations for reducing/managing impacts
Criterion (vii): contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance	• Superlative natural beauty above and below water • Mosaic patterns of reefs, islands and coral cays that produce unparalleled aerial panorama of seascapes • Azure waters **Marine** • String of reef structures • Coral assemblages of hard and soft corals • Thousands of species of reef fish • Coral spawning • Migrating whales • Significant spawning aggregations of many fish species • Breeding colonies of marine turtles **Terrestrial** • Green vegetated islands • Spectacular white sandy beaches • Vast mangrove forests • Vegetated mountains • Lush rainforest gullies • Over-wintering butterflies • Breeding colonies of seabirds • Green turtle breeding • Nesting turtles	• Coastal development • Coastal reclamation • Dredging • Dredge material disposal • Substantive land use change • Industrial developments • Port development and/or expansion • Transport infrastructure • Aquaculture developments • Residential and tourism developments • Shipping	**Visual impacts** • Project designed to reduce impacts on aesthetic values of the Great Barrier Reef World Heritage Area **Run-off/water quality** • Project designed in accordance with relevant water quality guidelines • Project designed in accordance with relevant dredging and dredge spoil disposal guidelines and plans such as the *National Assessment Guidelines for Dredging 2009* • Project designed to reduce impacts from marine construction • Oil spill contingency plans • Impacts from coal dust considered and reduced • Chemical spill emergency procedures • Project designed to reduce stormwater impacts • Sediment and erosion management plan • Vegetation buffers/wetlands to reduce direct run-off into the Great Barrier Reef World Heritage Area • Monitoring and thresholds for management actions • Acid sulfate soil management plan **Species management** • Measures to protect species of concern, including listed threatened and migratory species • Identification of avoidance strategies (spatial and temporal) • Speed limits and trigger thresholds to avoid vessel strike • Noise limits during construction and operation • Exclusion zones for construction • Educational material regarding potential impacts **Shipping** Established shipping protocols Plans and protocols covering collision and grounding

Outstanding Universal Value	Examples of attributes	Examples of actions that may have significant impact	Examples of types of considerations for reducing/managing impacts
Criterion (viii): be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features	**Reefal systems** • Coral cays • New phases of coral growth • Old massive corals • Coral reef ecosystem • Inshore fringing reefs, mid-shelf reefs, and exposed outer reefs, including examples of all stages of reef development **Other geomorphic attributes** • Continental shelf • Flat-topped hills of eroded limestone • Deep oceanic waters • Abyssal plains • Continental slope • Unique and varied seascapes and landscapes • Processes of geological and geomorphologic evolution • Continental islands	• Coastal development • Coastal reclamation • Dredging • Dredge material disposal • Substantive land use change • Industrial developments • Changes to the natural water regime • Port development and/or expansion • Transport infrastructure • Aquaculture developments • Mining and extractive industries • Residential and tourism developments • Shipping	• Run-off / water quality measures outlined above • Species management measures outlined above • Shipping measures outlined above **Invasive species** • Invasive species management • Quarantine measures • Ballast water management • Anti-fouling chemical management **Changes to the physical environment** • Measures to avoid/minimise physical damage to geomorphic or physiographic attributes • Measures to avoid/minimise physical change to the landscape/seascape that may lead to altered geological, hydrological or ecological processes

Outstanding Universal Value	Examples of attributes	Examples of actions that may have significant impact	Examples of types of considerations for reducing/managing impacts
Criterion (ix): be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals	• Significant diversity of reef and island morphologies reflects ongoing geomorphic, oceanographic and environmental processes • Cross-shelf, longshore and vertical connectivity **Marine** • Coral reefs, sand banks and coral cays • Beds of *Halimeda* algae • Evolution of hard corals • 4000 species of molluscs, over 1500 species of fish, plus great diversity of sponges, anemones, marine worms, crustaceans and many others • Other marine fauna including microfauna **Terrestrial** • Birds such as pied imperial pigeon in processes such as seed dispersal and plant colonisation • Vegetation on cays and continental islands • Other fauna including microfauna	• Coastal development • Coastal reclamation • Dredging • Dredge material disposal • Substantive land use change • Industrial developments • Changes to the natural water regime • Port development and/or expansion • Transport infrastructure • Aquaculture developments • Mining and extractive industries • Residential and tourism developments • Shipping	• Run-off / water quality measures outlined above • Invasive species measures outlined above • Species management measures outlined above • Changes to the physical environment measures outlined above • Shipping measures outlined above

Outstanding Universal Value	Examples of attributes	Examples of actions that may have significant impact	Examples of types of considerations for reducing/managing impacts
Criterion (x): contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation	• Diversity supports marine and terrestrial species (global conservation significance) **Terrestrial habitat diversity** • Plant species diversity and endemism **Marine habitat diversity** • Coral reefs (400 species of corals in 60 genera) • Coral cays • Diversity of mangroves • Diversity of seagrass • Marine species • Dugong • Species of whales • Species of dolphins • Humpback whale calving • Marine turtles **Terrestrial species** • Green turtle breeding • Marine turtle rookeries • 242 species of birds • 22 seabird species breeding (cays and some continental islands have globally significant breeding sites)	• Coastal development • Coastal reclamation • Dredging • Dredge material disposal • Substantive land use change • Industrial developments • Changes to the natural water regime • Port development and/or expansion • Transport infrastructure • Aquaculture developments • Mining and extractive industries • Residential and tourism developments • Shipping	• Run-off / water quality measures outlined above • Invasive species measures outlined above • Species management measures outlined above • Shipping measures outlined above • Changes to the physical environment measures outlined above

Outstanding Universal Value	Examples of attributes	Examples of actions that may have significant impact	Examples of types of considerations for reducing/managing impacts
Integrity: wholeness, intactness and threats	**Wholeness** • Unparalleled size • Scale of the Great Barrier Reef ecosystem **Intactness** • Integrity of the coral reef ecosystems in all their diversity • Property is largely intact and includes the fullest possible representation of marine ecological, physical and chemical processes from the coast to deep abyssal waters, enabling key interdependent attributes to exist in their natural relationships • Key ecological, physical and chemical processes essential for long-term conservation of marine and island ecosystems and their associated biodiversity occur outside property's boundaries **Protection from threats** • Good state of conservation across the property[2]	• Coastal development • Coastal reclamation • Dredging • Dredge material disposal • Substantive land use change • Industrial developments • Changes to the natural water regime • Port development and/or expansion • Transport infrastructure • Aquaculture developments • Mining and extractive industries • Residential and tourism developments • Shipping	• Aesthetic measures outlined above • Run-off / water quality measures outlined above • Invasive species measures outlined above • Species management measures outlined above • Changes to the physical environment measures outlined above • Shipping measures outlined above

Note:

Other EPBC Act policy statements and referral guidelines relevant to the Great Barrier Reef World Heritage Area that may assist you in submitting a referral to the Minister for consideration are available from the Department's website at **www.environment.gov.au/epbc/guidelines-policies.html.**

2 Overall the property is considered in be in a good state of conservation. However, there are a number of threats currently facing the property as a result of natural and human-related pressures.

6. Where can I find further information?

Research on Outstanding Universal Value

The Australian Government has funded research to better define the aesthetic (criterion vii) and geological values (criterion viii) of the property to improve management of these values.

The report *Defining the aesthetic values of the Great Barrier Reef World Heritage Area* identifies and maps aesthetic values of Outstanding Universal Value and analyses the sensitivity of those values to particular impacts.

The report *Geological and geomorphological features of Outstanding Universal Value in the Great Barrier Reef World Heritage Area* identifies geological and geomorphological attributes of Outstanding Universal Value that may not have been previously detailed and provides an overview of the pressures affecting those attributes.

These reports are available on the Department's website at http://www.environment.gov.au/sustainability/regional-development/gbr/index.html

The report *The Outstanding Universal Value of the Great Barrier Reef World Heritage Area* by Lucas et al. was prepared in 1997 to clarify the basis on which the Great Barrier Reef was inscribed on the World Heritage List. It is available on the Great Barrier Reef Marine Park Authority's website at http://www.gbrmpa.gov.au/__data/assets/pdf_file/0020/4907/Outstanding_value.pdf

Strategic assessment and program reports

In 2013–2014 the Great Barrier Reef Marine Park Authority and the Queensland Government undertook a comprehensive strategic assessment of the Great Barrier Reef Region and adjacent coastal zone.

Reports prepared for the comprehensive strategic assessment examine the Reef's values and how these values are being protected now and into the future, while enabling the sustainable development of the coastal zone. These reports include demonstration case studies intended to examine in finer detail impacts at a local/regional scale. They are available at http://www.environment.gov.au/topics/environment-protection/strategic-assessments/great-barrier-reef

Reef 2050 – Long Term Sustainability Plan

The Reef 2050 – Long Term Sustainability Plan will guide the protection and management of the Great Barrier Reef to 2050. The plan (which is still under development) will outline a strategic long-term approach to addressing key threats to the Reef. These include nutrient run-off from agricultural land, the damage to coral caused by crown-of-thorns starfish, and the protection of iconic species such as dugongs and turtles.

The plan will be informed by the outcomes of the comprehensive strategic assessment.

An information sheet describing the broad elements of the plan is available at http://www.environment.gov.au/system/files/pages/e166e5b7-bd7f-4bc5-9807-ba263e248632/files/gbr-ltsp-info-sheet_0.pdf

Great Barrier Reef Outlook Report

The Great Barrier Reef Outlook Report is a stocktake of the Great Barrier Reef, its management and its future. An outlook report is to be prepared by the Great Barrier Reef Marine Park Authority every five years and given to the Minister for tabling in both houses of the Australian Parliament.

The next outlook report is due to be submitted to the Minister for the Environment by 30 June 2014.

The Great Barrier Reef Outlook Report 2009 is available at http://elibrary.gbrmpa.gov.au/jspui/handle/11017/199

State Party Reports on the state of conservation of the Great Barrier Reef World Heritage Area

Australia has been working hard to address the issues raised in the World Heritage Committee's decisions and the recommendations of the joint monitoring mission that visited the Reef in March 2012.

On 1 February 2012, 2013 and 2014 Australia submitted detailed State Party Reports to the Committee outlining:

- the nature of the threats to the Reef
- what the Australian Government is doing to improve the management and resilience of the Reef
- how the Outstanding Universal Value of the property is being protected.

The reports demonstrate Australia's progress on a wide range of work including the Great Barrier Reef comprehensive strategic assessment and the development of the North-East Shipping Management Plan, as well as important research projects and ongoing adaptive management activities.

The State Party Reports on the state of conservation of the Great Barrier Reef World Heritage Area (Australia) for 2012, 2013 and 2014 are available at http://www.environment.gov.au/topics/heritage/heritage-places/world-heritage-list/gbr/more-information

The World Heritage Committee will consider the 2014 State Party Report at its 38th session in Doha, Qatar in June 2014.

One-stop shop for environmental approvals

The Australian Government is committed to delivering a 'one-stop shop' for environmental approvals that will accredit state planning systems under national environmental law, to create a single environmental assessment and approval process for nationally protected matters. The one-stop shop policy aims to simplify the approvals process for businesses, lead to swifter decisions and improve Australia's investment climate, while maintaining high environmental standards.

For more information, see http://www.environment.gov.au/topics/about-us/legislation/environment-protection-and-biodiversity-conservation-act-1999/one-stop

Additional information

For more information, see:

The Department's website: www.environment.gov.au/epbc/about/index.htm

The UNESCO World Heritage Centre's website: http://whc.unesco.org/en/list/154

The Great Barrier Reef Marine Park Authority's website: www.gbrmpa.gov.au

7. Glossary

TERM	MEANING
Action	Action is defined broadly in section 523 of the EPBC Act. It includes a project, a development, an undertaking, an activity or a series of activities, or an alteration of any of these things. A lawful continuation of an existing use is not an action. A decision by a government body to grant an authorisation (for example, a permit or licence) or to provide funding is not an action. 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.
Adverse effect	The term adverse effect is used in the Operational Guidelines. Paragraph 119 states that the 'State Party and its partners must ensure that such sustainable use or any other change does not impact adversely on the Outstanding Universal Value of the property'.
Cultural heritage	Section 12(4) of the EPBC Act defines cultural heritage as having the meaning given by the World Heritage Convention. Cultural heritage is defined in Article 1 of the World Heritage Convention as: **monuments:** architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of Outstanding Universal Value from the point of view of history, art or science; **groups of buildings:** groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of Outstanding Universal Value from the point of view of history, art or science; **sites:** works of man or the combined works of nature and man, and areas including archaeological sites which are of Outstanding Universal Value from the historical, aesthetic, ethnological or anthropological point of view.
Great Barrier Reef Marine Park	The Great Barrier Reef Marine Park is established under the *Great Barrier Reef Marine Park Act 1975* (Cth). See Figure 2. The Great Barrier Reef Marine Park was listed as a matter of national environmental significance by amendments to the EPBC Act that commenced on 25 November 2009.
Great Barrier Reef World Heritage Area	The Great Barrier Reef World Heritage Area as included on the World Heritage List is protected as a matter of national environmental significance under the EPBC Act. See Figure 2.
Greenfield development	Development on an area of previously undeveloped land or in a previously undisturbed area.
Integrity	Paragraph 88 of the Operational Guidelines defines integrity as a measure of the wholeness and intactness of the natural and/or cultural heritage and its attributes. Examining the conditions of integrity therefore requires assessing the extent to which the property: a) includes all elements necessary to express its Outstanding Universal Value b) is of adequate size to ensure the complete representation of the features and processes which convey the property's significance c) suffers from adverse effects of development and/or neglect.

TERM	MEANING
International Union for the Conservation of Nature	The International Union for the Conservation of Nature is an advisory body to the World Heritage Committee. Its mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.
Matter of national environmental significance	There are nine matters of national environmental significance under the EPBC Act: • World Heritage properties • National Heritage places • wetlands of international importance (listed under the Ramsar Convention) • listed threatened species and ecological communities • listed migratory species • Commonwealth marine areas • the Great Barrier Reef Marine Park • nuclear actions (including uranium mines) • a water resource, in relation to coal seam gas development and large coal mining development. A proposed action that is likely to have or will have a significant impact on the environment on Commonwealth land, or that is undertaken by a Commonwealth agency, is also regulated by the EPBC Act.
Minister	The Commonwealth Minister responsible for the *Environment Protection and Biodiversity Conservation Act 1999*.
Natural heritage	Section 12(4) of the EPBC Act defines natural heritage as having the meaning given by the World Heritage Convention. Natural heritage is defined in Article 2 of the World Heritage Convention as: **natural features** consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view; **geological and physiographical formations** and precisely delineated areas which constitute the habitat of threatened species of animals and plants of Outstanding Universal Value from the point of view of science or conservation; **natural sites** or precisely delineated natural areas of Outstanding Universal Value from the point of view of science, conservation or natural beauty.
Operational Guidelines	The *Operational Guidelines for the Implementation of the World Heritage Convention* (Operational Guidelines) aim to facilitate the implementation of the World Heritage Convention. They are available at http://whc.unesco.org/archive/opguide13-en.pdf.
Outstanding Universal Value	Outstanding Universal Value is the central idea of the World Heritage Convention. The Operational Guidelines (paragraph 49) define Outstanding Universal Value as cultural and/or natural significance that is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity.

TERM	MEANING
Significant impact	Subject to limited specified exceptions, under the EPBC Act an action will require approval by the Minister if the action has, will have or is likely to have a significant impact on a matter of national environmental significance. A significant impact is an impact that is important, notable or of consequence, having regard to its context or intensity. Whether an action is likely to have a significant impact depends on the sensitivity, value, and quality of the environment that is impacted, and on 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.
State Party / States Parties	A State Party is a country that is a signatory to the World Heritage Convention. States Parties identify and nominate properties on their national territory to be considered for inscription on the World Heritage List; have the responsibility to protect the Outstanding Universal Value of the properties inscribed and report periodically on their condition to the World Heritage Committee; contribute to the World Heritage Fund annually; attend sessions of the World Heritage Committee; and designate a national World Heritage focal point.
Statement of Outstanding Universal Value	A Statement of Outstanding Universal Value is the official statement adopted by the World Heritage Committee at the time of inscription of a property on the World Heritage List. When the World Heritage Committee agrees to inscribe a property on the World Heritage List, it also agrees on a Statement of Outstanding Universal Value that encapsulates why the property is considered to be of Outstanding Universal Value; how it satisfies the relevant criteria and the conditions of integrity and (for cultural properties) authenticity; and how it meets the requirements for protection and management to sustain Outstanding Universal Value in the long term. For World Heritage properties inscribed before the need for a Statement of Outstanding Universal Value was mandated in 2005, the Statement of Outstanding Universal Value is written retrospectively and adopted by the Committee at a later date.
UNESCO World Heritage Centre	The UNESCO World Heritage Centre provides secretariat support to the World Heritage Committee and is the focal point and coordinator for all matters related to World Heritage. For information on the UNESCO World Heritage Centre, see http://whc.unesco.org/.
World Heritage Committee	The World Heritage Committee is responsible for the World Heritage Convention, allocating financial assistance from the World Heritage Fund and deciding whether a property is inscribed on the World Heritage List. It examines reports on the state of conservation of World Heritage properties and decides on the inscription of properties on the List of World Heritage in Danger and the deletion of properties from the World Heritage List. For information on the UNESCO World Heritage Committee, see http://whc.unesco.org/en/committee/.
World Heritage Convention	The Convention Concerning the Protection of the World Cultural and Natural Heritage 1972 (the World Heritage Convention) aims to promote cooperation among nations to protect heritage around the world that is of such Outstanding Universal Value that its conservation is important for current and future generations. The World Heritage Convention is available at http://whc.unesco.org/archive/convention-en.pdf.
World Heritage List	A list of properties forming part of the cultural heritage and natural heritage as defined in articles 1 and 2 of the World Heritage Convention. The list is established, kept up to date and published by the World Heritage Committee. It is available at http://whc.unesco.org/en/list/.
World Heritage property	A property on t**he World Heritage List. Such properties** are also variously referred to as World Heritage sites, World Heritage places and World Heritage areas.
World Heritage attributes	World Heritage attributes are specific elements or features of a World Heritage property that contribute to its Outstanding Universal Value. They collectively link to one or more criteria for World Heritage listing. See section 2d of these guidelines for more information.

Attachment A – Statement Of Outstanding Universal Value

Australian Government
Department of Sustainability, Environment, Water, Population and Communities

United Nations Educational, Scientific and Cultural Organization

World Heritage in Australia

Statement Of Outstanding Universal Value

Great Barrier Reef

Property Id 154

Brief synthesis

As the world's most extensive coral reef ecosystem, the Great Barrier Reef is a globally outstanding and significant entity. Practically the entire ecosystem was inscribed as World Heritage in 1981, covering an area of 348,000 square kilometres and extending across a contiguous latitudinal range of 14o (10oS to 24oS). The Great Barrier Reef (hereafter referred to as GBR) includes extensive cross-shelf diversity, stretching from the low water mark along the mainland coast up to 250 kilometres offshore. This wide depth range includes vast shallow inshore areas, mid-shelf and outer reefs, and beyond the continental shelf to oceanic waters over 2,000 metres deep.

Within the GBR there are some 2,500 individual reefs of varying sizes and shapes, and over 900 islands, ranging from small sandy cays and larger vegetated cays, to large rugged continental islands rising, in one instance, over 1,100 metres above sea level. Collectively these landscapes and seascapes provide some of the most spectacular maritime scenery in the world.

The latitudinal and cross-shelf diversity, combined with diversity through the depths of the water column, encompasses a globally unique array of ecological communities, habitats and species. This diversity of species and habitats, and their interconnectivity, make the GBR one of the richest and most complex natural ecosystems on earth. There are over 1,500 species of fish, about 400 species of coral, 4,000 species of mollusk, and some 240 species of birds, plus a great diversity of sponges, anemones, marine worms, crustaceans, and other species. No other World Heritage property contains such biodiversity. This diversity, especially the endemic species, means the GBR is of enormous scientific and intrinsic importance, and it also contains a significant number of threatened species. At time of inscription, the IUCN evaluation stated "… if only one coral reef site in the world were to be chosen for the World Heritage List, the Great Barrier Reef is the site to be chosen".

Criterion (vii): The GBR is of superlative natural beauty above and below the water, and provides some of the most spectacular scenery on earth. It is one of a few living structures visible from space, appearing as a complex string of reefal structures along Australia's northeast coast.

From the air, the vast mosaic patterns of reefs, islands and coral cays produce an unparalleled aerial panorama of seascapes comprising diverse shapes and sizes. The Whitsunday Islands provide a magnificent vista of green vegetated islands and spectacular sandy beaches spread over azure waters. This contrasts with the vast mangrove forests in Hinchinbrook Channel, and the rugged vegetated mountains and lush rainforest gullies that are periodically cloud-covered on Hinchinbrook Island.

On many of the cays there are spectacular and globally important breeding colonies of seabirds and marine turtles, and Raine Island is the world's largest green turtle breeding area. On some continental islands, large aggregations of over-wintering butterflies periodically occur.

Beneath the ocean surface, there is an abundance and diversity of shapes, sizes and colours; for example, spectacular coral assemblages of hard and soft corals, and thousands of species of reef fish provide a myriad of brilliant colours, shapes and sizes. The internationally renowned Cod Hole near Lizard Island is one of many significant tourist attractions. Other superlative natural phenomena include the annual coral spawning, migrating whales, nesting turtles, and significant spawning aggregations of many fish species.

Criterion (viii): The GBR, extending 2,000 kilometres along Queensland's coast, is a globally outstanding example of an ecosystem that has evolved over millennia. The area has been exposed and flooded by at least four glacial and interglacial cycles, and over the past 15,000 years reefs have grown on the continental shelf.

During glacial periods, sea levels dropped, exposing the reefs as flat-topped hills of eroded limestone. Large rivers meandered between these hills and the coastline extended further east. During interglacial periods, rising sea levels caused the formation of continental islands, coral cays and new phases of coral growth. This environmental history can be seen in cores of old massive corals.

Today the GBR forms the world's largest coral reef ecosystem, ranging from inshore fringing reefs to mid-shelf reefs, and exposed outer reefs, including examples of all stages of reef development. The processes of geological and geomorphological evolution are well represented, linking continental islands, coral cays and reefs. The varied seascapes and landscapes that occur today have been moulded by changing climates and sea levels, and the erosive power of wind and water, over long time periods.

One-third of the GBR lies beyond the seaward edge of the shallower reefs; this area comprises continental slope and deep oceanic waters and abyssal plains.

Criterion (ix): The globally significant diversity of reef and island morphologies reflects ongoing geomorphic, oceanographic and environmental processes. The complex cross-shelf, longshore and vertical connectivity is influenced by dynamic oceanic currents and ongoing ecological processes such as upwellings, larval dispersal and migration.

Ongoing erosion and accretion of coral reefs, sand banks and coral cays combine with similar processes along the coast and around continental islands. Extensive beds of Halimeda algae represent active calcification and accretion over thousands of years.

Biologically the unique diversity of the GBR reflects the maturity of an ecosystem that has evolved over millennia; evidence exists for the evolution of hard corals and other fauna. Globally significant marine faunal groups include over 4,000 species of molluscs, over 1,500 species of fish, plus a great diversity of sponges, anemones, marine worms, crustaceans, and many others. The establishment of vegetation on the cays and continental islands exemplifies the important role of birds, such as the Pied Imperial Pigeon, in processes such as seed dispersal and plant colonisation.

Human interaction with the natural environment is illustrated by strong ongoing links between Aboriginal and Torres Strait Islanders and their sea-country, and includes numerous shell deposits (middens) and fish traps, plus the application of story places and marine totems.

Criterion (x): The enormous size and diversity of the GBR means it is one of the richest and most complex natural ecosystems on earth, and one of the most significant for biodiversity conservation. The amazing diversity supports tens of thousands of marine and terrestrial species, many of which are of global conservation significance.

As the world's most complex expanse of coral reefs, the reefs contain some 400 species of corals in 60 genera. There are also large ecologically important inter-reefal areas. The shallower marine areas support half the world's diversity of mangroves and many seagrass species. The waters also provide major feeding grounds for one of the world's largest populations of the threatened dugong. At least 30 species of whales and

dolphins occur here, and it is a significant area for humpback whale calving.

Six of the world's seven species of marine turtle occur in the GBR. As well as the world's largest green turtle breeding site at Raine Island, the GBR also includes many regionally important marine turtle rookeries.

Some 242 species of birds have been recorded in the GBR. Twenty-two seabird species breed on cays and some continental islands, and some of these breeding sites are globally significant; other seabird species also utilize the area. The continental islands support thousands of plant species, while the coral cays also have their own distinct flora and fauna.

Integrity

The ecological integrity of the GBR is enhanced by the unparalleled size and current good state of conservation across the property. At the time of inscription it was felt that to include virtually the entire Great Barrier Reef within the property was the only way to ensure the integrity of the coral reef ecosystems in all their diversity.

A number of natural pressures occur, including cyclones, crown-of-thorns starfish outbreaks, and sudden large influxes of freshwater from extreme weather events. As well there is a range of human uses such as tourism, shipping and coastal developments including ports. There are also some disturbances facing the GBR that are legacies of past actions prior to the inscription of the property on the World Heritage list.

At the scale of the GBR ecosystem, most habitats or species groups have the capacity to recover from disturbance or withstand ongoing pressures. The property is largely intact and includes the fullest possible representation of marine ecological, physical and chemical processes from the coast to the deep abyssal waters enabling the key interdependent elements to exist in their natural relationships.

Some of the key ecological, physical and chemical processes that are essential for the long-term conservation of the marine and island ecosystems and their associated biodiversity occur outside the boundaries of the property and thus effective conservation programs are essential across the adjoining catchments, marine and coastal zones.

Protection and management requirements

The GBR covers approximately 348,000 square kilometres. Most of the property lies within the GBR Marine Park: at 344,400 square kilometres, this Federal Marine Park comprises approximately 99% of the property. The GBR Marine Park's legal jurisdiction ends at low water mark along the mainland (with the exception of port areas) and around islands (with the exception of 70 Commonwealth managed islands which are part of the Marine Park). In addition the GBR also includes over 900 islands within the jurisdiction of Queensland, about half of which are declared as 'national parks', and the internal waters of Queensland that occur within the World Heritage boundary (including a number of long-established port areas).

The World Heritage property is and has always been managed as a multiple-use area. Uses include a range of commercial and recreational activities. The management of such a large and iconic world heritage property is made more complex due to the overlapping State and Federal jurisdictions. The Great Barrier Reef Marine Park Authority, an independent Australian Government agency, is responsible for protection and management of the GBR Marine Park. The Great Barrier Reef Marine Park Act 1975 was amended in 2007 and 2008, and now provides for "the long term protection and conservation .of the Great Barrier Reef Region" with specific mention of meeting "... Australia's responsibilities under the World Heritage Convention."

Queensland is responsible for management of the Great Barrier Reef Coast Marine Park, established under the Marine Parks Act 2004 (Qld). This is contiguous with the GBR Marine Park and covers the area between low and high water marks and many of the waters within the jurisdictional limits of Queensland. Queensland is also responsible for management of most of the islands.

The overlapping jurisdictional arrangements mean that the importance of complementary legislation and

complementary management of islands and the surrounding waters is well recognised by both governments. Strong cooperative partnerships and formal agreements exist between the Australian Government and the Queensland Government. In addition, strong relationships have been built between governments and commercial and recreational industries, research institutions and universities. Collectively this provides a comprehensive management influence over a much wider context than just the marine areas and islands.

Development and land use activities in coastal and water catchments adjacent to the property also have a fundamental and critical influence on the values within the property. The Queensland Government is responsible for natural resource management and land use planning for the islands, coast and hinterland adjacent to the GBR. Other Queensland and Federal legislation also protects the property's Outstanding Universal Value addressing such matters as water quality, shipping management, sea dumping, fisheries management and environmental protection.

The Federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) provides an overarching mechanism for protecting the World Heritage values from inappropriate development, including actions taken inside or outside which could impact on its heritage values. This requires any development proposals to undergo rigorous environmental impact assessment processes, often including public consultation, after which the Federal Minister may decide, to approve, reject or approve under conditions designed to mitigate any significant impacts. A recent amendment to the EPBC Act makes the GBR Marine Park an additional 'trigger' for a matter of National Environmental Significance which provides additional protection for the values within the GBR.

The GBR Marine Park and the adjoining GBR Coast Marine Park are zoned to allow for a wide range of reasonable uses while ensuring overall protection, with conservation being the primary aim. The zoning spectrum provides for increasing levels of protection for the 'core conservation areas' which comprise the 115,000 square kilometres of 'no-take' and 'no-entry' zones within the GBR.

While the Zoning Plan is the 'cornerstone' of management and provides a spatial basis for determining where many activities can occur, zoning is only one of many spatial management tools and policies applied to collectively protect the GBR. Some activities are better managed using other spatial and temporal management tools like Plans of Management, Special Management Areas, Agreements with Traditional Owners and permits (often tied to specific zones or smaller areas within zones, but providing a detailed level of management not possible by zoning alone). These statutory instruments also protect the Outstanding Universal Value of the property.

Many Aboriginal and Torres Strait Island peoples undertake traditional use of marine resource activities to provide traditional food, practice their living maritime culture, and to educate younger generations about traditional and cultural rules and protocols. In the GBR these activities are managed under both Federal and Queensland legislation and policies including Traditional Use of Marine Resource Agreements (TUMRAs) and Indigenous Land Use Agreements (ILUAs). These currently cover some 30 per cent of the GBR inshore area, and support Traditional Owners to maintain cultural connections with their sea country.

Similarly non-statutory tools like site management and Industry Codes of Practice contribute to the protection of World Heritage values. Some spatial management tools are not permanently in place nor appear as part of the zoning, yet achieve effective protection for elements of biodiversity (e.g. the temporal closures that are legislated across the GBR prohibit all reef fishing during specific moon phases when reef fish are spawning).

Other key initiatives providing increased protection for the GBR include the comprehensive Great Barrier Reef Outlook Report, (and its resulting 5-yearly reporting process); the Reef Water Quality Protection Plan; the GBR Climate Change Action Plan; and the Reef Guardians Stewardship Programs which involve building relationships and working closely with those who use and rely on the GBR or its catchment for their recreation or their business.

The 2009 Outlook Report identified the long-term challenges facing the GBR; these are dominated by climate change over the next few decades. The extent and persistence of damage to the GBR ecosystem will depend to a large degree on the amount of change in the world's climate and on the resilience of the GBR ecosystem to such change. This report also identified continued declining water quality from land-based sources, loss of coastal habitats from coastal development, and some impacts from fishing, illegal fishing and poaching as the other priority issues requiring management attention for the long-term protection of the GBR.

Emerging issues since the 2009 Outlook Report include proposed port expansions, increases in shipping activity, coastal development and intensification and changes in land use within the GBR catchment; population growth; the impacts from marine debris; illegal activities; and extreme weather events including floods and cyclones.

Further building the resilience of the GBR by improving water quality, reducing the loss of coastal habitats and increasing knowledge about fishing and its effects and encouraging modified practices, will give the GBR its best chance of adapting to and recovering from the threats ahead, including the impacts of a changing climate.

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