

Queensland Government





Maintaining a healthy and resilient Great Barrier Reef

The Commonwealth and Queensland Governments' Interim Response to the Great Barrier Reef Outlook Report 2009

INTRODUCTION

The Commonwealth and Queensland governments are committed to ensuring the long term protection of the Great Barrier Reef (the Reef).

The Reef is undisputedly one of the world's most important natural assets. It is the largest coral reef ecosystem in the world, home to thousands of species including 1,500 of the world's marine fish species, over a third of its soft coral species and six of its seven species of marine turtle. Its unparalleled biological diversity is internationally recognised as being of outstanding universal value through its inscription on the World Heritage List.

The significant environmental values of the Reef also provide the basis for substantial economic activity. Tourism is a significant contributor. Around two million tourists visit the Reef each year, supporting an industry generating approximately \$5 billion annually and 50,000 jobs. Ten major commercial fisheries operate in the Reef, contributing around \$140 million to the economy each year. Recreational use of the Reef, including

fishing, generates around \$150 million each year, with more than 14 million visits occurring in 2007.

The Great Barrier Reef Outlook Report 2009 is an important stocktake on the state of the Reef and its outlook, based on the best available information. It is an opportunity to ensure our efforts to protect the Reef are on the right track.

The Outlook Report tells us that the Reef continues to be one of the world's healthiest coral reef ecosystems. But it is also clear that there are significant challenges that need to be met.

The Commonwealth and Queensland governments are committed to meeting these challenges. This response to the Outlook Report by the governments identifies and accelerates key actions that ensure the Reef stays one of the best protected in the world. The Outlook Report will inform policy and management decisions into the future, and provide the baseline against which our collective efforts will be measured.





The Hon Peter Garrett AM MP Australian Government Minister for the Environment, Heritage and the Arts



The Hon Kate Jones MP Queensland Government Minister for Climate Change and Sustainability



THE GREAT BARRIER REEF OUTLOOK REPORT

The *Great Barrier Reef Outlook Report* 2009 (the Outlook Report) provides a comprehensive assessment of the state of the Reef and its long term outlook, based on the best available information.

The Report is the first of its kind. It is a new legislative requirement established by recent amendments to the *Great Barrier Reef Marine Park Act 1975*. Under that Act, reports must be prepared by the Great Barrier Reef Marine Park Authority every five years, independently peer reviewed, and tabled in both Houses of the Australian Parliament.

The requirement for a five-yearly Outlook Report ensures that governments and the public periodically have a comprehensive and scientifically robust assessment of how effectively the Reef is being protected. Importantly, Outlook Reports consider both the current state of the Reef, and its predicted future condition, ensuring that longer term considerations are central to today's decision making.

The 2009 Outlook Report provides key evidence and information on which to take stock of current actions and ensure we are on the right track. It will underpin policy and management decisions now and into the future and provide a benchmark against which we can measure progress.

Key findings of the Outlook Report

The 2009 Outlook Report identifies that the Reef continues to be one of the world's healthiest coral reef ecosystems, but that significant challenges must be met to ensure this remains the case into the future. The Report identifies that overall the Reef is currently in good condition. While not as healthy as its state prior to European influence, habitats and populations of almost all species are generally intact. Nevertheless, a number of important areas of concern are identified, and pressures on the Reef now and into the future, if not appropriately addressed, may see the health and resilience of the Reef decline significantly over the next 50 years and beyond.

The overwhelming factor driving this outlook is climate change. Coral reef ecosystems are among the most vulnerable to the impacts of climate change. While the Reef is no exception, the Outlook Report tells us that it is better positioned than other coral reef ecosystems, a testament to its strong management. Nevertheless, effective global action to reduce greenhouse gas emissions will be critical to the Reef's future. So too will be continued strong management of the Reef to build and maintain its capacity to withstand and adapt to the impacts of climate change.

The Outlook Report identifies key priorities for management, including improving the quality of water flowing into the Reef from adjacent catchments, protecting key coastal habitats, and managing the broader ecosystem impacts of extractive activities such as fishing. The effectiveness of action to address these key pressures will be critical in rectifying current areas of concern and meeting future challenges presented by climate change.

The Outlook Report also identifies key gaps in our understanding of the Reef. Addressing these gaps will help us to better understand drivers of its long term future and put in place appropriate responses.

RESPONDING TO THE OUTLOOK REPORT

The challenges facing the Reef now and into the future require a new cooperative and re-energised approach by the Commonwealth and Queensland governments. Pressures such as climate change, catchment water quality and coastal development were not contemplated when formal protection of the Reef was first established in 1975 through enactment of the *Great Barrier Reef Marine Park Act 1975*.

Recognising this, the Prime Minister and Premier of Queensland signed a new Great Barrier Reef Intergovernmental Agreement in June 2009. The agreement replaces the 1979 'Emerald Agreement', providing a modern framework for the governments to work together to address both local and external pressures on the Reef. Implementation of the agreement will be driven by the Great Barrier Reef Ministerial Council. The Council met for the first time under the new agreement on 3 July 2009. It was briefed on the findings of the Outlook Report and set in motion action on a number of key issues, including climate change and catchment water quality.

This document responds to the findings of the Outlook Report, identifying key actions that the governments are taking to ensure the Reef remains one of the world's most significant natural assets. It is not an exhaustive list of actions, nor is it the extent of government consideration of the Outlook Report. The response addresses the key pressures of climate change, catchment water quality, coastal development and impacts of fishing, as well as action to ensure effective management of the Reef and deliver research to support management and protection. The Outlook Report will also inform policy and management decisions into the future.

Responding to Climate Change

Climate change is the single most significant threat to the Reef. Increasing sea water temperature, sea level rise, ocean acidification and other effects of climate change are already impacting on the Reef. Impacts will worsen should greenhouse gas levels continue to rise, ultimately with potentially catastrophic consequences for the Reef.

Climate change is a global issue requiring a global solution. Australia is closely engaged in international negotiations to secure an effective and fair global approach and is committed to playing its part.

- The Commonwealth Government will commit to reducing emissions by 25 per cent below 2000 levels by 2020 as its contribution to a global outcome that leads to stabilisation of greenhouse gases in the atmosphere at 450 parts per million or lower.
- The Commonwealth Government will deliver its share of global emissions reductions through measures including the Carbon Pollution Reduction Scheme (CPRS), the expanded Mandatory Renewable Energy Target, and substantial investment in renewable energy, energy efficiency and carbon capture and storage.
- ClimateQ: toward a greener Queensland, released in 2009, sets out the next steps in Queensland's transition to a low carbon future. The Queensland Government has

committed to playing its part in meeting a national target of 60 per cent below 2000 emissions levels by 2050, and supports the CPRS as the central policy mechanism for reducing Australia's emissions. It has released a suite of emission reduction measures to complement the CPRS, including the Queensland Renewable Energy Plan and significant investments in carbon capture and storage, renewable energy and energy efficiency.

Even under the most optimistic scenarios for global reductions in greenhouse gas emissions, climate change will place substantial pressure on the Reef. What this means for the future health of the Reef will depend on its capacity to withstand and adapt to the impacts of climate change – referred to as its 'resilience'.

- Building and maintaining 'resilience' is central to efforts by the governments to protect the Reef. Through measures such as Marine Park zoning and the Reef Water Quality Protection Plan (discussed below), the governments are seeking to reduce non-climate change related pressures and disturbances, so that the Reef is more able to withstand and recover from the impacts of climate change.
- To drive this resilience-based approach, the governments are developing a joint plan on managing the impacts of climate change on the Reef. This will build on and update the existing Commonwealth Government Great Barrier Reef Climate Change Action Plan 2007–2012, which is supported by \$8.9 million. A key focus will be action to identify and evaluate strategies for maximising resilience.

 The governments will support ongoing research to generate the information needed to respond and adapt to climate change risks and build resilience. This will build on an existing assessment of the vulnerability of the Reef to climate change, *Climate Change and the Great Barrier Reef: A Vulnerability Assessment.* Research will be delivered through a range of sources, many of which are identified in the final section of this document.

Addressing Catchment Water Quality

The poor quality of water running into the Reef from adjacent catchments is a major threat to the ecosystem. Significant amounts of nutrients, sediments and pesticides are entering the Reef, primarily from broadscale agricultural land use. This is affecting the health of the Reef, particularly inshore coral reef habitats, which is in turn decreasing the ability of the ecosystem to withstand and recover from other unrelated impacts, such as coral bleaching events and increased storm intensity associated with climate change. These significant direct and indirect impacts make improving catchment water quality a high priority.

Recognising this, the governments have committed to a new *Reef Water Quality Protection Plan* (Reef Plan), a joint plan of action to halt and reverse the decline in the quality of water flowing into the Reef.

 The new Reef Plan updates the original 2003 Reef Plan to accelerate improvements in the quality of water leaving catchments and entering the Reef. It includes ambitious, achievable targets supported by a more targeted suite of actions.

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- The Reef Plan will be delivered in partnership with industry, communities and regional natural resource management bodies, which are themselves also driving change through voluntary codes of practice, farm management systems and other activities.
- Through the measures identified in the Reef Plan, the governments will, by 2013, halve runoff of harmful nutrients and pesticides and ensure at least 80 per cent of agricultural enterprises and 50 per cent of grazing enterprises adopt land management practices that will reduce runoff.
- A Reef Plan Monitoring and Evaluation Strategy has been developed and Monitoring and Reporting Program designed ready for implementation in late 2009. This will enable the governments to measure the success of Reef Plan implementation and publicly report on progress towards the Reef Plan goals and objectives.
- As progress is made, the governments will evaluate what further measures may be required beyond 2013 to ensure that catchment runoff has no detrimental impact on the Reef by 2020 at the latest.

The new Reef Plan is supported by substantial commitments by the two governments.

 The Commonwealth Government has committed over \$2 billion to the *Caring* for our Country initiative, including a \$200 million commitment to improve the quality of water entering the Reef – the Reef Rescue package. This is providing assistance to farmers and land managers in Reef catchments to increase the adoption of land management practices that reduce runoff of nutrients, pesticides and sediment from agricultural land. The Commonwealth Government is also supporting action to improve the quality of water entering the Reef through the broader *Caring for our Country* initiative, and its \$12.9 billion *Water for the Future* initiative.

 The Queensland Government has committed to deliver a \$50 million Reef Protection Package to protect the Reef from the impacts of chemical and other farm run-off. On top of existing commitments and actions, this means the Queensland Government has committed \$175 million over five years to address Reef catchment issues.

Effectively Managing the Great Barrier Reef

Integrated management of marine and national parks by the Commonwealth and Queensland governments provides the foundation for ensuring use of the Reef is consistent with its long term protection. The Great Barrier Reef Marine Park is one of the largest marine protected areas in the world, covering around 344,400 square kilometres. It is managed by a dedicated, independent statutory authority – the Great Barrier Reef Marine Park Authority. It is complemented



by the Great Barrier Reef Coast Marine Park covering adjacent Queensland coastal waters, and national parks covering many of the islands within the World Heritage Area.

Marine and national park zoning requirements, defining what activities are allowed in which areas, is a key strategy for maintaining the health and resilience of the Reef. A significant rezoning of the Great Barrier Reef Marine Park took effect in July 2004, with complementary zoning also established in related Queensland marine and island national parks.

- The Outlook Report identifies that the 2004 zoning is already having positive effects. The abundance and size of key fish species in areas now closed to fishing has increased. The impacts of non-extractive activities, such as tourism, some research and shipping, are minimal. Continuing to research and report on the effectiveness of zoning, particularly its broader biodiversity benefits, is a priority.
- Realising the full potential of zoning through effective compliance and administration of zoning requirements is also a key priority. This is supported through recent legislative changes and a joint field management program.
- The legislative changes, which take effect in November 2009, overhaul the Commonwealth Government's regulatory framework for the Reef. The changes establish a modern, robust regulatory system, including increased penalties for contravening zoning and other requirements, and the introduction of more flexible enforcement tools. The changes also provide legal recognition

and protection for the Reef as a matter of "national environmental significance" under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

- A joint Commonwealth-Queensland government field management program supports 'on-ground' management of the parks, including compliance and enforcement activities, assessment of permit applications and the provision of visitor facilities. Arrangements for the joint program were recently renewed and updated, and priorities and resourcing needs for the program are being reviewed in light of Outlook Report findings and emerging issues such as climate change.
- Effective protection of the Reef is best achieved with the active and supportive involvement of Reef users and neighbouring communities. Through programs such as Reef Guardian Schools, Reef Guardian Councils and Eco-certification of high standard tourism operators, the Great Barrier Reef Marine Park Authority is working to recognise and foster environmental stewardship and best management practices. Currently, around 45 per cent of tourists visiting the Reef do so with an 'Eco Certified' operator. A continued focus on fostering stewardship among all Reef users and communities will be a priority.
- The governments are working with Traditional Owners to provide opportunities to formalise their aspirations for management of their sea country. Mechanisms include Traditional Use of Marine Resource Agreements (TUMRAs), Indigenous Land Use Agreements (ILUAs)

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and Indigenous Protected Areas. Four TUMRAs are currently in place and the first ILUA in relation to the Great Barrier Reef Marine Park was formalised in June 2009.

 The tourism industry is a key partner in protection and management of the Great Barrier Reef. Tourists visiting the Reef contribute to its management through payment of an Environmental Management Charge. Furthermore, many tourist operators contribute to management and understanding of the Reef by participating in reporting programs such as the Eye on the Reef environmental monitoring program, BleachWatch, the Sightings Network, and visitor surveys.

Managing the Coastal Zone

Coastal areas play an important role in the broader ecosystem of the Reef. Estuaries, wetlands, mangroves, sand dunes and other habitats provide important linkages between land, freshwater and marine environments, as well as feeding and breeding grounds for many marine species.

The Outlook Report identifies that the development of coastal areas has, in some cases, resulted in a serious decline in the extent and condition of key coastal habitats. This may increase into the future with the projected growth in population and economic activity in North Queensland. Rising sea levels associated with climate change also present a key future pressure on coastal habitats. The governments are responding to these pressures in a number of ways.

- Under the Commonwealth EPBC Act, activities likely to have a significant impact on a matter of "national environmental significance" require the approval of the Commonwealth Environment Minister. Protected matters of national environmental significance include the World Heritage values of the Great Barrier Reef World Heritage Area, and from November 2009, the environment of the Great Barrier Reef Marine Park.
- Since commencement of the EPBC Act in 2000, around 160 activities have been regulated under the Act for potential impacts on the Great Barrier Reef World Heritage Area. The findings of the Outlook Report will serve to better inform future regulation, helping to ensure the potential impacts of activities are fully understood and that approval conditions produce the best possible environmental outcomes for the Reef.
- The governments are actively exploring the potential to undertake strategic assessments under the EPBC Act in relation to key coastal areas adjacent to the Reef. Strategic assessments have the potential to better deal with the cumulative impacts of incremental development than case-by-case assessment and approval.
- The EPBC Act is currently subject to an independent review. A key issue identified in public submissions and the Interim Report of the review is

the merits of an increased focus on "landscape-scale" approaches, such as strategic assessments. The final report of the review is due to be presented to the Commonwealth Environment Minister by 31 October 2009.

- Development within the coastal zone is regulated under Queensland's Coastal Protection and Management Act 1995 and the Integrated Planning Act 1997. Land use planning and development assessment decision making is guided by the 2002 State Coastal Management Plan.
- · Based on the results of a statutory review of the 2002 State Coastal Management Plan, the Queensland Government has released a new draft Queensland Coastal Plan. It will prevent future urban zonings being allocated in areas at risk of coastal hazards such as storm tide inundation taking into account projected sea level rise by 2100. It also addresses coastal process issues, biodiversity conservation, scenic amenity, public access and prevents linear urban settlement patterns being perpetuated along the coast. The plan also provides guidance for land managers to undertake strategically planned rehabilitation, maintenance and conservation activities. The draft of the Queensland Coastal Plan is available for public comment until 31 October 2009 and is anticipated to be implemented in 2010.
- The Queensland Government is currently developing a methodology for identifying areas most suitable for future maritime

development. The *Queensland Coastal Plan* will direct that maritime development occur within these identified Maritime Development Areas thereby protecting coastal values outside of these areas.

- The Queensland Government is also preparing regional plans under the Integrated Planning Act 1997 to manage urban and infrastructure development. The Queensland Coastal Plan will inform regional plans and direct land use allocations by local government. The Far North Queensland Regional Plan 2009–2013, the first prepared for a Reef catchment, includes a specific land use policy, under the Coastal Management Desired Regional Outcome, requiring planning schemes and development proposals be consistent with zoning and management plans of the Queensland Great Barrier Reef Coast Marine Park and the Commonwealth Great Barrier Reef Marine Park.
- A new draft State Planning Policy is being developed to direct management of stormwater runoff from urban subdivisions aimed at ensuring improved water quality outcomes.
- New legislation will regulate the drainage of wetlands in the Reef catchment area based on mapping of significant wetlands under the *Reef Coastal Wetlands Protection Program*.
- In association with the Commonwealth Government, Queensland has commenced a project to capture high resolution digital elevation model data for developed areas of the Queensland Coast. Data will provide

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critical information to guide land use planning and development decisions. Data will become available from 2011.

 The Federal House of Representatives Standing Committee on Climate Change, Water, Environment and the Arts is undertaking an inquiry into climate change and environmental impacts on coastal communities. The Committee will report on environmental pressures on coastal areas, particularly in the context of climate change and coastal population growth. The inquiry report will be a key input into development of a national coastal policy by the Commonwealth Government.

Ecologically Sustainable Management of Fishing

Commercial, recreational, charter and traditional fishing is the principle extractive use of the Reef and is undertaken in accordance with a number of fisheries specific management plans. Fishing is an important and legitimate use of the Reef, supporting a commercial industry worth around \$140 million each year and a recreational industry worth around \$150 million each year.

The Outlook Report identifies a number of positive aspects of current fisheries management arrangements, such as the positive affects of the introduction of bycatch reduction devices but also highlights some areas of concern. These concerns relate both to the impact of fishing on target species, some of which are known to be under pressure, as well as broader ecosystem impacts. These latter concerns include the fate of non-retained catch, the incidental take of species of conservation concern such as dugong, and the broader ecosystem effects of taking predator species, such as sharks.

The governments are working to ensure fishing in the Reef continues to be ecologically sustainable through a number of means.

- The Queensland Government is responsible for the management of fisheries in and around the Reef. The focus is on managing fisheries according to the principles of ecologically sustainable development, reducing the take of unwanted fish and continuing to reduce the potential impacts of fishing on all protected species, including dugongs and turtles, by ensuring that any animal accidentally caught can be quickly released unharmed.
- New fisheries measures introduced in 2009 were primarily aimed at enhancing fisheries sustainability, minimising the impact on unwanted fish inadvertently caught and simplifying the management arrangements for stakeholders. These measures include new size and bag limits for all major inshore species primarily based on biological and risk based parameters, new netting rules to minimise impacts on non target species and new management arrangements for the take of shark.
- For sharks there was a significant reduction in total allowable commercial catch to 600 tonnes and specific requirements to report catches to

improve the information being gathered. In addition threatened species such as sawfish and speartooth sharks became no take species and measures have been put in place to protect larger breeding sharks, including the introduction of a maximum size limit of 1.5 metres.

- The Queensland Government intends to explore opportunities to further enhance fisheries management arrangements into the future by building on constructive stakeholder relationships, developing a collective responsibility to managing fisheries on a sustainable basis and working in an adaptive policy environment that can respond quickly to the needs of the resource and its users.
- Queensland Government fisheries management arrangements are assessed for environmental performance by the Commonwealth Government under the EPBC Act, against the *Guidelines for the Ecologically Sustainable Management of Fisheries*. Assessments seek to ensure that, over time, fisheries are managed in an ecologically sustainable way. All fisheries operating in the Reef are periodically assessed under the EPBC Act.
- Zoning requirements in place in the Commonwealth and Queensland marine parks also help to ensure the ecological sustainability of fishing by protecting habitat and providing refuges for key species. Zoning may also help maintain fish stocks in areas remaining open to fishing through "spill-over" from areas closed to fishing.

 Through the Great Barrier Reef Ministerial Council, the governments are developing an agreement promoting a collaborative approach to fishing-related policy, planning and management activities. A key focus of the agreement will be identifying common objectives, drawing from the work of the Australian Fisheries Management Forum on a National Ecosystem Based Fisheries Management Policy.

Research to support Management and Protection

Research and monitoring are an essential underpinning for management and protection of the Reef, including the periodic development of Outlook Reports. A significant amount of research is undertaken each year by a wide range of researchers covering a broad range of topics.

- Key research providers include the Australian Institute of Marine Science, the Australian Research Council (ARC) Centre of Excellence for Coral Reef Studies, and the CSIRO, particularly through its Wealth from Oceans Flagship, Climate Change Adaptation National Research Flagship, and Marine and Atmospheric Research Division.
- As part of the Commonwealth Government's new Super Science Initiative, announced in the 2009–10 Budget, the Government will invest \$387.7 million in infrastructure for marine science and climate change research that will improve Australia's ability to respond to climate change and to manage our terrestrial and ocean resources.

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Among other things, these investments will extend tropical marine research facilities. Through the related *Super Science Fellowships*, early-career fellowships will also be offered through the ARC to promising young marine and climate researchers.

- The \$100 million Commonwealth Environment Research Facilities program is supporting research that will assist in meeting key environmental challenges. The program includes the \$40 million Marine and Tropical Sciences Research Facility, which is specifically funding research to support the sustainable management of the Reef, as well as the Wet Tropics of Queensland World Heritage Area, and Torres Strait. Funding for public good environmental research beyond the life of these programs is currently under review.
- The National Climate Change Adaptation Research Facility is coordinating and undertaking research to underpin climate change adaptation efforts.
 A National Adaptation Research Plan for Marine Biodiversity & Resources is under development.
- The Australian Government's Reef Rescue initiative includes a \$10 million Reef Water Quality Research and Development Program to improve understanding of the link between farm management practices and environmental impacts.

The Outlook Report provides a foundation for coordinating and targeting research supporting management and protection of the Reef. By requiring periodic reporting on the health and resilience of, key pressures on, and outlook for the Reef, Outlook Reports serve as a means for focusing research on key management questions such as monitoring the condition of the Reef and trends over time, understanding pressures and risks, and developing and evaluating the effectiveness of management responses. Reflecting this, the Great Barrier Reef Marine Park Authority is investigating opportunities for improving the targeting, coordination, sharing and communication of research in light of the Outlook Report, at the request of the Great Barrier Reef Ministerial Council.









Photographs courtesy of the Great Barrier Reef Marine Park Authority.

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