



Australian Government



Queensland Government

# Reef 2050 Plan

POLICY GUIDELINE FOR DECISION MAKERS



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# Reef 2050 Plan

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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.



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# ABBREVIATIONS AND ACRONYMS

AG	Australian Government
AMSA	Australian Maritime Safety Authority
DAF	Queensland Department of Agriculture and Fisheries
DILGP	Queensland Department of Infrastructure, Local Government and Planning
DNRM	Queensland Department of Natural Resources and Mines
DoEE	Australian Government Department of the Environment and Energy
DPC	Queensland Department of the Premier and Cabinet
DSD	Queensland Department of State Development
DSITI	Queensland Department of Science, Information Technology and Innovation
DTMR	Queensland Department of Transport and Main Roads
EHP	Queensland Department of Environment and Heritage Protection
EPBC Act	Environment Protection and Biodiversity Act 1999
ESD	Ecologically Sustainable Development
GBR	Great Barrier Reef
GBRMPA	Great Barrier Reef Marine Park Authority
Industry	The industry stakeholder body responsible for an action under the Reef 2050 Plan
LGA	Local Government Area
LGAQ	Local Government Association of Queensland
LG	Local Government
NPSR	Queensland Department of National Parks, Sport and Racing
NRM	Natural Resource Management
OUV	Outstanding Universal Value
PM&C	Australian Government Department of the Prime Minister and Cabinet
QLD	The State of Queensland, the Queensland Government
QG	Queensland Government
TWCP	Total Water Cycle Management Plan
WHA	World Heritage Area
WWF	World Wildlife Fund
The Plan	The Reef 2050 Plan
The Reef	The Great Barrier Reef

# ABOUT THE REEF

The Great Barrier Reef is an Australian icon and one of the most precious ecosystems on Earth. It is a world heritage property, recognised internationally for its outstanding universal value. Containing a maze of reefs and islands, it stretches more than 2,300 kilometres along the Queensland coast. It is the world's largest coral reef ecosystem. It is rich in biodiversity, from mangroves and seagrasses to coral reefs and open waters.

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.

The Great Barrier Reef is critical to the cultural, economic and social well-being of the more than one million people live in its catchment and is valued by the national and international community. It is a marine protected area, conserving the Reef's environment and supporting a wide range of activities, including tourism, fishing, recreation, traditional use, research, defence, shipping and ports. The Reef's environment helps bring billions of dollars to Australia's economy each year and supports almost 70,000 jobs.





# HOW TO USE THIS GUIDELINE

This guideline provides a step-by-step approach for decision makers who are **developing or reviewing** agreements, policies, programs or building partnerships, to ensure they support the Reef 2050 Plan's targets, objectives and outcomes.

The strategic goal of the policy guideline is to ensure that, over time, all decisions relevant to the Outstanding Universal Value of the Great Barrier Reef are aligned with the Reef 2050 Plan.

Step	Questions	Guidance
<b>1. Determine whether the Guideline applies to you</b>	Are you developing or updating an agreement, policy, program or partnership that has implications for the Outstanding Universal Value of the Great Barrier Reef World Heritage Area?	Use <b>Table 2</b> to determine whether this Guideline is applicable to your decision.
<b>2. Identify which pressure your decision applies to and whether it builds partnerships</b>	Does your decision address or influence the pressure of climate change, coastal land use change, direct use or land based runoff?  Does your decision relate to building partnerships?	Use <b>Tables 3</b> to identify the pressure that your decision relates to and <b>Table 4</b> to identify whether your decision relates to building partnerships.
<b>3. Determine which targets and objectives are most relevant</b>	Which objectives and targets are most relevant to the pressure(s) your decision relates to?	<b>Table 5</b> broadly outlines the themes most relevant to each pressure and to building partnerships. Use <b>Appendix 1</b> to determine which objectives and targets are most relevant to your decision.
<b>4. Acknowledge other considerations</b>	Does your decision reinforce Reef 2050 Plan outcomes through incorporation of relevant actions?  Does your decision take into account location?	<b>Section 4</b> helps to identify other key considerations.





# INTRODUCTION AND PURPOSE

The Reef 2050 Long-Term Sustainability Plan (Reef 2050 Plan) includes the following action:

‘When reviewing relevant agreements, policies, plans, strategies and programs, ensure that they support the Plan’s outcomes and targets. For example:

- 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.’

This Guideline aims to ensure that as relevant agreements, policies, plans, strategies and programs are developed or revised, they support the targets and objectives in the Reef 2050 Plan. Objectives and targets are the primary focus of this Guideline because they highlight how interim progress towards achieving the outcomes for 2050 can be tracked. All Reef-related decisions<sup>1</sup> provide a venue to highlight the vision and outcomes of Reef 2050.

The Guideline provides a step-by-step guide for decision makers to apply when updating or developing policy instruments or building partnerships. Importantly, the Guideline aims to help decision makers identify how their decisions contribute to achieving the outcomes of the Reef 2050 Plan.



*School of bright blue Neon Damsels off Heron Island, Great Barrier Reef (World Heritage Listed site). Photo: Commonwealth of Australia (GBRMPA)*

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<sup>1</sup> Decisions in this guideline refer to developing or revising relevant agreements, policies, plans, strategies and programs

# REEF 2050 PLAN BACKGROUND AND KEY CONSIDERATIONS FOR DECISION MAKERS

There are three key considerations within the Reef 2050 Plan that decision makers need to understand in order to incorporate the Plan into their decisions: Outstanding Universal Value, the outcomes framework and decision-making principles.

## Outstanding Universal Value

The Reef 2050 Plan was adopted by the Australian and Queensland governments in 2015 to ensure protection of the Outstanding Universal Value of the Great Barrier Reef World Heritage Area.

A World Heritage Property's Outstanding Universal Value is the 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.

For the Great Barrier Reef World Heritage Area, the Outstanding Universal Value constitutes all four natural criteria: exceptional natural beauty and aesthetic importance; significant geomorphic or physiographic features; significant ecological or biological processes; and, conservation of biological diversity.

The Great Barrier Reef World Heritage Area also meets the requirements for integrity, meaning that its natural attributes are considered to be whole and intact. For more information on the Outstanding Universal Value of the Great Barrier Reef see the statement of Outstanding Universal Value: <https://www.environment.gov.au/heritage/places/world/gbr/values>

## Outcomes framework

The Reef 2050 Plan outlines a clear **vision** that we want to achieve for 2050:

‘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.’

To achieve this, the plan is structured around seven themes—ecosystem health, biodiversity, heritage, water quality, community benefits, economic benefits and governance. Each theme has its own outcomes framework linking threats, foundational activities, actions, targets and objectives to deliver the nominated outcome by 2050.



Figure 1: Outcomes framework



**Threats** (pressures) were derived from the Outlook Report 2014.

**Foundational activities** are existing regulatory, planning, field management and program responses such as the Reef Water Quality Protection Plan already underway in the Reef and its catchments.

**Actions** are new activities outlined in the Reef 2050 Plan which, combined with the foundational activities, contribute to achieving the targets for the theme.

**Targets** specify the results being aimed for by 2020. These were developed with a view to being SMART: Specific, Measurable, Achievable, Realistic and Time-bound.

**Objectives** link targets to outcomes and are expected to be achieved by 2035.

**Outcomes** are a statement of what is expected to be achieved for each theme by 2050, which will collectively contribute towards achieving the vision for the Reef.

The illustration below shows the outcomes for each theme and how these relate to the vision and Outstanding Universal Value:

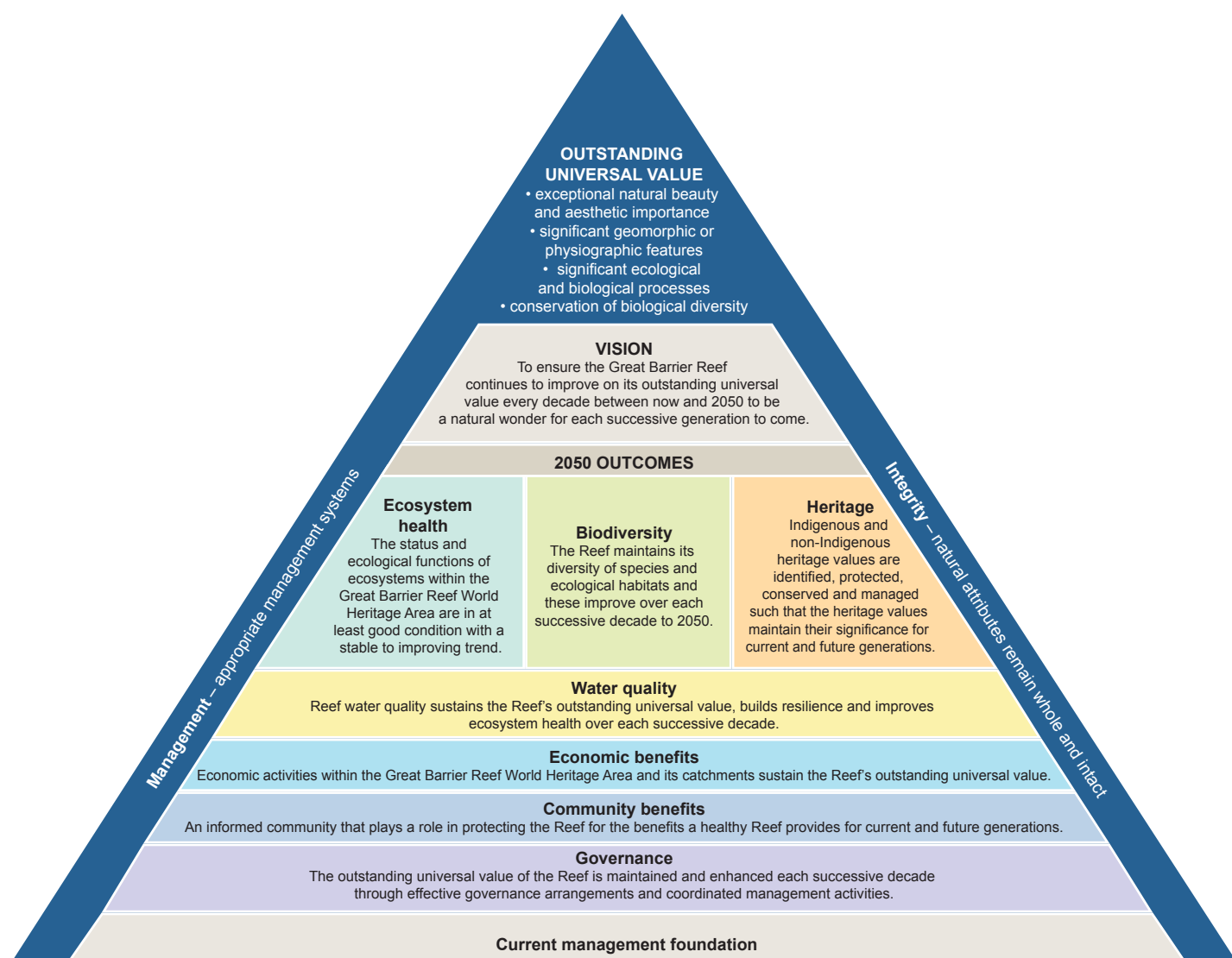


Figure 2: Reef 2050 Plan vision and outcomes

Development of this Guideline is required under governance **action** (GA7) which states “When reviewing relevant agreements, policies, plans, strategies and programs ensure they support Reef 2050’s outcome and targets.”



This action relates to the 2020 **target**: *The vision, outcomes, objectives and targets in this Plan are taken into account in relevant regulation, documents and strategies of all levels of government.*



This links to the 2035 **objective** *This Plan guides decisions made about the Reef by government, industry and the community and contributes to the 2050 Governance Outcome: The Outstanding Universal Value of the Reef is maintained and enhanced each successive decade through effective governance arrangements and coordinated management activities.*

## Guiding Principles

The Reef 2050 Plan nominates **principles** for consideration in all decision making and these are outlined in Table 1A. The primary principles are:

- Maintaining and enhancing Outstanding Universal Value in every action.
- Basing decisions on the best available science.
- Delivering a net benefit to the ecosystem.
- Adopting a partnership approach to management.

Often the principles can be addressed by implementing adopted policies. Applying adopted policies fulsomely in decision making will ensure delivery of the relevant principle in the Reef 2050 Plan.

For other principles, there are good practice guidelines such as the Queensland Government’s community engagement guide, which provide guidance for improving community engagement and engaging with specific community groups i.e. rural and regional communities. Using these approaches incorporates the principles through adoption of good practice methods.

There are several principles, such as Ecologically Sustainable Development, which require separate consideration in decision making and are also stated in various Queensland Government Acts. For example, the *Sustainable Planning Act 2009*, the *Environmental Protection Act 1994*, the *Nature Conservation Act 1992* and the *Water Act 2000*.

**Table 1: How to reflect the principles in decisions**

Reef 2050 Plan Principle*	Incorporation into decisions
Maintaining and enhancing OUV in every action	
Protecting the Outstanding Universal Value of the world heritage area is the prime consideration when planning development and management decisions are made.	Approaches to understanding and protecting the OUV of the GBR WHA [as established in the EPBC Act referral guidelines for the Outstanding Universal Value of the Great Barrier Reef World Heritage Area used and documented by decision makers.
Economic growth is sustainable and consistent with protecting OUV.	
Values and ecological processes in poor condition are restored and values and ecological processes in good condition are maintained.	
Basing decisions on the best available science	
Decisions are based on the full range of knowledge, including scientific understanding, Traditional Owner and community knowledge.	Decision making is inclusive with appropriate community consultation. Best available science considered and used.
Decisions take into consideration information on the current and emerging risks associated with climate change.	Climate change risks considered and documented in decision making; regular reviews of previous decisions undertaken in the light of new information to improve resilience of the GBRWHA.
Management is adaptive and continually improving, informed by the outcomes of monitoring programs.	Outputs and directions from monitoring programs such as GBRMPA's marine monitoring program, Paddock to Reef, and, as it is developed, the Integrated Monitoring and Reporting Program, are actively incorporated in developing and reviewing relevant decisions and are being reported as a consideration in the decision.
Delivering a net benefit to the ecosystem	
Decisions are underpinned by the principles of ESD, including the precautionary principle	Decisions document consideration of Ecologically Sustainable Development, as required under relevant legislation.
Impacts are avoided and residual impact mitigated.	Relevant agreements policies, plans, strategies and programs demonstrate avoidance of impacts, with mitigation where avoidance not possible. Impacts are managed in line with the mitigation hierarchy, and offset in accordance with existing guidelines, for example, the QLD Environmental Offsets Act and the EPBC Act Offsets Policy.
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	
Governance arrangements are transparent and accountable.	Decision making follows legislative and Intergovernmental Agreement on the GBR requirements for public consultation and accountability. Policies, plans, strategies and programs are developed collaboratively and written to be accessible and understandable by being practical, clear and user-friendly.
Decisions continue to support a wide range of opportunities for sustainable economic, social, and cultural activities including traditional use.	Potential economic, social and cultural impacts and opportunities of new funding programs or policies considered and documented during design/development according to requirements of relevant legislation.
Management is cooperative, fostering stewardship and strong community support.	
Innovation in management is fostered.	Undertaking regular reviews of management effectiveness incorporating opportunities for innovation (e.g. Outlook Report).

*\*Principles in decision making are extracted from the Reef 2050 Plan verbatim*

# STEP 1: DETERMINING WHETHER THE GUIDELINE APPLIES TO YOU

Understanding and implementing the Reef 2050 Plan is a collective responsibility.

For the purpose of the Guideline, decision makers are those people and organisations—including government agencies, communities, land managers, industry and Traditional Owners—making decisions with implications for the Outstanding Universal Value of the Great Barrier Reef World Heritage Area (GBRWHA).

Applicable decisions not only include activities within the World Heritage Area; they also include activities along the coastline and in Reef catchments where they have the potential to impact on the GBRWHA. For example, decisions affecting land or water management within the Great Barrier Reef catchment can impact the GBRWHA by changing water quality entering the Reef.







Figure 1: Map of the Great Barrier Reef and catchment

Government agencies and authorities revising or preparing relevant agreements, policies, plans, strategies and programs, should apply this guideline, to the extent permissible under the enabling legislation, if their decision is likely to interact with the Outstanding Universal Value of the Great Barrier Reef World Heritage Area (see Appendix 2 for primary legislation). All decision makers will consider applicable legislation, policies and guidelines current at the time of their decision.

**Table 2: Indicative types of decisions and decision makers**

Examples of types of decisions	Examples of who may be involved in making the decision
Developing or amending legislation or subordinate legislation *	AG/QG/LGs with community consultation
Developing policies and better guidance**	AG/QG/LGs/scientists with targeted community input; industry and companies with constituents
Designing and delivering programs**	AG/QG/LGs/NRM groups with targeted community input
Fostering improved practice**	Industry/NRM groups/LGs with government input/land managers
Building partnerships *	AG/QG/LGs/Traditional Owners/NGOs/industry

\* The Reef and OUV is one of a number of considerations in decision making;

\*\* Responding to pressures on the Reef is the focus of these decisions and an opportunity to clearly demonstrate support for the Reef 2050 Plan.

Other decision makers, such as businesses, conservationists, infrastructure providers and developers, are encouraged to consider this Guideline when developing targeted guidance for the Reef, such as codes of practice or plans of management with their constituents. Researchers can also use the Reef 2050 Plan to better understand agreed priorities for the Reef and focus areas for improvement and measurement.

The Reef 2050 Plan may be used as a means for establishing common ground and building partnerships between multiple groups working on Reef issues, such as with Traditional Owners. This Guideline can assist those developing partnerships to identify relevant targets, objectives and outcomes related to building partnerships to protect the values of the Great Barrier Reef.

And most of all there is an opportunity for everyone involved with the Reef to actively reflect Reef 2050 Plan targets and objectives in their decisions.

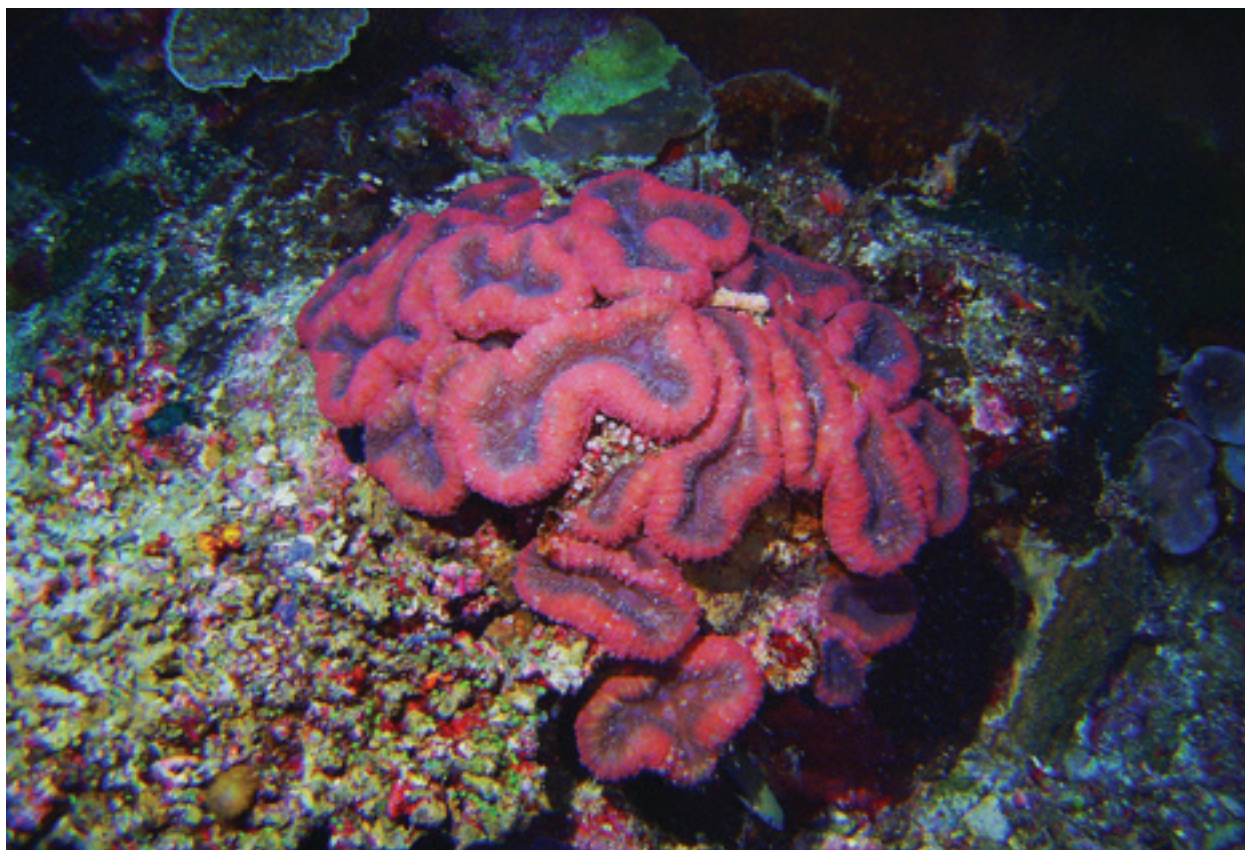


## STEP 2: IDENTIFY WHICH PRESSURE YOUR DECISION APPLIES TO AND WHETHER IT RELATES TO BUILDING PARTNERSHIPS

Broadly, the four main underlying pressures impacting on the health and resilience of the Reef's systems provide a clear focus for decision makers. The comprehensive strategic assessment and the Outlook Report 2014 found the four main pressures are:

- Climate change
- Land-based run-off
- Coastal land use change
- Direct use.

Table 3 illustrates the connectivity between the pressures and types of decisions being made to better manage impacts on the Reef. Impacts from the pressures are often the subject of decisions affecting the Reef, such as decisions about where activities can occur in zoning or management plans, how water quality from catchments can be improved, how marine debris can be reduced or how to engage Traditional Owners. Decision makers should consider how best to contribute to the Reef 2050 Plan when creating or revising the types of agreements, policies, plans, strategies and programs listed. These examples are indicative only and are not exhaustive.



*Photo: Cathy Zwick*

**Table 3: Types of decisions to manage pressures**

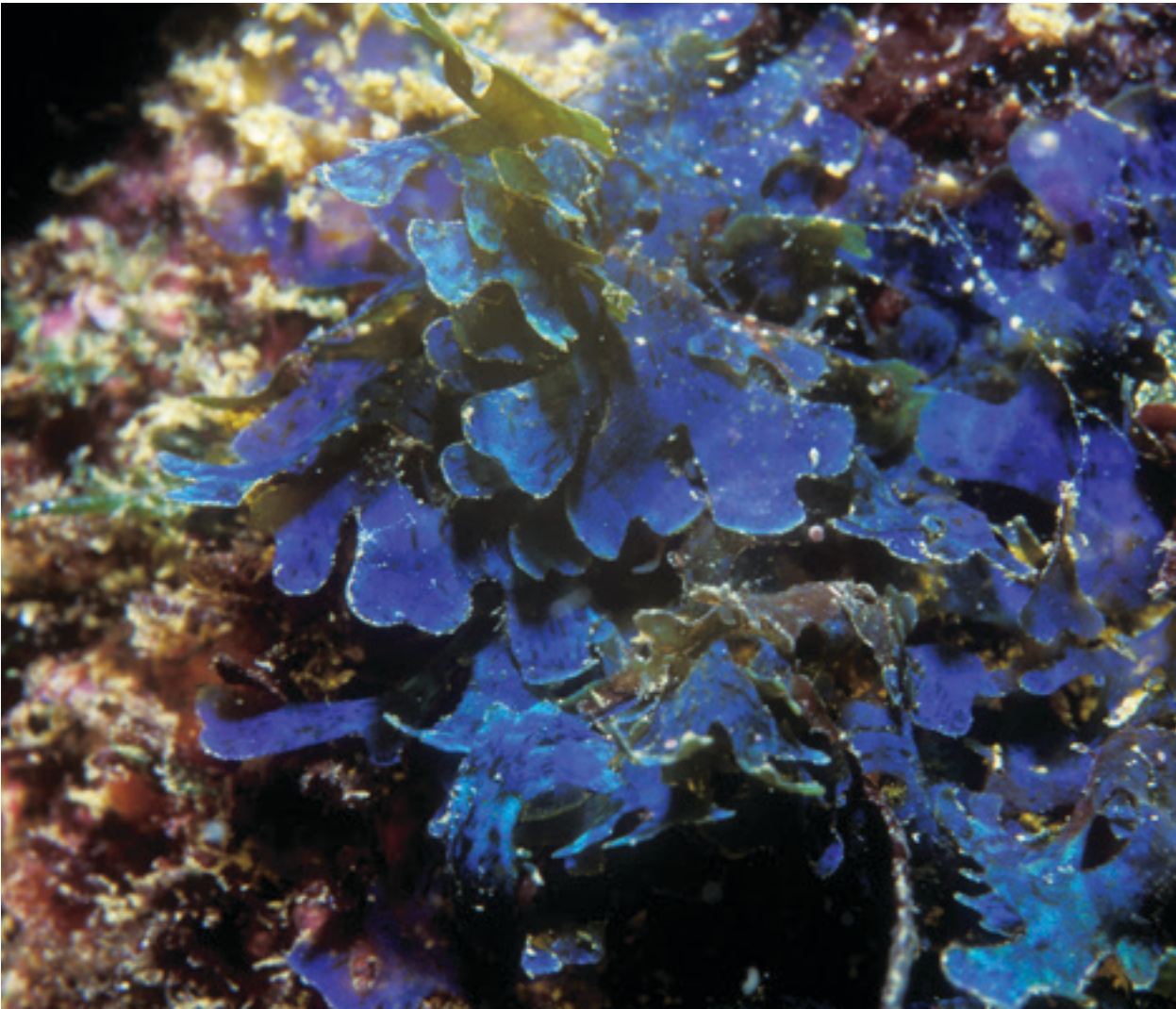
Pressures and impacts on the Great Barrier Reef	Examples of agreements, policies, plans, strategies and programs	
<p><b>Climate change</b>—sea temperature increase; altered weather patterns (including episodic events such as cyclones); ocean acidification; and sea level rise. Future predictions indicate 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.</p>	<p><b>Australian Government</b></p> <ul style="list-style-type: none"> <li>• National Climate Change Adaptation Research Facility support for coastal zone under climate change and sea level rise</li> <li>• Research programs such as Australian Institute of Marine Science (AIMS) and National Environment Science Program (NESP)</li> <li>• Recovery and threat abatement plans</li> <li>• Delivering on international commitments</li> </ul> <p><b>GBRMPA</b></p> <ul style="list-style-type: none"> <li>• Great Barrier Reef Adaptation Strategy and Action Plan 2012–2017</li> </ul>	<p><b>Queensland Government</b></p> <ul style="list-style-type: none"> <li>• Climate Adaptation Strategy</li> <li>• Coastal planning laws</li> </ul> <p><b>Industry and conservation organisation strategies</b></p> <ul style="list-style-type: none"> <li>• NRM regional climate change adaptation plans</li> </ul> <p><b>GBR local governments</b></p> <ul style="list-style-type: none"> <li>• Coastal hazard management plans and adaptation strategies</li> </ul>
<p><b>Land-based run-off</b>—nutrients from run-off (including links to outbreaks of pests such as 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.</p>	<p><b>Australian Government</b></p> <ul style="list-style-type: none"> <li>• Reef Water Quality Protection Plan</li> <li>• Reef Trust funding</li> <li>• Reef Programme funding</li> <li>• Water Quality Improvement Plans (WQIPs) (with NRM bodies)</li> </ul> <p><b>Industry and conservation organisation strategies</b></p> <ul style="list-style-type: none"> <li>• Reef Water Quality Protection Plan</li> <li>• Industry Best Management Practice programs</li> <li>• WWF water quality improvement program</li> </ul>	<p><b>Queensland Government</b></p> <ul style="list-style-type: none"> <li>• Reef Water Quality Protection Plan</li> <li>• Queensland Government additional funding commitment for five years towards water quality initiatives, scientific research, and helping business transition to better environmental practices in the primary production and fishing industries to better protect the Reef</li> <li>• Strengthening vegetation management laws</li> </ul> <p><b>GBR local governments</b></p> <ul style="list-style-type: none"> <li>• Developing or revising stormwater management plans</li> <li>• Reef Guardian Councils Action Plans</li> </ul>



Pressures and impacts on the Great Barrier Reef	Examples of agreements, policies, plans, strategies and programs	
<p><b>Coastal land use change</b>—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.</p>	<p><b>Australian Government</b></p> <ul style="list-style-type: none"> <li>• OUV referral guidelines</li> <li>• Recovery and threat abatement plans</li> <li>• Reef Trust funding</li> <li>• Reef Programme funding</li> <li>• Plans and policies to deliver on international commitments eg World Heritage, Ramsar or biodiversity conventions</li> </ul> <p><b>GBRMPA</b></p> <ul style="list-style-type: none"> <li>• Developing approaches to use the coastal ecosystems studies (blue maps) to influence coastal development decisions</li> </ul> <p><b>GBR local governments</b></p> <ul style="list-style-type: none"> <li>• Development of planning schemes</li> <li>• Development of coastal/wetland/water way management strategies</li> </ul> <p><b>Industry and conservation organisation strategies</b></p> <ul style="list-style-type: none"> <li>• Port Master Plans and port development planning</li> <li>• Queensland Ecotourism Plan</li> </ul>	<p><b>Queensland Government</b></p> <ul style="list-style-type: none"> <li>• Additions to/management plans for the protected area estate and fish habitat areas</li> <li>• Development of ports legislation and initial master plans for ports</li> <li>• State development area planning schemes</li> <li>• Planning for coastal infrastructure provision</li> <li>• Development of infrastructure plans such as a main roads construction and maintenance strategy</li> <li>• Coastal planning laws</li> <li>• Revision of the State planning policy</li> <li>• Development and revision of regional plans</li> <li>• Review of LGA planning schemes</li> <li>• Revising the Wetlands and Back on Track (species prioritisation) programs</li> </ul>
<p><b>Direct use</b>—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.</p>	<p><b>Australian Government</b></p> <ul style="list-style-type: none"> <li>• North East Shipping Management Plan</li> <li>• Crown-of-thorns starfish removal initiatives</li> <li>• Recovery and threat abatement plans</li> </ul> <p><b>GBRMPA</b></p> <ul style="list-style-type: none"> <li>• Dredge regulation banning capital dredge disposal in Commonwealth waters</li> <li>• Joint field management program</li> <li>• Great Barrier Reef Conservation Strategy</li> <li>• Zoning plans/plans of management</li> <li>• Compliance on illegal fishing</li> </ul>	<p><b>Queensland Government</b></p> <ul style="list-style-type: none"> <li>• Marine Park</li> <li>• Joint field management program</li> <li>• Developing dredge regulation banning capital dredge disposal in state waters</li> <li>• ‘Sustainable Fishing’ policy including the three new net-free fishing zones and associated industry assistance scheme for affected fishers</li> </ul> <p><b>GBR local governments</b></p> <ul style="list-style-type: none"> <li>• Reef Guardian councils’ marine debris strategies</li> </ul> <p><b>Industry and conservation organisation strategies</b></p> <ul style="list-style-type: none"> <li>• Queensland Seafood Industry Environmental Management System</li> <li>• Queensland Ecotourism Plan</li> </ul>

Table 4: Types of decisions to build partnerships

Building partnerships	Examples of agreements, policies, plans, strategies and programs	
Opportunities for community based programs to improve Reef health  Working with Traditional Owners to protect heritage or foster economic diversification.	<b>Australian Government</b> <ul style="list-style-type: none"><li>• Crown of Thorns starfish removal initiatives</li><li>• Developing or revising recovery and threat abatement plans</li></ul> <b>GBR local governments</b> <ul style="list-style-type: none"><li>• Reef Guardian councils' marine debris strategies</li><li>• Developing strategies with industry and conservation organisations</li></ul>	<b>Queensland Government</b> <ul style="list-style-type: none"><li>• Joint field management program</li><li>• Community action plans</li><li>• Protected Area Management Plans</li></ul> <b>GBRMPA</b> <ul style="list-style-type: none"><li>• Joint Field Management Program</li><li>• Developing approaches with Reef Advisory Committees</li><li>• Developing or revising Reef Guardian programs with schools, fishers and farmers</li><li>• Developing or revising Traditional Use of Marine Resources Agreements</li></ul>



## STEP 3: DETERMINING WHICH TARGETS AND OBJECTIVES ARE MOST RELEVANT

Prioritising the Outstanding Universal Value of the Great Barrier Reef World Heritage Area is fundamental to all decisions. In reality the extent to which the outcomes, objectives and targets of the Reef 2050 Plan will shape the final decision will be case specific, fit-for-purpose and optimise opportunities to emphasise the Reef 2050 Plan's objectives and targets.

Further analysis (Appendix 1—What targets and objectives to focus on?) highlights specific outcomes, objectives and targets most associated with managing each pressure and provides a useful focus for decision makers. Decision makers should examine Appendix 1 and actively apply the objectives and targets most related to their proposed decision.

### Ecosystem health and coastal climate change adaptation planning

For example, if a local government was developing a coastal hazard adaptation strategy, it would need to consider and demonstrate how its plan would result in [EHT3] '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' and [EHT4—this activity] 'is managed to reduce cumulative impacts and achieve a net benefit for the Reef'.

This could be achieved by prioritising the functionality of coastal wetlands in initial plan scoping and by restoring the extent and processes of wetlands in the implementation of an adaptation strategy.

The analysis in Appendix 1 illustrates that the greatest synergies between pressures and their consequent management decisions and outcomes, objectives and targets of the Reef 2050 Plan are:

**Table 5: Reef 2050 themes most relevant in making decisions**

Pressures, impacts and partnerships	Reef 2050 themes of most relevance
Climate change adaptation	Ecosystem health, community benefits, biodiversity
Land-based runoff	Water quality
Coastal land use change	Ecosystem health, water quality, community benefits, economic benefits
Direct use	Biodiversity, community benefits, economic benefits
Building partnerships	Heritage, community benefits

Often there will be multiple pressures involved. Decision makers will need to address targets and objectives relevant to their particular decision.



**Coastal land use change** includes a wide range of decisions and decision makers. The specific decision is highly dependent on the exact nature of the coastal land use pressure, the legislative power applicable, attributes of location and the coastal system where the precise change is proposed. For example, development of and consultation for a local government's coastal hazard adaptation strategy may need to examine ecosystem health and community benefits objectives and targets in detail to ensure the balance between the restoration of additional floodplain with community use and enjoyment.







## STEP 4: ACKNOWLEDGING OTHER CONSIDERATIONS

### Considering existing legislation and obligations

As with all decision making, alignment with existing legislation is required. A table of legislation specific to the protection of the Great Barrier Reef is supplied at Appendix 2 for reference.

Decision makers should also have regard to international obligations. Of particular relevance to the Great Barrier Reef are the World Heritage Convention and the Convention on Biological Diversity. Commonwealth legislation gives effect to these international agreements.

### Considering specific Reef 2050 Actions

Several actions in the Reef 2050 Plan relate specifically to particular decision types, for example 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'. There is an opportunity for decision makers to showcase how the Reef 2050 Plan helped to shape the decision and inform the plan, policy or program.

There are also actions that relate to new policies and plans. For example, 'EHA1: Acknowledge Traditional Owners in new and existing policy and plans'. This is an ongoing action and every relevant decision maker should make sure their policy or plans comply with this commitment.

### Taking location into account

Location is important in the context of the specific condition and trend of attributes of OUV. For example, programs for the Reef Trust target the Burdekin and Wet Tropics catchments because they have relatively high loads of nutrients and pesticides. Improving water quality here also contributes to managing outbreaks of crown-of-thorns starfish.

It is necessary to identify the current condition and trend at a regional scale. The fundamental rationale is to protect what is in good condition and, restore what is in poor condition back to good. The effects of climate change, critical habitats such as coral reefs and seagrass meadows and supporting ecological processes such as connectivity, recruitment, nutrient cycling and sedimentation in the southern two thirds of the Reef are of particular importance.

**Table 6: Desired outcome for condition and trend of Reef attributes**

Current condition	Desired outcome
Very Good	The condition is maintained
Good	The condition is maintained and enhanced
Poor	The condition is restored to good
Very Poor	The condition is restored to good
Trend in condition	Desired outcome
Improving	The trend is maintained
Stable	The trend is maintained and improved
Deteriorating	The decline is halted and reversed

Specifically for regional decision makers, consideration of the condition and trend of Reef attributes relevant to their area will provide a basis for policy development at the regional and local scale. Decision makers are referred to Chapter 7 of the Strategic Assessment for further information on condition and trend. Information is also available in the Outlook Report 2014.

## Specific guidance

Additional notes providing specific guidance may be developed to provide more detailed direction for types of key decisions. This guidance will highlight how to reflect applicable outcomes, objectives and targets and provide direction to good practice examples for particular types of decisions. Specific guidance may also be developed to illustrate how regional context could be incorporated into a decision-making process.

An example of specific guidance targeted at local governments developing a Stormwater Management Plan is included in Appendix 4. Further Specific Guidance may be developed as the need arises or is requested by a government or industry sector.

# ADAPTIVE MANAGEMENT

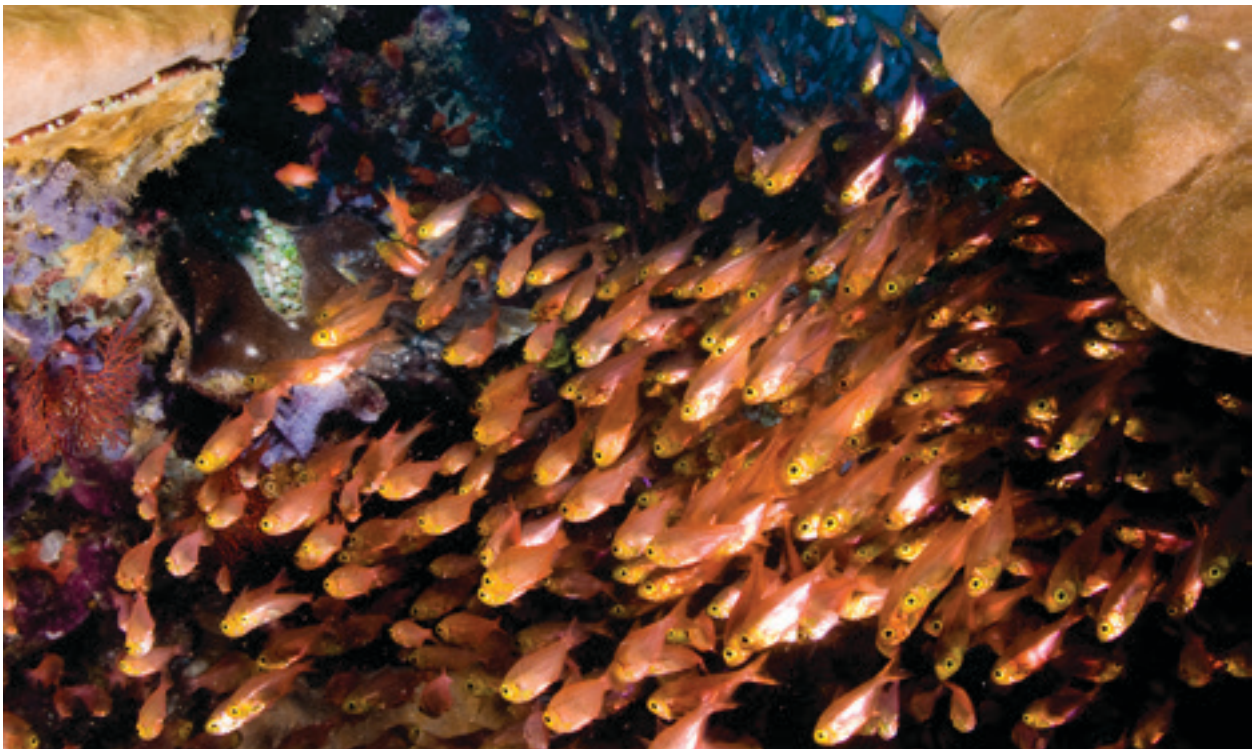
## Review and renewal

The 2020 review of the Reef 2050 Plan will be primarily informed through the assessment of management effectiveness in the 2019 Outlook Report which will be based on information gained through the Integrated Monitoring and Reporting Program<sup>2</sup>. Reporting on active implementation of the Reef 2050 Plan, including this Guideline will be a key input to the assessment of management effectiveness to inform this adaptive management cycle.

Decision makers are encouraged to document how their decisions contribute towards the targets and objectives of the Reef 2050 Plan in the monitoring and evaluation questionnaire at Appendix 4. This information will be compiled and inform reviews of management effectiveness and highlight opportunities for improvements to this Guideline, and more broadly in Reef 2050 Plan and its implementation.

To ensure this Guideline is useful and effective for decision makers, and kept up to date, the Guideline will also be reviewed in 2020.

In the future, as targeted information becomes available from the Integrated Monitoring and Reporting Program, there will be opportunities to improve and review other plans, policies and program. This will improve the quality and focus of decisions affecting the Reef and its values.

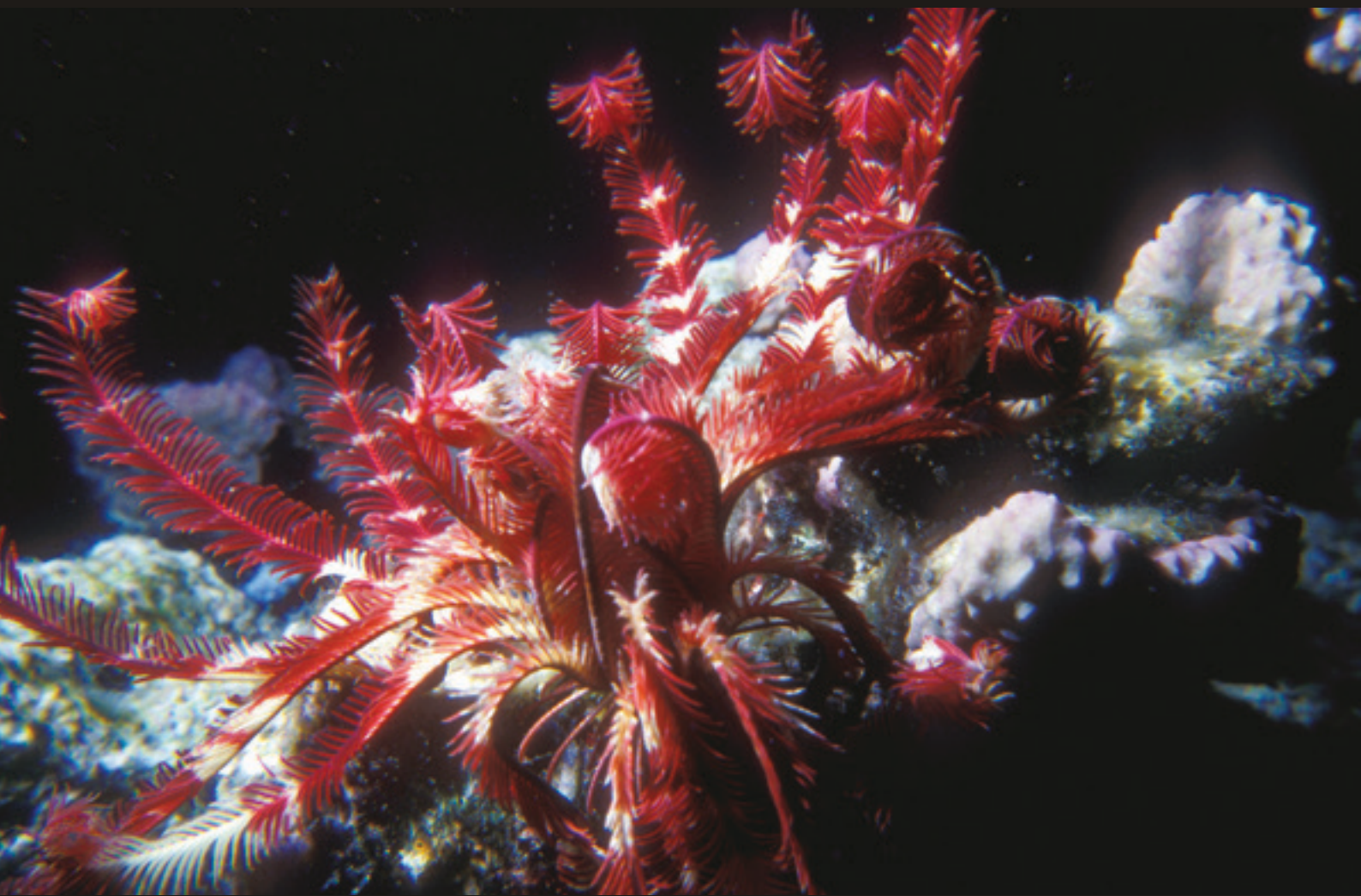


*Photo: David Harasti*

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<sup>2</sup> The Reef Integrated Reporting and Monitoring Program is under development by GBRMPA and is expected to be fully operational by 2019, with information becoming progressively available from 2017.





# APPENDIX 1: WHAT TARGETS AND OBJECTIVES TO FOCUS ON?

This appendix presents analysis of the question: when making decisions to manage or respond to a particular pressure and/or build partnerships, **which objectives and targets will most influence the nature and substance of the decision?**

Decision makers should examine this appendix and actively reflect the objectives and targets **most likely** to influence the nature and substance of their decision.

Often there will be multiple pressures involved, combined with opportunities to build partnerships. Decision makers will need to address the targets and objectives of relevance to their particular decision by ensuring those with the most influence are applied appropriately in their agreements, policies, programs or partnerships. Each application will be ‘fit for purpose’ and documented (see Appendix 4).

Effects of climate change are system wide and therefore can be seen to influence the vast majority of the targets and objectives in the Reef 2050 Plan. Similarly, opportunities to build partnerships are present in the delivery of any targets and objectives. To provide practical and meaningful advice to decision makers, the objectives and targets with the most relevance to a particular decision are defined.



**Legend:** [empty] minimal influence; / some influence; // moderate influence; /// most influence on the nature and substance of the decision.

### Ecosystem health

Ecosystem health outcome						
The status and ecological functions of ecosystems within the Great Barrier Reef World Heritage Area are in at least good condition with a stable to improving trend.						
2035 Objectives		Climate change (Adaptation)	Land based runoff	Coastal land use change	Direct use	Building partnerships
EHO1	The knowledge, innovations and practices of Traditional Owners relevant for conservation and cultural use of biocultural diversity are preserved and maintained.	/	/	/	//	//
EHO2	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.	//	//	//	/	/
EHO3	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.		/	/	//	
2020 Targets		Climate change (Adaptation)	Land based runoff	Coastal land use change	Direct use	Building partnerships
EHT1	Traditional Owners have developed Indigenous Ecological Knowledge Management Systems for collecting, handling and sharing culturally sensitive information, and its integration in decision making.	/	/	/	/	//
EHT2	The number of agreements with Traditional Owners addressing management of ecosystems within their traditional estates is increased.		/	/	/	///
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.	///	/	///		
EHT4	Key direct human-related activities are managed to reduce cumulative impacts and achieve a net benefit for the Reef.	/	//	//	//	/
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.	/	/	/	//	



**Legend:** [empty] minimal influence; / some influence; // moderate influence; /// most influence on the nature and substance of the decision.

## Biodiversity

Biodiversity outcome						
The Reef maintains its diversity of species and ecological habitats in at least a good condition with a stable to improving trend.						
2035 Objectives		Climate change (Adaptation)	Land based runoff	Coastal land use change	Direct use	Building partnerships
BO1	Traditional Owners are engaged and participate in and manage the conservation and ecologically sustainable use of cultural keystone species and bio-cultural resources.	/		/	//	//
BO2	The survival and conservation status of listed species within the World Heritage Area is promoted and enhanced.	/	/	/	/	
BO3	Trends in populations of indicator species across their natural range are stable or increasing.	//	//	/	//	
BO4	Indices of biodiversity are in good or very good condition at Reef-wide and regional scales.	//	//	//	//	
BO5	Reef habitats and ecosystems are managed to sustain healthy and diverse populations of indicator species across their natural range.	//	//	//	///	/
2020 Targets		Climate change (Adaptation)	Land based runoff	Coastal land use change	Direct use	Building partnerships
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.	/		/	/	/
BT2	Trends in the availability and condition of habitat for species of conservation concern are improving at Reef-wide and regionally relevant scales.	/	/	/	//	
BT3	Incidental catch of species of conservation concern is declining.				///	/
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.				//	
BT5	Trends in populations of key indicator species and habitat condition are stable or improving at Reef-wide and regionally relevant scales.	/	/	/	//	

**Legend:** [empty] minimal influence; / some influence; // moderate influence; /// most influence on the nature and substance of the decision.

## Heritage

Heritage outcome						
Indigenous and non-Indigenous heritage values are identified, documented and protected in decision-making and planning processes.						
2035 Objectives		Climate change (Adaptation)	Land based runoff	Coastal land use change	Direct use	Building partnerships
HO1	Traditional Owners' cultural heritage rights and responsibilities are incorporated in all facets of management.	/		/	/	//
HO2	Indigenous and non-Indigenous heritage including natural, aesthetic, historic, scientific, and social values are identified, conserved and managed in partnership with the community.	/	/	//	//	///
2020 Targets		Climate change (Adaptation)	Land based runoff	Coastal land use change	Direct use	Building partnerships
HT1	New and effective cooperative management practices are developed for protection and conservation of Great Barrier Reef Indigenous and non-Indigenous heritage.	/		/	/	///
HT2	Indigenous and non-Indigenous heritage values are identified, documented and protected in decision-making and planning processes.	//	/	//	/	/
HT3	Partnerships between Traditional Owners and all stakeholders are increased to ensure key Reef heritage values are identified, documented, and monitored.	/	/		/	///

**Legend:** [empty] minimal influence; / some influence; // moderate influence; /// most influence on the nature and substance of the decision.

### Water quality

Water quality outcome						
Reef water quality sustains the Outstanding Universal Value, builds resilience and improves ecosystem health over each successive decade.						
2035 Objectives		Climate change (Adaptation)	Land based runoff	Coastal land use change	Direct use	Building partnerships
WQO1	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.	/	///	/		//
WQO2	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.	/	///	//		//
2020 Targets		Climate change (Adaptation)	Land based runoff	Coastal land use change	Direct use	Building partnerships
WQT1	<p>By 2018:</p> <p>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</p> <p>At least a 20 per cent reduction in anthropogenic end-of-catchment loads of sediment in priority areas, on the way to achieving up to a 50 per cent reduction by 2025</p> <p>At least a 20 per cent reduction in anthropogenic end-of-catchment loads of particulate nutrients in priority areas</p> <p>At least a 60 per cent reduction in end-of-catchment pesticide loads in priority areas.</p>		///	//		//



**Legend:** [empty] minimal influence; / some influence; // moderate influence; /// most influence on the nature and substance of the decision.

### Water quality

WQT2	<p>By 2018:</p> <p>90 per cent of sugarcane, horticulture, cropping and grazing lands are managed using best management practice systems (soil, nutrient and pesticides) in priority areas</p> <p>Minimum 70 per cent late dry season groundcover on grazing lands</p> <p>The extent of riparian vegetation is increased</p> <p>There is no net loss of the extent, and an improvement in the ecological processes and environmental values, of natural wetlands.</p>	/	///	//		///
WQT3	By 2020, Reef-wide and locally relevant water quality targets are in place for urban, industrial, aquaculture and port activities and monitoring shows a stable or improving trend.	/	/	///	/	/
WQT4	Water quality in the Great Barrier Reef has a stable or positive trend.	/	///	//		//
WQT5	Traditional Owners, industry and community are engaged in on-ground water quality improvement and monitoring.		//	//		//

