

GREAT BARRIER REEF INTERGOVERNMENTAL AGREEMENT 2015

An agreement between:

- **The Commonwealth of Australia; and**
- **The State of Queensland**

relating to the protection and management of the Great Barrier Reef

Signed *for and on behalf of the
Commonwealth of Australia by*

The Honourable Tony Abbott MP
Prime Minister of the Commonwealth of Australia

Signed *for and on behalf of the State of
Queensland by*

The Honourable Anastacia Palaszczuk
Premier of the State of Queensland

Aboriginal and Torres Strait Islander peoples
are the Traditional Owners of the Great Barrier Reef area
and have a continuing connection to their land
and sea country

PREAMBLE

The Commonwealth and Queensland Governments have long demonstrated their commitment to working together collaboratively for the long-term protection and conservation of the Great Barrier Reef ecosystem, to ensure it is preserved as an important feature of the nation's and the world's heritage. The Emerald Agreement formalised this cooperative approach in 1979 and a series of collaborative arrangements has evolved over time. The *Great Barrier Reef Intergovernmental Agreement 2009* was established to provide a contemporary framework for cooperation between the governments, recognising challenges that were not foreseen at the time of the 1979 Agreement. With the development of the Reef 2050 Long-Term Sustainability Plan (Reef 2050 Plan), the Commonwealth and Queensland governments agreed on a vision for the future and renewed their commitment to protecting the Great Barrier Reef World Heritage Area including its Outstanding Universal Value. This agreement establishes these arrangements, clearly articulating objectives, respective functions and accountabilities.

The Great Barrier Reef and its Outstanding Universal Value

The Great Barrier Reef is the world's largest coral reef ecosystem and an Australian and international icon. The diverse range of habitat types and extraordinary biodiversity make the Great Barrier Reef one of the richest, most complex natural systems on earth. The area has significant environmental as well as social, economic and cultural values and plays an important role in the local, regional and national economies.

The Great Barrier Reef comprises a complex network of bioregions that interconnect with the adjacent onshore coastal and catchment ecosystems. These transcend jurisdictional boundaries and encompass overlapping areas of responsibility. Moreover, many of the major pressures on the Great Barrier Reef ecosystem are from outside the marine environment and encompass social and economic considerations on the land.

The Great Barrier Reef was internationally recognised in 1981 as being of Outstanding Universal Value with its inscription on the World Heritage List, under the Convention Concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention), as:

- containing superlative natural phenomena
- an outstanding example representing major stages of the earth's history, including significant landforms and physiographic features

- an outstanding example of significant on-going ecological and biological processes in the evolution of marine and coastal ecosystems
- containing the most important natural habitats for in-situ conservation of biological diversity, including threatened species
- having integrity, including the fullest possible representation of marine ecological, physical and chemical processes
- having long-term protection and conservation in place

As a party to the World Heritage Convention, Australia has a duty to ensure the protection, conservation, presentation and transmission of the Great Barrier Reef World Heritage Area for current and future generations and must do all it can to this end, to the utmost of its resources (Article 4). The approach the Australian and Queensland governments are taking to the protection and management of the Great Barrier Reef World Heritage Area will ensure that its Outstanding Universal Value is sustained or enhanced over time (*Operational Guidelines for the Implementation of the World Heritage Convention*, paragraph 96).

The Great Barrier Reef World Heritage Area covers an area of 348 000 square kilometres and is also included in the National Heritage List established under the *Environment Protection and Biodiversity Conservation Act 1999*.

Jurisdictional Framework

The Commonwealth is responsible for the management of the Great Barrier Reef Marine Park, established under the *Great Barrier Reef Marine Park Act 1975* within the Great Barrier Reef Region. The Great Barrier Reef Marine Park extends over 2 300 kilometres along the Queensland coastline and covers approximately 344 400 square kilometres. The Great Barrier Reef Marine Park generally extends over Queensland State coastal waters to the low-water mark, and, under the 1979 Offshore Constitutional Settlement, vesting of title and powers over these coastal waters is subject to the operation of the *Great Barrier Reef Marine Park Act 1975*.

Queensland is responsible for the management of the Great Barrier Reef Coast Marine Park, covering approximately 63 000 square kilometres, which is established under the *Marine Parks Act 2004* (Qld). This is contiguous with the Great Barrier Reef Marine Park and covers the area between low and high water marks and many waters within the limits of the State of Queensland.

There are around 1050 islands and cays within the boundaries of the Great Barrier Reef Marine Park. The majority of the islands fall within the jurisdiction of Queensland and almost half of these are national parks under the *Nature Conservation Act 1992* (Qld). There are around 70 islands that are owned by the Commonwealth and form part of the Marine Park.

The Queensland Great Barrier Reef Coast Marine Park and the Queensland island national parks form part of the Great Barrier Reef World Heritage Area.

Queensland and the Commonwealth both have responsibilities relating to fisheries in the Great Barrier Reef World Heritage Area under the *Fisheries Management Act 1991* (Cth) the *Fisheries Act 1994* (Qld) and the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

Development and land use activities in coastal and water catchment areas adjacent to the Great Barrier Reef World Heritage Area are an important influence on the World Heritage values of the Area.

The Queensland Government is responsible for natural resource management, land use planning and regulation of activities on the islands, coast and hinterland adjacent to the Great Barrier Reef World Heritage Area including through the *Sustainable Planning Act 2009*, *Environmental Protection Act 1994*, *Marine Parks Act 2004*, the *Nature Conservation Act 1992* and the *Coastal Protection and Management Act 1995*. The Commonwealth Government is responsible, under the *Environment Protection and Biodiversity Conservation Act 1999* for regulating activities having or likely to have a significant impact on matters of ‘national environmental significance’ as defined by the Act, and on the environment within Commonwealth land and waters.

The Great Barrier Reef Region, as defined under the *Great Barrier Reef Marine Park Act 1975*, has the same external dimensions as the Great Barrier Reef World Heritage Area, including Queensland State coastal waters up to the low water mark, but excludes islands or parts of islands that form a part of Queensland and waters ‘within the limits’ of Queensland (Schedule A).

OBJECTIVES

The parties agree that the objective of this agreement is to ensure an integrated and collaborative approach by the Commonwealth and Queensland to the management of marine and land environments within and adjacent to the Great Barrier Reef World Heritage Area, so as to:

- provide for the long-term protection and conservation of the environment of the Great Barrier Reef ecosystem, including its Outstanding Universal Value and its transmission in good condition to future generations
- allow ecologically sustainable use of the Great Barrier Reef ecosystem subject to the overarching objective of long-term protection and conservation
- provide for meeting Australia's international responsibilities for the Great Barrier Reef World Heritage Area under the World Heritage Convention.

In order to achieve these objectives, the Commonwealth and Queensland reaffirm their ongoing commitment to:

- the vision of the Reef 2050 Plan, to ensure that the Great Barrier Reef continues to improve on its Outstanding Universal Value every decade between now and 2050 to be a natural wonder for each successive generation
- prohibit activities for the exploration and recovery of minerals or petroleum, and any drilling and mining within the Great Barrier Reef World Heritage Area, including for the purposes of depositing materials
- maintain complementarity and improve the efficiency and effectiveness of relevant Commonwealth and Queensland management arrangements, in particular: marine park legislation and associated regulations; zoning plans and plans of management; planning and development arrangements; environmental assessment and permit requirements; management of fishing activities
- prohibit the sea-based disposal of capital dredge material in the Great Barrier Reef Marine Park and in the balance of the Great Barrier Reef World Heritage Area from port-related capital dredging
- ensure that decisions deliver a net benefit to the ecosystem
- continue a Commonwealth/Queensland Ministerial Forum to facilitate implementation and achievement of the objectives of this agreement
- continue a joint program of field management, with shared funding on a 50:50 basis, for the Great Barrier Reef Marine Park and Queensland marine and national parks within the Great Barrier Reef World Heritage Area
- continue joint action to halt and reverse the decline in quality of water entering the Great Barrier Reef

- continue joint action to maximise the resilience of the Great Barrier Reef to climate change
- ensure the ongoing protection, restoration and management of key ecosystems critical to Reef health
- address significant threats to the health and biodiversity of the Great Barrier Reef ecosystem, including pollution from the land and sea, the impacts of climate change, ecologically unsustainable fishing activities and other resource extraction activities
- periodically review the condition of the environment of the Great Barrier Reef ecosystem, including its Outstanding Universal Value and any need for further action
- ensure that Indigenous traditional cultural practices continue to be recognised in the conservation and management of the Great Barrier Reef.

GUIDING PRINCIPLES

The Commonwealth and Queensland recognise the following guiding principles, and agree to apply them in implementing this agreement:

- A collaborative and cooperative approach is fundamental to the effective long-term protection, conservation and management of the Great Barrier Reef as this is beyond the power and remit of either jurisdiction
- The precautionary principle will be applied to protecting the environmental, World Heritage and National Heritage values of the Great Barrier Reef including its Outstanding Universal Value
- The marine and land environments within and adjacent to the Great Barrier Reef World Heritage Area will be managed in an integrated manner consistent with ecosystem-based management and the principles of ecologically sustainable use
- Economic growth and the long-term health of the Great Barrier Reef ecosystem are interconnected, and actions or changes in one can impact on the other and must be taken into account, in particular:
 - population growth and economic development increases the demand for resource and recreational use of the Great Barrier Reef
 - land-use activities in the catchment, and urban development can have adverse impacts on the quality of water entering the Great Barrier Reef

- regulation of activities that exploit marine resources, measures for protection of marine parks, or initiatives to reduce external pressures on the ecosystem can have regional and local social and economic effects, and improve the long term viability of the region
- Trends in the health, use of and risks to the environment of the Great Barrier Reef ecosystem, including its Outstanding Universal Value will be regularly monitored and reported to ensure decisions are soundly based
- Co-ordinated long-term monitoring and research and the collection and sharing of marine-based biological, physical, social and economic data is fundamental
- Regular, periodic review of the resources necessary for the long-term management of the marine and national parks within the Great Barrier Reef World Heritage Area will be undertaken
- Initiatives should be delivered through a concerted response across all levels of government with shared funding arrangements for joint Commonwealth-State initiatives agreed on a case-by-case basis.

GREAT BARRIER REEF MINISTERIAL FORUM

The Ministerial Forum will consist of four members:

- The Commonwealth Minister responsible for administering the *Great Barrier Reef Marine Park Act 1975*, who is the Chairperson
- One Commonwealth Minister appointed by the Prime Minister
- Two Queensland Ministers appointed by the Queensland Premier.

Ministers appointed to the Forum must have responsibility for matters relating to the environment and marine parks and may include ministers with responsibility for science, tourism and/or natural resource management.

Ministers responsible for mining may not be members of the Forum.

Role

The role of the Ministerial Forum is a strategic one, to facilitate and oversee the implementation and achievement of the objectives of this agreement. The Forum will:

- provide a forum for joint policy development and coordination in relation to issues affecting the protection, conservation, management and use of the Great Barrier Reef ecosystem as encompassed by the Great Barrier Reef World Heritage Area
- further the collaboration and coordination of regulatory and management activities applying to the marine and national parks within the Great Barrier Reef World Heritage Area, in particular fishing and island management
- ensure an integrated, ecosystem-based approach to management of land and marine environments with a bearing on the management and protection of the Great Barrier Reef ecosystem, including actions to address:
 - the quality of water entering the Great Barrier Reef from the catchments
 - the impacts of climate change
 - the management and regulation of fishing activities
 - the impacts of changes in land use in the coastal and catchment areas
 - the impacts of extractive use of resources
 - the management of direct use
 - the management of cumulative pressures on the Great Barrier Reef World Heritage Area
- periodically consider the condition of the environment of the Great Barrier Reef ecosystem, including its Outstanding Universal Value, and the long-term trends and risks based on the Great Barrier Reef Outlook Report and the Reef Water Quality Protection Plan Report Cards
- ensure successful implementation of the Reef 2050 Plan, including consideration of the effectiveness of actions to achieve targets as part of an adaptive management approach
- periodically consider the allocation of resources required for field management of the marine parks and island national parks within the Great Barrier Reef World Heritage Area and implementation of the Reef 2050 Plan
- advise the Prime Minister and the Queensland Premier on the five-yearly Great Barrier Reef Outlook Report prepared under the *Great Barrier Reef Marine Park Act 1975*
- review periodically the operation of the agreement and the extent to which the objectives have been achieved
- undertake other functions as agreed by governments from time to time with respect to this agreement.

SCHEDULES TO THIS AGREEMENT

Schedules may be appended to this agreement from time to time, recording detailed commitments of governments directed at giving effect to this agreement. Commitments detailed in the schedules must be consistent with this agreement. The Ministerial Forum may add, remove and amend schedules to this agreement, with the exception of Schedule A.

Table of Schedules

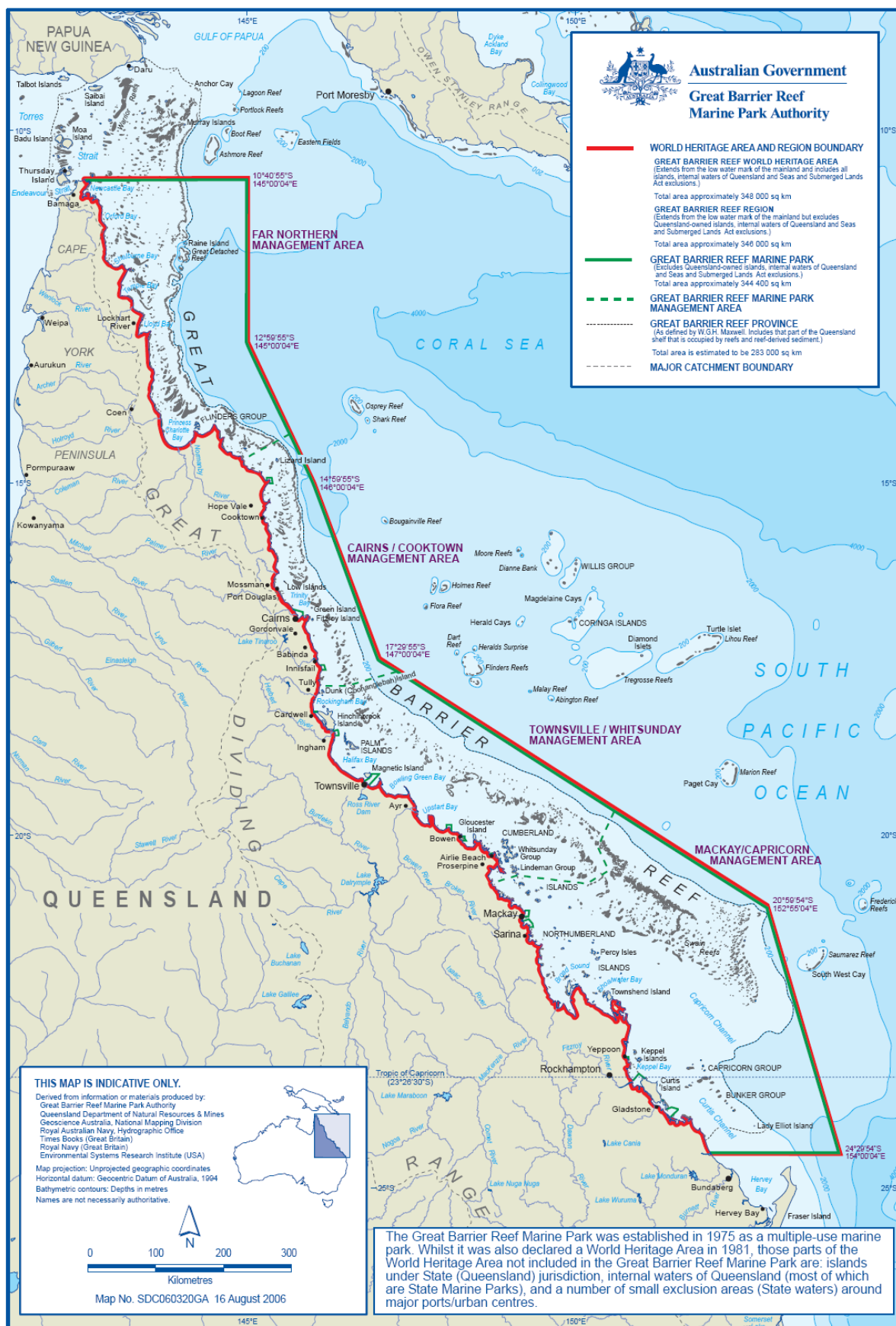
- A The Great Barrier Reef Region and World Heritage Area
- B Protocols for the Operation of the Great Barrier Reef Ministerial Forum
- C Joint Field Management Program for the Great Barrier Reef Marine Park and Queensland national and marine parks within the Great Barrier Reef World Heritage Area
- D Climate Change and the Great Barrier Reef
- E Fishing and Collection of Fisheries Resources in the Great Barrier Reef World Heritage Area
- F [Reef Water Quality Protection Plan 2013](#) [no word version available]
- G Reef 2050 Long-Term Sustainability Plan

THE GREAT BARRIER REEF WORLD HERITAGE AREA

As inscribed on the World Heritage List established by the *Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972*

The area the boundary of which:

- (a) commences at the point that, at low water, is the northernmost extremity of Cape York Peninsula Queensland;
- (b) runs thence easterly along the geodesic to the intersection of parallel of Latitude 10° 41' South with meridian of Longitude 145° 00' East;
- (c) runs thence southerly along that meridian to its intersection by the parallel of Latitude 13°00' South;
- (d) runs thence south-easterly along the geodesic to a point of Latitude 15° 00' South Longitude 146° 00' East;
- (e) runs thence south-easterly along the geodesic to a point of Latitude 17° 30' South Longitude 147° 00' East;
- (f) runs thence south-easterly along the geodesic to a point of Latitude 21° 00' South Longitude 152° 55' East;
- (g) runs thence south-easterly along the geodesic to a point of Latitude 24° 30' South Longitude 154° 00' East;
- (h) runs thence westerly along the parallel of Latitude 24° 30' South to its intersection by the coastline of Queensland at low water; and
- (i) runs thence generally northerly along that coastline at low water to the point of commencement.



PROTOCOLS FOR THE OPERATION OF THE GREAT BARRIER REEF MINISTERIAL FORUM

The *Great Barrier Reef Intergovernmental Agreement 2015* made between the Commonwealth of Australia and the State of Queensland provides for the ongoing operation of the Great Barrier Reef Ministerial Forum and sets out the purpose, role, functions and membership of the Forum.

These protocols deal with the operation of the Ministerial Forum and are consistent with the [Handbook for COAG Councils](#).

Operation of the Ministerial Forum

The Ministerial Forum must meet annually and may meet more often where there is a clearly demonstrated need. Otherwise, out-of-session arrangements should apply.

Meetings should generally be located in capital cities. However, the Ministerial Forum may choose to hold meetings in or adjacent to the Great Barrier Reef World Heritage Area when field inspection may assist consideration of the matters to be discussed. Meetings may be held by video conference by agreement.

Where Ministers are unable to attend a meeting, they may, with the approval of the Ministerial Forum, nominate a representative to attend on their behalf, including with voting rights. The Ministerial Forum may co-opt other Ministers onto the Forum, with voting rights, in relation to particular issues. Other Ministers may also attend as observers, with the approval of the Ministerial Forum.

Wherever possible, the Chair will give at least six weeks notice of any meeting. The Chair will also invite agenda items at this time.

Final papers will be distributed to Ministers three weeks prior to the scheduled meeting. Additional papers will be considered by agreement.

The Forum may consider papers out-of-session. A record of these decisions will be maintained by the Secretariat. These decisions will be formally noted at the next full meeting of the Forum.

A quorum for a meeting of the Great Barrier Reef Ministerial Forum shall be one member from each of the Commonwealth and Queensland governments.

Decisions of the Ministerial Forum are made by unanimous agreement.

Reporting

The outcome of each meeting will comprise a Record of Decisions for the information of Ministers and officials. The Ministerial Forum may issue information statements/press releases, from time to time, which are authorised by the Forum and which summarise decisions.

The Ministerial Forum will report annually to the Prime Minister and the Premier of Queensland on the operation of the Ministerial Forum, with a substantive assessment on the

implementation of the Great Barrier Reef Intergovernmental Agreement (IGA) every five years.

Documentation / Confidentiality

All documents prepared for the Ministerial Forum, including drafts, Working Group documents, agendas, papers, outcome documents and reports are to be treated as confidential and not made publicly available unless the Ministerial Forum decides otherwise for specific papers or disclosure is required by law.

Standing Committee of Officials

The Ministerial Forum will be supported by a Standing Committee comprising senior officials from the departments of members of the Ministerial Forum, as well as from the Great Barrier Reef Marine Park Authority and Queensland Department of the Premier and Cabinet, and other relevant government departments. The Standing Committee will be chaired by an official from the Department of the chair of Ministerial Forum.

Senior officials of other Commonwealth and Queensland departments and agencies may be co-opted onto the Standing Committee from time to time by agreement of Standing Committee members.

The role of the Standing Committee is to assist and advise the Forum in the performance of its functions and the exercise of its powers, in particular to:

- identify and assess strategic matters requiring joint policy development or coordination, relating to the long-term protection and conservation of the environment of the Great Barrier Reef ecosystem, including its Outstanding Universal Value and provide advice to the Ministerial Forum on any actions required
- provide advice to the Ministerial Forum on the Great Barrier Reef Outlook Report prepared under the *Great Barrier Reef Marine Park Act 1975*
- provide advice to the Ministerial Forum on Joint Field Management Program reports
- be responsible for advice to the Ministerial Forum on the implementation of agreed actions to halt and reverse the decline in quality of water entering the Great Barrier Reef
- perform the functions of the intergovernmental operational committee outlined in the Reef 2050 Plan and provide an annual report to the Ministerial Forum on the implementation of the Plan
- implement decisions of the Ministerial Forum as are assigned to it by the Ministerial Forum
- track, and report to the Ministerial Forum on implementation of the Ministerial Forum's decisions
- provide advice every five years to the Ministerial Forum on the implementation of the *Great Barrier Reef Intergovernmental Agreement 2015*.

The Standing Committee will consider and provide direction to the Secretariat on the agenda and papers for the Ministerial Forum meetings. The Standing Committee will convene as required to perform its functions.

The Standing Committee may establish Working Groups as needed for particular tasks. Any Working Group will exist only for the period required to complete and report on clearly articulated matters.

Secretariat

The Secretariat for the Ministerial Forum and Standing Committee will be provided by the portfolio department of the Chair of the Ministerial Forum.

The Secretariat is responsible for supporting the Chair, the Ministerial Forum and Standing Committee by:

- arranging all matters relating to the business of the Ministerial Forum meetings, including venue, time, invitations, and associated activities
- coordinating the preparation and circulation of meeting agenda and papers
- maintaining records of decisions made by the Ministerial Forum
- maintaining copies of all agendas, papers, minutes, outcome documents and reports.

The Secretariat will liaise with and provide information to the COAG Secretariat as required on behalf of the Ministerial Forum. This includes provision of a record of decisions and an annual report. All correspondence for the Ministerial Forum and the Standing Committee should be directed to the Secretariat for the Ministerial Forum.

The Secretariat will also support the Standing Committee, including its functions as the intergovernmental operations committee, and any Working Groups that may from time to time be formed.

Secretariat contact details:

Great Barrier Reef Ministerial Forum Secretariat
Department of the Environment
GPO Box 787 Canberra ACT 2601
GBRMCsecretariat@environment.gov.au

**JOINT FIELD MANAGEMENT PROGRAM FOR
THE GREAT BARRIER REEF MARINE PARK AND
QUEENSLAND NATIONAL AND MARINE PARKS WITHIN
THE GREAT BARRIER REEF WORLD HERITAGE AREA**

An agreement between

The Commonwealth of Australia

and

The State of Queensland

PREAMBLE

The *Great Barrier Reef Intergovernmental Agreement 2009* (the *Intergovernmental Agreement*) records the commitment of the Commonwealth and Queensland governments to the integrated and collaborative management of marine and land environments with the aim of maintaining ecological processes, biodiversity and functioning biological communities of the Great Barrier Reef ecosystem and its transmission in good health to future generations.

As a key means of achieving this objective, the Intergovernmental Agreement provides for the continuance of a joint Commonwealth and Queensland government program of field management, with shared funding on a 50:50 basis, for the Great Barrier Reef Marine Park and Queensland marine and national parks within the Great Barrier Reef World Heritage Area.

This agreement sets out arrangements for the continued development, funding and administration of an ongoing Joint Field Management Program in accordance with the Intergovernmental Agreement and the *Great Barrier Reef Marine Park Act 1975* (Cth), and for the delivery of the program by Queensland agencies, the Great Barrier Reef Marine Park Authority (the Authority) and other Commonwealth agencies.

The Authority is responsible for the administration of the joint funding provided by the parties under this agreement through the Great Barrier Reef Field Management Special Account (Special Account) established by the *Great Barrier Reef Marine Park Act 1975*.

The co-operative approach to day-to-day management by the Commonwealth and Queensland governments has evolved through a series of agreements since 1979. This agreement updates these arrangements and in so doing replaces the:

- Basis of Agreement between the Commonwealth and Queensland Governments for Day-to-Day Management of the Great Barrier Reef Marine Park Capricornia Section, endorsed by the Ministerial Council for the Great Barrier Reef on 1 August 1980.
- The agreement relating to day-to-day management made between the Commonwealth and Queensland governments, with the Great Barrier Reef Marine Park Authority as an additional party, on 10 May 1988 (generally referred to as the Main Agreement)
- The *Great Barrier Reef Intergovernmental Agreement 2009* and its Schedule C
- Schedule C of the *Great Barrier Reef Intergovernmental Agreement 2015* which this agreement updates.

This agreement is not intended to create legal relations between the parties, with the exception of the Deed of Agreement made between the Commonwealth and Queensland governments and the Authority on 10 May 1988 at Attachment A to this Schedule. The parties agree that this Deed needs to be reviewed and undertake to do so within 12 months of the execution of this agreement.

1. Joint Field Management Program

The Commonwealth and Queensland governments agree to cooperatively plan, fund and deliver an integrated, strategically planned and co-ordinated program of field management of marine and national parks within the Great Barrier Reef World Heritage Area.

The Joint Field Management Program will relate only to activities and investments within or for the purposes of, the Great Barrier Reef Marine Park (including Commonwealth Islands), and Queensland marine and national parks (or parts thereof) that are within the Great Barrier

Reef World Heritage Area, unless otherwise agreed. This may include where activities overlap both World Heritage Area and adjacent state waters.

The Joint Field Management Program may cover annual operational expenses, salaries, maintenance and replacement of capital equipment, and minor capital investment required to implement the Program, as set out in the Field Management Business Strategy, associated plans and budgets.

The Commonwealth and Queensland governments agree to provide ongoing base funding (recurrent and capital) for this Joint Field Management Program shared on a 50:50 basis. The contributions by both parties under this agreement will be administered by the Authority through the Special Account established under the *Great Barrier Reef Marine Park Act 1975*.

The Joint Field Management Program operational activities will be delivered through the Authority, Queensland government agencies, and other Commonwealth agencies or providers. Joint oversight of the Program will be through the Field Management Strategy Group established for this purpose.

Each agency is responsible, separately to the Joint Field Management Program, for planning, policy development, administration and permit assessment activities related to its own legislation. Notwithstanding this, joint permit and planning activities may be covered by the Joint Field Management Program, as set out in Field Management Business Strategies, Annual Business Plan, associated plans and budgets.

The Joint Field Management Program will be directed at achieving the following outcomes for the Great Barrier Reef Marine Park and Queensland marine and national parks within the Great Barrier Reef World Heritage Area:

- Protection and conservation of the natural and cultural resources, including Outstanding Universal Value.
- Protection of key vulnerable species, their habitats and ecosystems.
- Effective compliance with relevant Commonwealth and Queensland laws related to protection and management of the environmental and cultural values, including through education and understanding.
- Effective permitting systems and associated operational policies under relevant Commonwealth and Queensland laws related to protection and management of the environmental and cultural values.
- Ecologically sustainable public use.
- Understanding and enjoyment of Great Barrier Reef World Heritage Area natural and cultural resources and values by the public.
- Effective engagement of Traditional Owners in management.
- Increasing the effectiveness of the program and the efficient use of resources through the use of technology, analysis of data and the monitoring of trends, including for scientific, biological, recreational and commercial matters.
- Capacity to respond to environmental incidents, including through coordinated clean up and rehabilitation programs.

2. Field Management Strategy Group

The Field Management Strategy Group will be responsible for:

- oversight and implementation of the Joint Field Management Program;

- advising the Authority and the Queensland Department of National Parks, Sport and Racing on the operation of the Joint Field Management Program; and
- preparation of the five-year Field Management Business Strategy, associated plans and budgets.

The Field Management Strategy Group will be jointly chaired by a Senior Executive from the Authority and the Queensland Department of National Parks, Sport and Racing.

The Field Management Strategy Group will comprise relevant Senior Executives from the Authority, the Queensland Department of National Parks, Sport and Racing and the Queensland Department of the Premier and Cabinet and as agreed by the joint Chairs, senior managers with direct responsibility for field management activities of marine and national parks within the Great Barrier Reef World Heritage Area.

The functions of the Field Management Strategy Group will be:

- developing the planning, budget, financial and performance reporting documents for the Joint Field Management Program, including:
 - the five year Field Management Business Strategy;
 - an Annual Business Plan including a budget; and
 - an Annual Report.
- monitoring and adjusting the delivery of the Joint Field Management Program as required to meet agreed priorities;
- undertaking a comprehensive review of the field management arrangements, delivery and performance of the program every five years;
- if requested, prepare a major capital investment plan for consideration by the Great Barrier Reef Ministerial Forum as part of the five-yearly periodic review of the program. This plan will include replacement or addition of large vessels and other high cost capital items;
- providing a forum to coordinate resolution of issues of significance to the Joint Field Management Program; and
- establishing working groups as required to support the implementation of this agreement and the administration and delivery of the Joint Field Management Program.

3. Field Management Business Strategy

The Field Management Business Strategy will cover a five-year rolling period and be directed at achieving the outcomes of the Joint Field Management Program specified in this agreement and will comprise the Joint Field Management Program priorities, high level strategies and outcomes for the whole of the five year period, a brief summary of forward budgets figures for the next five years, and performance indicators for monitoring, evaluating and reporting on the Joint Field Management Program over this period.

4. Annual Business Plan

The Annual Business Plan will convey operational strategies, outputs and activities for the forthcoming year, details of the proposed expenditure, information on the agencies and operational units that will be responsible for delivering the Joint Field Management Program and the tasks assigned to each.

5. Approval of the Field Management Business Strategy and associated plans and budgets

The Field Management Business Strategy and Annual Business Plan provides the basis for the allocation and distribution of funds by the Authority and the Queensland Department of National Parks Sport and Racing under the Joint Field Management Program.

The Field Management Business Strategy and Annual Business Plans will be approved by the Chairperson¹ of the Authority and the Director-General of the Department of National Parks Sport and Racing.

6. Annual Report

An Annual Report on the implementation of the Annual Business Plan will be provided to the Authority and the Queensland Department of National Parks Sport and Racing as soon as practicable after the end of the financial year and will include:

- reporting against the performance indicators set out in the Field Management Business Strategy and associated plans;
- a statement of expenditure and operational activities/inputs applied under the Joint Field Management Program for that year, with reference to the Annual Business Plan;
- an identification of capital expenditure and assets held;
- identification of any emerging issues that may require consideration in updating the Business Strategy; and
- any other requirements as set out in guidelines that have been developed for this purpose.

7. Annual Summary Report on the Joint Field Management Program

An Annual Summary Report on the implementation of this agreement will be prepared by the Authority in conjunction with the Queensland Department of National Parks, Sport and Racing and provided to the Great Barrier Reef Ministerial Forum. The report will include operational and capital expenditure and an assessment of performance in the delivery of the outcomes of the Joint Field Management Program.

8. Periodic Review Report

The Intergovernmental Agreement provides that a function of the Great Barrier Reef Ministerial Forum is to periodically consider the effective allocation of resources required for field management of the marine and national parks within the Great Barrier Reef World Heritage Area.

¹ The Chairperson for the Authority is also the Chief Executive Officer for the purposes of the Public Governance, Performance and Accountability Act 2013 (Cth).

Every five years, or a shorter period if agreed, the Authority, in conjunction with the Queensland Department of National Parks, Sport and Racing, will provide a report and advice to the Great Barrier Reef Ministerial Forum on the outcomes of the Field Management Program encompassing:

- the comprehensive review undertaken by the Field Management Strategy Group;
- an evaluation of performance of the Joint Field Management Program against the specified outcomes; and
- advice on the resources, investments and arrangements needed for effective and efficient field management of the marine and national parks within the Great Barrier Reef World Heritage Area for the following five years and in the longer term.

9. Delivery of the Joint Field Management Program

Field management operations under the Joint Field Management Program will be assigned to Commonwealth and Queensland agencies and other providers as determined by the Field Management Strategy Group, in accordance with the Field Management Business Strategy and Annual Business Plan.

Operations and investments undertaken pursuant to the Joint Field Management Program will be carried out in accordance with:

- this agreement and the relevant Field Management Business Strategy, Annual Business Plan, and their associated policies, intents and priorities;
- the *Great Barrier Reef Marine Park Act 1975 (Cth)*, *Marine Parks Act 2004 (Qld)* and *Nature Conservation Act 1992 (Qld)*, *Public Governance, Performance and Accountability Act 2013 (Cth)* and other relevant Commonwealth and State legislation; and
- management guidelines, business rules and other arrangements developed by the Field Management Strategy Group.

10. Base Funding

The parties agree to provide ongoing base funding (recurrent and capital) on a 50:50 basis, with the contribution considered as matching over a five year period.

The parties are separately responsible for appropriation by the Commonwealth and Queensland Parliaments of the base funding for the Joint Field Management Program as agreed under the Field Management Business Strategy, and will take reasonable steps to secure this funding.

The distribution of base funding in any given year is in accordance with the Annual Business Plan.

A periodic review of base funding will be considered by the Great Barrier Reef Ministerial Forum on a five-yearly basis, or a shorter period if agreed by the Ministerial Forum. The parties may agree to vary base funding including through indexing to the consumer price index or other price parameter index agreed by the parties following this review.

Base funding may be subject to periodic supplementation, to address changing operational needs and provide for major capital investments such as vessel replacement or upgrade or construction of facilities.

11. Discretionary additional funding contributions

Either party may contribute funds to the Joint Field Management Program for a particular year or years in addition to its share of the agreed base operational and/or capital funding and these will be expended in accordance with the Field Management Business Strategy. This does not oblige the other party to match the additional funds.

Either party may undertake actions and make capital investments related to field management of marine and national parks within their jurisdiction separate to the Joint Field Management Program. Such additional activities and investments should seek to complement the Joint Field Management Program.

12. In-kind contributions

The Joint Field Management Program in the Great Barrier Reef World Heritage Area will be supported through in-kind contributions from a range of Commonwealth and Queensland government agencies who undertake field management and compliance activities to address their own areas of responsibility. The planning and delivery of the Joint Field Management Program will be coordinated with those agencies to ensure the most cost efficient and effective delivery of services.

13. Revenue derived through the Joint Field Management Program

Revenues collected in accordance with the *Great Barrier Reef Marine Park Act 1975* and Regulations in the course of activities undertaken pursuant to the Joint Field Management Program will be paid to the Authority and do not form a part of Joint Field Management Program funds.

Revenues collected in accordance with the *Queensland Marine Parks Act 2004*, *Nature Conservation Act 1992* and *Recreation Areas Management Act 2006* in the course of activities undertaken pursuant to the Joint Field Management Program will be paid to the Queensland Government and do not form a part of Joint Field Management Program funds.

All other revenue derived from implementation of the Joint Field Management Program and the use or disposal of the assets and fixtures of the Joint Field Management Program will be treated in accordance with the Deed of Agreement between the parties at Attachment A to this schedule. This provides for the sharing of revenue derived from implementation of the Joint Field Management Program and the use or disposal of the assets and fixtures of the Joint Field Management Program.

14. Funds not spent in relevant Financial Year

Funds allocated to the Joint Field Management Program in a particular financial year that are not spent in that year must be made available for reallocation within the Joint Field Management Program and will be carried forward to the following financial year(s).

15. Administration of money and assets

The base funding contributions by both parties for the Joint Field Management Program will be credited to the Special Account established under the *Great Barrier Reef Marine Park Act 1975*. The funds will be expended by the Authority in accordance with the agreed Field Management Annual Plan, which is an agreement made under paragraph 7(1)(cc) of the *Great Barrier Reef Marine Park Act 1975* for the purposes of Part VII, Division 1 of that Act.

These funds will be provided on an as-needs basis and credited to the Special Account as and when those funds are made available to the Authority.

The Joint Field Management Program funds will be deposited in a bank account established and managed by the Authority in accordance with the requirements of the *Public Governance, Performance and Accountability Act 2013 (Cth)*.

Assets and fixtures acquired or otherwise made available under the Joint Field Management Program will be managed in accordance with the Deed of Agreement at Attachment A to this Schedule.

16. Payments from the Special Account

Each agency or other provider receiving funding to perform functions under the Joint Field Management Program will enter into a Memorandum of Understanding, service agreement or contract for the provision of those services and functions specifying:

- the outputs and activities to be delivered;
- the funding to be allocated;
- the resources, agencies and operational units responsible for performing specified activities; and
- the performance indicators for monitoring, evaluating and reporting on the delivery of the outputs and activities identified.

Payments to instrumentalities and other providers performing functions and activities under the Joint Field Management Program will be made by the Authority on receipt of an invoice prepared in accordance with the terms of the service-level agreement, Memorandum of Understanding or contract for that agency or other provider.

All money paid directly or indirectly to an agency or other provider pursuant to this agreement must be expended in accordance with this agreement, the relevant Field Management Annual Plan and the relevant service-level agreement, Memorandum of Understanding or contract for that agency or other provider.

Unless otherwise agreed, any money paid to an agency or other provider pursuant to this agreement but not spent in the financial year for which it is provided must be made available to the Authority for reallocation by the Field Management Strategy Group in the following financial year.

17. Reporting and Audit

Commonwealth and Queensland government instrumentalities receiving payments under the Joint Field Management Program must maintain proper accounts and records of their transactions and affairs.

Expenditure of funds allocated and received by the Authority for the Joint Field Management Program will be reported by the Authority in accordance with the requirements of the *Public Governance, Performance and Accountability Act 2013* (Cth).

The Queensland Government instrumentalities will prepare financial statements on monies received for submission to the Authority, through the Field Management Strategy Group, as soon as practicable after the end of each financial year.

The financial statements must be in a form approved by the Commonwealth Minister responsible for the *Public Governance, Performance and Accountability Act 2013*.

The Queensland Government must submit the financial statements to the Queensland Auditor-General for certification having regard to the Australian Audit Standards and the requirements of this agreement.

18. Dispute resolution

Disputes arising in the implementation of this agreement and the Field Management Business Strategy should, as far as practicable, be determined by the Field Management Strategy Group, with decisions affirmed by the Authority Chairman and the Director-General, Queensland Department of National Parks Sport and Racing, or by the Great Barrier Reef Ministerial Forum as appropriate.

19. Review, Amendment and Revocation of this Agreement

This agreement may be amended at any time by resolution of the Great Barrier Reef Ministerial Forum.

Either party may terminate this agreement by notice in writing to the other party. Unless otherwise agreed, termination does not take effect until one year after notification is received.

DEED OF AGREEMENT

between

THE COMMONWEALTH OF AUSTRALIA

and

THE STATE OF QUEENSLAND

and

THE GREAT BARRIER REEF
MARINE PARK AUTHORITY

K. M. O'Shea,
Crown Solicitor,
State Law Building,
George & Ann Streets,
BRISBANE

J014-09K

DEED OF AGREEMENT made

this day of one thousand nine hundred and eighty eight

BETWEEN

THE COMMONWEALTH OF AUSTRALIA ("the Commonwealth") of the first part, THE STATE OF QUEENSLAND ("the State") of the second part AND THE GREAT BARRIER REEF MARINE PARK AUTHORITY ("the Authority") of the third part.

WHEREAS

- A. Section 30 of the *Great Barrier Reef Marine Park Act 1975* ("the Act") provides that there shall be a Marine Park consisting of such areas in the Great Barrier Reef region as are, for the time being, declared under Section 31 of the Act to be parts of that Marine Park,
- B. The Authority was established by the Act with responsibility for management of the Marine Park;
- C. The Government of the Commonwealth of Australia and the Government of the State of Queensland and the Authority have separately to This Deed of Agreement entered into arrangements ("the arrangements") for the day to day management of the Marine Park and related areas and for the use of places outside the Marine Park for a purpose relating to the Marine Park which are set out in a document entitled "Basis of Agreement between the Commonwealth and Queensland Governments for Day-to-Day Management Great Barrier Reef Marine Park Capricornia Section" endorsed by parties on 1 August 1980 and an Agreement between the Commonwealth of Australia, the State of Queensland and the Great Barrier Reef Marine Park Authority relating to the management of the Marine Park and executed on even date.
- D. The parties hereto desire to make provision for the use and disposal of moveable and immoveable property acquired or otherwise made available for the purposes of giving effect to the arrangements.

NOW IT IS HEREBY AGREED as follows:

1.

- (1) When this Deed of Agreement provides for an instrumentality of the State to do or to refrain from doing any act or thing, the State shall take all measures that are necessary to cause that instrumentality to do or refrain from doing that act or thing.
- (2) For the purposes of this Agreement, a matter or thing shall be taken to have been funded by a party if that party funded the matter or thing directly, or if the matter or thing was funded by an expenditure from the Day to Day Management Account utilising funds provided to that Account by that party specifically for the purpose of funding that matter or thing.
- (3) The value of a fixture shall be determined by subtracting from the market value of the improved land at the relevant time the market value of the land at that time valued as vacant land. In the absence of agreement, market value shall be determined by a valuer nominated by the President of the Queensland Division of the Australian Institute of Valuers, acting as an expert and not as an arbitrator.
- (4) This Agreement shall be governed by and construed in accordance with the law for the time being in force in the State of Queensland.

2.

- (1) Fixtures upon land owned or under the direct control of the State or an instrumentality of the State, the erection or enhancement of which was funded partly or wholly by the Commonwealth or the Authority for the purposes of the arrangements, shall be used and managed for such purposes to the extent provided for in such arrangements. Provided reasonable notice is given to the State, or to the instrumentality having direct control of any such fixture, any officer, employee or contractor of the Commonwealth or of the Authority shall be permitted to inspect any part of any such fixture at all reasonable times.
- (2) The State instrumentality or the State through the State instrumentality shall arrange to routinely maintain such fixtures, subject to the provision of funds from the Day to Day Management Account.
- (3) Should the State or instrumentality dispose of, or cease to make available for the purposes of the arrangements, land on which any such fixture is situated then (subject always to any agreement to the contrary) the State shall deposit in the Day to Day Management Account to be credited against the Commonwealth's liability pursuant to the arrangements to contribute to that Account, that fraction of the value of the fixture as at the date of disposal or cessation as is equal to the fraction which, as at the date of

the completion of the erection or enhancement, the Commonwealth's contribution to the funding thereof constituted of the value of the fixture as enhanced or erected.

3.

- (1) Fixtures upon land owned or under the direct control of the Commonwealth or of the Authority, the erection or enhancement of which was funded partly or wholly by the State for the purposes of the arrangements, shall be used and managed for such purposes to the extent provided for in such arrangements. Providing reasonable notice is given to the Commonwealth or to the Authority as the case may require, any officer, employee or contractor of the State or of an instrumentality of the State shall be permitted to inspect any part of any such fixture at all reasonable times.
- (2) The Commonwealth or the Authority as the case requires shall arrange through the State or State instrumentality to routinely maintain such fixtures subject to the provision of funds from the Day to Day Management Account.
- (3) Should the Commonwealth or the Authority dispose of, or cease to make available for the purposes of the arrangements, land on which any such fixture is situated then (subject always to any agreement to the contrary) the Commonwealth or the Authority as the case requires shall pay directly to the State that fraction of the value of the fixture as at the date of disposal or cessation as is equal to the fraction which, as at the date of the completion of the erection or enhancement, the State's contribution to the funding thereof constituted of the value of the fixture as erected or enhanced.

4. Moveables funded pursuant to the arrangements shall, subject to the provision of funds from the Day to Day Management Account, be used, managed and administered by the State for the purposes of and in accordance with such arrangements, and in accordance with the further requirements of clause 5 hereof. Where any such moveable is disposed of the amount realized on disposal shall be deposited in the Day to Day Management Account, with half of each amount being credited against the Commonwealth's liability pursuant to the arrangements to contribute to that Account, and the other half of such amount being credited against the State's liability pursuant to the arrangements contribute to that Account.

5. Forthwith upon the termination of the arrangements, then in the absence of any agreement between the Commonwealth and the State which provides to the contrary in which case the terms of that agreement shall prevail:

- (a) The provisions of clauses 2(3) and 3(3) hereof shall no longer apply and accordingly fixtures which immediately prior to the termination of the arrangements were available for use for the purposes of the arrangements may subject to the operation of paragraph (b) be utilised exclusively for the purposes of the State (in the case of fixtures referred to in clause 2(1) or exclusively for the purposes of the Commonwealth or the Authority as the case may be (in the case of fixtures referred to in clause 3(1) without any payment or deposit being required to be made by the State to or in respect of the Commonwealth or the Authority, or by the Commonwealth or the Authority to the State;
- (b) If the 20th anniversary of the date of completion of a fixture or of an enhancement to a fixture (provided that enhancement increased the capacity of the fixture by 50% or more) has not been reached at the termination of the arrangements then the State, or the Commonwealth or the Authority as the case may be, shall continue to make the fixture available to the Commonwealth or the Authority as the case may be, or to the State, for the purposes for which and to the extent to which it was being utilised immediately prior to the termination of the arrangements, until the first to occur of:
 - (i) the said 20th anniversary; or
 - (ii) the end of the useful life of the fixture.

Recurrent costs for the operation and essential maintenance of the fixture will be shared in proportion to the number of employees of each of them the State, the Commonwealth and the Authority continuing to utilise the fixture;

- (c) all moveables referred to in Clause 4 shall be disposed of with the State retaining half of the proceeds and paying the other half to the Commonwealth.

6. The following further requirements shall apply in relation to moveables referred to in clause 4 hereof:

- (1) All such moveables shall be administered in accordance with the same standard Queensland Government procedures as are applicable to moveables of the same nature purchased and used purely for State purposes including, but without limiting the generality of the foregoing, procedures with respect to:
 - (i) purchasing and disposal;

- (ii) use of the moveables for other than official purposes;
- (iii) registration of and third party insurance in respect of vehicles and vessels;
- (iv) maintenance.

(2) The State shall annually furnish to the Authority a report listing all such moveables and the respective locations thereof and detailing acquisitions and disposals or losses occurring since the preceding report relating to such moveables.

7. Nothing in this Agreement shall be taken to prevent the parties hereto from time to time agreeing that:
- (a) particular moveables or immoveables, although not funded pursuant to the arrangements, shall to such extent as shall be agreed upon be used for the purposes of the arrangements; or
 - (b) particular moveables or immoveables, although funded pursuant to the arrangements, shall to such extent as shall be agreed upon be used for the particular purposes of either party or an instrumentality thereof.
8. The State shall keep proper accounts and records of the transactions and affairs of the State and prepare financial statements for submission to both the Commonwealth and Queensland Governments, through the appropriate Ministers as soon as practicable after the end of each financial year. The statements shall be in a form approved by the Minister for Finance of the Commonwealth.
9. Before furnishing the financial statements the State shall submit them to the Auditor-General of Queensland for certification that they are in agreement with the accounts and records of the State. Such certificate shall be in a form agreed upon by the Auditor-General of Queensland.

IN WITNESS WHEREOF the parties hereto have executed this Deed of Agreement as at the date first written above.

SIGNED and DELIVERED by GRAHAM
FREDERICK RICHARDSON, The Minister
of State for the Arts, Sport, The
Environment, Tourism and
Territories for and on behalf of
THE COMMONWEALTH OF AUSTRALIA
in the presence of

SIGNED and DELIVERED by GEOFFREY
HUGH MUNTZ, Minister for Environment,
Conservation and Tourism of Queensland
for and on behalf of the Crown in
Right of the State of Queensland
in the presence of

THE COMMON SEAL of THE GREAT
BARRIER REEF MARINE PARK
AUTHORITY was hereunto affixed
by authority of the Authority
in the presence of

CLIMATE CHANGE AND THE GREAT BARRIER REEF

Preamble

The Australian and the Queensland governments have committed, under the *Great Barrier Reef Intergovernmental Agreement 2015*, to work collaboratively to ensure the long-term protection and conservation of the Great Barrier Reef World Heritage Area ecosystem, to ensure it is preserved as an important feature of the nation's and the world's heritage.

In 2009 and again in 2014, the *Great Barrier Reef Outlook Report* identified climate change as the single largest threat to the Great Barrier Reef Region. There is already evidence of climate associated impacts such as increased coral bleaching from higher water temperatures and lower rates of coral growth from ocean acidification. In addition, the reef faces threats from projected long-term changes in drought, flood, storm and rainfall intensity. These events have a range of implications for reef health, including elevated risks of sedimentation, algal blooms, storm damage and crown-of-thorns starfish outbreaks.

Two major factors will determine the overall extent of the impacts of climate change on the Great Barrier Reef Region – the rate and extent of human-induced climate change, and the resilience of the Great Barrier Reef World Heritage Area ecosystem to climate change.

Reducing carbon-emissions is primarily a matter for international and national action and is critical to securing the long term health of the Great Barrier Reef World Heritage Area. Australia is committed to reducing its emissions to five per cent below 2000 levels by 2020. This will be delivered through the Emissions Reduction Fund, which creates positive incentives to cut emissions, including through land sector activities, cleaning up power stations, capturing landfill gas and energy efficiency. At the state level, the Queensland Government will contribute to carbon emission reduction efforts by enhanced practical regulatory controls on the clearing of remnant and high value regrowth vegetation and boosting support for the take-up of renewable energy technology.

Increasing resilience can be directly influenced by management actions of the two governments by reducing direct and indirect threats to the Reef. The *Great Barrier Reef Climate Change Adaptation Strategy and Action Plan 2012-2017* outlines how GBRMPA, in collaboration with industry, science and community partners, will work to improve the resilience of the Reef so it is better able to cope with stress and reduce the impacts of climate

change. A shared understanding of the roles and responsibilities of the three tiers of government, the private sector and the community will be crucial to the success of these resilience initiatives.

Guiding Principles

1. The Australian and Queensland governments share a commitment to maximising the capacity of the Great Barrier Reef World Heritage Area ecosystem to withstand and adapt to the impacts of climate change, particularly through actions to increase its resilience.
2. Recognising their interrelated responsibilities, the two governments will adopt a collaborative and cooperative approach to activities directed at increasing the resilience of the Great Barrier Reef World Heritage Area, including through implementation of the Reef 2050 Plan.
3. Collaboration will occur in the context of broader strategies of the two governments, as well as nationally coordinated action to reduce carbon emissions and adapt to climate change.

Operative

In collaboration with local governments, the private sector and the community and building on existing initiatives, the two governments will give priority to the following areas:

1. *Research to inform and support management and policy*

The governments will support targeted and coordinated research on the implications of climate change for the Great Barrier Reef World Heritage Area so as to inform the development, implementation and adaptation of policy and management responses.

2. *Increasing resilience and capacity of the Great Barrier Reef World Heritage Area ecosystem to adapt to the impacts of climate change*

The governments will support efforts to increase the resilience of the Great Barrier Reef World Heritage Area ecosystem and its component species and communities, particularly through effective management of non-climate change related threats and pressures such as water pollution, inappropriate coastal development and over-fishing.

3. *Incorporating climate change considerations in policy, programs and management*

The governments will integrate consideration of climate change impacts into the development and implementation of policies, programs, management and regulation related to the Great Barrier Reef World Heritage Area.

4. *Monitoring climate change impacts and adapting approaches over time*

The governments will incorporate consideration of climate change impacts into monitoring, reporting and evaluation frameworks relevant to the Great Barrier Reef World Heritage Area, and will adapt policy and management approaches over time in response to new information.

5. *Supporting industries and communities in responding to the threat of climate change*

The governments will seek to facilitate effective responses by industries and communities reliant on the Great Barrier Reef World Heritage Area through means such as providing information about impacts and risks, and ensuring policy and regulatory settings support mitigation actions and adaptation by businesses and individuals.

6. *Engaging in and influencing international and regional activities that support and inform local objectives and actions*

The governments, particularly the Australian Government, given its lead responsibility for international engagement, will support and inform local action through engagement in international and regional initiatives that serve to deepen understanding of issues and options for the role of marine and coastal ecosystems in climate change adaptation and mitigation.

The Great Barrier Reef Ministerial Forum will consider a report on the implementation of this schedule annually.

**FISHING AND COLLECTION OF FISHERIES RESOURCES IN THE GREAT
BARRIER REEF WORLD HERITAGE AREA**

Preamble

The Australian and the Queensland Government have committed, under the *Great Barrier Reef Intergovernmental Agreement 2015* (the Intergovernmental Agreement), to work collaboratively to provide for the long-term protection and conservation of the environment of the Great Barrier Reef ecosystem, including its Outstanding Universal Value.

The Australian Government and the Queensland Government recognise that:

- Fishing and the collection of fisheries resources is important socially and economically to Queensland and is a long established and legitimate use of the Great Barrier Reef World Heritage Area.
- Both governments have interrelated policy, management and regulatory roles and responsibilities related to fishing and collection of fisheries resources in the Great Barrier Reef World Heritage Area. The differing roles and responsibilities are underpinned by a shared objective of long term protection and ecologically sustainable use of the biodiversity and natural resources of the Great Barrier Reef World Heritage Area.
- The Great Barrier Reef ecosystem is being impacted by a range of land and marine based activities that, if not appropriately managed, may reduce the health and resilience of the Reef.

It is in the interests of the Great Barrier Reef World Heritage Area ecosystem and the optimal use of fisheries resources that both governments work collaboratively and encourage best practice (including innovation over time) relating to the management of fishing and the collection of fisheries resources, including aquaculture, in the Great Barrier Reef World Heritage Area. The purpose of this Schedule to the Intergovernmental Agreement is to provide a framework for both governments to:

- provide clarity about each government's objectives, principles and approaches to the management of fisheries resources within the Great Barrier Reef World Heritage Area;
- achieve efficient and effective delivery of shared objectives related to the management of fisheries resources within the Great Barrier Reef World Heritage Area; and
- promote simplicity and streamlining of regulatory and management arrangements, and minimise duplication and inconsistencies.

Recognition

1. This Schedule recognises:

- (a) Australia's international responsibilities for the Great Barrier Reef World Heritage Area under the World Heritage Convention;
- (b) The Offshore Constitutional Settlement arrangements between the Australian Government and the State of Queensland in relation to the fishing and the collection of fisheries resources off the east coast of Queensland, as published in the *Commonwealth of Australia Gazette* number S44 on 8 February 1995 and the *Queensland Government Gazette* number 23 on 10 February 1995;
- (c) The Intergovernmental Agreement, which provides a framework for the Australian and Queensland governments to work together to ensure an integrated and collaborative approach to management of the Great Barrier Reef World Heritage Area;
- (d) The role of the Great Barrier Reef Ministerial Forum in coordinating policies concerning the long term protection and ecologically sustainable use of the Great Barrier Reef World Heritage Area and the role of the Standing Council on Primary Industries in relation to fisheries and aquaculture in Australia;
- (e) The objects and provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), as administered by the Australian Government;
- (f) The objects and provisions of the *Great Barrier Reef Marine Park Act 1975* (Cth) as administered by the Great Barrier Reef Marine Park Authority;
- (g) The objectives and provisions of the *Fisheries Management Act 1991* (Cth) relating to Commonwealth fish resources within the Great Barrier Reef World Heritage Area , as administered by the Australian Fisheries Management Authority;
- (h) The objects and provisions of the *Fisheries Act 1994* (Qld) as administered by the Queensland Government; and
- (i) The objects and provisions of the *Nature Conservation Act 1992* (Qld), *Marine Parks Act 2004* (Qld), *Environmental Protection Act 1994* (Qld) and the *Coastal Protection and Management Act 1995* (Qld) as administered by the Queensland Government.

Guiding Principles

2. Both governments will apply the guiding principles established in the Intergovernmental Agreement to fishing and collection of fisheries resources in the Great Barrier Reef World Heritage Area.

Operative

3. Both governments acknowledge their different but interrelated roles and responsibilities related to fishing and the collection of fisheries resources in the Great Barrier Reef World Heritage Area:
 - (a) The Australian Government, under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), is responsible for leading and coordinating required actions to meet Australia's responsibilities as a signatory to the World Heritage Convention, including ensuring the World Heritage values of the Great Barrier Reef World Heritage Area are maintained and transmitted to future generations.
 - (b) The Australian Government, under the *Great Barrier Reef Marine Park Act 1975* (Cth) is responsible for the long term protection and conservation of the environment, biodiversity and heritage values of the Great Barrier Reef World Heritage Area Region in accordance with the principles of Ecologically Sustainable Use as defined by that Act, including allowing for and the regulating the use of the Great Barrier Reef Marine Park in ways consistent with ecosystem-based management and the principles of ecologically sustainable use within the Great Barrier Reef Marine Park.
 - (c) The Australian Government, under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), is responsible for regulating impacts on matters of National Environmental Significance and interactions with species listed under the Act. Under the Act, the Australian Government is also responsible for regulating the export of fish and fisheries resources including assessment against the *Guidelines for the Ecologically Sustainable Management of Fisheries Edition 2* (2007).
 - (d) The Australian Government, under an Offshore Constitutional Settlement arrangement, and the *Fisheries Management Act 1991* (Cth), is responsible for regulating commercial take of tuna and tuna-like species within the Great Barrier Reef World Heritage Area.
 - (e) The Queensland Government, under an Offshore Constitutional Settlement arrangement and the *Fisheries Act 1994* (Qld) is responsible for the management of

fishing, fisheries habitats and collection of fisheries resources in and adjacent to the Great Barrier Reef World Heritage Area (with the exception of some commercially caught species listed in (d)). The Queensland Government is responsible for ensuring this is done in accordance with the principles of Ecologically Sustainable Development as defined by that Act.

- (f) The Queensland Government, under the *Fisheries Act 1994* (Qld), *Sustainable Planning Act 2009* (Qld), *Environmental Protection Act 1994* (Qld), *Marine Park Act 2004* (Qld) and the *Coastal Protection and Management Act 1995* (Qld) is responsible for management of aquaculture activities. Where aquaculture activities will affect Great Barrier Reef Marine Park, the *Great Barrier Reef Marine Park Act 1975* (Cth) may also apply. Where aquaculture activities are likely to significantly impact upon the values of the World and National Heritage Area, or the environment of the Marine Park, approval is required under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).
- (g) The Queensland Government, under the *Nature Conservation Act 1992* (Qld) and the *Marine Parks Act 2004* (Qld), is responsible for the protection of the biodiversity values of the Great Barrier Reef Coast Marine Park and islands within Queensland jurisdiction (including island National Parks).
- (h) All the Queensland and Australian Government agencies listed in this Schedule are responsible for providing appropriate protection to species which are afforded protection under legislation they are responsible for administering, in particular the *Nature Conservation Act 1992* (Qld), *Fisheries Act 1994* (Qld), *Marine Parks Act 2004* (Qld), *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and *Great Barrier Reef Marine Park Act 1975* (Cth).

4. Both governments agree to work together in discharging their respective roles and responsibilities, and will apply the following guidelines in developing and implementing management arrangements relevant to fishing and the collection of fisheries resources, including aquaculture, in the Great Barrier Reef World Heritage Area:

- (a) Duplication of management arrangements and assessment and permitting processes that relate to fishing and the collection of fisheries resources should be avoided through collaboration and where appropriate through the principle of mutual recognition.

SCHEDULE E

- (b) Policy and management proposals formulated by either government that may impact management arrangements already in place should be identified and discussed by relevant agencies at the earliest possible stage, with a view to achieving resolution in bilateral discussion through consultation between all agencies and other relevant stakeholders.
- (c) The interests and impacts of all legitimate uses and user groups should be considered in the management of all activities in the World Heritage Area, including fishing.
- (d) Both governments will work with stakeholders and the community to encourage innovation and develop and implement best practice standards as they evolve for fishing and the collection of fisheries resources.
- (e) Fishing activities should minimise detrimental impacts on the broader ecosystem and the species and ecological communities within it. Risk analysis, appropriate to the scale of the fishing activities and its potential impacts, should be conducted into the susceptibility of relevant ecosystem components, and appropriate management actions established for various components, according to the level of risk.
- (f) Management of fishing activities should be supported by reliable information appropriate to the scale of fishing activities and its potential impacts. Both governments will collaborate and use their best endeavours to acquire and share information relevant to fishing and the collection of fisheries resources in the World Heritage Area.
- (g) Management must be supported by an effective enforcement and education regime.

Coordination

5. Parties subject to this Schedule will meet as necessary and report to the Great Barrier Reef Ministerial Forum on the implementation of the Schedule.

REEF WATER QUALITY PROTECTION PLAN 2013

A pdf version of **Schedule F**, the Reef Water Quality Protection Plan 2013 is available:

<http://www.environment.gov.au/coasts/gbr/agreement.html>



Reef 2050 Long-Term Sustainability Plan

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Foreword

Australians are passionate about the Great Barrier Reef.

It is one of the world's greatest natural assets.

Our vision is to ensure the Great Barrier Reef continues to improve on its Outstanding Universal Value every decade between now and 2050 to be a natural wonder for each successive generation.

Traditional Owners have cared for the Reef for thousands of years and Australia is committed to its ongoing protection.

The *Reef 2050 Long-Term Sustainability Plan* is based on science and the lessons learnt from managing the Reef over the past four decades.

The recently released *Great Barrier Reef Outlook Report 2014* confirmed the Reef system as a whole retains its Outstanding Universal Value. The Outlook Report 2014 also identified the challenges facing the Reef. The Australian and Queensland governments have responded and are delivering the most significant changes in management of the Reef since the establishment of the Great Barrier Reef Marine Park 40 years ago.

Over the past four years Australia has responded to all recommendations of the World Heritage Committee, and indeed has gone further. The comprehensive strategic environmental assessment combined with the Outlook Report 2014 provides a solid scientific foundation for this *Reef 2050 Long-Term Sustainability Plan*. The Plan focuses on actions to address key threats and directly boost the health and resilience of the Reef so that it is best able to cope with effects of climate change—the single biggest threat to coral reefs worldwide.

In the past 18 months the number of capital dredging proposals to place dredge material in the Marine Park has been reduced from five to zero. Now the Australian Government is placing a permanent ban on disposal of material in the Great Barrier Reef Marine Park from capital dredging projects. In addition the new Queensland Government will legislate to restrict capital dredging for the development of new or expansion of existing port facilities to within the regulated port limits of Gladstone, Hay Point/Mackay, Abbot Point and Townsville, and prohibit the sea-based disposal of dredge material from these sites in the Great Barrier Reef World Heritage Area.

The Australian and Queensland governments will ensure sufficient financial and other resources are available to implement the Plan and achieve outcomes. The Australian Government is investing \$200 million over five years to improve the resilience of the Reef, including supporting delivery of the Reef Water Quality Protection Plan. In particular, the new \$40 million Reef Trust will fund water quality improvements, habitat restoration and species recovery, important for enhanced Reef health. In addition to maintaining its \$35 million a year expenditure on water quality initiatives, the Queensland Government has committed an additional \$100 million over five years towards water quality initiatives, scientific research and helping business transition to better environmental practices in the primary production and fishing industries. Government investment in the Reef over the next 10 years is projected to be more than \$2 billion. The Plan will be underpinned by a robust investment framework, harnessing and coordinating public and private investment to maximise outcomes for the Reef. It will build on our work over the past 40 years.

Governments, industry, and local, regional and global communities will continue to work in partnership to ensure the Reef remains a global icon into the future. Governments have escalated their efforts with the recently elected Queensland Government appointing a Minister for the Great Barrier Reef.

In developing the Plan, we acknowledge the significant contributions of Traditional Owners, environmental groups,

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community organisations, peak industry groups, scientists and other interested people who committed time and effort as members of the Partnership Group and during stakeholder consultation.

We also acknowledge the Great Barrier Reef Marine Park Authority for its independent management, technical and scientific advice, and thank the International Union for the Conservation of Nature and the UNESCO World Heritage Centre for their technical advice in developing the Plan.

The Plan changes the path for the future. It is frank in acknowledging the pressures and forthright in setting out the actions judged necessary to maintain and enhance the Outstanding Universal Value of the Great Barrier Reef World Heritage Area. This Plan will work. The commitment is absolute.

The Hon Greg Hunt MP

Australian Minister for the Environment

The Hon Dr Steven Miles MP

Queensland Minister for Environment and Heritage Protection
and Minister for National Parks and the Great Barrier Reef

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Executive summary

The overarching vision of the Reef 2050 Long-Term Sustainability Plan is:

To ensure the Great Barrier Reef continues to improve on its Outstanding Universal Value every decade between now and 2050 to be a natural wonder for each successive generation to come.

The iconic majesty of the Great Barrier Reef makes it one of the natural wonders of the world and a significant part of Australia's national identity.

Proudly, this massive reef system is loved by Australians and the more than 1.9 million visitors who come to see it each year from across the globe. The Great Barrier Reef was inscribed on the World Heritage List in 1981.

Wherever we live, and whatever our interests, we share the same goal—to protect and manage the Great Barrier Reef for current and future generations.

This is no small task. The maze of 3000 coral reefs and 1050 islands is spread over 348,000 square kilometres, an area roughly the same size as Japan or Italy.

As well as its Outstanding Universal Value, the Great Barrier Reef supports almost 70,000 full-time jobs and is worth \$5.2 billion a year to the Australian economy in the tourism industry alone. Over \$40 billion of exports leave its ports every year.

Pressures and progress

Since before its world heritage listing, the Great Barrier Reef Region has been a multiple-use area, supporting a range of commercial and non-commercial uses, including major port operations on the adjacent coastline.

Some activities, such as commercial turtle harvesting and whaling, have been stopped and others, in the case of drilling for oil on the Reef, were never allowed to start.

Parts of the Reef are under pressure. The *Great Barrier Reef Outlook Report 2014*, prepared by the Great Barrier Reef Marine Park Authority, assessed factors influencing ecosystem health and heritage values. It concluded the system as a whole retains the qualities contributing to its Outstanding Universal Value. In the northern third the ecosystem is in good condition, while in the southern two-thirds, cumulative impacts have resulted in deterioration in some areas. Of these impacts, the Report found the effects of climate change, land-based run-off, coastal land-use change and some aspects of direct use were the most significant.

The Australian and Queensland governments have responded to all recommendations of the World Heritage Committee and indeed have gone further. The Australian Government is placing a permanent ban on disposal in the Great Barrier Reef Marine Park of material from capital dredging projects. The new Queensland Government will legislate to restrict capital dredging for the development of new or expansion of existing port facilities to within the regulated port limits of Gladstone,

Hay Point/Mackay, Abbot Point and Townsville, and prohibit the sea-based disposal of this dredge material in the Great Barrier Reef World Heritage Area.

In addition, further funding will be provided by the Queensland Government for restoration, water quality initiatives, scientific research and helping business transition to better environmental practices in the primary production and fishing industries.

A strong track record

Over the 40 years since the *Great Barrier Reef Marine Park Act 1975* was passed by the Australian Parliament, management of the Reef has evolved and adapted as new information on threats has come to light. Through tools such as Acts and regulations, zoning plans, environmental impact assessments, compliance actions and investment partnerships, the Australian and Queensland governments, local governments, Traditional Owners, industry, research bodies and community organisations have worked to protect the Reef. For example, the quality of water leaving the catchments has improved, with the annual sediment load reduced by 11 per cent, pesticides by 28 per cent, and nitrogen by 10 per cent compared to a 2009 baseline. An investment of \$2 billion over the next 10 years is projected.

The foundation exists for a positive future for the World Heritage Area. The *Reef 2050 Long-Term Sustainability Plan* builds on this and, for the first time, provides a solid basis for integration of actions to protect the Reef over the next three and a half decades.

Developing the Plan

The Australian and Queensland governments have comprehensively responded to the 2011 World Heritage Committee request for a coordinated and comprehensive long-term plan.

Built on the best available science, this Plan was developed with input from scientists, communities, Traditional Owners, industry and non-governmental organisations.

Inherent in the effective long-term management of the Great Barrier Reef are the cultural and economic aspirations of the Indigenous communities of Queensland where strong connections with country continue. The cultural and ecological knowledge of Traditional Owners will be essential in delivering this Plan.

What the Plan does

The *Reef 2050 Long-Term Sustainability Plan* provides an overarching strategy for management of the Great Barrier Reef. It coordinates actions and guides adaptive management to 2050. The Plan responds to the challenges facing the Reef and presents actions to protect its values, health and resilience while allowing ecologically sustainable development and use.

It addresses the findings of the Great Barrier Reef Marine Park Authority's Outlook Report 2014 and builds on the comprehensive strategic environmental assessment of the World Heritage Area and adjacent coastal zone completed in 2014. This body of work was the most complex and comprehensive analysis of environmental management arrangements ever undertaken in Australia.

The biggest identified long-term threat, climate change, is a global problem. It requires a global solution which is why Australia is an active participant in international efforts and has in place significant domestic plans and targets to mitigate and adapt to climate change.

Developing ecosystem resilience in the face of a variable and changing climate is a key principle of the Plan. By improving water quality, maintaining biodiversity, and ensuring port development and shipping has minimal impact on the Reef, the

Plan is building the Reef's resilience and targeting activities over which governments and other stakeholders have control.

Tangible outcomes, objectives and measurable targets have been identified across seven themes —biodiversity, ecosystem health, heritage, water quality, community benefits, economic benefits and governance—to form an integrated management framework.

They build on existing targets such as those in the *Reef Water Quality Protection Plan 2013* and focus on activities which will safeguard the Outstanding Universal Value of the Reef.

The Plan prescribes greater coordination, efficiency and effectiveness of all Reef programs and activities. It describes how all levels of government, non-government organisations, industry and community groups can work together to strengthen and develop initiatives for the Reef.

Implementation

The Australian and Queensland governments will ensure sufficient financial and other resources are available to implement the Plan and achieve outcomes. The Australian Government is investing \$200 million over five years to improve the resilience of the Reef, including supporting delivery of the Reef Water Quality Protection Plan. In particular, the new \$40 million Reef Trust will fund water quality improvements, habitat restoration and species recovery, important for enhanced Reef health. The Queensland Government has committed an additional \$100 million over five years towards water quality initiatives, scientific research and helping business transition to better environmental practices in the primary production and fishing industries. Government investment in the Reef over the next 10 years is projected to be more than \$2 billion.

The Plan will be underpinned by a robust investment framework, harnessing and coordinating public and private investment to maximise outcomes for the Reef. Specific implementation plans will be important to drive local and regional action, address locally significant threats and encourage community participation.

Monitoring, reporting and review

A Reef-wide Integrated Monitoring and Reporting Program is being implemented to monitor the success of the Plan and inform adaptive management. It is directly linked to the outcomes and targets identified in the Plan.

Annual reporting will highlight progress in delivering the Plan. A full review of the Plan will occur every five years to ensure it remains current, consistent with scientific advice and relevant in addressing pressures on the Reef.

Given the scale and innovative approach adopted by the *Reef 2050 Long-Term Sustainability Plan*, an initial mid-term review will be completed by 2018.

Going forward

The Australian and Queensland governments acknowledge that successfully protecting Australia's natural environment, including the Reef, is an ongoing obligation—it requires long-term planning and commitment.

This Plan will guide long-term protection and management of the Reef and ensure the Great Barrier Reef continues to be among the best managed and protected world heritage areas in the world. Both governments will continue to work with their partners on this important task on behalf of the global community.

1. Introduction

1.1 *The Great Barrier Reef*

The Great Barrier Reef is an Australian icon and one of the most precious ecosystems on Earth.

Stretching more than 2300 kilometres along the Queensland coast (Figure 1) and covering an area of 348,000 square kilometres, it contains a maze of reefs, islands and other habitats that support a unique and diverse array of species.

The Great Barrier Reef is a place of great significance to its Traditional Owners, the first nation peoples of the area. They maintain a unique and continuing connection to the Reef and adjacent coastal areas. This connection to their land and sea country has sustained Traditional Owners for millennia—spiritually, culturally, socially and economically.

The Great Barrier Reef is strongly valued by the national and international community and is critical to the cultural, economic and social wellbeing of the more than one million people who live in its catchment and to Australians more generally. Generations have marvelled at its wonders and it is seen as quintessentially Australian.

The outstanding environment of the Great Barrier Reef, combined with people’s connection to it, mean there is a united drive for it to be protected and maintained for generations to come.

1.2 *Great Barrier Reef World Heritage Area*

The Great Barrier Reef was inscribed on the World Heritage List in 1981 in recognition of its Outstanding Universal Value.

The extent of the World Heritage Area is shown in Figure 1 and a summary of the differences between its boundaries and those of the Great Barrier Reef Region and Marine Park is provided in Appendix A. For simplicity, throughout this Plan, the Great Barrier Reef World Heritage Area is referred to as ‘the World Heritage Area’.

The Great Barrier Reef was inscribed for all four of the natural criteria specified in the *Convention concerning the protection of the world cultural and natural heritage*¹ (World Heritage Convention). In summary, these criteria are:

- superlative natural beauty
- outstanding geological, geomorphic or physiographic features
- outstanding examples of ecological and biological processes
- the most important and significant natural habitats for biological diversity.



Figure 1: Map of the Great Barrier Reef and catchment

The Great Barrier Reef World Heritage Area includes all waters seaward of the low water mark, including those

around 12 trading ports, and about 1050 islands.

The *Statement of Outstanding Universal Value*² for the Great Barrier Reef World Heritage Area that was adopted by the World Heritage Committee summarises the Reef's attributes. It is provided at Appendix B.

Given the broad scope of the criteria under which the Reef was listed, almost all attributes of its environment contribute to its Outstanding Universal Value. This includes the Region's biodiversity, geomorphology, Traditional Owner connections, ecological processes, aesthetic values and natural phenomena.

In seeking inscription on the World Heritage List, the Australian Government, on behalf of the people of Australia, assumed an obligation to ensure the identification, protection, conservation, presentation and transmission of the World Heritage Area for current and future generations.

In the 150 years since European settlement, generations of visitors have marvelled at the Reef's wonders, a rich fishery has been established, harbours have been built and maritime trade routes marked. In 1981, when the Reef was world heritage listed, and still today, a wide range of activities occur, including tourism, fishing, recreation, traditional use, research, defence, shipping and ports. Its environment helps bring billions of dollars to Australia's economy each year and supports almost 70,000 jobs.

Catchment land use practices and the flow-on effects of European settlement were acknowledged in the official 1981 nomination of the Great Barrier Reef for world heritage status:

The major portion of the Reef is in a reasonably pristine condition. The ecosystem of the Reef is subject to some pressures from recreational pursuits and commercial fishing, siltation through natural run-off from coastal streams, in a few areas agricultural and industrial discharges from the mainland, and sea-based discharges.

The subsequent International Union for the Conservation of Nature (IUCN) evaluation report noted that there were ongoing risks to the proposed world heritage area but went on to recommend that the nomination be accepted, saying:

The Australian Government is to be congratulated for including virtually the entire Great Barrier Reef in the proposed 350,000 square kilometre site. This is clearly the only way to ensure the integrity of the coral reef ecosystems in all their diversity.

Australia's iconic world heritage sites have a deep resonance in the hearts and minds of local, Australian and international communities. It is in the interests of all that the long-term sustainability of the Reef is assured.

1.3 Pressures on the Great Barrier Reef: The Outlook Report 2014

Every five years, the Great Barrier Reef Marine Park Authority prepares an Outlook Report for the Great Barrier Reef. This is a regular and authoritative statement about the Reef's values and its management. Underpinned by the best available scientific information, the Report provides an independent assessment of the health, condition, use, management arrangements and long-term outlook for the Reef.

The *Great Barrier Reef Outlook Report 2014*³ found that the property continues to meet all the world heritage criteria. Natural beauty, ecological and biological processes and habitats for biodiversity were assessed to be in **Good** condition at the scale of the Region. Major stages of the Earth's evolutionary history—comprising those attributes relating to the area's geology and geomorphology—was assessed as **Very good**. The property's integrity was assessed to be **Good**. Declines in some species and habitats and some ecosystem processes, especially in inshore areas of the southern two-thirds of the property, were identified.

The Outlook Report 2014 concludes:

The system as a whole retains the qualities contributing to its Outstanding Universal Value as recognised in its listing as a world heritage property. The assessments of biodiversity and ecosystem health show that the northern third of the Great Barrier Reef Region has good water quality and its ecosystem is in good condition. In contrast, key habitats, species and ecosystem processes in central and southern inshore areas have continued to deteriorate from the cumulative effects of impacts.

The findings of the Outlook Report 2014 have informed development of this Plan. A summary of these findings is at Appendix C.

The Outlook Report 2014 assessed the risk of current and potential threats to the Reef's ecosystem and heritage values. The outcomes are summarised in Appendix D.

The highest risks, grouped into the four major influencing factors that are covered in this Plan, are:

Long-term, system-wide

- **Climate change**—sea temperature increase; altered weather patterns; ocean acidification; and sea level rise. Future predictions indicate sea level rises and temperature increases will continue, the pH of the ocean will gradually decline and weather will be more severe. These changes are likely to significantly affect most components of the Reef's ecosystem and heritage values.

Immediate, system-wide

- **Land-based run-off**—nutrients from run-off (including links to outbreak of crown-of-thorns starfish); sediments from run-off; pesticides from run-off; and marine debris. The quality of water entering the Reef has deteriorated over the past 100 years. Inshore areas are particularly at risk from poor water quality. Agricultural practices in the catchment are improving and there have been reductions in the nutrient, sediment and pesticide loads from the catchment. There is likely to be a significant lag before overall water quality improvements are measured in the Region. Marine debris continues to affect the ecosystem—including species of conservation concern.

Immediate, local/regional

- **Coastal land use change**—clearing and modifying coastal habitats and artificial barriers to flow. Changes to coastal habitats and reductions in connectivity as a result of land use change affect the Region's ecosystem.
- **Direct use**—illegal fishing, collecting and poaching; incidental catch of species of conservation concern; marine debris; incompatible activities by different user groups; effects on discarded catch; retained take of predators; disposal and resuspension of dredge material; and retained take from unidentified or unprotected spawning aggregations. Some remaining impacts of fishing continue to affect the Reef's values. Increasing port activities directly affect local areas and uncertainty remains around ecosystem effects. Increasing regional populations and economic development will likely increase direct use and therefore the likelihood of impacts.

The Outlook Report 2014 notes that many management measures implemented in the Great Barrier Reef and beyond are making a positive difference. It highlights the need to maintain and enhance the current strong foundational arrangements to manage direct use. It also demonstrates that factors external to the Great Barrier Reef, such as climate change, coastal land use change and land-based run-off play a significant role in determining its condition. It was particularly noted that the capacity to address cumulative impacts requires additional effort.

The Outlook Report 2014 notes that all actions, whether big or small, to reduce the threats to the Reef will help restore condition and will improve its outlook. Everyone's efforts combined will make the Reef more able to recover from the

legacy of past actions and better able to withstand those predicted to threaten its future.

2. About the Reef 2050 Long-Term Sustainability Plan

2.1 Purpose

The Outlook Report 2014 makes it very clear the Reef is under pressure. There has been considerable progress to date and there is more to be done. This *Reef 2050 Long-Term Sustainability Plan* sets out what Australians, as custodians for the international community, want the future of the Great Barrier Reef World Heritage Area to be and how this will be achieved. Protecting the Reef's Outstanding Universal Value and its natural integrity and cultural values is a critical priority for the Australian and Queensland governments. This Plan is the governments' commitment to working in partnership with industry and the community to make this happen.

Development of the Plan responds to a series of requests from the World Heritage Committee in relation to recognising and protecting Outstanding Universal Value. Appendix E maps how this Plan specifically responds to these requests.

2.2 Scope

Building on the strong foundation of legislated protection and cooperative management of the Reef that has been in place since the 1970s, this Plan provides an overarching strategy for management of the Great Barrier Reef World Heritage Area to 2050.

The Plan coordinates actions to better guide management of the World Heritage Area and associated management activities in its adjacent catchment. It includes areas under the jurisdictions of both the Australian and Queensland governments.

The Plan addresses the management of all values within the World Heritage Area, from species and habitats to Indigenous values and historic heritage. There is a focus on protecting those attributes that contribute to the Outstanding Universal Value of the World Heritage Area.

2.3 Timeframe

The Plan sets out broad outcomes for the World Heritage Area through to 2050, with objectives for progress by 2035. Specific actions to deliver the targets are described for the five years until 2020.

The Plan will be reviewed and updated every five years in response to future Outlook Reports, taking into account new information about the Reef environment, the results of implemented actions and the effectiveness of management interventions.

2.4 Structure

The major components of the Plan are:

- Section 3, Management—a description of the current management arrangements, including the coordinated action and initiatives being undertaken by governments, Traditional Owners, industry, researchers and the community to address key threats and improve the Reef's resilience. These are the foundational arrangements for future protection and management of the World Heritage Area.
- Section 4, Actions for the future—an outline of the next steps in protection and adaptive management of the World Heritage Area for future generations, including a long-term vision and an Outcomes Framework that will guide action

between now and 2050.

- Section 5, Implementing the Plan—a description of implementation arrangements.
- Section 6, Monitoring, reporting and review—an outline of future adaptive management arrangements, including the Integrated Monitoring and Reporting Program and the Plan’s review cycle.

A glossary of commonly used terms and references are provided at the end of the Plan. Supporting material is provided in the appendices.

2.5 *Developing the Plan*

A wealth of knowledge and experience has been brought together to develop the Plan (Figure 2) including:

- the findings and outcomes of the comprehensive strategic environmental assessment for the Great Barrier Reef World Heritage Area and adjacent coastal zone, including public submissions and comments received as part of the process
- the findings of the *Great Barrier Reef Outlook Report 2014*
- government policies, initiatives, actions and legislation
- contributions by current partners in Reef protection and management such as Traditional Owners, local government, industry sectors, research organisations, natural resources management bodies and community organisations
- the public comments received on the draft Plan
- technical advice from the IUCN and the World Heritage Centre, including the 2012 Mission Report.

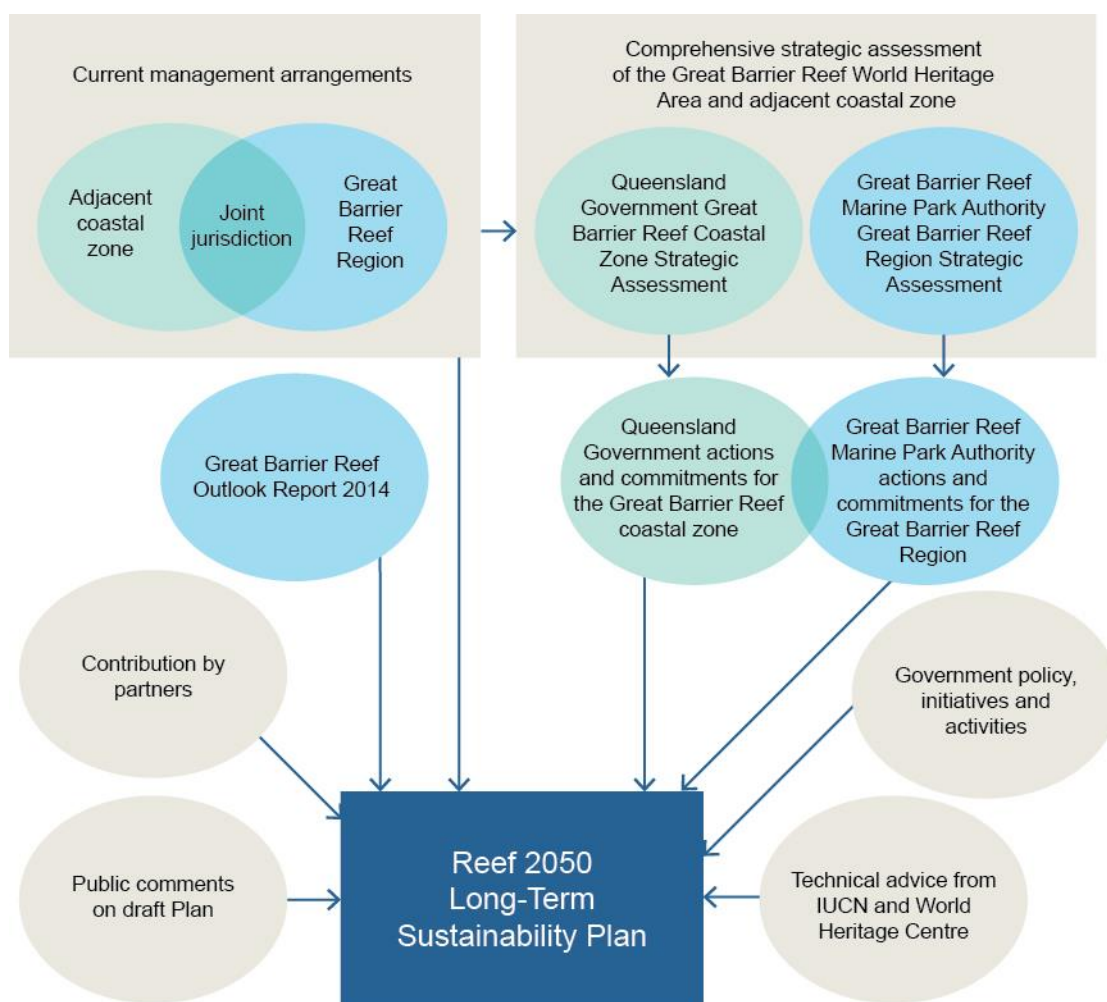


Figure 2: Inputs in developing the *Reef 2050 Long-Term Sustainability Plan*

To build on the solid base provided by the comprehensive strategic environmental assessment and to recognise the crucial role of Traditional Owners, industry, researchers and the community, a Partnership Group was established in June 2014 to help develop the Plan. The group was jointly chaired by Australian and Queensland government Environment Ministers. It brought together representatives of government, Traditional Owners, key industry organisations, scientists and interest groups including:

- AgForce (grazing sector)
- Association of Marine Park Tourism Operators (tourism sector)
- Australian Committee of International Union for Conservation of Nature (conservation sector—international)
- Australian Institute of Marine Science (science community)
- Great Barrier Reef Marine Park Authority
- Local Government Association of Queensland (local councils)

- Ports Australia (ports sector)
- Queensland Conservation Council (conservation sector—state)
- Queensland Farmers' Federation (agricultural sector)
- Queensland Resources Council (resources and mining sector)
- Queensland Seafood Industry Association (commercial fishing sector)
- Regional Natural Resource Management Groups Collective (regional natural resource management bodies)
- Traditional Owner communities
- World Wildlife Fund for Nature (conservation sector—international).

The Partnership Group played a significant role in developing content, drafting and reviewing the Plan through meetings and a series of focused workshops.

In addition, the Great Barrier Reef Marine Park Authority's Local Marine Advisory Committees provided valuable input on the issues and initiatives being undertaken by communities along the Reef coast. There was also engagement with the International Union for the Conservation of Nature and the World Heritage Centre experts to test the construct of the Plan against global best practice.

The Plan was released for public comment during September and October 2014 with 6809 submissions received. This included:

- 87 emailed or written submissions
- 41 online survey responses
- 6681 campaign-style submissions comprising:
 - World Wildlife Fund for Nature—6621 submissions
 - Cairns and Far North Environment Centre—54 submissions
 - recreational fishers—6 submissions.

During this time, the Plan's targets and actions were also subject to scientific review. In addition, experts from key stakeholder groups worked through a 'Program Logic' process to more clearly articulate the relationships between outcomes, objectives, targets and actions.

3. Management

3.1 *History of adaptive management*

Management of the World Heritage Area is overseen by the Australian and Queensland governments based on science and driven by the community. As emerging threats have been identified, and research has enhanced understanding of their causes, governments have acted. Important initiatives include:

- establishment of the Great Barrier Reef Marine Park
- an extensive joint field management program delivering protective on-ground actions
- zoning to protect biodiversity and regulate activities within the marine parks
- significant water quality protection measures making real improvements to the quality of agricultural run-off.

Over the past four decades, the Australian and Queensland governments, along with industry, community organisations and individuals, have invested substantial resources in protecting and managing the Reef. This includes direct funding for management and on-ground activities, as well as research and pioneering new management techniques.

These investments have delivered significant results. Science shows the coordinated collective water quality investments of governments, industry and landholders have reduced pollutant loads into the Reef over the past 10 years. Funding of research in key areas has significantly enhanced understanding of the Reef system and improved management. For instance, investments from a range of partners and the Australian Government into more effective ways of addressing outbreaks of crown-of-thorns starfish have resulted in a new single injection control method that significantly increases the efficiency of control programs.

Together, the management arrangements developed and adapted, the initiatives implemented and the investments made over the past four decades have resulted in a protection and management framework that is internationally significant in scale, resources and effort.

3.1.1 Building on the strong foundation

Over recent years, the World Heritage Committee has raised concerns about the Great Barrier Reef World Heritage Area. Australia is working to ensure the Reef remains one of the best managed world heritage sites in the world. Key actions Australia has undertaken include:

- Completing a comprehensive strategic environmental assessment of the Great Barrier Reef World Heritage Area and adjacent coastal zone, the largest and most comprehensive examination ever undertaken in the world and a key contribution to this Plan. Commitments arising from this assessment include a cumulative impact assessment policy, a Reef recovery program to support regional communities in protecting the Reef and a world-leading Reef-wide integrated monitoring and reporting initiative.
- Amending Queensland's *State Development and Public Works Organisation Act 1971* and *Environmental Protection Act 1994* to meet Commonwealth standards for protection of world heritage properties.
- Amending Queensland's *Environmental Protection Act 1994* to formally recognise the Great Barrier Reef World Heritage Area, with maximum penalties for wilful environmental harm raised to over \$710,000 for individuals and \$3.56 million for corporations, plus costs of restoration.

- Reducing the number of capital dredging proposals to place dredge material in the Great Barrier Reef Marine Park from five to zero.
- Banning disposal of material in the Great Barrier Reef Marine Park from capital dredging projects. This will be extended by the new Queensland Government to cover the balance of the World Heritage Area.
- Commissioning the Independent Review of the Port of Gladstone which identified a range of principles and measures to improve port governance and environmental management.
- Making the Outstanding Universal Value of the Great Barrier Reef World Heritage Area a central concept in the Australian and Queensland governments' environmental legislation and planning systems. Queensland's planning policy and environmental decision-making system now require explicit consideration of matters protected under Australia's national environment law (including the Outstanding Universal Value of world heritage properties).
- Investing millions of dollars in significant targeted research to address key information gaps relating to the future management of the Great Barrier Reef World Heritage Area. The findings provided valuable input into the comprehensive strategic assessment and this Plan.
- Investing almost \$32 million as part of the Australian Government's National Environment Science Programme to create a Tropical Water Quality Hub.
- Achieving continued improvement in the water quality entering the World Heritage Area as a result of a partnership between farmers and governments to stop fertilisers, chemicals and sediments running off farming land. Results to date show that land use practices are changing and resulting pollutant loads are declining and that Reef Plan's goal of halting and reversing the decline in the quality of water entering the Reef has been met. As at June 2013, the annual sediment load had been reduced by 11 per cent, pesticides by 28 per cent, and nitrogen by 10 per cent compared to a 2009 baseline. Improving water quality will continue to be a focus for Australia, supported by the \$40 million Reef Trust and an additional \$100 million from the Queensland Government as part of a projected investment of more than \$2 billion in the Great Barrier Reef over the next 10 years.

3.2 Governance of the World Heritage Area

The Great Barrier Reef is a large, complex system with longstanding multiple users. It is subject to diverse and wide-ranging influences that transcend jurisdictional boundaries. Management involves federal, state and local governments, Traditional Owners, industry, researchers, community organisations and individuals.

The Australian Constitution establishes the overarching legal authority for environmental management. In common with other federated nations, responsibility is divided between the national government and individual state governments. Within this constitutional structure, the Australian and Queensland governments have successfully worked together for over 40 years to protect, conserve and manage the Great Barrier Reef.

3.2.1 Legislation

A suite of complementary Australian and Queensland legislation (Figure 3) has been enacted to secure preservation for future generations of the Outstanding Universal Value and other natural, cultural and Indigenous values of the Great Barrier Reef, while allowing multiple-use activities to continue in an ecologically sustainable manner.

The principal Acts relevant to the World Heritage Area are the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) which puts into law Australia's obligations under the World Heritage Convention, the *Great Barrier Reef Marine Park Act 1975* (Cth) and the *Marine Parks Act 2004* (Qld).

The main object of the Great Barrier Reef Marine Park Act is:

To provide for the long term protection and conservation of the environment, biodiversity and heritage values of the Great Barrier Reef Region.

The Act established the Great Barrier Reef Marine Park Authority as a statutory independent agency and defined the Great Barrier Reef Region. It enabled subsequent declaration of the Great Barrier Reef Marine Park, which allows ecologically sustainable use consistent with the Reef's protection and conservation.

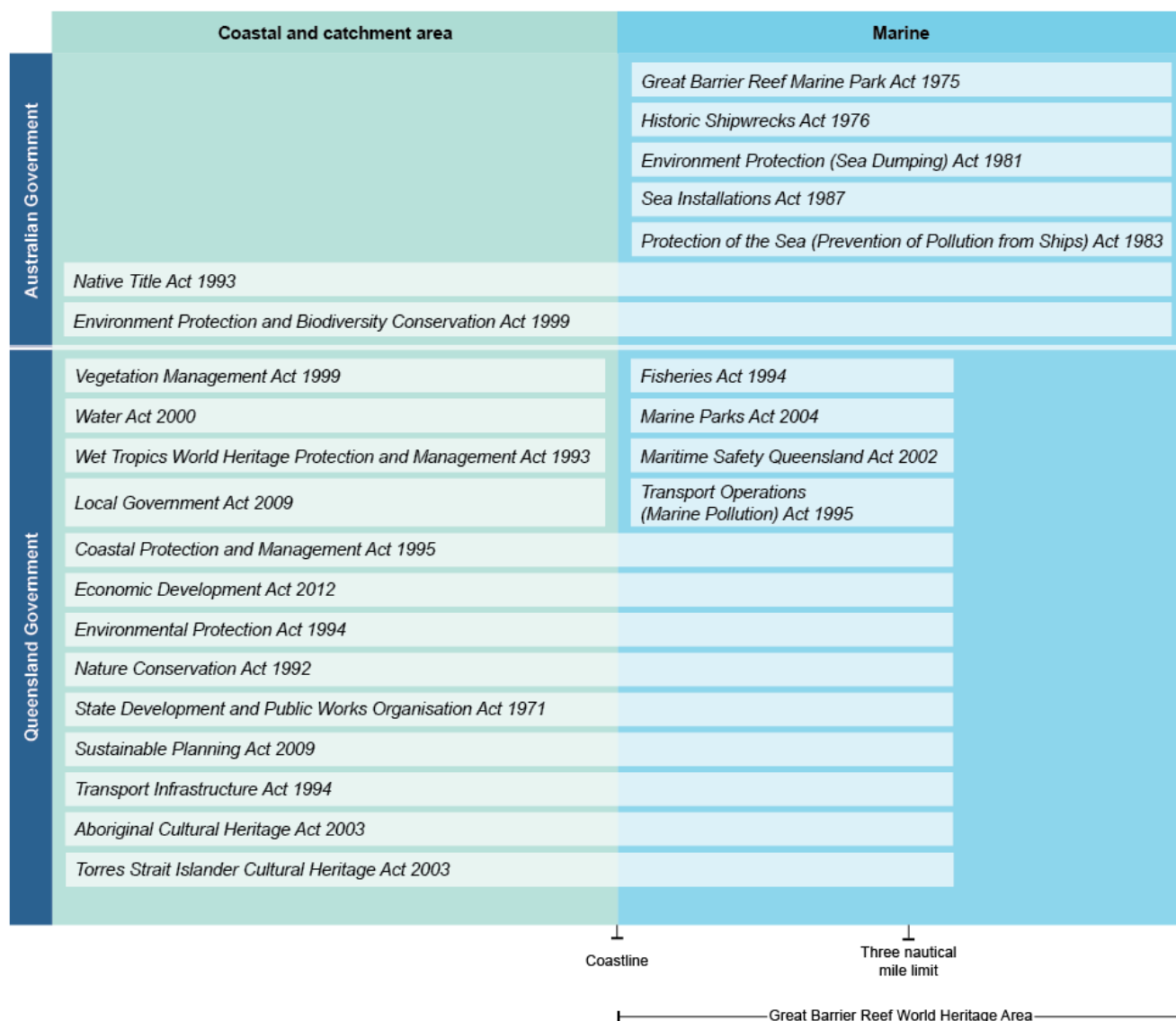


Figure 3: Primary Australian and Queensland government legislation used to protect and manage the Reef

Complementary management arrangements apply in Queensland waters through the *Marine Parks Act 2004*. Additional legislation is used to regulate other uses, for example commercial and recreational fisheries (including across the Great Barrier Reef Marine Park) and shipping.

A broad suite of laws applies in coastal and catchment areas to protect and manage the natural environment including native vegetation, native plants and animals, national parks and other protected areas, wetlands, waterways, water extraction, water quality, air quality and cultural heritage. Land development is subject to a planning system under the *Sustainable Planning Act 2009* (Qld) and an environmental impact assessment is required for any project which may have a significant environmental impact. Where matters of national environmental significance such as world heritage sites and the Great Barrier Reef Marine Park may be affected, the EPBC Act is triggered either directly or through bilateral agreement arrangements with the Queensland Government.

The Australian and Queensland government legislation underpins a range of management tools employed to protect and manage the World Heritage Area:

- zoning plans
- management plans
- permits and licences (including environmental impact assessment and measures to avoid, mitigate and offset impacts)
- Traditional Owner agreements
- compliance
- site infrastructure
- fees and charges
- policy (including strategies, policies, position statements, site management arrangements and guidelines)
- partnerships
- stewardship and best practice
- education and community awareness
- research and monitoring
- reporting.

Combined, the body of law comprehensively protects the Great Barrier Reef. Governments are regularly reviewing and updating legislation to ensure that new threats and issues are efficiently and effectively addressed as they arise.

3.2.2 Cooperative management

There is a strong and long-standing working relationship between successive Australian and Queensland governments in relation to protection and management of the Reef. It was first formalised in 1979 through the *Emerald Agreement* and was updated in 2009 through the *Great Barrier Reef Intergovernmental Agreement* signed by the Prime Minister of the Commonwealth of Australia and the Premier of the State of Queensland.

The Intergovernmental Agreement provides a clear and effective framework for facilitating cooperative management of the complex landscapes of the Reef.

Through implementation of the Intergovernmental Agreement, governments have agreed and are delivering a joint program of field management, joint action to halt and reverse the decline in the quality of water entering the Reef and action to

maximise the resilience of the Reef to climate change. Implementation is driven by the Great Barrier Reef Ministerial Forum, consisting of relevant Australian and Queensland government ministers.

The current focus and funding of the wide range of Australian and Queensland government agencies with responsibilities in relation to protection and management of the World Heritage Area are set out in Table 1 (see Section 5.2). In total, government agencies currently expend over \$200 million annually.

Along the Great Barrier Reef coast, local governments also play a significant role in land-use planning, development assessment, management of stormwater run-off, sewage treatment, ecosystem health and biodiversity conservation. Local governments are established under the *Local Government Act 2009* (Qld) and are accountable under the *Sustainable Planning Act 2009* (Qld) for their planning and development assessment activities.

Different issues require different management approaches. For some, regulation is the key, for others incentive-based programs, or industry-led delivery of best practice standards, education or market mechanisms are most effective. A strong record of community engagement and adaptive approaches has long been a feature of the Reef's management.

Partnership arrangements and stewardship programs have been established with Traditional Owners, industry sectors, local governments, natural resource management bodies, community groups and individuals. In addition, regional industries including tourism, fishing, agriculture, mining and port managers undertake key actions to reduce their impacts on the Reef.

Over recent years there has been increasing interest from the private sector in contributing to the future management and protection of the Reef, and partnership arrangements are emerging as a successful way of delivering outcomes. For example, innovative collaborative approaches in water quality are delivering significant achievements, while collaborative efforts in the research field are bringing together a range of interested parties to coordinate activities and pool resources and expertise.

3.2.3 International obligations

In its management of the Great Barrier Reef World Heritage Area, Australia has implemented its obligations under the World Heritage Convention including the specific obligations under Article 4:

Each State Party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the... natural heritage referred to in Articles 1 and 2 and situated on its territory, belongs primarily to that State. It will do all it can to this end, to the utmost of its own resources and, where appropriate, with any international assistance and co-operation, in particular, financial, artistic, scientific and technical, which it may be able to obtain.

Management of the World Heritage Area is also guided by Australia's obligations under other relevant international conventions. These include:

- Convention on Biological Diversity, 1992
- Convention on International Trade in Endangered Species of Wild Fauna and Flora, 1973
- Convention on the Conservation of Migratory Species of Wild Animals, 1979
- Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 1971
- China–Australia Migratory Bird Agreement, 1986
- International Convention for the Prevention of Pollution from Ships, 1973
- Japan–Australia Migratory Bird Agreement, 1974

- Republic of Korea–Australia Migratory Bird Agreement, 2007
- United Nations Convention on the Law of the Sea, 1982
- United Nations Framework Convention on Climate Change, 1992
- The 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (known as the London Protocol).

3.3 Addressing key risks to the Reef

The highest risks to the Reef identified by the Outlook Report 2014 can be grouped into four influencing factors: the long-term risks associated with climate change and immediate considerations around land-based run-off; coastal land-use change; and direct use. For each of these, this Plan builds on a strong foundation of current actions.

3.3.1 Climate change—long-term, system-wide

The biggest long-term threat to coral reefs worldwide is climate change and the Great Barrier Reef is no exception. Damage to reefs as a consequence of climate change comes from ocean acidification, sea temperature increases, altered weather patterns (such as more intense storms) and rising sea levels. A concerted international effort to limit the effects of global climate change will provide the best protection for coral reefs. This Plan will provide the best insurance for the Great Barrier Reef against climate change by reducing direct and indirect threats and therefore increasing its resilience.

The Australian Government is committed to effective climate change mitigation and adaptation, both internationally and domestically. Australia has a proven track record of contributing to the international response to climate change. This is occurring through constructive participation in the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol; through practical cooperation with regional partner countries; and through supporting developing countries to take actions that reduce emissions, build climate resilience and foster economic growth. At COP20 in Lima in December 2014, Australia announced its pledge of \$200 million over four years to the Green Climate Fund. This pledge will advance climate action through leveraging private sector-led investment in the Indo-Pacific region, with a particular focus on investment in infrastructure, energy, forestry and emissions reduction programs. This builds on the successful Asia-Pacific Rainforest Summit to reduce deforestation in rainforests, leading to reduced carbon dioxide emissions and increased carbon sequestration.

Australia is committed to achieving a new global climate change agreement at the UNFCCC Conference of the Parties meeting in Paris at the end of 2015 that will see all countries commit to reduce emissions.

Mitigation The Australian Government is focused on undertaking practical mitigation actions.

At home, Australia is committed to reducing its emissions to five per cent below 2000 levels by 2020—this represents a reduction of 19 per cent from business-as-usual levels. Australia has more than met its emission reductions target for the first commitment period of the Kyoto Protocol while increasing real GDP by 88 per cent. Australia’s 2020 target will be delivered through a recently legislated \$2.55 billion Emissions Reduction Fund, which creates positive incentives to cut emissions, including through land sector activities, cleaning up power stations, capturing landfill gas and energy efficiency. The Fund also includes a safeguard mechanism to ensure that emissions reductions paid for by the Government are not offset by a significant rise in emissions elsewhere in the economy. The safeguard mechanism will commence in July 2016.

There will be ongoing monitoring and evaluation of the performance of the Emissions Reduction Fund to ensure its continuous improvement, with an operational review of the Fund to be conducted in late 2015. The Fund will support Australian businesses and households to improve practices and undertake investment to reduce emissions.

As part of work toward a new global climate agreement for the post-2020 period, Australia will review its international targets and settings, taking into account action by all major economies and Australia's key trading partners.

At the state level, the Queensland Government will contribute to carbon emission reduction efforts by enhanced, practical regulatory controls on the clearing of remnant and high value regrowth vegetation and boosting support for the take-up of renewable energy technology.

Adaptation Australia supports climate change adaptation internationally through practical cooperation with regional partner countries, especially in the Pacific; and through supporting developing countries to take actions that reduce emissions, build climate resilience and foster economic growth.

The Australian Government supports science and practical steps to adapt to climate change at home. It has committed \$9 million over three years (2014–2017) to fund the National Climate Change Adaptation Research Facility to integrate its research into decision making by governments, businesses and households, emphasising support for managing the Australian coastal zone under climate change and sea-level rise.

The National Environmental Science Programme also plays a significant role in improving understanding of the impacts of climate change on the Reef. This program is a long-term commitment to environment and climate research with funding of \$142.5 million over six years. The outcomes of research hubs on tropical water quality, northern biodiversity and earth systems will support actions to build the resilience of the Reef.

The Queensland Government is developing a partnership-driven adaptation strategy to reduce risks to the State's economy, environment, infrastructure and communities from current and future climate impacts. This strategy will incorporate measures which contribute to the resilience of the Great Barrier Reef. In addition, Queensland coastal planning laws will be modernised to take into account the predicted effects of climate change. A number of local governments are already preparing coastal hazard management plans and other initiatives in response to the anticipated effects of climate change.

These actions build from or relate directly to actions in the *Great Barrier Reef Climate Change Adaptation Strategy and Action Plan (2012–2017)*⁴. This strategy outlines how the Great Barrier Reef Marine Park Authority, in collaboration with industry, science and community partners, will work to improve the resilience of the Reef so it is better able to cope with stress and reduce the impacts of climate change.

Pathway to recovery—building resilience and restoring ecosystem health

One of the important tenets of future management of the World Heritage Area is building its resilience in the face of current and future threats, for example climate change. This is reflected in many of the targets, actions and outcomes of this Plan.

Resilience refers to the capacity of an ecosystem to either resist (absorb) an impact or to recover from that impact.

Systems with a high level of integrity and diversity are more likely to have greater resilience and are therefore more likely to be able to resist and recover from impacts. Resilience is strongly linked to the scale and timing of adverse influences, as well as the degree of connectivity in the system. For example, an individual reef could be severely damaged, but as part of a connected and functional network, it retains the capacity to recover.

Work to build resilience must take into account the significant time lags in large natural systems. For example, improvements in land management practices have reduced nutrients entering streams and rivers, but it takes time for this to translate into improved marine condition (see Section 4.3).

The Australian and Queensland governments are providing resources for research and management activities to protect the World Heritage Area and make its ecosystems more resilient. Part of this funding supports the Great Barrier Reef Foundation's research framework to find better ways to measure, monitor and communicate the effects of climate change on coral reefs; and develop a range of adaptation options to address the effects of warming waters, more acidic oceans and measures to improve the resilience of habitats and species.

3.3.2 Land-based run-off—immediate, system-wide

Over the past 30 years, issues relating to water quality have been a focus of management. Throughout the 1980s and early 1990s the focus was strongly on minimising rubbish and sewage disposal within the Marine Park, particularly from coastal communities, island resorts, tourism infrastructure and vessels. By 2002 the sewage facilities of island resorts were improved to tertiary level treatment standards. In parallel, the Queensland Government supported the upgrade of sewage treatment plants discharging into coastal waters that enter the Marine Park, with the aim of achieving tertiary treatment standard by 2010. Almost \$620 million has been invested in upgrading sewage treatment plants in the three largest coastal communities adjacent to the Reef—Townsville, Cairns and Mackay. In total, upgraded facilities remove an estimated 834 tonnes of nutrients annually (approximately 80 per cent of the original total nutrient load from this source) that would have otherwise entered the World Heritage Area.

In the early 1990s management attention also turned to the impacts of the significant sediment and nutrient loads in floodwaters following severe storm and cyclonic activity. In the early 2000s an independent panel of experts determined there was overwhelming evidence that run-off from rural land-based activities were negatively affecting the quality of water entering the Reef. More than 150 years of land-use practices in the catchment had led to increases in the nutrient (including nitrogen and phosphorous), sediment and pesticide loads entering the Reef's waters.

There is evidence that increased nutrients in open water can increase the frequency of crown-of-thorns starfish outbreaks, can make corals more sensitive to temperature stress and can result in effects like algal blooms which affect the health of the Reef. Increasing sediment loads can have far-reaching effects on Reef values, including increased turbidity and smothering

seagrasses and corals. Pesticides (including herbicides) from run-off have been detected in inshore areas of the World Heritage Area and are of concern as they can have a negative impact on marine plants and animals.

The Reef Water Quality Protection Plan was adopted in 2003 to coordinate projects and partnerships in a collaborative effort to halt and reverse the decline in water quality entering the Reef from broadscale land use. It was updated in 2009 and 2013⁵.

Additionally, water quality improvement plans and natural resource management plans help to guide investments in changes to land use practices and restoration. These plans are informed by the Great Barrier Reef Marine Park Authority's *Informing the outlook for Great Barrier Reef coastal ecosystems*⁶ report which identified critical ecosystem functions and processes.

Measures to address declining water quality have been underpinned by an extensive body of science most recently documented in the *2013 Scientific Consensus Statement—Land use impacts on Great Barrier Reef water quality and ecosystem condition*⁷ and the Outlook Report 2014.

Work to decrease land-based run-off in the Reef's waters is now well advanced. Under the Reef Water Quality Protection Plan, significant efforts have been made by landholders, regional natural resource management organisations, agricultural industry bodies, conservation groups and government agencies to implement improved land management practices throughout the Reef catchments in order to decrease the flow of nitrogen, pesticides and sediments to the Reef. The significant uptake of improved practices by land managers, such as through the Project Catalyst partnership, is highlighted in Section 5.2.

Yearly report cards indicate significant progress towards achieving the Reef Water Quality Protection Plan's goals and targets. As at June 2013, the annual sediment load had been reduced by 11 per cent, pesticides by 28 per cent, and nitrogen by 10 per cent compared to a 2009 baseline.⁸ Overcoming the impacts of 150 years of land use change is predicted to take many years.

New initiatives, including an additional \$100 million provided by the Queensland Government, and the Australian Government's new Reef Trust, respond to ongoing water quality concerns in the World Heritage Area. These initiatives will support a growing suite of actions across government, agricultural sectors, researchers and community organisations.

Long-term coral monitoring by the Australian Institute of Marine Science suggests that if crown-of-thorns starfish outbreaks can be reduced, coral cover will increase, despite the impacts of storms, cyclones and bleaching events, reinforcing the need for continuing action to reduce fertiliser run-off that could trigger outbreaks.

The Australian Government is also continuing a crown-of-thorns starfish control program, investing \$10.5 million from 2012 to 2015 to protect high value reefs and increase knowledge of crown-of-thorns starfish biology. The program includes coordinating control activities, providing training for industry divers and community members, and undertaking industry communication and awareness-raising activities. The aim is to maintain coral cover on targeted reefs at greater than the 20 per cent considered essential for reef health and resilience.

3.3.3 Coastal land-use change—immediate, local/regional

Under Australia's federal structure, the Queensland Government has responsibility for land tenure, resources management and land-use planning in the coastal zone and catchments. As outlined in Section 3.2.1, there are a range of laws which cover all aspects of environmental protection, planning and development assessment in Queensland.

Through the coastal zone component of the comprehensive strategic environmental assessment^{9, 10}, the Queensland Government committed to ensuring that development in the Great Barrier Reef coastal zone occurs in an ecologically sustainable manner and that negative impacts on Outstanding Universal Value are avoided. This included the following enhancements to its current management:

- add to the coastal zone protected area estate
- require port master planning that considers potential marine-based as well as land-based environmental impacts
- meet the standards required by the EPBC Act for protection of matters of national environmental significance
- develop a *Direct Benefit Environmental Offsets Management Plan* to maximise the Reef's health and resilience.

In addition, the Queensland Government will:

- strengthen vegetation management laws to protect remnant and high value regrowth native vegetation (including in riparian zones)
- strengthen coastal planning laws based on the best available science, making allowance for expected sea level rise, protecting ecologically important areas such as wetlands and prohibiting development in high-hazard greenfield areas
- ensure ecologically sustainable regulation of water extraction in catchments leading to the Great Barrier Reef.

The Australian and Queensland governments are taking action to limit the impact of ports and port development on the Great Barrier Reef.

When the current Australian Government was elected in September 2013 there were five capital dredging projects either planned or under active assessment that proposed to dispose of dredge material in the Marine Park. The Australian Government has reduced that number to zero (see Appendix F). To ensure this position continues, the Australian Government will use its regulatory powers to permanently ban the disposal of capital dredge material in the Great Barrier Reef Marine Park. In addition the new Queensland Government will, through current and new legislation:

- Protect greenfield areas by restricting new port development in and adjoining the Great Barrier Reef World Heritage Area to within current port limits. These port limits are long-established and fixed in regulations under the *Transport Infrastructure Act 1994* (Qld).
- Restrict capital dredging for the development of new or expansion of existing port facilities to within the regulated port limits of Gladstone, Hay Point/Mackay, Abbot Point and Townsville.
- Ensure that any new development inside these port limits is also consistent with the Great Barrier Reef Marine Park Act, the Queensland Marine Parks Act, their regulations and zoning plans.
- Prohibit the sea-based disposal of material into the Great Barrier Reef World Heritage Area generated by port-related capital dredging.
- Mandate the beneficial reuse of port-related capital dredge spoil, such as land reclamation in port development areas, or disposal on land where it is environmentally safe to do so.
- The Queensland Government will require all proponents of new dredging works to demonstrate their project is commercially viable.
- Establish a maintenance dredging framework which identifies future dredging requirements, ascertains appropriate environmental windows to avoid coral spawning and protect seagrass, and examines opportunities for beneficial reuse of dredge material or on-land disposal where it is environmentally safe to do so.
- Require master plans at the major ports of Gladstone, Hay Point/Mackay, Abbot Point and Townsville which optimise infrastructure and address operational, economic, environmental and social relationships as well as supply chains and surrounding land uses.
- Support on-land disposal or land reclamation for capital dredge material at Abbot Point.

- Not support trans-shipping operations that adversely affect the Great Barrier Reef Marine Park.
- Further protect the Fitzroy Delta, including North Curtis Island and Keppel Bay which are clearly outside the Gladstone port area, through:
 - extension and strengthened conservation zoning in the Great Barrier Reef Coast Marine Park
 - extension of the existing Fish Habitat area
 - establishment of a new net-free zone under fisheries legislation
 - additional protections in associated intertidal and terrestrial areas.

Further port re-development other than capital dredging may occur at Port Alma subject to environmental assessment and appropriate conditions.

Port planning and port operations in and around the World Heritage Area continue to be improved through industry commitment to improve practices, implementation of new Queensland Government policies, the principles developed through the Independent Review of the Port of Gladstone¹¹, and partnership models such as the Gladstone Healthy Harbour Partnership (see Section 5.3). As a consequence, port development in the World Heritage Area and the adjacent coastal zone will be strictly controlled. Further, these initiatives incorporate a best practice approach to port planning, ensuring Outstanding Universal Value is an intrinsic consideration in port management and governance, optimisation of long-established port footprints, transparent decision making and meaningful engagement with affected stakeholders.

Ports and dredging

As an island nation, Australia relies heavily on its maritime links. In 2012-13, ports in and adjacent to the World Heritage Area accounted for 20 per cent of the total throughput of all Australian ports combined, with a value of \$40 billion.

Ports have been operated along the Great Barrier Reef coast since well before its world heritage listing and are included within its boundaries. The footprint of port areas is small, covering less than 0.1 per cent of the World Heritage Area.

By global standards, shipping movements in the Great Barrier Reef are low. For example, on any given day there are 40 to 50 ships transiting through the 348,000 square kilometre Great Barrier Reef World Heritage Area. By comparison there are around 140 ship movements per day within 20 kilometres of the 11,434 square kilometre Wadden Sea World Heritage Area.¹⁵

The importance of ensuring port activities are ecologically sustainable, particularly dredge projects and the disposal of dredge material, is recognised by all levels of government and by the ports industry.

Ports on the Great Barrier Reef coast are major hubs for the export of Australian products including coal, minerals, sugar and other agricultural products, and liquefied natural gas. Imports to Australia through these ports include clothing, food, cars, household goods, fuel and machinery.

The ports of Gladstone (18 berths), Townsville (9 berths), Hay Point (6 berths) and Abbot Point (2 berths) are tiny compared to the megaports of China, Singapore, Europe and the United States which each have 75 to 250 shipping berths, and will remain tiny by comparison after current expansion plans are completed.

The Outlook Report 2014 found the direct and flow-on effects of port activities, including dredging and the disposal of dredge material, generally occur in areas that are already under pressure from an accumulation of impacts. While port activities have a significant localised effect, these activities pose a relatively lower threat to the health of the broader World Heritage Area compared to, for example, the broadscale impacts from land-based run-off.

3.3.4 Direct use—immediate, local/regional

There are multiple activities within the Great Barrier Reef World Heritage Area, collectively referred to as ‘direct use’. These include marine tourism, defence activities, fishing, ports, recreation, research and educational activities, shipping and the use of marine resources by Traditional Owners. Direct use was one of the first influencing factors addressed through application of the Great Barrier Reef Marine Park Zoning Plan restrictions in 2003. At this time the green zones increased from 4.7 per cent to 33 per cent of the property.

These uses are managed through a variety of tools, including zoning plans, plans of management and permits. The tools are designed to ensure activities are ecologically sustainable and the World Heritage Area continues to provide a diverse range of community and economic benefits to current and future generations. Management is focused on addressing the threats of highest risk.

Fisheries in the Great Barrier Reef World Heritage Area are extensively regulated under Australian and Queensland

government legislation. The *Great Barrier Reef Marine Park Zoning Plan 2003* excludes commercial, charter and recreational fishing from one-third of the Marine Park, with trawling excluded from about two-thirds. There is strong evidence that this has resulted in consistently more and larger coral trout and other target fish in zones protected from fishing. Increased reproduction in these no-take zones also appears to benefit fish populations in the entire ecosystem, in turn benefiting overall ecosystem health and resilience. Other regulatory requirements include compulsory licensing for commercial and charter fishers, total allowable catch limits and quotas for commercial operators, possession limits, size limits, restrictions of fishing apparatus, and seasonal closures for all fishers. Significant commercial fisheries also require vessel monitoring systems to be fitted.

The environmental performance of fisheries is assessed under the EPBC Act. The Australian Government Department of the Environment undertakes these assessments on behalf of the Minister for the Environment, in accordance with the *Guidelines for the Ecologically Sustainable Management of Fisheries—second edition*. The assessments include consideration of the impacts of fisheries on marine species protected under Part 13 of the EPBC Act, as well as evaluating fisheries for the purpose of export approval under Part 13A.

The sources of **marine debris** are wide and varied. To address this threat, managers adopt a multi-pronged approach. This includes the regulation of waste from vessels and urban environments, together with a range of partnership activities with local government, industry and community groups. Marine debris is identified as a key threatening process under the EPBC Act.

There has been commercial **shipping** in the Reef area for around 150 years. At Australia's request, the Great Barrier Reef is designated a Particularly Sensitive Sea Area by the International Maritime Organisation, the first in the world. Extensive and stringent navigation and pollution prevention controls are in place to manage the threats from shipping. These include:

- high quality electronic navigation charts and aids to navigation
- pilotage requirements
- two-way routes and other ship routing measures
- vessel traffic services that monitor ship movements 24 hours a day and intervene if ships move beyond defined limits such as designated shipping areas
- emergency response assets and arrangements including emergency towage assets and oil spill response equipment.

Despite increasing ship movements through the World Heritage Area, the comprehensive management measures have substantially reduced the frequency of shipping incidents. The forward-looking *North-East Shipping Management Plan*¹² is designed to further improve shipping management.

North-East Shipping Management Plan

The *North-East Shipping Management Plan*, released in late 2014, builds on existing arrangements to provide an integrated approach to shipping management in the Great Barrier Reef World Heritage Area, Coral Sea and Torres Strait regions. The Plan gives explicit consideration to the Outstanding Universal Value of the World Heritage Area.

The plan notes that the number of shipping incidents is also very low and existing measures are significantly reducing risks. It identifies additional measures to further reduce the risks, including:

- The middle Inner Route (parallel to the Queensland coast between Cairns and Gladstone) and southern area of the Great Barrier Reef will be a major focus with regard to pilotage requirements. Coastal pilotage already operates north of Cairns.
- Increased resources for State port control inspections and further focus on areas related to navigational risk (such as fatigue, passage planning and navigational equipment). This program commenced in 2011 with the phased addition of three new specialist marine surveyors to be based in ports in the north-east region.
- Using emerging ship tracking technology to provide early alerting of ship breakdowns including a 'traffic organisation service'. A new decision support tool has been developed and operators trained. In addition, Automatic Identification System coverage continues to be reviewed to address poor or reduced areas of coverage.
- Working with industry to introduce (ahead of international timelines) the need for ships trading to ports in the region to be equipped with Electronic Chart Display And Information Systems (ECDIS) and have bunker oil tanks fitted in protective locations. From July 2015, existing tankers over 3000 gross tonnes will be required to carry ECDIS and from July 2016 to July 2018 the requirement will apply to cargo ships of 10,000 gross tonnes and above.

The Australian and Queensland governments are working closely with environmental groups and industry bodies to monitor the effectiveness of these risk reduction measures.

Progress on implementation will be reported to the Great Barrier Reef Ministerial Forum in late 2015.

3.4 Comprehensive strategic environmental assessment

After two years of analysis, comprehensive strategic environmental assessment reports for the Great Barrier Reef World Heritage Area and adjacent coastal zone^{9, 10, 13, 14} were endorsed by the Australian Minister for the Environment under the EPBC Act in August 2014.

The comprehensive strategic environmental assessment analysed impacts affecting the Reef from activities on both land and water, assessed the effectiveness of existing management arrangements and identified improvements to strengthen management of the World Heritage Area.

The strategic environmental assessment process has informed development of this Plan and the commitments underpin many of the Plan's actions.

Comprehensive strategic environmental assessment—key actions to manage pressures

Strong foundational management will continue along with new commitments from the comprehensive strategic environmental assessment to strengthen Reef management including:

- **strong joint management** initiatives including:
 - a management framework focused on **clear outcomes** for the future of the Reef’s values and driven by specific measurable targets
- **better guidance** for development activities including:
 - **cumulative impact guidelines** and **regional standards** to improve assessment and management of cumulative impacts from all activities within and adjacent to the Region
- **enhanced management, recovery and monitoring** programs including:
 - a **net benefit policy** to guide decision making and actions required to deliver an overall or ‘net’ improvement to ecosystem health and the condition of the Region’s values
 - a program of **regionally-based Reef recovery actions** to support restoration of critical habitats, functioning of coastal ecosystems and ecologically sustainable multiple use
 - a **Reef-wide integrated monitoring and reporting program**, which is an important part of evaluating performance and guiding adaptive management across the life of the program
 - Reef Water Quality Protection Plan
- **improved planning** for coastal urban areas, industry and ports including:
 - concentrating port development around existing long-established ports in Queensland, and port master planning at major ports
- **rigorous environmental impact statement assessment process** for projects including:
 - **stringent conditions** addressing matters of national environmental significance and Outstanding Universal Value to be incorporated into approval recommendations.

4. Actions for the future

4.1 Vision

The vision for the Great Barrier Reef World Heritage Area is:

To ensure the Great Barrier Reef continues to improve on its Outstanding Universal Value every decade between now and 2050 to be a natural wonder for each successive generation to come.

4.2 *The way forward*

The *Reef 2050 Long-Term Sustainability Plan* is a major step to ensuring the future health of the Great Barrier Reef World Heritage Area. It builds on the existing strong foundation of management, and is based on the principles of cooperative management underpinned by comprehensive knowledge.

For the first time, actions across government, industry, Traditional Owners, researchers and the community will be fully integrated to ensure that current and future threats to the Reef are addressed in an effective, efficient and appropriate manner. Regional and local approaches, based on both local and expert knowledge, will be central to protecting and managing the Reef's values and the community benefits they support.

Deficiencies and gaps identified in the assessment of effectiveness in the Outlook Report 2014 and the comprehensive strategic environmental assessment are addressed through the initiatives outlined in this Plan. Additional activities have also been developed with the Partnership Group to tackle outstanding issues and enhance protection of the Reef's values such as ecosystem health and biodiversity. The Plan coordinates existing activities and new initiatives by nominating targets, objectives and outcomes to deliver enhancements to the Outstanding Universal Value of the World Heritage Area each successive decade between now and 2050.

The current management arrangements described in Section 3 will continue under this Plan.

4.3 *Structure and themes*

Central to this Plan is an Outcomes Framework with seven overarching themes— ecosystem health, biodiversity, heritage, water quality, community benefits, economic benefits and governance (Figure 4).

These themes reflect the priority areas for action identified by governments and partners. Together they will address the key risks to the Reef and will ensure ecologically sustainable use can continue.

Under each theme, there are the following components:

- **Actions**—identified components of work to be undertaken to meet the targets
- **Targets**—the results being aimed for by **2020**, a five-year time horizon; to facilitate delivery they are Specific, Measurable, Achievable, Realistic and Time-bound (SMART)
- **Objectives**—linking targets to outcomes, expected to be achieved by **2035**, the medium term

- **an Outcome**—which must be achieved by **2050** to deliver the vision.

To ensure all the threats arising from human activity are addressed and that actions build on the strong foundation of protection and cooperative management, the Outcomes Framework has been developed using Program Logic methodology. The linkages from the threats, through foundational activities, actions, targets, objectives and the final outcome to be achieved are set out in theme-based diagrams throughout this section.

An analysis of the attributes of Outstanding Universal Value relevant to each theme and its mid-term objectives is presented in Appendix G. How the Plan will improve protection, maintenance and transmission of the World Heritage Area's Outstanding Universal Value is set out in Appendix H.

The lead organisations and partners for delivering each action are identified in Appendix I. The organisations listed against actions are responsible for implementing them and working with partners and community members to achieve the outcomes.

The themes themselves do not stand alone. Only by working towards the outcomes across all the themes will the threats be responded to, resilience strengthened and the vision delivered.



Figure 4: Protecting the Outstanding Universal Value of the Great Barrier Reef World Heritage Area

The vision for the Great Barrier Reef World Heritage Area will be achieved by building on the current management foundation with actions and outcomes under each of the seven identified themes. Combined, this will provide a robust management system for the World Heritage Area, maintain its integrity and protect its Outstanding Universal Value into the future.

Development of the targets and objectives takes into account the likelihood that there will be a significant lag time between actions to stabilise and reduce impacts and a measureable improvement in the condition of the Reef's ecosystem and heritage values. One example is the time between improvements in the quality of water flowing into the marine ecosystem and measurable improvements in water quality in the marine environment, with sediments and nutrients projected to continue affecting biodiversity for many years.

4.4 *Principles in decision making*

In making decisions about management and protection of the World Heritage Area, decision makers will have regard to the principles set out below.

Maintaining and enhancing outstanding universal value in every action
<ul style="list-style-type: none"> Protecting the outstanding universal value of the World Heritage Area is the prime consideration when planning, development and management decisions are made. Values and ecological processes in poor condition are restored and values and ecological processes in good condition are maintained. Economic growth is sustainable and consistent with protecting outstanding universal value.
Basing decisions on the best available science
<ul style="list-style-type: none"> Decisions are based on the full range of knowledge, including scientific understanding, Traditional Owner and community knowledge. Decisions take into consideration information on the current and emerging risks associated with climate change. Management is adaptive and continually improving, informed by the outcomes of monitoring programs.
Delivering a net benefit to the ecosystem
<ul style="list-style-type: none"> Decisions are underpinned by the principles of ecologically sustainable development, including the precautionary principle. Impacts are avoided and residual impacts mitigated. Offsets are considered only where impacts cannot be avoided or mitigated. Actions that restore ecosystem health and resilience — delivering an overall improvement in the Reef's condition—are fostered.
Adopting a partnership approach to management
<ul style="list-style-type: none"> Governance arrangements are transparent and accountable. Decisions continue to support a wide range of opportunities for sustainable economic, social and cultural activities, including traditional use. Management is cooperative, fostering stewardship and strong community support. Innovation in management is fostered.

4.5 Ecosystem health

Well-functioning ecological systems, such as coral reefs and associated habitats, provide a host of ecosystem services and underpin resilience. They support the integrity, biodiversity and heritage values of the Reef and its economic and community benefits. Traditional Owners and their continuing connection to their sea country play an integral role in the health of the Great Barrier Reef ecosystem.

The targets and actions to maintain and enhance ecosystem health over successive decades relate to those aspects of the ecological system (for example coral reefs, seagrass meadows and coastal habitats) that support or best represent the ecological and biological processes of the Reef; provide habitat for biodiversity including threatened species; increase resilience to climate change; and economic and community benefits (for example natural beauty, fisheries and protection from wave action). Individual species contributing to ecosystem and habitat integrity are considered in the biodiversity theme.

Ecosystems are subject to a wide range of influences, many of which are outside human control, such as floods and cyclones. Measuring progress towards the outcome, objectives and targets for ecosystem health will take these externalities into account.

Monitoring and reporting the resilience of some ecosystem components is a key commitment of the 2020 targets and actions. It is anticipated that these will be principally fulfilled by examining the capacity of ecosystems to withstand disturbance. This can be assessed directly by measuring recovery rates and indirectly by monitoring key processes such as reproduction, recruitment and mortality.

		2015-2020	2020	2035	2050		
THREATS <i>from Great Barrier Reef Outlook Report 2014</i>	FOUNDATIONAL PROGRAMS AND ACTIVITIES	ACTIONS	TARGETS	OBJECTIVES	OUTCOME		
Nutrient run-off Sediment run-off Crown-of-thorns starfish Exotic species Outbreak of disease Outbreak of other species Pesticide run-off Modifying coastal habitats Marine debris Illegal activities Barriers to flow Chemical spill (large) Oil spill (large) Grounding vessel (large) Damage to reef structure Spill (small) Grounding vessel (small)	<i>Native Title Act 1993</i> Traditional Use of Marine Resources Agreements Management framework and Heritage Strategy Land and Sea Rangers Economic Participation Action Plan	Supporting traditional management EHA1 Acknowledge Traditional Owners in new and existing policy and plans. EHA2 Incorporate and prioritise Traditional Owners' planning into existing and future ecosystem policy and programs. EHA3 Support Traditional Owner stewardship activities that contribute to Reef health and resilience, including removing and, where possible, identifying the sources of marine debris. EHA4 Develop further agreements with Traditional Owners addressing management of ecosystems within their traditional estates. EHA5 Develop, implement and coordinate a protocol and knowledge management system for: recording, storing, protecting, and where appropriate, sharing of knowledge, innovations and practices; conserving and cultural use of biocultural diversity; and use in decision making.	EHT1 Traditional Owners have developed Indigenous Ecological Knowledge Management Systems for collecting, handling and sharing culturally sensitive information, and its integration in decision making	EH01 The knowledge, innovations and practices of Traditional Owners relevant for conservation and cultural use of biocultural diversity are preserved and maintained.	The status and ecological functions of ecosystems within the Great Barrier Reef World Heritage Area are in at least good condition with a stable trend to improving trend.		
	Joint Field Management Program	Protecting and restoring EHA6 Further develop regionally relevant standards for ecosystem health (desired state, critical thresholds and health indicators) that inform and support the Integrated Monitoring and Reporting Program. EHA7 Prioritise functional ecosystems critical to Reef health in each region for their protection, restoration and management. EHA8 Develop a net benefit policy to restore ecosystem health, improve the condition of values and manage financial contributions to that recovery. EHA9 Maintain and work to add to the island and coastal protected area estate and continue to provide funding for protected area management in the Great Barrier Reef coastal zone. EHA10 Improve connectivity and resilience through protection, restoration and management of Reef priority coastal ecosystems including islands through innovative and cost-effective measures. EHA11 Maintain the Great Barrier Reef Marine Park and Great Barrier Reef Coast Marine Park zoning plans and enhance compliance. EHA12 Reduce crown-of-thorns starfish outbreaks by continuing to improve water quality and undertaking a targeted control program as needed. Improve integration and effectiveness of crown-of-thorns starfish research and management. EHA13 Identify and prioritise key sites of high ecological value and implement recovery programs (Reef Recovery Plans). EHA14 Implement ecosystem health initiatives through the Reef Trust investment strategy. EHA15 Improve mapping, modelling and monitoring of ecosystems important for the protection of the Reef to inform planning, assessment and decision making. EHA16 Address key knowledge gaps identified in the <i>Great Barrier Reef Outlook Report 2014</i> through the National Environmental Science Programme. EHA17 Finalise classification of marine ecosystems within the Great Barrier Reef.	EHT2 The number of agreements with Traditional Owners addressing management of ecosystems within their traditional estates is increased.	EH02 The Great Barrier Reef World Heritage Area retains its integrity and system functions by maintaining and restoring the connectivity, resilience and condition of marine and coastal ecosystems.			
		Reef Water Quality Protection Plan - best practice management plans - Reef stewardship - research and development - priority investment in rehabilitation Water quality improvement planning Queensland Wetland programs Crown-of-thorns starfish culling initiatives	EHT3 There is no net loss of the extent, and a net improvement in the condition, of natural wetlands and riparian vegetation that contribute to Reef resilience and ecosystem health.				
	North-East Shipping Management Plan Sewage treatment plant upgrades Reef Trust Legislation, regulatory standards and assessment processes - Commonwealth: <i>Environment Protection and Biodiversity Conservation Act 1999, Great Barrier Reef Marine Park Act 1975</i> - Queensland: <i>Environmental Protection Act 1994, Sustainable Planning Act 2009, Marine Parks Act 2004, Coastal Protection and Management Act 1995, Nature Conservation Act 1992, Vegetation Management Act 1999</i>		Reducing impacts EHA18 Avoid, mitigate or offset impacts on marine and coastal ecosystems to restore Reef resilience and ecosystem health. EHA19 Develop guidelines for assessing cumulative impacts (including climate change pressures) on matters of national environmental significance including ecosystem and heritage values in the World Heritage Area. EHA20 Strengthen the Queensland Government's vegetation management legislation to protect remnant and high value regrowth native vegetation, including in riparian zones. EHA21 Protect greenfield areas by restricting new port development within and adjoining the World Heritage Area to within existing port limits fixed in regulation under the <i>Transport Infrastructure Act 1994</i> (Qld). EHA22 Protect the Fitzroy Delta including North Curtis Island and Keppel Bay by: • extension and strengthened conservation zoning in the Great Barrier Reef Coast Marine Park • extension of the existing Fish Habitat area • establishment of a new net-free zone under fisheries legislation • additional protections in associated intertidal and terrestrial areas. EHA23 Implement coastal planning laws based on the best available science, which take into account expected sea level rise, protect ecologically significant areas such as wetlands, prohibit new development in high-hazard greenfield areas and protect the Great Barrier Reef World Heritage Area. EHA24 Work with local councils to build their capacity to effectively implement coastal planning laws and policies to protect the Reef. EHA25 Ensure Great Barrier Reef ports planning incorporates evidence-based measures to support protection, restoration and management of coastal ecosystems that contribute to Reef health and resilience. EHA26 Maintain and improve response plans and adequate response capacity for shipping and other incidents. EHA27 Implement on-ground activities to reduce the volume of debris generated in or entering the World Heritage Area, and undertake education and awareness raising activities to minimise the source and occurrence of marine debris. EHA28 Support best practice and community stewardship activities that contribute to Reef health and resilience.	EHT4 Key direct human-related activities are managed to reduce cumulative impacts and achieve a net benefit for the Reef.		EH03 Trends in the condition of key ecosystems including coral reefs, seagrass meadows, estuaries, islands, shoals and inter-reefal areas are improved over each successive decade.	
			Reef Water Quality Protection Plan - Paddock to Reef monitoring and reporting - annual water quality report cards Australian Institute of Marine Science Long-Term Monitoring Program	Monitoring and reporting EHA29 Establish condition and resilience indicators for coral reefs, seagrass meadows, islands, estuaries, shoals and interreefal shelf habitats. EHA30 Incorporate condition and resilience indicators for ecosystem health in the Integrated Monitoring and Reporting Program. EHA31 Communicate the findings of the Great Barrier Reef Coastal Ecosystems Assessment Framework – basin assessments and encourage their use in determining priorities for protecting and restoring coastal ecosystems and in taking actions likely to improve Great Barrier Reef health and resilience. EHA32 Enhance compliance with zoning plans, fish habitat area provisions and other regulations through improved enforcement, and adoption of new technologies such as tracking systems on vessels in the Great Barrier Reef Marine Park and Great Barrier Reef Coast Marine Park.			EHT5 Condition and resilience indicators for coral reefs, seagrass meadows, islands, estuaries, shoals and inter-reefal shelf habitats are on a trajectory towards at least good condition at local, regional and Reef-wide scales.

4.6 Biodiversity

Biodiversity is not just a measure of how many species there are, but encompasses all natural variation — from genetic differences within one species to variations across a habitat or a whole ecosystem.

The Great Barrier Reef is one of the world’s most diverse and remarkable ecosystems, with a wide range of habitats and many thousands of different species. Actions will be taken to protect and conserve this biodiversity, focused on applying traditional knowledge, species of conservation concern, monitoring and reporting, and specific projects, planning and programs.

Existing monitoring programs have been used to define the 2020 targets for biodiversity. A variety of species and taxa, including species of conservation concern, will be used as indicators of biodiversity health. Variables like the extent, condition and trend of a species or their habitat generally provide the best guide.

The integral connection that Traditional Owners have with the biodiversity of the Great Barrier Reef is acknowledged and recognised. Protection of Indigenous knowledge systems and the conservation and sustainable use of traditional biological resources are central to this.

Actions to maintain and restore ecosystem function, which is fundamental to biodiversity conservation, are captured under the ecosystem health theme.

			2015-2020	2020	2035	2050
	THREATS <small>from Great Barrier Reef Outlook Report 2014</small>	FOUNDATIONAL PROGRAMS AND ACTIVITIES	ACTIONS	TARGETS	OBJECTIVES	OUTCOME
	Illegal fishing and poaching Incidental catch of species of conservation concern Extraction from spawning aggregations Extraction of particle feeders Extraction of predators Extraction of herbivores Discarded catch Artificial light Wildlife disturbance Noise pollution Modifying coastal habitats Wildlife disturbance	Closing the Gap policy Management framework and Heritage Strategy <i>Native Title Act 1993</i> Traditional Use of Marine Resources Agreements Economic Participation Action Plan Land and Sea Rangers program	Supporting traditional knowledge and management	BT1 Customary use of biological resources, in accordance with traditional cultural practices that are compatible with conservation or cultural use requirements, are formally recognised and adopted in management arrangements.	B01 Traditional Owners are engaged and participate in and manage the conservation and ecologically sustainable use of cultural keystone species and biocultural resources.	
			BA1 Where agreed through Traditional Owner engagement frameworks, apply traditional knowledge and customary use of biological diversity, including the use of community protocols, in managing protected areas.			
			BA2 Work with Traditional Owner groups to identify biocultural resources within their sea country and develop plans of management for conservation and use of those resources.			
			BA3 Improve Traditional Owner engagement to strengthen participation in decision making at all levels relating to the conservation and cultural use of biodiversity.			
			BA4 Work with Traditional Owners to build capacity to record and manage traditional ecological knowledge, and prioritise research to address key Indigenous knowledge gaps.			
	Joint Field Management Program		Species of conservation concern	BT2 Trends in the availability and condition of habitat for species of conservation concern are improving at Reef-wide and regionally relevant scales.	B02 The survival and conservation status of listed species within the World Heritage Area is promoted and enhanced.	
			BA5 Further develop and implement dugong and turtle protection plans using the Reef Trust and associated initiatives.			
			BA6 Establish three net-fee fishing zones in north and central Queensland: Trinity Bay, Cairns; St Helen's Beach-Cape Hillsborough, north of Mackay; and Yeppoon-Keppel Bay-Fitzroy River, Capricorn Coast.			
			BA7 Develop and implement the recommendations of the National Vessel Strike Strategy.			
			BA8 Maintain and enhance a marine animal stranding response program.			
	Recovery plans for threatened species and ecological communities Threat abatement plans Rehabilitation centres and feeding stations Protected species guidelines for recreational anglers and commercial fishers Back on Track species prioritisation framework		BA9 Identify key habitat types that support foraging for marine turtles within the World Heritage Area. The first five years will focus on flatback turtles.	BT3 Incidental catch of species of conservation concern is declining.	B03 Trends in populations of indicator species across their natural range are stable or increasing.	
			BA10 Identify, protect and manage key marine turtle nesting areas.			
			BA11 Identify, protect and manage key seabird nesting islands, and key habitats that support foreshore and pelagic foraging.			
			BA12 Identify, protect and manage key habitat areas for inshore dolphins.			
			BA13 Continue to protect and manage key habitats for dugong.			
	Legislation, existing regulatory standards, and assessment processes • Commonwealth: <i>Environment Protection and Biodiversity Conservation Act 1999</i> , <i>Great Barrier Reef Marine Park Act 1975</i> • Queensland: <i>Nature Conservation Act 1992</i> , <i>Environmental Protection Act 1994</i> , <i>Fisheries Act 1994</i> , <i>Sustainable Planning Act 2009</i> , <i>Marine Parks Act 2004</i> Environmental Offsets framework Nature Refuges program Everyone's Environment grants program Queensland Wetlands Program Master Plan for Queensland's Parks and Forests		BA14 Implement further actions to reduce human-related causes of dugong mortality such as vessel strike and net entanglement.	BT4 Populations of Australian humpback and snubfin dolphins, dugong, and loggerhead, green, hawksbill and flatback turtles are stable or increasing at Reef-wide and regionally relevant scales.	B04 Indices of biodiversity are in good or very good condition at Reef-wide and regional scales.	
			BA15 Reduce cumulative impacts on coastal dolphin populations and their supporting habitats especially Australian humpback and snubfin dolphins.			
			BA16 Implement conservation plans for priority species of conservation concern.			
			Monitoring and reporting			
			BA17 Identify the key indicator species and populations including fisheries species, to inform refinement of targets and for inclusion in the Integrated Monitoring and Reporting Program.			
	State-wide and regional recreational fishing survey Species-specific monitoring programs and commercial take data		BA18 Complete population or stock assessments of indicator species, including fisheries species, to inform population resilience and sustainable use.	BT5 Trends in populations of key indicator species and habitat condition are stable or improving at Reef-wide and regionally relevant scales.	B05 Reef habitats and ecosystems are managed to sustain healthy and diverse populations of indicator species across their natural range.	
			BA19 Monitor and report on key seabird populations to establish trends.			
			BA20 Monitor and report on turtle breeding and/or nesting success of green, loggerhead, flatback and hawksbill turtles at key locations.			
			BA21 Continue to survey the dugong population every five years.			
			Projects, planning and programs			
			BA22 Continue implementation of the Raine Island Recovery project.			
			BA23 Review the regulatory structure of fishing to ensure the sustainability of Queensland's fisheries.			
			BA24 Ensure that through the Field Management Program resources are available for island habitat restoration projects and pest eradication particularly at critical seabird and turtle nesting sites.			
			BA25 Develop a guideline specific to the Great Barrier Reef on assessing and managing impacts of underwater noise on species.			

4.7 Heritage

The heritage theme is focused on the cultural significance of the Reef, comprising all human values and meanings that might be recognised, including aesthetic, historic, scientific, social and spiritual. It encompasses Indigenous and non-Indigenous values.

Protecting natural heritage, including the outstanding universal value of the Reef, is embedded in the overarching vision and all themes of this Plan.

Indigenous heritage recognises that Aboriginal and Torres Strait Islander peoples are the First Australians and the Traditional Owners of the Great Barrier Reef. Heritage preservation reflects continued recognition and respect for past generations of Traditional Owners and the ancestral beings that shaped the land, seas and waterways. The strong ongoing links between Aboriginal and Torres Strait Islanders and their sea country are recognised in the Reef’s world heritage listing and contributes to its Outstanding Universal Value (Appendix B).

Indigenous heritage is unique, dynamic and diverse. Traditional Owners express this through their relationships with country, people, beliefs, knowledge, lore, language, symbols and ways of living. Many traditional cultural practices include plants, animals and the environment, making nature inseparable from cultural identity. *The sea, its natural resources and our identity as Traditional Owners, are inseparable... Our ancestors have hunted and fished in this sea country since time immemorial...* (Girringun Aboriginal Corporation)

Non-Indigenous heritage includes places that embody a specific cultural or historic value, such as historic buildings and industrial sites, monuments, gardens, landscapes, cultural landscapes, archaeological sites, groups of buildings and precincts, and maritime sites and places. Heritage places illustrate national and social developments in Australia over the past few centuries.

Australia’s *Burra Charter* sets out responsibilities to protect, conserve and celebrate cultural heritage to preserve items that form part of the historic or cultural record, and to maintain a sense of continuity by sustaining things that identify who we are and where we have come from.

		2015-2020	2020	2035	2050
		ACTIONS	TARGETS	OBJECTIVES	OUTCOME
THREATS <i>from Great Barrier Reef Outlook Report 2014</i>	FOUNDATIONAL PROGRAMS AND ACTIVITIES	<div>Building capacity</div> <div><div>HA1</div><div>Build capacity for the involvement of Traditional Owners and community members in cooperative management, planning and impact assessment.</div></div> <div><div>HA2</div><div>Work with and support Traditional Owners to collect, store and manage their cultural heritage information.</div></div> <div><div>HA3</div><div>Improve engagement processes for assessment of cultural heritage values to inform decision making.</div></div>	<div>HT1</div> <div>New and effective cooperative management practices are developed for protection and conservation of Great Barrier Reef Indigenous and non-Indigenous heritage.</div>	<div>HO1</div> <div>Traditional Owners' cultural heritage rights and responsibilities are incorporated in all facets of management.</div>	Indigenous and non-Indigenous heritage values are identified, protected, conserved and managed such that the heritage values maintain their significance for current and future generations.
		<div>Joint Field Management Program</div>			
		<div>Great Barrier Reef Marine Park and Great Barrier Reef Coast Marine Park zoning plans</div> <div>Queensland Ecotourism Plan</div> <div>Environmental management system for commercial fishers</div> <div>Eco-accreditation for tourism operators and fishers</div> <div>Local government coastal hazard management plans</div> <div>Natural resource management regional climate adaptation plans</div> <div>Land and Sea Management Plans</div>	<div>Ensuring protection</div> <div><div>HA4</div><div>Update the <i>Great Barrier Reef Marine Park Heritage Strategy 2005</i> to more comprehensively address Indigenous and non-Indigenous heritage.</div></div> <div><div>HA5</div><div>Develop impact assessment guidelines for cultural heritage values in the Great Barrier Reef Region.</div></div> <div><div>HA6</div><div>Facilitate robust consideration of heritage values in planning processes, including port development and associated activities.</div></div> <div><div>HA7</div><div>Consolidate Reef heritage data, and identify priorities for protective action.</div></div>	<div>HT2</div> <div>Indigenous and non-Indigenous heritage values are identified, documented and protected in decision-making and planning processes.</div>	
Lack of capacity and opportunities for Traditional Owners		<div>Management planning</div> <div><div>HA8</div><div>Complete heritage management plans for Low Isles and North Reef light stations.</div></div> <div><div>HA9</div><div>Update existing conservation management plans for historic shipwrecks—the SS <i>Yongala</i> (1911), <i>Gothenburg</i> (1875), and SS <i>Llewellyn</i> (1919).</div></div> <div><div>HA10</div><div>Complete and implement conservation management plans for key historic shipwrecks—HMS <i>Pandora</i> (1791), HMCS <i>Mermaid</i> (1829) and <i>Foam</i> (1893).</div></div>			
Poor community awareness and appreciation of heritage values.		<div>Monitoring and reporting</div> <div><div>HA11</div><div>Further identify, map, monitor and report on key Reef heritage values and sites, including comprehensive maritime surveys in priority sections of the Reef.</div></div>	<div>HT3</div> <div>Partnerships between Traditional Owners and all stakeholders are increased to ensure key Reef heritage values are identified, documented, and monitored.</div>		

4.8 Water quality

Improving the quality of water entering the World Heritage Area is pivotal in supporting the Reef’s values as well as in maintaining its fundamental contribution to the wider Australian community through tourism and food production. It builds resilience in areas which support significant biodiversity and species of conservation concern such as turtles and dugongs, and drive fisheries productivity. It is also likely to reduce the frequency of future crown-of-thorns starfish outbreaks, with one line of evidence suggesting these are driven by elevated concentrations of nutrients.

After more than a decade of intensive management and investment by government, industry and other partners under Reef Plan, momentum continues to build towards its 2020 goal of ensuring that the quality of water entering the Reef from broadscale land use has no detrimental impact on the health and resilience of the Great Barrier Reef.

Results to date show that land use practices are changing and resulting pollutant loads are declining and that Reef Plan’s immediate goal of halting and reversing the decline in the quality of water entering the Reef has been met.

While progress has been made, improving the quality of water entering the Reef will take considerable further time and effort. There are significant time lags, possibly decades, in seeing a response in the Reef’s marine system as a result of changing land management practices.

The land-based run-off targets (WQT1 and WQT2) are drawn from the *Reef Water Quality Protection Plan 2013* approved by the Great Barrier Reef Ministerial Forum in July 2013. They were developed in close consultation with industry and community stakeholders. In setting the targets, stakeholders and governments recognised that they were ambitious, particularly with respect to nitrogen loads, but agreed that this was important to maintain momentum in the long-term effort to improve water quality.

Reflecting Reef Plan’s 2020 goal in the water quality objectives of this Plan will ensure continuity in this important theme beyond the current 2020 time horizon.

2015-2020		2020	2035	2050	
THREATS <i>from Great Barrier Reef Outlook Report 2014</i>	FOUNDATIONAL PROGRAMS AND ACTIVITIES	ACTIONS	TARGETS	OBJECTIVES	OUTCOME
Diffuse source:	Reef Water Quality Protection Plan <ul style="list-style-type: none">• best practice management plans• Reef stewardship• research and development• priority investment in rehabilitation Water quality improvement planning	Improving broadacre land management	WQT1	WQO1	
		WQA1 By 2018, review and update the Reef Water Quality Protection Plan and its targets.	By 2018: <ul style="list-style-type: none">• at least a 50 per cent reduction in anthropogenic end-of-catchment dissolved inorganic nitrogen loads in priority areas, on the way to achieving up to an 80 per cent reduction in nitrogen by 2025		
• nutrient run-off		WQA2 Continue improvement in water quality from broadscale land use through implementation of <i>Reef Water Quality Protection Plan 2013</i> actions.			
		WQA3 Pending the outcome of the review of regulation and market-based mechanisms to improve water quality, require farmers to be accredited to best management practice guidelines or to operate under an Environmental Risk Management Plan.			
• sediment run-off		Improving water quality from all sectors			
		WQA4 Implement innovative management approaches through the Reef Trust for improving water quality.			
• crown-of-thorns starfish outbreaks		WQA5 Increase use of cost-effective measures to improve water quality from broadscale land use, urban, industrial and port activities.			
		WQA6 Establish an agreed performance-based voluntary reporting framework across agriculture, urban, ports and industry to measure management efforts to achieve best management practice and to inform regional report cards.			
• pesticide run-off	Sewage treatment plant upgrades to tertiary grade treatment	WQA7 Finalise and implement plans (e.g. Water Quality Improvement Plans and Healthy Waters Management Plans) for Reef catchments and key coastal areas, identifying implementation priorities for protection of the Reef.			
		WQA8 Increase industry participation in regional water quality improvement initiatives and partnerships aimed at managing, monitoring and reporting of water quality. These should build on existing initiatives such as: <ul style="list-style-type: none">• Fitzroy Partnership for River Health• Gladstone Healthy Harbour Partnership• Mackay Whitsunday Healthy Rivers to Reef Partnership.			
• terrestrial discharge	Regulatory standards for stormwater run-off, dredging, sewage outfalls, mine discharges and industrial contaminants	WQA9 Review and update water quality objectives and Great Barrier Reef Marine Park Authority Water Quality Guidelines at Reef-wide and regionally relevant scales based on scientifically verified monitoring and research.			
		Improving urban and industrial water quality			
Point source:	Commonwealth: <i>Environment Protection and Biodiversity Conservation Act 1999</i> , <i>Environment Protection (Sea Dumping) Act 1981</i> , <i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i> , <i>Great Barrier Reef Marine Park Act 1975</i>	WQA10 Review and set regionally relevant standards for urban and point-source discharges into the World Heritage Area and ensure licensees meet these standards.			
		WQA11 Increase adoption of leading practice in the management and release of point-source water affecting the Reef.	WQT2		
• dredging	Queensland: <i>Environmental Protection Act 1994</i> , <i>Sustainable Planning Act 2009</i> , <i>Marine Parks Act 2004</i> , <i>Coastal Protection and Management Act 1995</i> , <i>State Development and Public Works Organisation Act 1971</i> , <i>Transport Operations (Marine Pollution) Act 1995</i>	WQA12 Implement best practice stormwater management (e.g. erosion and sediment control, water sensitive urban design and capture of gross pollutants) for new development in coastal catchments.	By 2018: <ul style="list-style-type: none">• 90 per cent of sugarcane, horticulture, cropping and grazing lands are managed using best management practice systems (soil, nutrient and pesticides) in priority areas		
		WQA13 Build capacity for local government and industry to improve water quality management in urban areas.			
• damage to sea floor		Reducing the impact of ports and dredging			
		WQA14 Restrict capital dredging for the development of new or expansion of existing port facilities to within the regulated port limits of Gladstone, Hay Point/Mackay, Abbot Point and Townsville.			
• disposal of dredge material		WQA15 Develop and implement a dredging management strategy that includes: <ul style="list-style-type: none">• an examination and, where appropriate, a potential pilot program to evaluate different treatment and re-use options for managing dredge material• measures to address dredging-related impacts on Reef water quality and ecosystem health• a 'code of practice' for port-related dredging activities.			
		WQA16 Develop a State-wide coordinated maintenance dredging strategy which: <ul style="list-style-type: none">• identifies each port's historical dredging volumes and likely future requirements and limits• identifies appropriate environmental windows to avoid coral spawning, seagrass recruitment, turtle breeding and weather events• examines opportunities for the beneficial reuse of dredge material or on-land disposal from maintenance activities• establishes requirements for risk-based monitoring programs.			
• acid sulphate soils		WQA17 Understand the port sediment characteristics and risks at the four major ports and how they interact and contribute to broader catchment contributions within the World Heritage Area.			
		WQA18 In 2015 legislate to ban sea-based disposal of capital dredge material in the Great Barrier Reef Marine Park and in the balance of the Great Barrier Reef World Heritage Area from port-related capital dredging.			
		WQA19 Mandate the beneficial reuse of port-related capital dredge spoil, such as land reclamation in port development areas, or disposal on land where it is environmentally safe to do so.			
		WQA20 The Queensland Government will require all proponents of new dredging works to demonstrate their project is commercially viable prior to commencement.			
		WQA21 The Queensland Government will not support trans-shipping operations that adversely affect the Great Barrier Reef Marine Park.	WQT4		
		WQA22 Support on-land disposal or land reclamation for capital dredge material at Abbot Point.	Water quality in the Great Barrier Reef has a stable or positive trend.		
		Monitoring and reporting			
		WQA23 Expand 'nested' integrated water quality monitoring and report card programs at major ports and activity centres (e.g. Gladstone), in priority catchments (e.g. Mackay Whitsundays) and Reef-wide, to guide local adaptive management frameworks and actions.	WQT5		
		WQA24 Identify and action opportunities for Traditional Owners, industry and community engagement in on-ground water quality improvement and monitoring programs.	Traditional Owners, industry and community are engaged in on-ground water quality improvement and monitoring.		
	Reef Water Quality Protection Plan <ul style="list-style-type: none">• Paddock to Reef monitoring and reporting• annual water quality report cards Australian Institute of Marine Science Long-Term Monitoring Program				Reef water quality sustains the Outstanding Universal Value, builds resilience and improves ecosystem health over each successive decade.

A horizontal timeline with a blue arrow pointing to the right. It has four tick marks labeled '2015-2020', '2020', '2035', and '2050' from left to right.

Explicit consideration of community benefits in environmental decision making is not standard practice. As a result, the aim of this theme is to develop a shared understanding of community benefits derived from the Reef. It sets out individual and collective roles and responsibilities to ensure these benefits are maintained and transmitted to future generations. An important step is the further development of a long-term social and economic monitoring program that is implemented at local, regional and Reef-wide scales.

		2015-2020	2020	2035	2050		
THREATS	FOUNDATIONAL PROGRAMS AND ACTIVITIES	ACTIONS	TARGETS	OBJECTIVES	OUTCOME		
Poor engagement with and opportunities for Traditional Owners	Closing the Gap policy <i>Native Title Act 1993</i> Traditional Use of Marine Resources Agreements Management framework and Heritage Strategy Economic Participation Action Plan Land and Sea Rangers program	Building capacity	CBT1	CBO1	An informed community that plays a role in protecting the Reef for the benefits a healthy Reef provides for current and future generations.		
		CBA1	Review current mechanisms and processes to improve benefits to Traditional Owners engaged in sea country management.	The number of benefit-sharing initiatives and agreements with Traditional Owners is increased.		The rights of Traditional Owners to derive benefits from the conservation and cultural use of biological resources are recognised.	
		CBA2	Work with Traditional Owners to identify world's best practice in agreement making, strategic planning, and management and implementation of Indigenous programs in relation to the Great Barrier Reef sea country estate.				
		CBA3	Develop collaborative working arrangements with Traditional Owners which establish mutual trust and build Indigenous capacity.				
Poor coastal planning to manage for impacts of climate change	Joint Field Management Program	Planning and policies	CBT2	Community benefit values have been identified and are considered in decision making.		CBO2	
		CBA4					Ensure the impact on Reef health and resilience is considered in planning and developing coastal hazard responses to ensure negative impacts are avoided then mitigated.
		CBA5					Ensure community benefits derived from the Reef are considered in local and State-level policy and planning instruments and development and management decisions.
		CBA6					Establish and adopt standards to report on condition and trend of aesthetic values of the reefs, islands and coasts.
Coastal hazards	Legislation, regulatory standards and environmental impact assessment processes -Commonwealth: <i>Environment Protection and Biodiversity Conservation Act 1999, Great Barrier Reef Marine Park Act 1975</i> -Queensland: <i>Environmental Protection Act 1994, Sustainable Planning Act 2009, Marine Parks Act 2004</i>	CBA7	Ensure the aesthetic values of the reefs, islands and the coast are considered and protected through planning and development decisions.	CBO3			
		CBA8	Industry, community and governments work together to implement policies and programs that address tourism and recreational use of the Great Barrier Reef Marine Park: <ul style="list-style-type: none">• ensure that tourism and recreation activities are ecologically sustainable• maintain and apply a contemporary and adaptive set of management arrangements• implement best practice approaches and certification programs (where appropriate) to ensure protection and sustainable use of the Great Barrier Reef (e.g. High Standard Tourism program)• maintain visitor satisfaction through high quality presentation and tourism services, including quality world heritage interpretation• maintain recreational opportunities for Reef visitors (e.g. recreational fishing, sailing and diving)• coordinate field management activities for Reef visitors• promote voluntary compliance and Reef-friendly behaviour• provide adequate and well-maintained visitor infrastructure such as public moorings, reef protection markers, island facilities and interpretive signs.			Community benefits provided by the Reef, including its superlative natural beauty and the sense of place, are maintained for current and future generations.	
		CBA9	In the revision of climate change adaptation strategies, recognise and avoid adverse impacts on coastal ecosystems essential for Reef health and resilience.				
		CBA10	Develop and implement plans of management in areas of the Great Barrier Reef Marine Park that have high growth for recreation and other uses.				
Poor understanding of the benefits of the Reef's Outstanding Universal Value to the community	Great Barrier Reef Marine Park and Great Barrier Reef Coast Marine Park zoning plans Queensland Ecotourism Plan Environmental management system for commercial fishers Eco-accreditation for tourism operators and fishers Local government coastal hazard management plans Natural resource management regional climate adaptation plans Land and Sea Management Plans	Improving awareness	CBT3	CBO4			
		CBA11	Strengthen programs to understand and promote the: <ul style="list-style-type: none">• Reef's values and the community benefits they provide• threats to the values of the Reef and what people can do to address them• implications of climate change for the Reef and coastal ecosystems• role of the Reef, coastal ecosystems and physical coastal processes in protecting communities from extreme weather events• opportunities to contribute or play a role in protecting and managing the Reef.		Local, regional and Reef-wide community benefits are understood and the community is actively engaged in managing Reef activities.		
		CBA12	Improve the involvement and support of local communities in monitoring, protecting, managing and sustainably using the Reef, including through citizen science and Local Marine Advisory Committees.				
		Monitoring and reporting	CBT4			Community benefit values for Great Barrier Reef coastal ecosystems are being monitored and show a positive trend.	
CBA13	Support the long-term social and economic monitoring program.						

4.10 Economic benefits

The Reef is a critical economic asset, providing income and jobs for the community. Reef-dependent industries and Reef-associated industries support diverse and sustainable communities. These industries and communities need to be able to continue to prosper, while ensuring protection of the Reef’s Outstanding Universal Value.

The economic benefits theme focuses on improving and maintaining the ecological, social and economic sustainability of Reef-dependent and Reef-associated industries. This theme recognises that a partnership involving regional and Indigenous communities, government and industry can ensure that development pressures are addressed in an effective and positive way.

Addressing the interplay between environmental, social and economic factors through improved planning and decision making and an outcomes-focused approach will contribute to sustainable communities, a healthy environment and protection of the Reef’s Outstanding Universal Value for current and future generations. Investment in Reef health is an investment in ensuring ongoing economic benefits and community wellbeing.

Many of the actions listed under other themes consider economic benefits and are not repeated here.

			2015-2020	2020	2035	2050
	THREATS <small>from Great Barrier Reef Outlook Report 2014</small>	FOUNDATIONAL PROGRAMS AND ACTIVITIES	ACTIONS	TARGETS	OBJECTIVES	OUTCOME
			<div>Improving economic participation</div> <div>EBA1Develop and implement an Indigenous Business Development Plan including a comprehensive review of baseline data, processes and systems to identify existing and potential economic benefits to Traditional Owners.</div> <div>EBA2Assist Traditional Owners to be business-ready and have improved capacity to generate economic benefits from use and management of their traditional estates.</div>	<div>EBT1</div> <div>There is an increase in the number of Traditional Owner service providers and viable businesses.</div> <div>EBT2</div> <div>The number of employment opportunities for Traditional Owners in sea country management and Reef-based industries is increased.</div> <div>EBT3</div> <div>Cumulative impacts on the Reef from human activities are understood and measures to ensure a net environmental benefit approach for the Reef are in place.</div> <div>EBT4</div> <div>Shipping within the Reef is safe, risks are minimised, and incidents are reduced to as close to zero as possible.</div>	<div>EBO1</div> <div>Traditional Owners derive economic benefits from conservation and sustainable use of biological resources.</div> <div>EBO2</div> <div>Protecting the Reef’s Outstanding Universal Value is embedded within decision making with impacts first avoided, then mitigated and then, as a final consideration, any residual impacts are offset to achieve a net environmental benefit.</div> <div>EBO3</div> <div>Reef-associated industries are planned and managed in such a way as to protect the Reef’s Outstanding Universal Value and are sustainable, productive and profitable.</div>	
	<div>Cumulative impacts</div> <div><ul style="list-style-type: none">incompatible usesacid sulphate soilscoal dust</div>	<div>Native Title Act 1993</div> <div>Traditional Use of Marine Resources Agreements</div> <div>Management framework and Heritage Strategy</div> <div>Economic Participation Action Plan</div> <div>Closing the Gap policy</div> <div>Joint Field Management Program</div> <div>Reef Trust</div> <div>Environment Protection and Biodiversity Conservation Act 1999</div>	<div>Safe shipping</div> <div>EBA6Implement commitments for best-practice commercial vessel operation including those aimed at:<ul style="list-style-type: none">reducing collisions with marine faunareducing interference with species behaviourundertaking further research and investigating appropriate measures to reduce cumulative impacts from shipping.</div> <div>EBA7Consider development of a new vessel class which ensures bulk carriers travelling in the World Heritage Area meet stringent safety standards.</div> <div>EBA8Fully vet 100 per cent of all bulk carriers traversing the Great Barrier Reef to an appropriate standard by an independent industry endorsed ship-vetting provider.</div> <div>EBA9Encourage industry adoption of vessel assessment activities and approval processes that incorporate key crew competency evaluations to help ensure safe operations and compliance with regional and port requirements.</div> <div>EBA10Support the North-East Shipping Management Group on environment protection measures, preparedness and response protective measures, management of major anchorages, and stakeholder engagement.</div>			
	<div>Damaging incidents from shipping and boating</div> <div><ul style="list-style-type: none">groundingsvessel waste dischargespillsvessel strikesdamage to sea floornoise pollution</div>	<div>North-East Shipping Management Plan</div> <div>Great Barrier Reef Marine Park and Great Barrier Reef Coast Marine Park zoning plans</div> <div>Queensland Ecotourism Plan</div> <div>Environmental management system for commercial fishers</div> <div>Eco-accreditation for tourism operators and fishers</div>	<div>Improving sustainability</div> <div>EBA11Continue to refine and improve guidance and procedural requirements for avoiding, mitigating and offsetting impacts to the Reef from industry activities using standardised policies, procedures and guidelines.</div> <div>EBA12Adopt a fisheries resource allocation policy which maximises the values of a sustainable fisheries catch.</div> <div>EBA13Support the uptake of sustainable practices by Reef-dependent and Reef-associated industries to limit impacts on the Reef’s Outstanding Universal Value.</div> <div>EBA14Implement the <i>Queensland Ecotourism Plan: 2013-2020</i> in a manner that builds upon consistent and effective management of tourism in protected areas.</div> <div>EBA15Recognise tourism-related fishing, particularly charter fishing, as a distinct fishing activity through the development of an action plan which:<ul style="list-style-type: none">identifies fisheries resources with tourism-related potential at a detailed regional leveldevelops mechanisms to enable charter fishing to operate on a sustainable basis.</div> <div>EBA16Continue to engage in and support the Gladstone Healthy Harbour Partnership, Mackay Whitsunday Healthy Rivers to Reef Partnership and Fitzroy Partnership for River Health.</div>	<div>EBT5</div> <div>The relationship between Reef health and the viability of Reef-dependent industries (e.g. tourism and fishing) is understood and considered in planning and development decisions.</div>	<div>EBO4</div> <div>Reef-dependent industries are productive and profitable based on a healthy Reef and are ecologically sustainable.</div>	
	<div>Poor planning and development</div> <div><ul style="list-style-type: none">modifying coastal habitatsbarriers to flowaltered ocean currentsterrestrial dischargewildlife disturbance</div>	<div>Sewage treatment plant upgrades to tertiary-grade treatment</div> <div>Regulatory standards for storm water run-off, sewage outfalls, mine discharges and industrial contaminants</div> <div><ul style="list-style-type: none">Commonwealth: <i>Environment Protection and Biodiversity Conservation Act 1999</i>, <i>Environment Protection (Sea Dumping) Act 1981</i>, <i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i>, <i>Great Barrier Reef Marine Park Act 1975</i>Queensland: <i>Environmental Protection Act 1994</i>, <i>Sustainable Planning Act 2009</i>, <i>Marine Parks Act 2004</i>, <i>Coastal Protection and Management Act 1995</i>, <i>State Development and Public Works Organisation Act 1971</i>, <i>Transport Operations (Marine Pollution) Act 1995</i></div>	<div>Monitoring and reporting</div> <div>EBA17Identify, test and use economic indicators as a component of the Integrated Monitoring and Reporting Program.</div> <div>EBA18Identify, test and, if appropriate, use indicators of Reef-dependent industry viability and its relationship with Reef health as part of the Integrated Monitoring and Reporting Program.</div>	<div>EBT6</div> <div>Economic indicators are included in the Integrated Monitoring and Reporting Program</div>		<div>Economic activities within the Great Barrier Reef World Heritage Area and its catchments sustain the Reef’s Outstanding Universal Value.</div>

5. Implementing the Plan

5.1 Governance for Plan delivery

The Plan will be made a schedule to the *Great Barrier Reef Intergovernmental Agreement 2009* between the Australian and Queensland governments. This is the highest level of agreement between a State and the national government in Australia, signed by the Prime Minister and the Premier of the State of Queensland. Schedules to the Agreement record detailed commitments of governments giving effect to the agreement.

The Agreement ensures an integrated and collaborative approach by the Australian and Queensland governments to the management of marine and land environments within and adjacent to the Great Barrier Reef World Heritage Area, so as to:

- provide for the long-term protection and conservation of the environment and biodiversity of the Great Barrier Reef ecosystem, as encompassed by the Great Barrier Reef World Heritage Area
- allow ecologically sustainable use of the Great Barrier Reef ecosystem subject to the overarching objective of long-term protection and conservation
- provide for meeting Australia's international responsibilities for the Great Barrier Reef World Heritage Area under the World Heritage Convention.

The Great Barrier Reef Ministerial Forum, which must meet at least annually, will oversee implementation and ongoing monitoring of the Plan.

Fundamental to successful implementation of the Plan, in addition to investment prioritisation, is input from a range of voices which will be facilitated through the following governance arrangements (Figure 5):

- a multi-sectoral **Reef advisory committee** to facilitate engagement with industry and the broader community on implementation and review of the Plan. The committee will include members from the Reef 2050 Long-Term Sustainability Plan Partnership Group, Traditional Owners and community representatives
- an **independent expert panel** to provide expert advice on implementation and review of the Plan, including objectives and targets, knowledge gaps and science priorities for Plan delivery. The panel will include members with scientific (biophysical, heritage, social and economic) expertise
- an **intergovernmental operational committee** of senior officials from the Australian and Queensland governments to oversee implementation of the Plan, facilitate coordination of Reef-related activities and report annually to the Great Barrier Reef Ministerial Forum.

A network comprising monitoring partners will guide development of the Integrated Monitoring and Reporting Program (see Section 6.1).

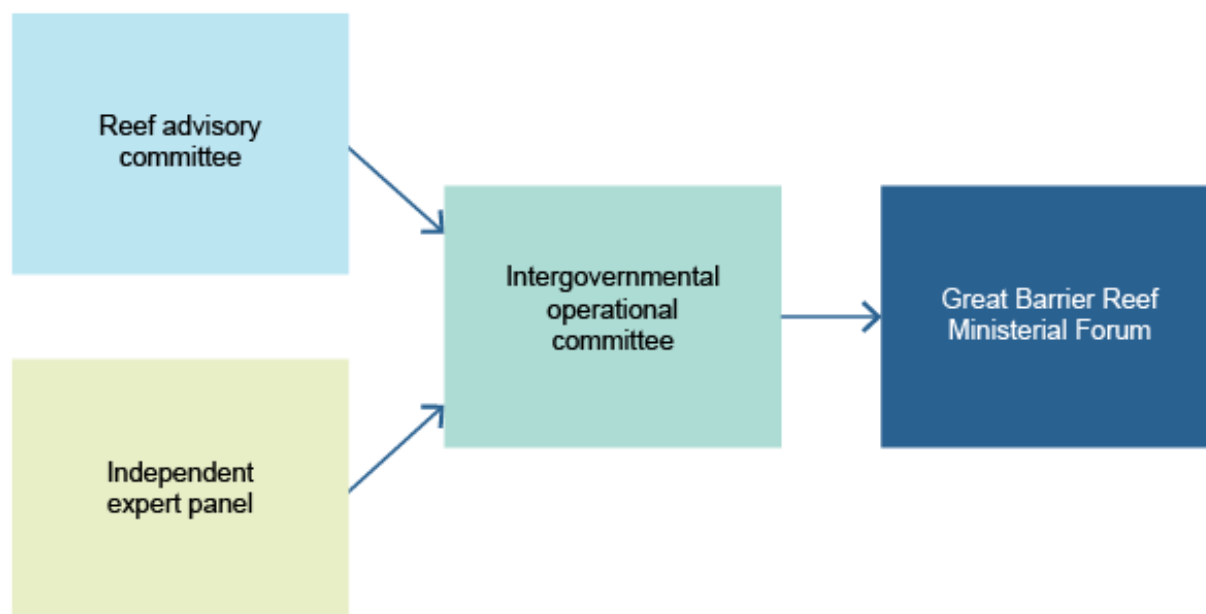


Figure 5: Committee structure to support the Plan

The committees will be supported by a dedicated secretariat. As required, sub-committees will support specific work streams, such as delivery of the *Reef Water Quality Protection Plan 2013*.

The aim is to rationalise existing committees while facilitating engagement with industry, science bodies and the community and maintaining the momentum of ongoing actions.

Implementing the Plan's actions builds on 40 years of successful joint management of the Reef by established, effective and globally respected agencies. Since the release of the *Great Barrier Reef Outlook Report 2009*, there has been a renewed vigour in delivery of programs and policies to help protect the Reef. This will be reinforced as each agency builds into their work programs the actions for which they are responsible.

Building on the strong foundation of existing programs, an overarching implementation strategy for the Plan will be prepared by the intergovernmental operational committee, in consultation with the Reef advisory committee and independent expert panel for consideration by the Ministerial Forum. The strategy will be prepared by May 2015 and will:

- include the membership of the relevant governance bodies and draft terms of reference
- identify existing actions that are being delivered through programs such as Reef Plan and Reef Trust, and implementation timelines
- outline those new actions which governments, industry and other partners have committed to complete in 2015 and detail key deliverables
- provide a clear timeline for the development of the Integrated Monitoring and Reporting Program
- outline processes for the prioritisation of investment and implementation.

Specific implementation plans will be finalised from mid-2015. These may include sectoral or thematic plans, to be informed by the investment prioritisation process outlined in Section 5.2.

The actions, targets, objectives and outcomes for the governance theme are based on the findings of a 2014 independent review of governance arrangements for Reef management. This review found legislative arrangements and institutional management were generally effective.

The actions and targets of this Plan build on the strong and well-regarded consultation networks already in place in relation to Reef management. The current advisory committee structure for various Reef initiatives will be streamlined, enabling more effective input from Traditional Owners, industry, researchers and the community regarding protection and management of the World Heritage Area.

Harnessing sufficient financial and other resources and directing them to activities which support the outcomes of the Plan is critical. Early in 2015 an investment baseline will be developed to detail all the investment and work for Reef protection and management currently being undertaken by both government and non-government sectors.

Integral to implementation of the Plan and adaptive management of the World Heritage Area is development of a monitoring and reporting program (see Section 6.1). Information from this program will be used to measure and report progress towards achieving the Plan’s outcomes, objectives and targets, and guide adaptive management.

THREATS

from Independent Review of Institutional and Legal Mechanisms, 2014

FOUNDATIONAL PROGRAMS AND ACTIVITIES

Duplication and overlap in processes, consultation and decision making
Reduced continuity in management activities
Reduced effectiveness in application of data

Intergovernmental Agreement on management of the Great Barrier Reef World Heritage Area <ul style="list-style-type: none">Ministerial ForumStanding Committee of Officials
Joint Field Management Program
Reef Water Quality Protection Plan <ul style="list-style-type: none">Intergovernmental Operational CommitteePartnership CommitteeIndependent Science Panel
Independent Review of Institutional and Legal Mechanisms, 2014
Local Marine Advisory Committees
Reef Advisory Committees
Reef Guardians program <ul style="list-style-type: none">SchoolsCouncilsFarmers and graziersFishers
Natural resource management organisations
Gladstone Healthy Harbour Partnership
Mackay Whitsunday Healthy Rivers to Reef partnership
Reef Trust
Reef Program
Reef Plan Investment Strategy

ACTIONS

Governing bodies	
GA1	Convene an intergovernmental operational committee comprising senior officials from the Australian, including the Great Barrier Reef Marine Park Authority, and Queensland governments to oversee implementation of the Plan, facilitate coordination of Reef-related activities and report annually to the Great Barrier Reef Ministerial Forum.
GA2	Convene a multi-sectoral Reef advisory committee to facilitate engagement with Traditional Owners, industry and the broader community regarding implementation and review of the Plan.
GA3	Convene an independent expert panel with an independent chair to advise the intergovernmental operational committee regarding implementation and review of the Plan and associated Integrated Monitoring and Reporting Program.
GA4	Convene a network to review, coordinate and align monitoring and reporting activities to inform development and operation of the Integrated Monitoring and Reporting Program.
Planning and policies	
GA5	Adopt an approach of continuous improvement as part of adaptive management of the World Heritage Area.
GA6	As a priority the Queensland Government will consult with an advisory taskforce on: <ul style="list-style-type: none">the best possible approach to achieving the 2025 targets for pollution run-off into the Great Barrier Reefthe effectiveness and cost of robust regulations, a market-based trading mechanism, or a combination of both, in reducing pollution run-off — to report within a year of commencement.
GA7	When reviewing relevant agreements, policies, plans, strategies and programs ensure they support the Plan’s outcomes and targets. For example: <ul style="list-style-type: none">fund and support ongoing joint field management activitiescreate a Great Barrier Reef Plan Register with all management plans recorded to simplify understanding of management arrangementsdevelop a policy guideline for decision makers on how to take into account the vision, outcomes, objectives and targets in this Plan in relevant decision makingsupport cross-cultural training in relation to Traditional Owner culture and perspectives.
GA8	Update the <i>Great Barrier Reef Intergovernmental Agreement 2009</i> to explicitly include Outstanding Universal Value.
GA9	Adopt the <i>Reef 2050 Long-Term Sustainability Plan</i> as a schedule to the <i>Great Barrier Reef Intergovernmental Agreement 2009</i> .
Traditional Owners, industry, researchers and community	
GA10	Work with Traditional Owners, industry, regional bodies, local governments, research institutions, and the community to inform delivery of local and regional actions.
GA11	Improve Traditional Owner participation in governance arrangements for protection and management of the Reef.
GA12	Prioritise and develop specific implementation plans and reporting protocols addressing the Plan’s targets and actions in consultation with the community.
Investment	
GA13	Develop an investment baseline and associated investment framework to inform future delivery of actions under the Plan.
GA14	Develop, implement and maintain mechanisms and policies to enhance investment in delivering on-ground activities based on good science and evidence that support the Plan’s outcomes and targets. These will contribute to a net benefit policy to ensure the Outstanding Universal Value and integrity of the Reef is maintained or enhanced.
Monitoring and reporting	
GA15	Develop, implement and operate an Integrated Monitoring and Reporting Program to facilitate adaptive management for the Reef.
GA16	Develop and implement a standard framework to conduct evidence-based risk assessment.

TARGETS

GT1
Implementation, reporting and review of this Plan are based on the principles of transparency, ownership, accountability, responsiveness and the strong involvement of Traditional Owners, industry, researchers and the community.
GT2
The vision, outcomes, objectives and targets in this Plan are taken into account in relevant regulation, documents, policies and strategies of all levels of government.
GT3
Actions under this Plan are prioritised and tailored to reflect local or regional differences in threats to the values of the Reef.
GT4
Investment in actions is prioritised using evidence-based risk assessment to maximise benefits for Reef health and resilience.
GT5
A comprehensive Integrated Monitoring and Reporting Program is established and operational and the reporting informs review and updating of this Plan.

OBJECTIVES

GO1
Governance arrangements support effective implementation, review and maintenance of this Plan.
GO2
This Plan guides decisions about the Reef made by governments, industry and the community.
GO3
Strong partnerships with Traditional Owners, industry, researchers and the community support protection and management of the Reef.
GO4
An adaptive management approach underpins implementation of this Plan and results in improved governance arrangements and processes.

OUTCOME

The Outstanding Universal Value of the Reef is maintained and enhanced each successive decade through effective governance arrangements and coordinated management activities.
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5.2 Investment

Adequate investment is fundamental to effective and successful implementation of the Plan. The Australian and Queensland governments will ensure that sufficient financial and other resources are available to achieve outcomes. The Australian and Queensland governments have a long history of investing significant resources in protecting and managing the Reef.

Currently governments are contributing around \$200 million a year to support the resilience of the Reef. This investment provides high quality outcomes, delivered by multiple partners through a number of different activities (Table 1). The current level of investment is projected to continue, bringing the total to more than \$2 billion over the next 10 years.

Table 1: Government financial support for the Reef, 2014–15

Government agency	Financial support (\$m)	Category	Focus
Australian Institute of Marine Science	15.1	Research	Undertaking research that supports the protection and ecologically sustainable use of the marine environment
Australian Maritime Safety Authority	21.5	Management On-ground delivery	Promoting maritime safety and protection of the marine environment; preventing and combating ship-sourced pollution in the marine environment; providing infrastructure to support safety of navigation in Australian waters; providing a national search and rescue service to the maritime and aviation sectors
Australian Research Council Centre for Excellence for Coral Reef Studies	2	Research	Undertaking integrated research for ecologically sustainable use and management of coral reefs
Australian Government Department of the Environment Reef investments including Reef Trust	55	Management Research On-ground delivery	Addressing the threats of declining water quality and climate change to the Great Barrier Reef World Heritage Area and enhancing the Reef's resilience through ecosystem rehabilitation and species protection, including: <ul style="list-style-type: none"> • funding on-ground water quality, systems repair, urban and species protection activities • water quality monitoring and reporting • research and development for water quality improvements and enhancing the reef's resilience • crown-of-thorns starfish control and research • Land and Sea country Indigenous partnerships
Great Barrier Reef Marine Park Authority	30	Management On-ground delivery	Protecting and conserving the biodiversity and heritage values of the Great Barrier Reef Region and managing ecologically sustainable use

Government agency	Financial support (\$m)	Category	Focus
Maritime Safety Queensland	28	Management On-ground delivery	Promoting maritime safety and protection of the marine environment; preventing and combating ship-sourced pollution in the marine environment; providing infrastructure to support safety of navigation in Queensland waters
National Environmental Research Program National Environmental Science Programme	3.5	Research	Providing science through the Tropical Ecosystems Hub of the National Environmental Research Program on the management, conservation and ecologically sustainable use of the Great Barrier Reef and its catchment
Queensland Department of Agriculture and Fisheries	11	Management Research On-ground delivery	Providing best management practice extension in agriculture and fisheries protection and management in the Great Barrier Reef and its catchments
Queensland Department of the Environment and Heritage Protection	13	Management On-ground delivery	Providing extension; promoting industry-led management practices; coastal planning and management; identifying and conserving built heritage
Queensland Department of Natural Resources and Mines	16	Management Monitoring On-ground delivery	Undertaking on-ground water quality, systems repair, hydrological monitoring and reporting
Queensland Department of the Premier and Cabinet	9	Management On-ground delivery	Coordinating Reef Water Quality Protection Plan implementation and the Queensland Government's contribution to field management of the Great Barrier Reef Marine Park
Queensland Department of Science, Information Technology and Innovation	1	Management	Undertaking water quality report card modelling
Total	205.1		

The Queensland Government has been consistent in its total annual investment of \$35 million a year (\$175 million over five years) for initiatives that contribute to improving Reef water quality. Funded activities include: working with the cane and grazing industries to develop industry-led best management practice programs; maintaining regular catchment loads monitoring and modelling regimes; publishing annual Reef health report cards; research and development; remote sensing; and establishing strong partnership programs such as the Gladstone Healthy Harbour Partnership.

A further component of the Queensland Government's investment has been its Regional Natural Resource Management Investment Program which has, since 2013, engaged in a \$30 million, five-year campaign to support on-ground natural resource management projects in catchments adjacent to the Reef. This has included more than \$10 million to deliver land and water management actions in key Great Barrier Reef catchments.

As part of its commitment to the Plan, the new Queensland Government will provide an additional \$100 million over five years towards water quality initiatives, scientific research, and assisting businesses to transition to better environmental practices in the primary production and fishing industries. The Queensland Government will seek the advice of an advisory taskforce on the best possible approach to achieve an 80 per cent reduction in pollution run-off in the Great Barrier Reef by 2025. The taskforce will also be asked to report, within a year of commencement, on the effectiveness and costs of robust regulations, a market-based trading mechanism or a combination of both to reduce pollution run-off.

In addition to water quality initiatives, the Queensland Government contributes over \$8 million per year to the joint Field Management Program for the Reef, funds an extensive fisheries management program and is responsible for regulating shipping movements in coastal waters.

The Australian Government is currently investing \$200 million over five years to support activities to improve the resilience of the Reef, including supporting delivery of the Reef Water Quality Protection Plan. As part of this, a new \$40 million Reef Trust will support water quality improvements and restoration actions.

Supplementing this is a range of investments in Reef catchments through a number of national environment initiatives. The National Landcare Programme is investing around \$34 million over four years with natural resource management bodies in the six key Reef catchments to undertake a range of activities, including minimising pressure on the Reef by reducing marine debris, and rehabilitating dunes and coastal vegetation.

The Green Army program, which assists community groups to undertake local restoration, is supporting 14 teams to regenerate and rehabilitate wetland areas and waterways in Reef catchments. With a recent announcement to focus future Green Army activities on the Great Barrier Reef, this is expected to increase. Additionally, funding is being provided through the 20 Million Trees by 2020 Programme for work to revegetate gullies, address streambank erosion and increase the extent of habitat for threatened species in Reef catchments.

In addition to the considerable Australian and Queensland government investment, the Reef also benefits from a significant injection of funds from local governments, the community, and private and philanthropic organisations. For example in 2014–15, local councils in Queensland invested around \$230 million in protecting and managing the Great Barrier Reef, including improving sewage treatment and water quality, rehabilitating waterways and coastal areas, managing vegetation and pests, sustainable agriculture initiatives and local community education and awareness activities.

Non-government organisations, industry and private landholders are increasingly investing in Reef-related activities, particularly water quality initiatives. For example, the \$96 million invested by the Australian Government from 2008 to 2013 for on-ground water quality grants was matched by \$157 million of industry investment (\$108 million in cash and \$49 million in kind). Effectively, industry has co-invested over \$1.60 (in kind and in cash) for every \$1 of grant money received. Similar co-contribution levels are expected to follow government water quality investments over the coming years.

Project Catalyst and Reef Plan—long-term partnerships

Project Catalyst is a five-year, \$26 million partnership between innovative Queensland cane growers and major program partners—regional natural resource management bodies, the Australian Government, World Wildlife Fund Australia and The Coca-Cola Foundation. It is trialling and promoting the rapid adoption of innovative farm practices that improve water quality from cane farms impacting the Great Barrier Reef.

The partnership supports a network of farmers from the Mackay Whitsunday, Burdekin and Wet Tropics regions, who are leading the way in the use of cutting-edge management practices for a more sustainable and effective farming future.

Since its launch, Project Catalyst has expanded from 19 growers and 4,800 hectares of farmland to approximately 78 growers and more than 101,725 hectares. The project has improved the quality of more than 100 billion litres of run-off water flowing into the Great Barrier Reef by reducing the amount of nitrogen, phosphorus, herbicide and other pollutants. Participating farmers also have benefited from higher profits.

As a result of the governments' collective investment of \$375 million in Reef Plan from 2009 to 2013, with support and contributions from industry groups, participating landholders and other organisations:

- **2,548** of the **8,545 graziers** managing **322,891 square kilometres** of land adopted improved land management practices
- **1,857** of the **3,777 sugarcane growers** managing **4,032 square kilometres** of land adopted improved land management practices
- **568** of the **970 horticulture producers** managing **595 square kilometres** of land adopted improved land management practices
- **154** of the **207 dairy producers** adopted improved land management practices
- **235** of the **600 grain growers** managing **9,146 square kilometres** of land in the Fitzroy region adopted improved land management practices.

The private sector is also investing in research that is directly linked to the knowledge needs of Reef managers. For example, the Great Barrier Reef Foundation, a private foundation of major corporations and research institutions, works with Reef managers to identify their strategic research needs, catalyses the development of this research, brings private sector funding to enable its delivery, and facilitates adoption by engaging Reef management throughout the research process. This adds considerably to the more than \$3 million non-government funds that the Foundation brings to research on the Reef each year.

The tourism industry and a number of research institutions provide investment in the health of the Reef in the form of monitoring, research, rehabilitation and other on-ground activities.

5.2.1 Investment framework

The Australian and Queensland governments will ensure sufficient financial and other resources are available to achieve the Plan's outcomes. Implementation of the Plan will be underpinned by a robust investment framework, which establishes current investments in protecting the Reef, determines investment priorities for the future, and sets out a strategy for boosting investment and diversifying its sources.

The investment framework will be developed and implemented in a phased approach and will be guided by the following principles:

- **additionality and complementarity**—investments will build on and align with existing efforts
- **clear outcomes**—investments are focused on delivering results to achieve Plan outcomes
- **cost-effectiveness**—investments will be well-planned and cost-effective
- **collaboration and partnerships**—investments will consider opportunities for co-investment, strategic collaborations and partnerships
- **evidence-based and scientifically robust**—investments will be informed by the best available scientific and expert knowledge.

Phase one—Investment baseline

A priority for governments is to ensure that existing financial and other resources are efficiently harnessed and directed to activities which support Plan outcomes.

An investment baseline will be developed in the first half of 2015. This will provide a picture of all the investment and work currently being undertaken—capturing the suite of investments being made by both government and non-government sectors.

Development of an investment baseline is critical to managing co-investment in the Plan. The current level of resourcing for Reef management is substantial and a large number of actions within the Plan build on existing commitments from partners, including industry, and the Australian and Queensland governments. In an operating environment where multiple partners are addressing complex issues in a dynamic system, the baseline will assist in identifying the span of activities and investment being made currently towards achieving the Plan's outcomes. This will help reduce the risk of duplication and inefficiency and provide the mechanism to further integrate and coordinate activities and better target delivery to ensure maximum benefit for the Reef as set out in this Plan.

A Reef Trust for the future

The Reef Trust is one of a number of initiatives that will contribute to implementation of the *Reef 2050 Long-Term Sustainability Plan*. The Reef Trust consolidates investment from a range of sources to deliver the greatest outcome for the Reef for every dollar spent. It is an innovative mechanism with a strong on-ground delivery focus.

As it evolves, the Reef Trust will incorporate alternative funding mechanisms, such as private investment through business, industry and community partners, and co-investment in high priority projects in the Great Barrier Reef. Funding for the Reef Trust will also be derived from pooling of offset funds that target specific residual impacts on the Great Barrier Reef from development activities. Offsets activities delivered through the Reef Trust will commence in 2015.

The Trust is being implemented in phases, guided by a set of investment principles with actions underway to improve the quality of the water entering the World Heritage Area, control the current outbreak of crown-of-thorns starfish and protect threatened and migratory species, particularly marine turtles and dugongs.

A second Reef Trust investment strategy will be released in early 2015. This strategy will be informed by the findings of the Outlook Report 2014 and strategic environmental assessments. Actions will focus on geographic areas where threats and natural values most require targeted action and the likelihood of delivering environmental improvements. The investment strategy will provide a platform for discussions with the private sector in relation to opportunities for co-investment.

Phase two—Investment prioritisation

An important component of the investment framework will be prioritising actions and reviewing the allocation of resources to ensure maximum benefit and efficiency. It is important for governments to ensure public investments are appropriately targeted to implement the Plan.

There are a significant number of programs, activities and actions underway in management of the Great Barrier Reef, delivered by a wide range of people including farmers, government agencies and members of the local community. This Plan brings a strengthened cohesion to these activities. Prioritising actions within the Plan will be critical to optimising outcomes.

To ensure actions are prioritised appropriately and investment is directed effectively and strategically, the independent expert panel and the Reef advisory committee will provide advice on prioritisation. This work will be supported by the best available science and will take into account timeframes for implementing individual measures and the benefits they will deliver. In December 2015 the Great Barrier Reef Ministerial Forum will be presented with the outcomes of the prioritisation exercise and associated investment decisions.

The process of prioritisation will be informed by the work of the National Environmental Research Program and the new National Environmental Science Programme as well as work undertaken as part of developing water quality improvement plans in Reef catchments and the prioritisation process underpinning Reef Plan. In addition, work undertaken by the Australian Government to map and analyse matters of national environmental significance within the Reef catchments will be considered.

To ensure momentum is not lost, those actions which are already underway will continue during the prioritisation process. In addition, the panel may provide advice on other early actions. Over time, the prioritisation process will be informed by the Integrated Monitoring and Reporting Program underpinning the Plan which will ensure an adaptive approach is taken to implementation as new information and science emerges.

In undertaking the prioritisation process, which will commence in mid-2015, matters to be considered will include:

- actions within the Plan to address key threats identified in the Outlook Report 2014
- development of an appropriate methodology for the prioritisation of actions informed by the best available science, and taking into account the feasibility or likelihood that actions can be carried out successfully under current conditions
- the timeframe for implementation of actions, the objectives and targets to which they will contribute and the specific steps required to achieve them
- the relationship between actions and possible groupings of actions that will deliver enhanced outcomes and efficiency of delivery
- any other complementary benefits these actions will deliver, such as reducing carbon emissions, increasing jobs growth or social benefits
- how the outcomes of the prioritisation process are best integrated into implementation plans and a process for their review and adaptation as new information and science emerges
- capacity of agencies, organisations and industries responsible for implementing the actions
- the expected timeframes for benefits to be realised.

The prioritisation of actions within the Plan will enable governments and other organisations to ensure appropriate and timely resourcing for the Plan to meet its targets and objectives.

Equally important is providing the enabling opportunities for public and private investment to work together to

maximise outcomes for the Reef.

Phase three—Diversification of investment sources

The current range of organisations and streams of investment supporting Reef activities demonstrates the breadth of commitment to ensuring the long-term health of the Reef. In particular, the growing interest in financing for Reef projects from the private sector and other non-government organisations indicates there is potential to expand the sources of investment supporting the Reef's resilience. The third phase of the Plan's investment framework will be to facilitate greater opportunities for partnerships and private investment to work effectively alongside public investment. This will include, by the end of 2015, identifying mechanisms for enabling diversification of, and innovation in, funding approaches, for example through the expansion of the Reef Trust. Developing the best approaches and mechanisms for harnessing future investment will be informed by advice from business, financial and philanthropic experts.

5.3 Partnerships

The Plan integrates and guides actions by managing agencies, Traditional Owners, industry, resource users, researchers and the community. Its successful implementation relies on ongoing open and productive partnerships between all parties that build on the important partnerships already in place, including the collaborative approach adopted in developing the Plan.

Partnership and stewardship arrangements will be strengthened through implementation of the governance arrangements set out in Section 5.1 above.

The Plan will be supported by communication and engagement across sectors to create awareness of the Plan and the efforts by governments, industry, researchers and the community to work together to secure the long-term future of the Great Barrier Reef. This will include regular communication with partners, stakeholders and the community, including the international community, about the Plan's progress and achievements.

Future Reef MAP project

The Future Reef MAP project is a partnership involving business, philanthropic and research agencies to undertake critical research regarding how ocean chemistry is changing across Reef habitats. This is achieved through installing a sensor system on an existing vessel that regularly travels the length of the Reef.

The repeat sampling will allow a first assessment of how temperature change, freshwater inputs and offshore-lagoon mixing influence the carbonate chemistry and the rates of calcification and dissolution. These data sets will be a key component in testing models of calcification and erosion in the Great Barrier Reef complex, and will inform adaptive management by providing Reef managers with information on where, when and how ocean acidification is affecting the Reef.

Regional and local approaches, based on both local and expert knowledge, will be central to protecting and managing the Reef's values and the community benefits they support.

The principal partners and their role in delivery of the Plan are:

- Through their statutory responsibilities, **local government** delivers many actions that support the outcomes of the

Plan. Councils work with industry to facilitate economic development and provide significant guidance and support to the community in achieving community aspirations in a coordinated way. Most local governments adjacent to the Great Barrier Reef are **Reef Guardian councils**—these councils have identified both statutory and non-statutory actions to manage the threats to the Great Barrier Reef and support the community in understanding and appreciating the Reef’s values.

- In collaboration with **Traditional Owners**, measures have been identified to respect, preserve and maintain the knowledge, innovations and practices of Traditional Owner communities while protecting the resilience and condition of the Reef. Traditional Owners support the Plan through community-based land and sea partnerships and agreements, such as Traditional Use of Marine Resources Agreements and Indigenous Land Use Agreements. They work with a range of partners to monitor biodiversity and ecosystem health, and deliver ecosystem repair projects.
- **Regional natural resource management bodies, landcare and grassroots community environment organisations** deliver programs and actions at the regional scale, particularly through the development and implementation of natural resource management plans and water quality improvement plans. These plans include resource condition targets, water quality objectives and ecosystem health objectives for whole catchments that can inform delivery of the Plan at the Reef-wide, regional and local scales.
- **Local Marine Advisory Committees** are dedicated interest groups that advise the Great Barrier Reef Marine Park Authority on local and regional issues affecting the Reef. The committees lead and support a range of initiatives including actions to repair wetlands, improve water quality, reduce marine debris, promote ecologically sustainable use and increase community awareness of issues affecting the Reef.
- **Reef Guardian schools** commit to creating awareness, understanding and appreciation of the Reef and its connected ecosystems. Students team up with others in their community to actively participate in improving ecosystem health (for example tree planting), water quality (for example monitoring) and sustainability outcomes (for example beach clean-up).
- The **research and scientific community** provides information critical to developing targets and monitoring values and threats at Reef-wide and regional scales. Their expertise is central to evidence-based decision making and a fundamental element of successful adaptive management.
- **Port operators** manage key environmental values, potential impacts and appropriate avoidance, mitigation and offset measures before new development occurs. Port authorities are also committed to minimising changes in water quality, and are working with partners to inform an integrated approach to water quality monitoring in the Great Barrier Reef.
- The **Department of Defence** has three major training areas in the Great Barrier Reef Region: Shoalwater Bay, Cowley Beach and Halifax Bay. The department partners with organisations to conduct biodiversity and ecological community surveys, and manages some of the most intact natural areas in the World Heritage Area and its catchment.
- Reef-dependent industries, including **tourism** and **fishing**, rely on a healthy environment for their economic sustainability. These industries implement practices to minimise environmental harm, adapt industry and community to the effects of climate change, and promote understanding and appreciation of the Reef’s values.
- Reef-associated industries including **shipping**, **agriculture** and **mining**, implement ecologically sustainable practices, demonstrate stewardship and contribute to the national economy.

Gladstone Healthy Harbour Partnership

The Gladstone Healthy Harbour Partnership brings together parties (including community, industry, science, government, statutory bodies and management) to maintain and, where necessary, improve the health of Gladstone Harbour.

The guiding principles of the Partnership are open, honest and accountable management; annual reporting of the health of the Gladstone Harbour; and management recommendations and action based on rigorous science and strong stakeholder engagement to ensure the ongoing and continuous improvement in the harbour's health.

The Gladstone Healthy Harbour Partnership makes decisions informed by recommendations of the independent science panel and is responsible for publishing the annual Gladstone Healthy Harbour Report Card. A pilot Report Card on water quality in the harbour was released in December 2014. Feedback is currently being sought from the community and stakeholders on ways to improve the report and facilitate its adoption in initiatives to improve the harbour's health.

A key principle underpinning the partnership is that more can be achieved through a cooperative and collaborative arrangement where resources are pooled (including the contribution of time and financial support). Partners also work together to build on and integrate existing industry and research efforts to maximise and optimise the value of investment (both time and money).

A similar approach is now being applied to the Mackay Whitsunday region. These partnerships have brought together different bodies and management agencies, each with individual goals, interests and overlapping jurisdictions, to effectively coordinate water quality management across a catchment.

6. Monitoring, reporting and review

6.1 *Integrated monitoring*

A comprehensive and up-to-date understanding of the Great Barrier Reef, its values, the processes that support it and the pressures that affect it is fundamental to protecting and restoring the Reef and making informed decisions. By linking the processes of monitoring and adaptive management, feedback loops will enable information sharing, empowerment of communities and the interpretation and translation of new information into leading practice.

To maximise its effectiveness, implementation of the Plan will be informed by an integrated ecological, social and economic monitoring and reporting program. The program will measure and report progress towards achieving the outcomes, objectives and targets, and guide adaptive management.

The integrated program will include:

- compliance monitoring—focused on the impacts of individual development action (for example construction of a marina) and undertaken in accordance with conditions specified in a permit, licence or approval
- short to medium-term, issue-specific monitoring—to examine the condition of, extent of impact on and recovery rates of species, habitats or community benefits
- long-term monitoring—to assess the condition and trend of the Reef's values and broadscale impacts, such as land-based run-off, over many years. Examples include Paddock to Reef Integrated Monitoring, Modelling and Reporting Program, the Australian Institute of Marine Science Long-Term Monitoring Program and the Eye on the Reef program.

Based on existing monitoring programs, integration will be developed through:

- standardising protocols for information collection, collation, modelling, analysis and reporting to improve scalability from point-source or local, to regional and Reef-wide scales and the synthesis of information from different sources—leading to a more comprehensive and systematic understanding of the condition of values and the scale of impacts
- explicit links to management actions, targets, objectives and outcomes
- unifying monitoring through a Driver, Pressure, State, Impact, Response cause-and-effect framework (providing multidisciplinary and integrative analyses that inform assessments of cumulative effects (Figure 6))
- incorporating new information and knowledge into monitoring.

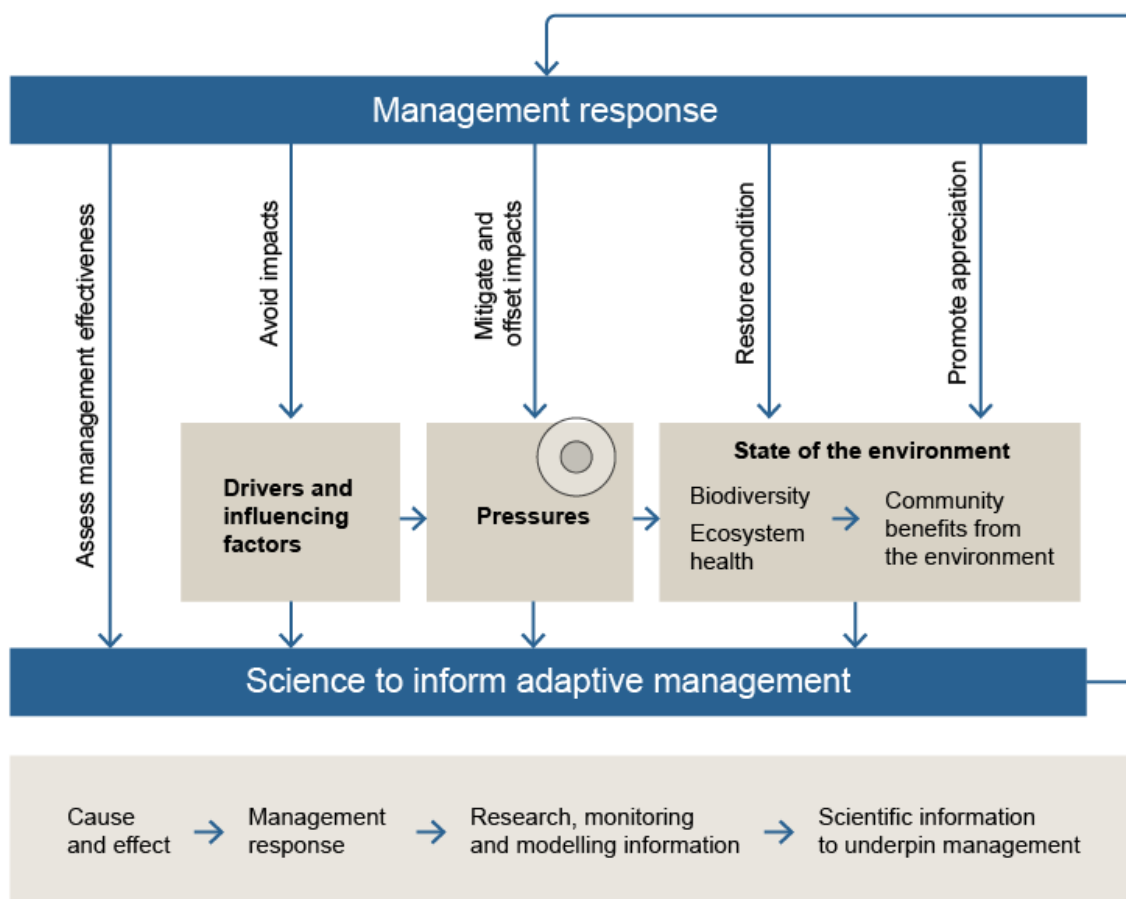


Figure 6: The adaptive management cycle

To adaptively manage a system as complex as the Great Barrier Reef, its components and their cause-and-effect links need to be understood. The results of targeted research, monitoring and modelling are used to evaluate and adapt management responses.

Over time, consistent reporting of information at a regional scale will help better target management activity. Through development of the monitoring program, appropriate indicators will be identified for each of the targets. Current monitoring will be assessed for comprehensiveness against these targets and indicators, and gaps and potential duplication identified and resolved.

A network comprising monitoring partners will guide development of the Integrated Monitoring and Reporting Program, including program design, data synthesis and reporting, and data management and systems.

Establishment of the Integrated Monitoring and Reporting Program will be collaborative, including through partnerships, and will be coordinated by the Great Barrier Reef Marine Park Authority.

6.2 Reporting on the Plan

An annual report on implementation of the Plan will be provided to the Great Barrier Reef Ministerial Forum and made publicly available. This report will be prepared by the intergovernmental operational committee in consultation with the Reef advisory committee and independent expert panel. It will assess progress in delivering the Plan's actions.

6.3 *Reviewing the Plan*

The Plan will be regularly updated and reviewed on a five-year cycle, responding to new information, changing circumstances and emerging issues. Future Outlook Reports and annual reporting will inform progress towards achieving outcomes and be the principal guides to review of the Plan.

It is anticipated that the Plan's actions and priorities will be updated following each review process. Input from the Reef advisory committee, independent expert panel and the community will be integral to this review process.

In recognition of the scale and ground-breaking nature of the *Reef 2050 Long-Term Sustainability Plan*, an initial mid-term review will be completed in 2018.

Glossary of commonly used terms

Adaptive management: a systematic process for continually improving management policies and practices by learning from the outcomes of operational programs.

Biodiversity: the variability among living organisms from all sources including inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. (Convention on Biodiversity— Article 2. Use of terms)

Burra Charter: the Australia International Council on Monuments and Sites (ICOMOS) Charter for the Conservation of Places of Cultural Significance, known as the Burra Charter, is a set of principles adopted to create a nationally accepted standard for heritage conservation practice in Australia.

Coastal ecosystems: inshore, coastal and adjacent catchment ecosystems that connect the land and sea and have the potential to influence the health and resilience of the Great Barrier Reef.

Community benefits: cultural, social and economic benefits such as employment, income, understanding, appreciation, enjoyment, personal connection, health benefits and access to Reef resources. (*Great Barrier Reef Outlook Report 2014*)

Comprehensive strategic environmental assessment: comprises the strategic environmental assessment of the World Heritage Area by the Great Barrier Reef Marine Park Authority and the complementary strategic environmental assessment of the Great Barrier Reef coastal zone by the Queensland Government. These are described under Part 10 of the *Environment Protection and Biodiversity Conservation Act 1999*. The comprehensive strategic environmental assessment was developed in response to recommendations of the UNESCO World Heritage Committee and the outcomes have informed this Plan.

Condition: the ‘health’ of a species or ecosystem which includes factors such as the level of disturbance from a natural state, population size, genetic diversity, and interaction with invasive species and diseases. (State of the Environment Reporting, Department of the Environment)

Good condition: a species or ecosystem would generally be considered to be in good condition when the level of exposure to anthropogenic pressures has little effect on its status and resilience. In application the following definitions will be used to develop quantitatively assessable targets (adapted from *Great Barrier Reef Outlook Report 2014*):

For habitats, ‘good’ means some degradation or alteration may exist in some small areas, leading to minimal degradation but no persistent, substantial effects on populations of dependent species.

For species, ‘good’ means most populations of species show no significant deterioration as a result of human activities or declining environmental conditions.

For processes, ‘good’ means that some changes in processes as a result of human activities may have occurred in some areas, but these are not to the extent that they are significantly affecting ecosystem functions.

Connectivity: the extent to which a species or population can move among landscape elements in a mosaic of habitat types.

Dredging: digging, excavating or removing material from waterways to deepen channels, create harbours, and keep channels and approaches to ports at defined depths. Dredging can either be capital dredging, for new channels and berths, or maintenance dredging, necessary to maintain existing and approved dredging areas. (Queensland Ports Association Fact Sheet, November 2013)

Ecologically sustainable development: conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased. (National Strategy for Ecologically Sustainable Development—Commonwealth Department of the Environment)

Ecosystem: a dynamic complex of plant, animal and microorganism communities and their non-living environment interacting as a functional unit. (Biodiversity Convention)

Ecosystem functions: the interactions between organisms and physical environment, such as nutrient cycling, soil development and water budgeting. (*Great Barrier Reef Outlook Report 2014*)

Fishing: for the purposes of this Plan and consistency with the Outlook reporting, the term 'fishing' includes recreational, charter and commercial fisheries, plus the Queensland shark control program. Fishing activities associated with traditional use are included as part of traditional use.

Great Barrier Reef (the Reef): in this document the Great Barrier Reef or the Reef, is taken to mean the Great Barrier Reef World Heritage Area.

Great Barrier Reef Intergovernmental Agreement: an agreement between the Commonwealth of Australia and the State of Queensland relating to the protection and management of the Great Barrier Reef. The agreement was signed in 2009 by the Prime Minister of the Commonwealth of Australia and the Premier of the State of Queensland.

Great Barrier Reef Ministerial Forum: oversees implementation of the *Great Barrier Reef Intergovernmental Agreement 2009*.

Great Barrier Reef Region: the area described in Schedule 1 of the *Great Barrier Reef Marine Park Act 1975*.

Healthy Waters Management Plan: the Queensland Government's Environmental Protection (Water) Policy 2009 establishes Healthy Waters Management Plans (HWMPs) as a key planning mechanism to improve the quality of Queensland waters. Matters to be addressed in a HWMP include identifying issues that affect aquatic ecosystems, waterway uses and values, management goals and water quality objectives to protect values, and ways to monitor and assess the effectiveness of the protection. Water quality improvement plans can inform the development of a HWMP.

Historic heritage: includes places associated with the non-Indigenous cultural heritage of Australia encompassed in the country's history. It can include buildings, monuments, gardens, industrial sites, landscapes, cultural landscapes, archaeological sites, groups of buildings and precincts, or places which embody a specific cultural or historic value. It is important to note that equipment, furniture, fittings and articles associated or connected with a building or structure are included in the definition of place. Historic places illustrate national and social developments in Australia over the past few centuries, technical and creative achievements, and provide a tangible link to past events, processes and people. (Source: Great Barrier Reef Marine Park Authority Heritage Strategy 2005)

Indicators: physical, chemical, biological or socio-economic measures that best represent the key elements of a complex ecosystem or an environmental issue.

Indigenous heritage: includes all places that are part of Aboriginal and Torres Strait Islander peoples' spiritual links to the land or which tell the story of Indigenous peoples from time immemorial to the present. It can include sacred sites, ceremonial sites like bora rings and rock art, fish traps, burials, middens, scarred trees, camp sites and semi/permanent settlements. (Source: Great Barrier Reef Marine Park Authority Heritage Strategy 2005)

Integrity: for World Heritage properties, integrity relates to the 'wholeness and intactness' of the property and how it conveys the values it holds. Integrity can also relate to the size of the property (sufficient size to continue to represent the values) and to any threats affecting the property.

Landscape: describes how societies shape the land and are, in turn, shaped by it. Local, Indigenous or traditional knowledge systems bridge the gap between biological and cultural diversities and guide the development of landscapes.

Article 8(j) of the Convention on Biological Diversity gives particular recognition to this cultural dimension of biodiversity, as do all of UNESCO's cultural conventions. (Source: Convention on Biodiversity; UNESCO Declaration on Cultural Diversity)

Listed species: includes:

A migratory species that is native or is included under a relevant international convention, which has been included by the Federal Environment Minister on the published list of migratory species (Adapted from the *Environment Protection and Biodiversity Act 1999*).

A native species which is extinct, extinct in the wild, critically endangered, endangered, vulnerable or conservation dependent, as set out in the published list of threatened species established by the Federal Environment Minister (Adapted from *Environment Protection and Biodiversity Act 1999*).

A native species which is extinct in the wild, endangered, vulnerable, near threatened or least concern, as prescribed by the Queensland Environment Minister (Adapted from *Nature Conservation Act 1992*).

Matters of national environmental significance: those matters protected under the *Environment Protection and Biodiversity Act 1999*.

Net benefit: the purpose of net benefits is to enhance the condition of matters of national environmental significance, including the Reef's Outstanding Universal Value. While offsets are focused on addressing residual impacts associated with development actions, net benefits are focused on delivering actions (above and beyond offset actions) which will restore or improve the Great Barrier Reef to a good condition.

Objective: within the context of this Plan, a medium-term goal that will contribute to achieving the outcome for each theme and vision for the Reef by 2050.

Outcome: within the context of this Plan, an overall statement of what is expected to be achieved for each theme by 2050, which will collectively contribute to achieving the vision for the Reef.

Outstanding Universal Value: 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.

Particularly Sensitive Sea Area: an area that may be vulnerable to damage by international maritime activities which is provided protection through action by the International Maritime Organisation because of its significance for ecological, socio-economic or scientific reasons.

Port facilities: for the purposes of the Plan, port facilities refers to commercial port infrastructure, rather than marinas or harbours.

Port limits: the maritime limits of Queensland ports are defined in Schedule 1 of the Transport Infrastructure (Ports) Regulation 2005 under the *Transport Infrastructure Act 1994* (Qld). Ports within and adjoining the Great Barrier Reef World Heritage Area are located at Gladstone, Rockhampton (Port Alma), Hay Point, Mackay, Abbot Point, Townsville, Lucinda, Mourilyan, Cairns, Cooktown, Cape Flattery, and Quintell Beach.

Reef-associated industry: industries located in the Reef or its catchments that are not directly dependent on the Reef for their economic sustainability, for example, ports, construction, agriculture, forestry, shipping and mining.

Reef-dependent industry: industries whose economic benefit is derived from the Reef's natural resources, either through extraction of those resources or through tourism and recreation focused on its ecosystem and heritage values (Source: *Great Barrier Reef Outlook Report 2014*).

Reef Plan: the *Reef Water Quality Protection Plan 2013*. A collaborative program of coordinated projects and partnerships designed to improve the quality of water in the Great Barrier Reef through improved land management in

Reef catchments.

Reef Trust: joint Australian and Queensland government program to deliver funding to address key threats to the Reef such as nutrient run-off, crown-of-thorns starfish and species protection. The Reef Trust includes initial investment of \$40 million by the Australian Government. (Adapted from Reef Trust Discussion Paper, Commonwealth Department of the Environment)

Riparian: relating to, or situated on, the bed and banks of a river or watercourse.

Significant impact: an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts (Source: *Environment Protection and Biodiversity Act 1999*).

SMART: Specific, Measurable, Achievable, Realistic, Time-bound.

Standards: specification of the desired state of a value or the conditions required to maintain or achieve the desired state of a value.

Target: within the context of this Plan, targets are short-term goals that will contribute to achieving the objectives for each theme.

Vision: within the context of this Plan, the vision is the common goal that describes what Australians, as custodians for the international community, want the future of the Reef to be. The vision for the Reef will be achieved by 2050 through delivery of the actions, targets, objectives and outcomes of this Plan.

Water quality: refers to the chemical, physical, biological and radiological characteristics of water. It is a measure of the condition of water relative to the requirements of one or more biotic species and/or to any human need or purpose.

Water quality improvement plans: designed to identify the main issues that impact aquatic ecosystems from land-based activities and prioritise management actions to reduce the discharge of pollutants within a natural resource management region. Water quality improvement plans are non-legislative regional planning instruments and can inform the development of Healthy Waters Management Plans.

World Heritage Area: Great Barrier Reef World Heritage Area.

World Heritage Convention: a global instrument for the protection of cultural and natural heritage that 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.

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Appendices

Appendix A: *The Great Barrier Reef World Heritage Area, the Great Barrier Reef Region and the Great Barrier Reef Marine Park*

Great Barrier Reef World Heritage Area	Great Barrier Reef Region	Great Barrier Reef Marine Park
348,000 km ²	346,000 km ²	344,400 km ²
Inscribed 1981	Established 1975	Declared in sections between 1979 and 2001; amalgamated into one section in 2003
Includes: <ul style="list-style-type: none"> all islands within outer boundary (about 1050) all waters seaward of low water mark (including internal waters of Queensland and port waters) all 12 trading ports 	Includes: <ul style="list-style-type: none"> approximately 70 Commonwealth islands all waters seaward of low water mark (excluding Queensland internal waters) Does NOT include: <ul style="list-style-type: none"> internal waters of Queensland Queensland islands (about 980) 	Includes: <ul style="list-style-type: none"> approximately 70 Commonwealth islands all waters seaward of low water mark (excluding Queensland internal waters) Does NOT include: <ul style="list-style-type: none"> internal waters of Queensland Queensland islands (about 980) 13 coastal exclusion areas

The *Great Barrier Reef Marine Park Act 1975* was designed specifically to protect the Great Barrier Reef. The Queensland Government has also enacted a broad suite of complementary legislation that applies in coastal and catchment areas adjacent to the marine park.

Appendix B: Statement of Outstanding Universal Value for the Great Barrier Reef World Heritage Area

Outstanding Universal Value is the central concept of the World Heritage Convention. To be considered of Outstanding Universal Value, a property needs to:

- meet one or more of 10 criteria set out in the convention
- meet the conditions of integrity
- if a cultural property, meet the conditions of authenticity
- have an adequate system of protection and management to safeguard its future.

This retrospective statement for the Great Barrier Reef was approved by the World Heritage Committee in 2012.

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 14 degrees (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 mollusc, 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 Great Barrier Reef 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 Great Barrier Reef, 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 Great Barrier Reef 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 Great Barrier Reef 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 Great Barrier Reef 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 Great Barrier Reef 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.

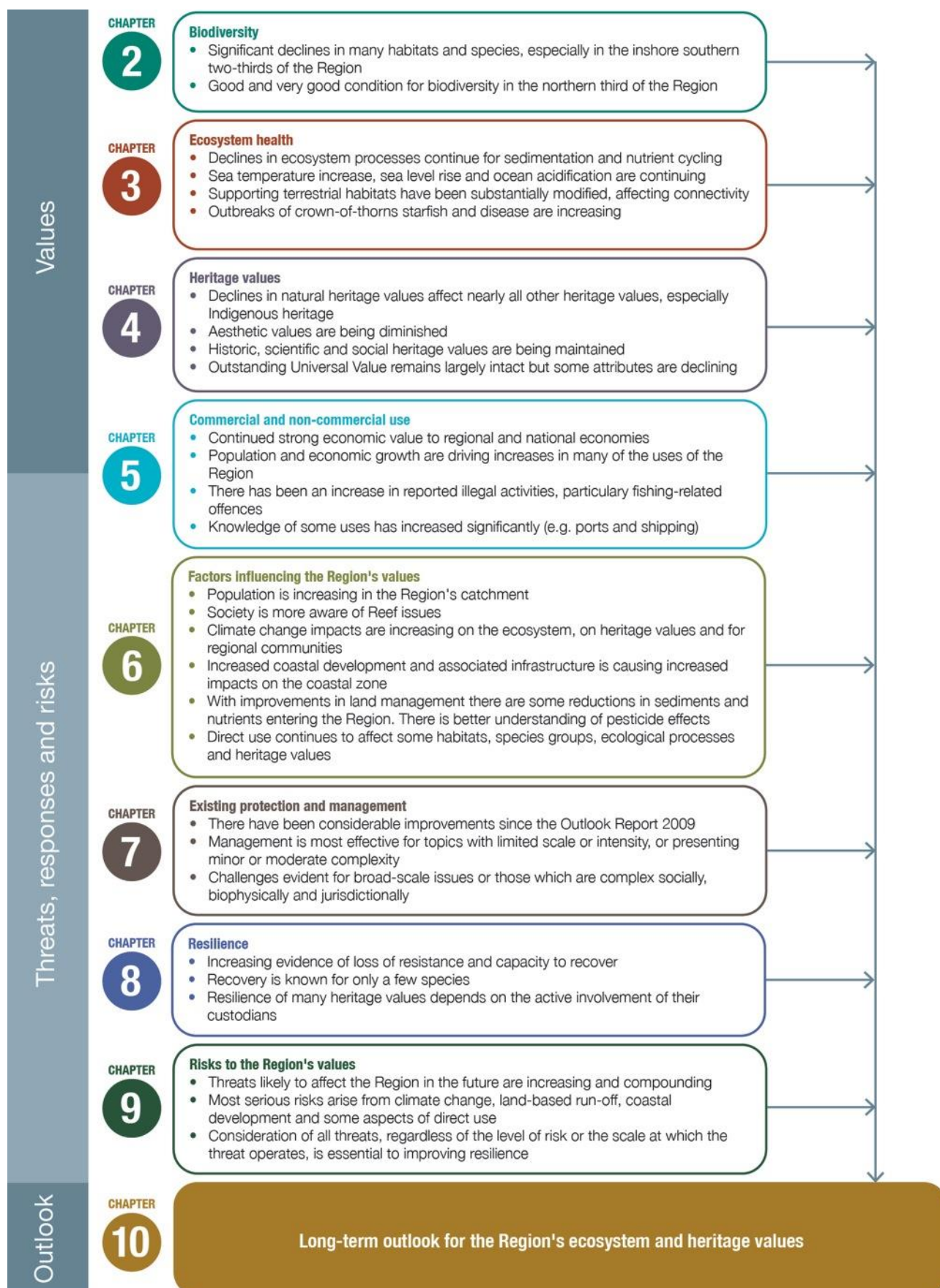
As the world's most complex expanse of coral reefs, the reefs contain some 400 species of corals in 60 genera. There are also large ecologically important inter-reefal areas. The shallower marine areas support half the world's diversity of mangroves and many seagrass species. The waters also provide 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.

SCHEDULE G

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

Some 242 species of birds have been recorded in the Reef. 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.

Appendix C: Summary of findings from the *Great Barrier Reef Outlook Report 2014*



Appendix D: Threats to the Reef's values

The *Great Barrier Reef Outlook Report 2014* assessed the risk of 41 current and potential threats to the Reef's ecosystem and heritage values. The close connection between the Reef's ecosystem and heritage values means that the projected risk is almost the same for both assessments. Ten threats present a very high risk to the Reef's ecosystem and heritage values and a further eight present a high risk. These are grouped into four influencing factors— climate change, land use change, land-based run-off and direct use. Threats assessed as very high risk are mainly influenced by external factors, are expected to have an effect over a broad scale and are mostly already having an effect.

	Threat	Risk		Influencing factors					
		Ecosystem	Heritage values	Timing	Climate change	Coastal development	Land-based run-off	Direct use	
Region-wide	Altered weather patterns	Very high	Very high	Now	●				
	Sea temperature increase	Very high	Very high	Now	●				
	Ocean acidification	Very high	Very high	10+	●				
	Sea level rise	Very high	Very high	10+	●				
	Modifying coastal habitats	Very high	Very high	Now		●			
	Nutrient run-off	Very high	Very high	Now			●		
	Sediment run-off	Very high	Very high	Now			●		
	Outbreak of crown-of-thorns starfish	Very high	Very high	Now			●		
	Illegal fishing and poaching	Very high	Very high	Now				●	
	Incidental catch of species of conservation concern	Very high	Very high	Now				●	
	Barriers to flow	High	High	Now		●			
	Marine debris	High	High	Now			●	●	
	Incompatible uses	Medium	High	Now				●	
	Discarded catch	High	High	Now				●	
	Extraction of predators	High	High	Now				●	
	Extraction of particle feeders	Medium	Medium	Now				●	
	Altered ocean currents	Medium	Medium	10+	●				
Local or regional	Pesticide run-off	High	High	Now			●		
	Disposal of dredge material	High	High	Now		●		●	
	Extraction from spawning aggregations	High	High	Now				●	
	Outbreak of disease	High	High	Now	Cumulative effect of many factors				
	Outbreak of other species	Medium	Medium	Now	Cumulative effect of many factors				
	Terrestrial discharge	Medium	Medium	Now			●		
	Acid sulphate soils	Medium	Medium	Now		●	●		
	Artificial light	Medium	Medium	Now		●		●	
	Damage to reef structure	Medium	Medium	Now				●	
	Damage to seafloor	Medium	Medium	Now				●	
	Dredging	Medium	Medium	Now		●		●	
	Exotic species	Medium	Medium	Now			●	●	
	Extraction of herbivores	Medium	Medium	Now				●	
	Grounding large vessel	Medium	Medium	Now				●	
	Illegal activities — other	Medium	Medium	Now				●	
	Noise pollution	Medium	Medium	Now		●		●	
	Spill — large chemical	Medium	Medium	Now				●	
	Spill — large oil	Medium	Medium	Now				●	
	Vessel strike	Medium	Medium	Now				●	
	Vessel waste discharge	Medium	Medium	Now				●	
	Wildlife disturbance	Medium	Medium	Now				●	
	Grounding small vessel	Medium	Medium	Now				●	
	Spill — small	Medium	Medium	Now				●	
	Atmospheric pollution	Medium	Medium	Now		●		●	
Risk		Low	Medium	High	Very high	Timing			
						Now	10+	More than 10 years	

Appendix E: Responses to recommendations of the World Heritage Committee concerning development of a long-term sustainability plan

Protecting the Reef's Outstanding Universal Value is a key response to the recommendations of the World Heritage Committee (WHC). In its 2014 decision, the WHC requested that the Long-Term Sustainability Plan:

'...results in concrete and consistent management measures that are sufficiently robust, effectively governed and adequately financed to ensure the overall long-term conservation of the property and its outstanding universal value (OUV), including in view of addressing cumulative impacts and increasing reef resilience.'

This Plan was also developed to respond to a number of key decisions by the World Heritage Committee from 2011, 2012, 2013 and 2014 including that the Plan:

1. Have *'agreed leadership at Federal and State levels, that addresses the entire property and the adjacent areas where activities can affect the OUV'*:

This Plan is a joint Australian and Queensland government initiative and will form a schedule to the *Intergovernmental Agreement 2009*. The scope of the Plan addresses activities across marine, coastal and Reef catchment areas.

2. *'Establish the outstanding universal value of the property as a clearly defined and central element within the protection and management system of the property'*:

Governance principles, objectives, targets and actions relate directly to embedding OUV into decision-making processes to improve protection and management of the Reef's OUV, building on work to date.

3. Lead to *'strategies that will sustain long-term sustainable development, compatible with the protection of OUV, including consideration of all economic sectors'*:

This Plan commits to objectives, targets and actions across ecological, economic and social themes. The Plan has been developed in a consultative and participatory manner with industry sectors that interact with the Reef. These collaborative arrangements will continue throughout the implementation of the Plan, with the commitment to convene a multi-sectoral Reef advisory committee to facilitate engagement with industry and the broader community.

4. *'Adopt clearly defined and scientifically justified targets'*:

This Plan is an outcome focused framework with defined objectives, targets and actions that are specific, measurable, achievable, relevant and time-bound (SMART) to ensure the overall long-term conservation of the property. The targets in the Plan underwent a peer review process during the public consultation period. The Plan will also be regularly updated and reviewed on a five-year cycle, responding to new information, changing circumstances and emerging issues. Input from a Reef advisory committee, independent expert panel and the community will be integral to this review process.

5. *'Include a fully integrated approach to planning, regulation and management of ports and shipping activity'*:

This Plan adopts an integrated approach to ports management and shipping by referencing targets and actions consistent with Queensland's ports legislation and the North-East Shipping Management Plan. The Plan also provides for a dredging management strategy encompassing both industry and government-led initiatives. In addition, the Plan includes commitments to legislate to ban the disposal of capital dredge material within the Marine Park and the World Heritage Area.

Note: *Italics* represent recommendations of the World Heritage Committee.

Appendix F: Status of capital dredging projects adjacent to the Great Barrier Reef coast at February 2015

Project proposal	Referred for assessment	Proposed dredge volume (m ³)	Comparative status— with particular emphasis on disposal to the Marine Park		Dredge material in Great Barrier Reef Marine Park— status now
			September 2013	February 2015	
Fitzroy Terminal Project/ Port Alma	2011	Not yet determined	The proposal was referred while at an early design stage. More detailed information will be required on project design (such as dredging requirements) when assessment documentation is released for public comment. The proposal includes trans-shipping.	Proposal lapsed under Queensland legislation. Process to withdraw/lapse project under the EPBC Act is underway.	Nil
Fitzroy Delta— Balaclava Island	2011	Not determined but significant	First proposal withdrawn—potentially able to be resubmitted.	Proposal withdrawn.	Nil
Port of Townsville Port Expansion Project	2011	10,000,000	Disposal in the Marine Park considered as an option. 4,300,000 onshore to reclamation. 5,700,000 to sea disposal.	Port has indicated it will not consider option of disposal in Marine Park, and will increase the amount to be disposed in land reclamation. Remaining amount to be disposed at sea within the port exclusion area.	Nil
Cairns Shipping (Trinity Inlet) Project	2012	4,400,000	Disposal in the Marine Park indicated as preferred approach by port. Likely to seek to dispose full amount in the Marine Park.	Federal Minister, Great Barrier Reef Marine Park Authority and the Queensland Government have indicated they will not approve disposal in the Marine Park.	Nil
Wongai/Prince	2011	Not yet	The proposal was	No details provided	Nil

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Project proposal	Referred for assessment	Proposed dredge volume (m ³)	Comparative status— with particular emphasis on disposal to the Marine Park		Dredge material in Great Barrier Reef Marine Park— status now
			September 2013	February 2015	
ss Charlotte Bay		determined	referred while at an early design stage. More detailed information will be required on project design (such as dredging requirements) when assessment documentation is released for public comment. The proposal includes Trans-shipping.	by proponent.	
Abbot Point capital dredging	2012	3,000,000	Disposal in the Marine Park preferred.	(Marine Park disposal approval— on hold). Queensland has referred two projects under the EPBC Act that would allow for land-based disposal of 1,700,000 m ³ as an alternative to the approved capital dredging at Abbot Point.	Nil
Dudgeon Point Coal Terminals Project—in Port of Hay Point	2012	13,000,000	On hold. Disposal site yet to be determined—options include Marine Park.	Proposal withdrawn.	Nil
Development of the Yarwun Coal Terminal Project	2012	4,560,000	Disposal proposed onshore.	Proposal withdrawn.	Nil
Port of Gladstone Channel Duplication	2012	12,000,000	Disposal site yet to be determined—options include Marine Park.	Port has indicated it will not seek approval to dispose of dredge material in the Marine Park.	Nil
Abbot Point	2012	Not yet	The proposal was	No details provided	Nil

Project proposal	Referred for assessment	Proposed dredge volume (m ³)	Comparative status— with particular emphasis on disposal to the Marine Park		Dredge material in Great Barrier Reef Marine Park— status now
			September 2013	February 2015	
Terminal 10/Waratah Coal		determined	referred while at an early design stage. More detailed information will be required on project design (such as dredging requirements) when assessment documentation is released for public comment. No details provided by proponent.	by proponent.	

Appendix G: The Outcomes Framework—clear measures to protect Outstanding Universal Value

The Plan sets out clear measures for identification, protection, conservation, presentation and transmission to future generations of the Outstanding Universal Value of the Great Barrier Reef World Heritage Area. Through an Outcomes Framework (Section 4.3), clear measures will be guided by medium-term objectives for the themes of ecosystem health, biodiversity, heritage, water quality, community benefits, economic benefits and governance. Links between the medium-term objectives and the Outstanding Universal Value criterion are identified based on the attributes of Outstanding Universal Value they protect and/or represent.

Theme and context	Objectives	Criterion vii	Criterion viii	Criterion ix	Criterion x	Integrity
Ecosystem health Well-functioning ecological systems, such as coral reefs and associated habitats, provide a host of ecosystem services and underpin resilience. They support the integrity, biodiversity and heritage values of the Reef and its economic and community benefits. Traditional Owners and their continuing connection to their sea country play an integral	The knowledge, innovations and practices of Traditional Owners relevant for conservation and cultural use of biocultural diversity are preserved and maintained.	•		•	•	•
	The Great Barrier Reef World Heritage Area retains its integrity and system functions by maintaining and restoring the connectivity, resilience and condition of marine and coastal ecosystems.	•	•	•	•	•

Theme and context	Objectives	Criterion vii	Criterion viii	Criterion ix	Criterion x	Integrity
<p>role in the health of the Great Barrier Reef ecosystem.</p> <p>The targets and actions to maintain and enhance ecosystem health over successive decades relate to those aspects of the ecological system (for example coral reefs, seagrass meadows and coastal habitats) that support or best represent the ecological and biological processes of the Reef; provide habitat for biodiversity including threatened species; increase resilience to climate change; and economic and community benefits (for example natural beauty, fisheries and protection from wave action). Individual species contributing to ecosystem and habitat integrity are considered in the biodiversity theme.</p>	<p>Trends in the condition of key ecosystems including coral reefs, seagrass meadows, estuaries, islands, shoals and interreefal areas are improved over each successive decade.</p>	•	•	•	•	•
<p>Biodiversity</p> <p>Biodiversity is not just a measure of how many species there are, but encompasses all natural variation—from genetic differences within one species to variations across a habitat or a whole ecosystem.</p> <p>The Great Barrier Reef is one of the world’s most diverse and remarkable ecosystems, with a wide range of habitats and many thousands of different species. Actions will be taken to protect and conserve this biodiversity, focused on applying traditional knowledge, species of conservation concern, monitoring and reporting, and specific projects, planning and programs.</p>	<p>Traditional Owners are engaged and participate in and manage the conservation and sustainable use of cultural keystone species and biocultural resources.</p>	•		•	•	•
	<p>The survival and conservation status of listed species within the Great Barrier Reef World Heritage Area is promoted and enhanced.</p>	•		•	•	•
	<p>Trends in populations of indicator species* across their natural range are stable or increasing.</p>	•		•	•	•
	<p>Indices of biodiversity are in good or very good condition at Reef-wide and regional scales.</p>	•		•	•	•
	<p>Reef habitats and ecosystems are managed to sustain healthy and diverse populations of indicator species* across their natural range.</p>	•		•	•	•
<p>Heritage</p> <p>The heritage theme is focused on the cultural significance of the Reef, comprising all human values and meanings that might be recognised, including aesthetic, historic, scientific, social and spiritual. It encompasses Indigenous and</p>	<p>Traditional Owners’ cultural heritage rights and responsibilities are incorporated in all facets of management.</p>	•	•	•	•	•
	<p>Indigenous and non-Indigenous heritage including natural, aesthetic, historic, scientific, and social values are identified,</p>	•	•	•	•	•

Theme and context	Objectives	Criterion vii	Criterion viii	Criterion ix	Criterion x	Integrity
non-Indigenous values. Protecting natural heritage, including the Outstanding Universal Value of the Reef, is embedded in the overarching vision and all themes of this Plan.	conserved and managed in partnership with the community.					
Water quality Improving the quality of water entering the World Heritage Area is pivotal in supporting the Reef's values as well as in maintaining its fundamental contribution to the wider Australian community through tourism and food production. It builds resilience in areas which support significant biodiversity and species of conservation concern such as marine turtles and dugongs, and drives fisheries productivity. It is also likely to reduce the frequency of future crown-of-thorns starfish outbreaks, with one line of evidence suggesting these are driven by elevated concentrations of nutrients.	Over successive decades the quality of water entering the Reef from broadscale land use has no detrimental impact on the health and resilience of the Great Barrier Reef.	•		•	•	•
	Over successive decades the quality of water in or entering the Reef from all sources including industrial, aquaculture, port (including dredging), urban waste and stormwater sources has no detrimental impact on the health and resilience of the Great Barrier Reef.	•		•	•	•
Community benefits The Great Barrier Reef plays an important role in community life. Local residents and visitors from within Australia and around the world are drawn to the Reef for its exceptional natural beauty, and many people have strong connections with the Reef through culture, occupation or familiarity. Human wellbeing—happiness, good health and prosperity—is inextricably linked to environmental health. Through sustainable fishing, the Reef is also a healthy food source for people in Queensland and around the world. Traditional Owners have long highlighted the benefits their communities derive from the Reef environment, including through cultural connections to sea country, access to the Reef's resources, employment and improved health outcomes. People also derive less tangible benefits from healthy ecosystems such as nature appreciation, opportunities for relaxation and enjoyment, and a better understanding of the	The rights of Traditional Owners to derive benefits from the conservation and cultural use of biological resources are recognised.	•		•		•
	A healthy Reef that supports sustainable lifestyles and livelihoods, and provides coastal communities with protection from extreme weather events.	•	•	•	•	•
	Community benefits provided by the Reef, including its superlative natural beauty and the sense of place are maintained for current and future generations.	•				•
	Local, regional and Reef-wide community benefits are understood and the community is actively engaged in managing Reef activities.			•	•	•

Theme and context	Objectives	Criterion vii	Criterion viii	Criterion ix	Criterion x	Integrity
complex natural world. The Reef also provides coastal residents with protection from wave action especially in extreme weather.						
Economic benefits The Reef is a critical economic asset, providing income and jobs for the community. Reef-dependent industries and Reef-associated industries support diverse and sustainable communities. These industries and communities need to be able to continue to prosper, while ensuring protection of the Reef's Outstanding Universal Value. Addressing the interplay between environmental, social and economic factors through improved planning and decision making and an outcomes-focused approach will contribute to sustainable communities, a healthy environment and the protection of the Reef's Outstanding Universal Value for current and future generations. Investment in Reef health is an investment in ensuring ongoing economic benefits and community wellbeing.	Traditional Owners derive economic benefits from conservation and sustainable use of biological resources.	•	•	•	•	•
	Protecting the Reef's Outstanding Universal Value is embedded within decision making, with impacts first avoided, then mitigated and then as a final consideration, any residual impacts are offset to achieve a net environmental benefit.	•	•	•	•	•
	Reef-associated industries are planned and managed in such a way as to protect the Reef's Outstanding Universal Value and are sustainable, productive and profitable.	•	•	•	•	•
	Reef-dependent industries are productive and profitable based on a healthy Reef and are ecologically sustainable.	•	•	•	•	•

Key to Outstanding Universal Value criteria and integrity:

- (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 ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features.
- (ix) Be outstanding examples 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.
- (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.

Integrity relates to the 'wholeness and intactness' of the heritage property and how it conveys the values it holds.

* **Indicator species** include, but are not limited to, bony fish, sharks and rays, sea snakes, marine turtles, seabirds, shorebirds, coastal dolphins, humpback whales and dugongs. Stable is the objective where the condition of the

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population is good or very good and Improving is the objective when the condition of the population is poor or very poor.

Appendix H: *How the Plan will lead to the protection, maintenance and transmission of the World Heritage Area's Outstanding Universal Value*

The table summarises how the recommendations of the World Heritage Committee (*in italics*) have been met through preparation of the Plan.

Criteria for Outstanding Universal Value
<p>The Plan will:</p> <p><i>‘Lead to the protection of the outstanding universal value of the property’.</i></p> <p>Response:</p> <p>Protecting the Outstanding Universal Value of the property is a cross-cutting theme that is addressed throughout the Plan and the management system of the property, guided by the following vision:</p> <p>The Great Barrier Reef continues to improve on its Outstanding Universal Value every decade between now and 2050 to be a natural wonder for each successive generation to come.</p> <p>The objectives, targets and actions in the Plan are designed to achieve the vision.</p>
<p>The Plan will:</p> <p><i>‘Address the outstanding universal value of the property as a clearly defined and central element within the management system of the property, including as a principal reference in the decision-making process regarding all development and use that may negatively impact the property or in areas adjacent’.</i></p> <p>Response:</p> <p>Overarching decision-making principles are set out in Section 4.4, which emphasise protection of Outstanding Universal Value as paramount. The principles state that: ‘protecting the Outstanding Universal Value of the World Heritage Area is the prime consideration when planning, development and management decisions are made’ and ‘economic growth is sustainable and consistent with protecting Outstanding Universal Value’.</p> <p>Once finalised, the Plan including the Outcomes Framework, will become a schedule to the Great Barrier Reef Intergovernmental Agreement.</p>
Criteria for developing the Plan
<p>The Plan will:</p> <p><i>‘Be completed in a coordinated and fully consultative process’.</i></p> <p>Response:</p> <p>A Partnership Group was formed, representing key sectors and stakeholders, to assist in the Plan’s development and ensuring the Plan was developed in a coordinated and fully consultative process. The Plan underwent a six-week public consultation process to inform its finalisation.</p> <p>Targeted engagement opportunities were provided for Indigenous communities to ensure effective participation in developing the Plan. The Giringun Aboriginal Corporation undertook consultation with the Indigenous community on behalf of government.</p> <p>The Great Barrier Reef Marine Park Authority engaged directly with its Local Marine Advisory Committees to raise awareness about the Plan and to seek their input. There are 12 Local Marine Advisory Committees—Cape York, Port</p>

Douglas, Cairns, Cassowary Coast, Hinchinbrook, Townsville, Bowen-Burdekin, Whitsunday, Mackay, Capricorn Coast, Gladstone and Burnett. Their membership comprises a wide range of stakeholders.

An expert review workshop was also held to review the actions, targets, objectives and outcomes to ensure they were scientifically justified and robust.

The Plan will:

‘Receive key input from an independent review of the institutional and management arrangements for the property’.

Response:

The Australian Government commissioned an independent review of the institutional and management arrangements for the property. The review informed the final Plan. The review was publicly released in September 2014.

The Plan will:

‘Result in concrete and consistent management measures that are sufficiently robust, effectively governed and adequately financed’.

Response:

The Australian and Queensland governments have committed to fully implement the Plan.

(Concrete, consistent and robust measures) The Plan is an outcome-focused framework with defined objectives, SMART targets and actions, implemented to protect the overall long-term conservation of the property.

(Effectively governed) The Great Barrier Reef Ministerial Forum will be the key decision-making body for the Plan supported by an intergovernmental operational committee, to oversee implementation of the Plan.

A multidisciplinary Reef advisory committee will ensure a consultative approach to implementation and review of the Plan. In addition, an independent expert panel will provide advice to inform adaptive management of the Plan.

(Adequately financed measures) The Plan is founded on actions already identified through existing science or which have been committed to by government or industry over coming years.

The Australian and Queensland governments will ensure sufficient financial and other resources are available to achieve the Plan’s outcomes. Implementation of the Plan will be underpinned by a robust investment framework, which establishes current investments in protecting the Reef, determines investment priorities for the future, and sets out a strategy for boosting investment and diversifying its sources.

Criteria for the Outcomes Framework

The Plan will:

‘Provide a clear and target-driven framework to support planning and assessment of development proposals’.

Response:

The Plan, including the Outcomes Framework and decision-making principles, will inform relevant development decisions.

The Plan will:

‘Fully address direct, indirect and cumulative impacts on the Great Barrier Reef’.

Response:

The Plan commits to developing guidelines for assessing cumulative impact and a net benefit policy to guide future planning and development decisions. Many of the actions and targets in the Plan are aimed at reducing impacts to the Reef to ensure cumulative impacts are managed below threshold levels and ensure protection and transmission of the Reef’s

Outstanding Universal Value.

The Plan will:

‘Adopt clearly defined and scientifically justified targets’.

Response:

The objectives, targets and actions in the Plan underwent a peer-review process by independent experts during the public consultation period.

Criteria for ports management

The Plan will:

‘Include a fully integrated approach to planning, regulation and management of ports and shipping activity, including: ensuring no new development outside of long-established major port areas; development focused to Priority Port Development Areas that exclude Fitzroy Delta, Keppel Bay and North Curtis Island; ensuring ports and shipping activity meet the highest international standard’.

Response:

The Plan adopts an integrated approach to ports management and shipping by:

- Protecting greenfield areas by restricting new port development in and adjoining the Great Barrier Reef World Heritage Area to within current port limits. These port limits are long-established and fixed in regulations under the *Transport Infrastructure Act 1994* (Qld).
- Restricting capital dredging for the development of new or expansion of existing port facilities to within the regulated port limits of Gladstone, Hay Point/Mackay, Abbot Point and Townsville and ensuring that any new development inside these port limits is also consistent with the Great Barrier Reef Marine Park Act, the Queensland Marine Parks Act, their regulations and zoning plans.
- Prohibiting the sea-based disposal of material into the Great Barrier Reef World Heritage Area generated by port-related capital dredging.
- Mandating the beneficial reuse of port-related capital dredge spoil, such as land reclamation in port development areas, or disposal on land where it is environmentally safe to do so.
- The Queensland Government will require all proponents of new dredging works to demonstrate their project is commercially viable.
- Establishing a maintenance dredging framework which identifies future dredging requirements, ascertains appropriate environmental windows to avoid coral spawning and protect seagrass, and examines opportunities for beneficial reuse of dredge material or on-land disposal where it is environmentally safe to do so.
- Requiring master plans at the major ports of Gladstone, Hay Point/Mackay, Abbot Point and Townsville which optimise infrastructure and address operational, economic, environmental and social relationships as well as supply chains and surrounding land uses.
- Supporting on-land disposal or land reclamation for capital dredge material at Abbot Point.
- The Queensland Government will not support trans-shipping operations that adversely affect the Great Barrier Reef Marine Park.
- Further protecting the Fitzroy Delta, including North Curtis Island and Keppel Bay which are clearly outside the Gladstone port area, through:
 - extension and strengthened conservation zoning in the Great Barrier Reef Coast Marine Park

- extension of the existing Fish Habitat area
- establishment of a new net-free zone under fisheries legislation
- additional protections in associated intertidal and terrestrial areas.

Further port re-development other than capital dredging may occur at Port Alma subject to environmental assessment and appropriate conditions.

Criteria for governance

The Plan will:

‘Be agreed at Federal and State levels, addressing the entire property and adjacent areas that may impact its OUV’.

Response:

The Plan is a joint Australian and Queensland government initiative and its implementation and review will be overseen by the Great Barrier Reef Ministerial Forum. The Plan will form a schedule to the *Intergovernmental Agreement 2009*.

The scope of the Plan addresses activities that occur across the property and in areas adjacent that may affect the Outstanding Universal Value of the property.

The Plan will:

‘Provide a strategy that will sustain the long-term sustainable development of the property, including consideration of all economic sectors’.

Response:

The Plan commits to objectives, targets and actions across ecological, economic and social themes. The Plan has been developed in a consultative and participatory manner with industry sectors that interact with the Reef. These collaborative arrangements will continue throughout implementation of the Plan, with the commitment to convene a multi-sectoral Reef advisory committee to facilitate engagement with industry and the broader community.

The Plan will:

‘Increases public confidence on their ability to engage with and influence policy’.

Response:

The Plan has been developed in consultation with the Partnership Group and underwent a public comment process.

A multi-sectoral Reef advisory committee will ensure a consultative approach to implementation and review of the Plan.

Reporting and reviewing requirements of the Plan include an annual report on implementation, made available to the public and a five-yearly review of its effectiveness.

Incorporating diverse knowledge systems (through existing community networks and stewardship programs) is a key principle under the Plan and will be used to drive innovation and influence future target and action-setting.

Appendix I: Detailed actions and lead agencies and partners

Key:

AG:	Australian Government
AIMS:	Australian Institute of Marine Science
AMPTO:	Association of Marine Park Tourism Operators
AMSA:	Australian Maritime Safety Authority
GBRF:	Great Barrier Reef Foundation
GBRMPA:	Great Barrier Reef Marine Park Authority
JCU:	James Cook University
LG:	Local Government
LGAQ:	Local Government Association of Queensland
NRMs:	Natural resource management organisations
PMC:	Department of Prime Minister and Cabinet
QG:	Queensland Government
QRC:	Queensland Resources Council

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Actions		Lead agencies/partners
Ecosystem Health		
EHA1	Acknowledge Traditional Owners in new and existing policy and plans.	Traditional Owners, AG, GBRMPA, QG
EHA2	Incorporate and prioritise Traditional Owners' planning into existing and future ecosystem policy and programs.	Traditional Owners, AG, GBRMPA, QG
EHA3	Support Traditional Owner stewardship activities that contribute to Reef health and resilience, including removing and, where possible, identifying the sources of marine debris.	Traditional Owners, AG, QG, LG, GBRMPA, Industry
EHA4	Develop further agreements with Traditional Owners addressing management of ecosystems within their traditional estates.	Traditional Owners, GBRMPA, AG, QG
EHA5	Develop, implement and coordinate a protocol and knowledge management system for: recording, storing, protecting, and where appropriate, sharing of knowledge, innovations and practices; conserving and cultural use of biocultural diversity; and use in decision making.	Traditional Owners, GBRMPA, AG, QG
EHA6	Further develop regionally relevant standards for ecosystem health (desired state, critical thresholds and health indicators) that inform and support the Integrated Monitoring and Reporting Program.	GBRMPA, QG, AIMS, NRMs, LG
EHA7	Prioritise functional ecosystems critical to Reef health in each region for their protection, restoration and management.	AG, QG, LG, GBRMPA
EHA8	Develop a net benefit policy to restore ecosystem health, improve the condition of values and manage financial contributions to that recovery.	GBRMPA, AG, QG, LGAQ, NRMs, Industry
EHA9	Maintain and work to add to the island and coastal protected area estate and continue to provide funding for protected area management in the Great Barrier Reef coastal zone.	QG
EHA10	Improve connectivity and resilience through protection, restoration and management of Reef priority coastal ecosystems including islands through innovative and cost-effective measures.	AG, QG, LG, GBRMPA, stewardship programs, NRMs, Industry
EHA11	Maintain the Great Barrier Reef Marine Park and Great Barrier Reef Coast Marine Park zoning plans and enhance compliance.	GBRMPA, QG

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Actions		Lead agencies/partners
EHA12	Reduce crown-of-thorns starfish outbreaks by continuing to improve water quality and undertaking a targeted control program as needed. Improve integration and effectiveness of crown-of-thorns starfish research and management.	GBRMPA, AG, QG, AMPTO
EHA13	Identify and prioritise key sites of high ecological value and implement recovery programs (Reef Recovery Plans).	GBRMPA, QG, LG
EHA14	Implement ecosystem health initiatives through the Reef Trust investment strategy.	AG, QG, Industry, LG
EHA15	Improve mapping, modelling and monitoring of ecosystems important for the protection of the Reef to inform planning, assessment and decision making.	GBRMPA, AIMS, QG, NRM, LGAQ
EHA16	Address key knowledge gaps identified in the <i>Great Barrier Reef Outlook Report 2014</i> through the National Environmental Science Programme.	AG, QG
EHA17	Finalise classification of marine ecosystems within the Great Barrier Reef.	QG, GBRMPA
EHA18	Avoid, mitigate or offset impacts on marine and coastal ecosystems to restore Reef resilience and ecosystem health.	QG, GBRMPA, Industry
EHA19	Develop guidelines for assessing cumulative impacts (including climate change pressures) on matters of national environmental significance including ecosystem and heritage values in the World Heritage Area.	QG, AG, GBRMPA, LGAQ, Industry
EHA20	Strengthen the Queensland Government's vegetation management legislation to protect remnant and high value regrowth native vegetation, including in riparian zones.	QG
EHA21	Protect greenfield areas by restricting new port development within and adjoining the World Heritage Area to within existing port limits fixed in regulation under the <i>Transport Infrastructure Act 1994</i> (Qld).	QG
EHA22	Protect the Fitzroy Delta, including North Curtis Island and Keppel Bay, by: <ul style="list-style-type: none"> extension and strengthened conservation zoning in the Great Barrier Reef Coast Marine Park extension of the existing Fish Habitat area establishment of a new net-free zone under fisheries legislation additional protections in associated intertidal and terrestrial areas. 	QG
EHA23	Implement coastal planning laws based on the best available science, which	QG

SCHEDULE G

Actions		Lead agencies/partners
	take into account expected sea level rise, protect ecologically significant areas such as wetlands, prohibit new development in high-hazard greenfield areas and protect the Great Barrier Reef World Heritage Area.	
EHA24	Work with local councils to build their capacity to effectively implement coastal planning laws and policies to protect the Reef.	QG, GBRMPA
EHA25	Ensure Great Barrier Reef ports planning incorporates evidence-based measures to support protection, restoration and management of coastal ecosystems that contribute to Reef health and resilience.	Industry, QG, AG, GBRMPA
EHA26	Maintain and improve response plans and adequate response capacity for shipping and other incidents.	AMSA, QG, GBRMPA, Industry
EHA27	Implement on-ground activities to reduce the volume of debris generated in or entering the World Heritage Area, and undertake education and awareness raising activities to minimise the source and occurrence of marine debris.	GBRMPA, QG, Traditional Owners, Industry, LG
EHA28	Support best practice and community stewardship activities that contribute to Reef health and resilience.	AG, QG, GBRMPA
EHA29	Establish condition and resilience indicators for coral reefs, seagrass meadows, islands, estuaries, shoals and interreefal shelf habitats.	AG, QG, GBRMPA
EHA30	Incorporate condition and resilience indicators for ecosystem health in the Integrated Monitoring and Reporting Program.	AG, QG
EHA31	Communicate the findings of the Great Barrier Reef Coastal Ecosystem Assessment Framework – basin assessments and encourage their use in determining priorities for protecting and restoring coastal ecosystems and in taking actions likely to improve Great Barrier Reef health and resilience.	GBRMPA, QG
EHA32	Enhance compliance with zoning plans, fish habitat area provisions and other regulations through improved enforcement, and adoption of new technologies such as tracking systems on vessels in the Great Barrier Reef Marine Park and Great Barrier Reef Coast Marine Park.	GBRMPA, QG
Biodiversity		
BA1	Where agreed through Traditional Owner engagement frameworks, apply traditional knowledge and customary use of biological diversity, including the use of community protocols, in managing protected areas.	Traditional Owners, GBRMPA, QG

SCHEDULE G

Actions		Lead agencies/partners
BA2	Work with Traditional Owner groups to identify biocultural resources within their sea country and develop plans of management for conservation and use of those resources.	Traditional Owners, GBRMPA, QG
BA3	Improve Traditional Owner engagement to strengthen participation in decision making at all levels relating to the conservation and cultural use of biodiversity.	GBRMPA, AG, Traditional Owners, QG
BA4	Work with Traditional Owners to build capacity to record and manage traditional ecological knowledge, and prioritise research to address key Indigenous knowledge gaps.	Traditional Owners, AG, QG
BA5	Further develop and implement dugong and turtle protection plans using the Reef Trust and associated initiatives.	AG, QG, GBRMPA, PMC, LG
BA6	Establish three net-free fishing zones in north and central Queensland: Trinity Bay, Cairns; St Helen's Beach-Cape Hillsborough, north of Mackay; and Yeppoon-Keppel Bay-Fitzroy River, Capricorn Coast.	QG
BA7	Develop and implement the recommendations of the National Vessel Strike Strategy.	AG, QG, GBRMPA, Industry
BA8	Maintain and enhance a marine animal stranding response program.	QG, GBRMPA
BA9	Identify key habitat types that support foraging for marine turtles within the World Heritage Area. The first five years will focus on flatback turtles.	QG, GBRMPA
BA10	Identify, protect and manage key marine turtle nesting areas.	QG, GBRMPA
BA11	Identify, protect and manage key seabird nesting islands, and key habitats that support foreshore and pelagic foraging.	QG, GBRMPA, LG
BA12	Identify, protect and manage key habitat areas for inshore dolphins.	AG, QG, GBRMPA
BA13	Continue to protect and manage key habitats for dugong.	AG, QG, GBRMPA
BA14	Implement further actions to reduce human-related causes of dugong mortality such as vessel strike and net entanglement.	QG, GBRMPA
BA15	Reduce cumulative impacts on coastal dolphin populations and their supporting habitats especially Australian humpback and snubfin dolphins.	QG, GBRMPA, AG

SCHEDULE G

Actions		Lead agencies/partners
BA16	Implement conservation plans for priority species of conservation concern.	AG, QG, GBRMPA
BA17	Identify the key indicator species and populations, including fisheries species, to inform refinement of targets and for inclusion in the Integrated Monitoring and Reporting Program.	GBRMPA, QG, Commercial and Recreational Fishers
BA18	Complete population or stock assessments of indicator species, including fisheries species, to inform population resilience and sustainable use.	AG, QG
BA19	Monitor and report on key seabird populations to establish trends.	GBRMPA, QG
BA20	Monitor and report on turtle breeding and/or nesting success of green, loggerhead, flatback and hawksbill turtles at key locations.	QG, GBRMPA
BA21	Continue to survey the dugong population every five years.	JCU, QG
BA22	Continue implementation of the Raine Island Recovery project.	AG, QG, GBRMPA
BA23	Review the regulatory structure of fishing to ensure the sustainability of Queensland's fisheries.	QG
BA24	Ensure that through the Field Management Program resources are available for island habitat restoration projects and pest eradication particularly at critical seabird and turtle nesting sites.	GBRMPA, QG
BA25	Develop a guideline specific to the Great Barrier Reef on assessing and managing impacts of underwater noise on species.	GBRMPA, AG, QG, Industry
Heritage		
HA1	Build capacity for the involvement of Traditional Owners and community members in cooperative management, planning and impact assessment.	Traditional Owners, AG, QG, GBRMPA, NRMs, Industry
HA2	Work with and support Traditional Owners to collect, store and manage their cultural heritage information.	GBRMPA, Traditional Owners, AG, QG
HA3	Improve engagement processes for assessment of cultural heritage values to inform decision making.	Traditional Owners, GBRMPA, AG, QG
HA4	Update the <i>Great Barrier Reef Marine Park Heritage Strategy 2005</i> to more	Traditional Owners,

SCHEDULE G

Actions		Lead agencies/partners
	comprehensively address Indigenous and non-Indigenous heritage.	GBRMPA
HA5	Develop impact assessment guidelines for cultural heritage values in the Great Barrier Reef Region.	AG, QG, GBRMPA, LGAQ
HA6	Facilitate robust consideration of heritage values in planning processes, including port development and associated activities.	AG, QG, GBRMPA, Ports Australia, NRMs, Traditional Owners
HA7	Consolidate Reef heritage data, and identify priorities for protective action.	GBRMPA, QG, AG
HA8	Complete heritage management plans for Low Isles and North Reef light stations.	GBRMPA, AG
HA9	Update existing conservation management plans for historic shipwrecks—the <i>SS Yongala</i> (1911), <i>Gothenburg</i> (1875), and <i>SS Llewellyn</i> (1919).	GBRMPA, QG
HA10	Complete and implement conservation management plans for key historic shipwrecks—HMS <i>Pandora</i> (1791), HMCS <i>Mermaid</i> (1829) and <i>Foam</i> (1893).	GBRMPA, QG
HA11	Further identify, map, monitor and report on key Reef heritage values and sites, including comprehensive maritime surveys in priority sections of the Reef.	GBRMPA, QG, AG
Water Quality		
WQA1	By 2018, review and update the Reef Water Quality Protection Plan and its targets.	QG, AG, GBRMPA, Partners
WQA2	Continue improvement in water quality from broadscale land use through implementation of <i>Reef Water Quality Protection Plan 2013</i> actions.	QG, AG, GBRMPA, Industry, NRMs
WQA3	Pending the outcome of the review of regulation and market-based mechanisms to improve water quality, require farmers to be accredited to best management practice guidelines or to operate under an Environmental Risk Management Plan.	QG
WQA4	Implement innovative management approaches through the Reef Trust for improving water quality.	AG, QG, LG
WQA5	Increase use of cost-effective measures and to improve water quality from broadscale land use, urban, industrial and port activities.	QG, Industry, Service providers, LG

SCHEDULE G

Actions		Lead agencies/partners
WQA6	Establish an agreed performance-based voluntary reporting framework across agriculture, urban, ports and industry to measure management efforts to achieve best management practice and to inform regional report cards.	Industry, QG, LG
WQA7	Finalise and implement plans (e.g. Water Quality Improvement Plans and Healthy Waters Management Plans) for Reef catchments and key coastal areas, identifying implementation priorities for protection of the Reef.	NRMs, QG, GBRMPA, AG, Industry, LG
WQA8	<p>Increase industry participation in regional water quality improvement initiatives and partnerships aimed at managing, monitoring and reporting of water quality. These should build on existing initiatives such as:</p> <ul style="list-style-type: none"> • Fitzroy Partnership for River Health • Gladstone Healthy Harbour Partnership • Mackay Whitsunday Healthy Rivers to Reef Partnership. 	QG, Industry, NRMs, GBRMPA, LG
WQA9	Review and update water quality objectives and Great Barrier Reef Marine Park Authority Water Quality Guidelines at Reef-wide and regionally relevant scales based on scientifically verified monitoring and research.	QG, GBRMPA, Industry, LG
WQA10	Review and set regionally relevant standards for urban and point-source discharges into the World Heritage Area and ensure licensees meet these standards.	Industry, QG, LG
WQA11	Increase adoption of leading practice in the management and release of point-source water affecting the Reef.	Industry, QG, LG
WQA12	Implement best practice stormwater management (e.g. erosion and sediment control, water sensitive urban design and capture of gross pollutants) for new development in coastal catchments.	LG, QG, Industry
WQA13	Build capacity for local government and industry to improve water quality management in urban areas.	AG, QG, LG, LGAQ, GBRMPA
WQA14	Restrict capital dredging for the development of new or expansion of existing port facilities to within the regulated port limits of Gladstone, Hay Point/Mackay, Abbot Point and Townsville.	QG
WQA15	<p>Develop and implement a dredging management strategy that includes:</p> <ul style="list-style-type: none"> • an examination and, where appropriate, a potential pilot program to evaluate different treatment and re-use options for managing dredge material • measures to address dredging-related impacts on Reef water quality and ecosystem health 	<p>Conduct an examination: Ports Australia, AG</p> <p>Measures: GBRMPA, Ports Australia</p> <p>Code of practice: Ports</p>

SCHEDULE G

Actions		Lead agencies/partners
	<ul style="list-style-type: none"> a 'code of practice' for port-related dredging activities. 	Australia, Industry, QG, GBRMPA, QRC
WQA16	<p>Develop a State-wide coordinated maintenance dredging strategy which:</p> <ul style="list-style-type: none"> identifies each port's historical dredging volumes and likely future requirements and limits identifies appropriate environmental windows to avoid coral spawning, seagrass recruitment, turtle breeding and weather events examines opportunities for the beneficial reuse of dredge material or on-land disposal from maintenance activities establishes requirements for risk-based monitoring programs. 	Industry, QG, AG, GBRMPA
WQA17	Understand the port sediment characteristics and risks at the four major ports and how they interact and contribute to broader catchment contributions within the World Heritage Area.	Industry, QG, GBRMPA, AG
WQA18	In 2015 legislate to ban sea-based disposal of capital dredge material in the Great Barrier Reef Marine Park and in the balance of the Great Barrier Reef World Heritage Area from port-related capital dredging.	GBRMPA, QG
WQA19	Mandate the beneficial reuse of port-related capital dredge spoil, such as land reclamation in port development areas, or disposal on land where it is environmentally safe to do so.	QG
WQA20	The Queensland Government will require all proponents of new dredging works to demonstrate their project is commercially viable prior to commencement.	QG
WQA21	The Queensland Government will not support trans-shipping operations that adversely affect the Great Barrier Reef Marine Park.	QG
WQA22	Support on-land disposal or land reclamation for capital dredge material at Abbot Point.	QG
WQA23	Expand 'nested' integrated water quality monitoring and report card programs at major ports and activity centres (e.g. Gladstone), in priority catchments (e.g. Mackay Whitsundays) and Reef-wide, to guide local adaptive management frameworks and actions.	Industry, LG, NRMs, QG, GBRMPA
WQA24	Identify and action opportunities for Traditional Owners, industry and community engagement in on-ground water quality improvement and monitoring programs.	NRMs, GBRMPA, Traditional Owners, LG

SCHEDULE G

Actions		Lead agencies/partners
Community Benefits		
CBA1	Review current mechanisms and processes to improve benefits to Traditional Owners engaged in sea country management.	Traditional Owners, GBRMPA, LG, QG, AG
CBA2	Work with Traditional Owners to identify world's best practice in agreement making, strategic planning, and management and implementation of Indigenous programs in relation to the Great Barrier Reef sea country estate.	Traditional Owners, GBRMPA, QG, LG, AG
CBA3	Develop collaborative working arrangements with Traditional Owners which establish mutual trust and build Indigenous capacity.	GBRMPA, AG, QG, Traditional Owners, LG
CBA4	Ensure the impact on Reef health and resilience is considered in planning and developing coastal hazard responses to ensure negative impacts are avoided then mitigated.	LG, QG, GBRMPA
CBA5	Ensure community benefits derived from the Reef are considered in local and State-level policy and planning instruments and development and management decisions.	QG, LGAQ, LG, NRM
CBA6	Establish and adopt standards to report on condition and trend of aesthetic values of the reefs, islands and coasts.	GBRMPA, QG, LG
CBA7	Ensure the aesthetic values of the reefs, islands and the coast are considered and protected through planning and development decisions.	QG, GBRMPA, LGAQ, LG
CBA8	<p>Industry, community and governments work together to implement policies and programs that address tourism and recreational use of the Great Barrier Reef Marine Park:</p> <ul style="list-style-type: none"> • ensure that tourism and recreation activities are ecologically sustainable • maintain and apply a contemporary and adaptive set of management arrangements • implement best practice approaches and certification programs (where appropriate) to ensure protection and sustainable use of the Great Barrier Reef (e.g. High Standard Tourism program) • maintain visitor satisfaction through high quality presentation and tourism services, including quality world heritage interpretation • maintain recreational opportunities for Reef visitors (e.g. recreational fishing, sailing and diving) • coordinate field management activities for Reef visitors • promote voluntary compliance and Reef-friendly behaviour • provide adequate and well-maintained visitor infrastructure such as public 	GBRMPA, AMPTO, LGAQ, QG, NRM

SCHEDULE G

Actions		Lead agencies/partners
	moorings, reef protection markers, island facilities and interpretive signs.	
CBA9	In the revision of climate change adaptation strategies, recognise and avoid adverse impacts on coastal ecosystems essential for Reef health and resilience.	AG, QG, LG
CBA10	Develop and implement plans of management in areas of the Great Barrier Reef Marine Park that have high growth for recreation and other uses.	GBRMPA
CBA11	Strengthen programs to understand and promote the: <ul style="list-style-type: none"> • Reef's values and the community benefits they provide • threats to the values of the Reef and what people can do to address them • implications of climate change for the Reef and coastal ecosystems • role of the Reef, coastal ecosystems and physical coastal processes in protecting communities from extreme weather events • opportunities to contribute or play a role in protecting and managing the Reef. 	GBRMPA, AMPTO, LGAQ, Industry, QG
CBA12	Improve the involvement and support of local communities in monitoring, protecting, managing and sustainably using the Reef, including through citizen science and Local Marine Advisory Committees.	GBRMPA, QG, GBRF, LG
CBA13	Support the long-term social and economic monitoring program.	GBRMPA, LG
Economic Benefits		
EBA1	Develop and implement an Indigenous Business Development Plan including a comprehensive review of baseline data, processes and systems to identify existing and potential economic benefits to Traditional Owners.	Traditional Owners, QG, AG
EBA2	Assist Traditional Owners to be business-ready and have improved capacity to generate economic benefits from use and management of their traditional estates.	Traditional Owners, AG, QG
EBA3	Introduce a guideline for port master planning for the ports of Gladstone, Hay Point/Mackay, Abbot Point and Townsville that optimises infrastructure and considers operational, economic, environmental and social relationships as well as supply chains and surrounding land uses.	QG
EBA4	Adopt the best practice principles identified in the Gladstone Independent Review reports and integrate into port planning and development.	AG, QG

SCHEDULE G

Actions		Lead agencies/partners
EBA5	Identify the risk and any necessary mitigation measures to deal with impacts of coal dust on the Reef.	AG, QG, Industry
EBA6	Implement commitments for best-practice commercial vessel operation including those aimed at: <ul style="list-style-type: none"> reducing collisions with marine fauna reducing interference with species behaviour undertaking further research and investigating appropriate measures to reduce cumulative impacts from shipping. 	Reducing collisions: AG Reducing interference: GBRMPA Further research and measures: AG, Industry
EBA7	Consider development of a new vessel class which ensures bulk carriers travelling in the World Heritage Area meet stringent safety standards.	AG, QG, Industry
EBA8	Fully vet 100 per cent of all bulk carriers traversing the Great Barrier Reef to an appropriate standard by an independent industry endorsed ship-vetting provider.	Industry
EBA9	Encourage industry adoption of vessel assessment activities and approval processes that incorporate key crew competency evaluations to help ensure safe operations and compliance with regional and port requirements.	Industry, AG, QG
EBA10	Support the North-East Shipping Management Group on environment protection measures, preparedness and response protective measures, management of major anchorages, and stakeholder engagement.	AG, GBRMPA, QG
EBA11	Continue to refine and improve guidance and procedural requirements for avoiding, mitigating and offsetting impacts to the Reef from industry activities using standardised policies, procedures and guidelines.	AG, GBRMPA, QG
EBA12	Adopt a fisheries resource allocation policy which maximises the values of a sustainable fisheries catch.	QG
EBA13	Support the uptake of sustainable practices by Reef-dependent and Reef-associated industries to limit impacts on the Reef's Outstanding Universal Value.	GBRMPA, QG, AG
EBA14	Implement the <i>Queensland Ecotourism Plan: 2013–2020</i> in a manner that builds upon consistent and effective management of tourism in protected areas.	QG, GBRMPA, Industry
EBA15	Recognise tourism-related fishing, particularly charter fishing, as a distinct fishing activity through the development of an action plan which: <ul style="list-style-type: none"> identifies fisheries resources with tourism-related potential at a detailed regional level 	QG

SCHEDULE G

Actions		Lead agencies/partners
	<ul style="list-style-type: none"> develops mechanisms to enable charter fishing to operate on a sustainable basis. 	
EBA16	Continue to engage in and support the Gladstone Healthy Harbour Partnership, Mackay Whitsunday Healthy Rivers to Reef Partnership and Fitzroy Partnership for River Health.	AG, QG, LG
EBA17	Identify, test and use economic indicators as a component of the Integrated Monitoring and Reporting Program.	GBRMPA
EBA18	Identify, test and, if appropriate, use indicators of Reef-dependent industry viability and its relationship with Reef health as part of the Integrated Monitoring and Reporting Program.	GBRMPA
Governance		
GA1	Convene an intergovernmental operational committee comprising senior officials from the Australian, including the Great Barrier Reef Marine Park Authority, and Queensland governments to oversee implementation of the Plan, facilitate coordination of Reef-related activities and report annually to the Great Barrier Reef Ministerial Forum.	GBRMPA, QG, AG
GA2	Convene a multi-sectoral Reef advisory committee to facilitate engagement with Traditional Owners, industry and the broader community regarding implementation and review of the Plan.	GBRMPA
GA3	Convene an independent expert panel with an independent chair to advise the intergovernmental operational committee regarding implementation and review of the Plan and associated Integrated Monitoring and Reporting Program.	GBRMPA, QG, AG
GA4	Convene a network to review, coordinate and align monitoring and reporting activities to inform development and operation of the Integrated Monitoring and Reporting Program.	GBRMPA
GA5	Adopt an approach of continuous improvement as part of adaptive management of the World Heritage Area.	AG, QG, GBRMPA, Partners
GA6	<p>As a priority the Queensland Government will consult with an advisory taskforce on:</p> <ul style="list-style-type: none"> the best possible approach to achieving the 2025 targets for pollution run-off into the Great Barrier Reef the effectiveness and cost of robust regulations, a market-based trading mechanism, or a combination of both, in reducing pollution run-off — to report within a year of commencement. 	QG

SCHEDULE G

Actions		Lead agencies/partners
GA7	<p>When reviewing relevant agreements, policies, plans, strategies and programs ensure they support the Plan's outcomes and targets. For example:</p> <ul style="list-style-type: none"> • fund and support ongoing joint field management activities • create a Great Barrier Reef Plan Register with all management plans recorded to simplify understanding of management arrangements • develop a policy guideline for decision makers on how to take into account the vision, outcomes, objectives and targets in this Plan in relevant decision making • support cross-cultural training in relation to Traditional Owner culture and perspectives. 	<p>Joint field management activities: QG, AG, GBRMPA, Industry, Regional Bodies, LG</p> <p>Great Barrier Reef Plan Register: AG, QG</p> <p>Policy guideline: AG, QG</p>
GA8	Update the <i>Great Barrier Reef Intergovernmental Agreement 2009</i> to explicitly include Outstanding Universal Value.	AG, QG, GBRMPA
GA9	Adopt the <i>Reef 2050 Long-Term Sustainability Plan</i> as a schedule to the <i>Great Barrier Reef Intergovernmental Agreement 2009</i> .	AG, QG
GA10	Work with Traditional Owners, industry, regional bodies, local governments, research institutions, and the community to inform delivery of local and regional actions.	GBRMPA, QG, AG, LG, Industry, NRM
GA11	Improve Traditional Owner participation in governance arrangements for protection and management of the Reef.	AG, QG
GA12	Prioritise and develop specific implementation plans and reporting protocols addressing the Plan's targets and actions in consultation with the community.	Industry, AG, QG, LG, NRM
GA13	Develop an investment baseline and associated investment framework to inform future delivery of actions under the Plan.	AG, QG, Partners, GBRMPA
GA14	Develop, implement and maintain mechanisms and policies to enhance investment in delivering on-ground activities based on good science and evidence that support the Plan's outcomes and targets. These will contribute to a net benefit policy to ensure the Outstanding Universal Value and integrity of the Reef is maintained or enhanced.	AG, QG, GBRMPA, Partners
GA15	Develop, implement and operate an Integrated Monitoring and Reporting Program to facilitate adaptive management for the Reef.	GBRMPA, QG, AG, Partners
GA16	Develop and implement a standard framework to conduct evidence-based risk assessment.	GBRMPA, QG, AG