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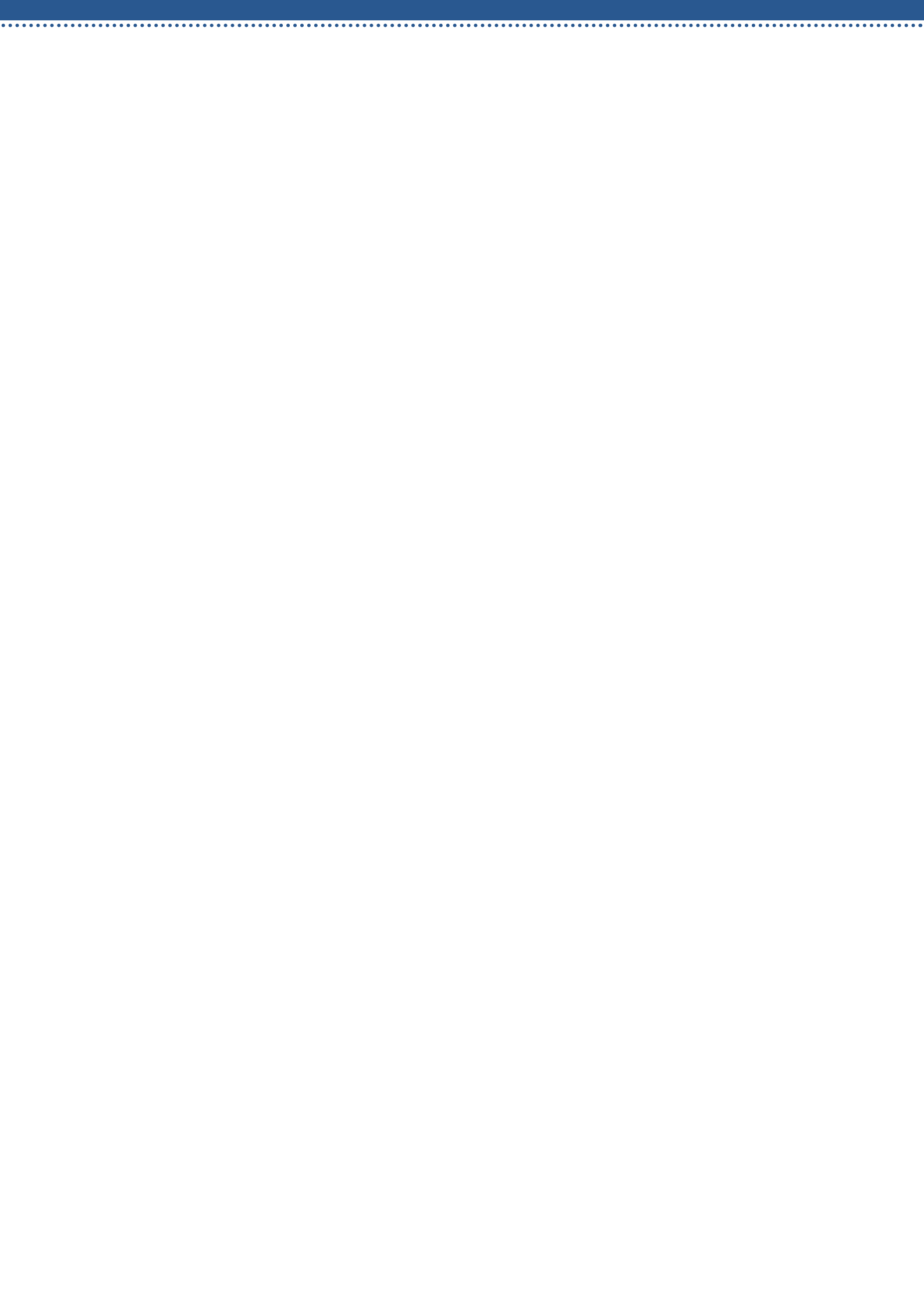
Great Barrier Reef
Marine Park Authority



Queensland
Government

Reef 2050 Integrated Monitoring and Reporting Program Strategy





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An underwater photograph of a coral reef. The foreground is dominated by a large, textured patch of yellowish-green coral. In the middle ground, there is a dense area of green seagrass. Two fish are visible: a dark, oval-shaped fish on the left and a more colorful, elongated fish on the right. The background shows a clear blue water column with some distant coral structures.

Reef 2050 Integrated Monitoring and Reporting Program Strategy

An underwater photograph of a coral reef. The scene is dominated by various types of coral, including large, flat, yellowish-brown table corals and smaller, branching corals in shades of brown and blue. The water is clear and blue, with light filtering down from the surface. A small, bright green fish is visible near the center-right of the frame. The overall composition is a close-up view of the reef's structure.

Reef 2050 Integrated
Monitoring and
Reporting Program
is a key component
of the Reef 2050 Plan

1. Context

The Australian and Queensland governments' Reef 2050 Long-Term Sustainability Plan (Reef 2050 Plan) provides an overarching strategy for managing the Great Barrier Reef. It contains targets, actions, objectives and outcomes along with defined areas of responsibility to protect and improve the Reef's health and resilience, while allowing ecologically sustainable use. The Reef 2050 Plan has been developed in consultation with partners, including Traditional Owners and the resource, ports, fishing, agriculture, local government, research and conservation sectors.

A key component of the Reef 2050 Plan is the establishment of the Reef 2050 Integrated Monitoring and Reporting Program (the Program). The Program will provide a comprehensive and up-to-date understanding of the Great Barrier Reef — the values and processes that support it and the threats that affect it. This knowledge is fundamental to informing actions required to protect and improve the Reef's condition and to drive adaptive management.

There are currently over 90 monitoring programs operating in the Great Barrier Reef World Heritage Area and adjacent catchment. These programs have largely been designed to address and report on specific issues, location or management initiatives. The need to ensure these programs align with each other and management objectives was identified through the comprehensive strategic assessments of the Great Barrier Reef World Heritage Area and adjacent coastal zone.

The Program will report across the seven themes which make up the Reef 2050 Plan Outcomes Framework. The themes are ecosystem health; biodiversity; water quality; heritage; community benefits; economic benefits and governance.

The intent of the Program is not to duplicate existing arrangements but to coordinate and integrate existing monitoring, modelling and reporting programs across disciplines. For example, the Reef Water Quality Protection Plan underpins the Reef 2050 Plan's water quality theme and its Paddock to Reef Integrated Monitoring, Modelling and Reporting will form a key part of the Program. Monitoring and reporting for other components of the Reef 2050 Plan are less advanced in their development and integration with management objectives across these areas will be a key focus for the Program.

A steering group co-chaired by the Chairman of the Great Barrier Reef Marine Park Authority and the Director-General of the Queensland Government Department of Environment and Heritage Protection will guide the Program's development and operation. The steering group forms part of the governance structure endorsed by the Great Barrier Reef Ministerial Forum for implementation of the Reef 2050 Plan.

Current monitoring effort is not expected to change, at least initially. Development of the Program will include an analysis of existing monitoring against Reef 2050 Plan deliverables. This will inform decisions on where there may be duplication or gaps in current monitoring, as well as areas where data management, analysis, synthesis and reporting may be improved.

The five-yearly Great Barrier Reef Outlook Report will be the primary reporting mechanism for evaluating the effectiveness of the Reef 2050 Plan, with the 2019 Great Barrier Reef Outlook Report being the first to incorporate results of the Program. The Great Barrier Reef Outlook Report will inform five-yearly reviews of the Reef 2050 Plan.

2. Introduction

2.1 Purpose and objectives

The Program's principal purpose is to evaluate whether the Reef 2050 Plan is on track to meet its targets, objectives and outcomes and enable timely and suitable responses by Reef managers and partners to emerging issues and risks.

The vision for the Program is for:
A coordinated and integrated monitoring, modelling and reporting framework for the Great Barrier Reef and its catchment, explicitly linked to the outcomes in the Reef 2050 Plan.

The Program will drive the coordination, alignment and integration of existing monitoring, modelling and reporting programs to capitalise on existing program investment, provide value for money, improve efficiency and avoid duplication of effort.

Its objectives are to:

- enable the early detection of trends and changes in the Reef's environment, inform the assessment of key threats and future risks and drive adaptive management
- inform the evaluation of management effectiveness, including efforts to maintain and enhance ecosystem health; marine biodiversity and coastal habitats; water quality; heritage values and social and economic benefits derived from the environment
- ensure investments are focused on actions that will effectively deliver measurable results
- inform regional stakeholders and the national and international communities on whether the Reef 2050 Plan is on track to addressing key threats and delivering its vision.

The Program will be central to ensuring decisions regarding the protection and management of the Great Barrier Reef World Heritage Area are based on the best available science, consistent with the principles of transparency and accountability, and underpinned by a partnership approach.

2.2 Scope

The geographic scope of the Program is the Great Barrier Reef World Heritage Area and the adjacent catchment (Figure 1).

2.2.1 Great Barrier Reef World Heritage Area

The Program will encompass monitoring and reporting relevant to the management of all parts of the Reef's environment, including its natural and physical attributes, heritage values, as well as social, economic and cultural aspects relevant to the seven themes outlined in the Reef 2050 Plan. It will link to programs in the Reef catchment.

2.2.2 Reef catchment

The Program will include monitoring and reporting of key attributes within the Reef catchment by linking to the governance, monitoring and reporting arrangements associated with the Reef Water Quality Protection Plan and the development of regional report cards. Monitoring and reporting on key attributes of coastal habitats critical to the health of the Reef will also form part of the Program.



FIGURE 1. Great Barrier Reef World Heritage Area and Reef catchment

The geographical scope of the Reef Integrated Monitoring and Reporting Program includes the Great Barrier Reef World Heritage Area (red line) led by the Great Barrier Reef Marine Park Authority and the adjacent catchment (orange line) led by the Queensland Government.

2.3 Principles

The following principles, adapted from the *Integrated Monitoring Framework for the Great Barrier Reef*, will underpin the establishment of the Program:

- Monitoring is to be explicitly linked to management targets, objectives and outcomes in the Reef 2050 Plan.
- Collaboration between the research, modelling, and monitoring community, relevant industries and community based citizen science programs together with all levels of government is essential.
- A common language and logic is necessary to facilitate collaboration and communication of results.
- An effective governance structure that is supported by institutions should underpin the Program and provide ongoing access to essential data streams.
- The Program should be cost effective and transparent — priorities and decisions will be informed by cost benefit and risk analyses and be well documented and readily accessible.
- The Program will be risk-based and focus on quality over quantity; it is better to monitor fewer high priorities well than to monitor many interests poorly.
- The Program will build on and align with existing programs, infrastructure and processes, not duplicate or replace programs or reinvent the wheel.
- The Program's lifespan should be at least as long as the natural and anthropogenic pressures that it is designed to monitor.
- Program design will be evidence-based and scientifically defensible.
- Research and modelling should support the Program so it can adapt to changing pressures, environmental conditions and knowledge, and inform better understanding of the effect of management changes.
- The Program should be reviewed on a regular basis, at least every five-years as a result of findings in the Great Barrier Reef Outlook Reports.

2.4 Collaboration and partnerships

A collaborative approach with partner organisations that use or generate Reef-related monitoring data or reporting products will be fundamental to the Program's successful establishment and operation. Their involvement is critical to ensuring that the Program is underpinned by the best available science and expertise.

There is significant investment by partner organisations in Reef monitoring and reporting. The partnership approach taken by the Program will seek to leverage both knowledge and funds to deliver increased efficiencies, cost effectiveness and improved alignment and coverage of monitoring programs.

In the first stage no new monitoring is proposed, however, consideration will be given to integrating and improving existing programs where appropriate and beneficial to do so. Gaps in monitoring will be clearly identified and prioritised, with additional monitoring to fill gaps to be considered in a second stage, subject to funding.

2.5 Management questions

The Program will inform a suite of management questions designed to assist with evaluating the performance of the Reef 2050 Plan. These are outlined in Table 1.

Management question	Proposed timeframe for reporting	Reporting product
Questions that will be directly addressed by the Reef 2050 Integrated Monitoring and Reporting Program		
Are the Reef 2050 Plan actions effective in moving towards targets and objectives?	Annual (for some targets) and five-yearly	Reef Water Quality Protection Plan Report Card (progress towards water quality targets) Great Barrier Reef Outlook Report (progress towards targets and objectives across all Reef 2050 Plan themes)
Are the outcomes of the Reef 2050 Plan being achieved?	Annual and five-yearly	Great Barrier Reef Outlook Report (progress towards outcomes across all Reef 2050 Plan themes)
Is the condition of the Reef and its values improving?	Five-yearly	Great Barrier Reef Outlook Report
What are the present and likely future status of threats and risks to the Reef's values?	Five-yearly	Great Barrier Reef Outlook Report
Is our understanding of the cause-and-effect relationship of multiple impacts on the Reef's values improving?	Annual and five-yearly	Reef Water Quality Protection Plan Report Card Regional report cards Great Barrier Reef Outlook Report
Questions that will be informed by the Reef 2050 Integrated Monitoring and Reporting Program		
Are the Reef 2050 Plan actions being implemented as intended?	Annual	Reef 2050 Plan annual implementation progress reports
If management responses are not effective, what changes and/or additional actions are required?	Five-yearly	Five-yearly review of the Reef 2050 Plan
How effective are response actions to incidents affecting Reef health?	As necessary	Incident response reports

TABLE 1.
Management questions designed to evaluate the performance of the Reef 2050 Plan

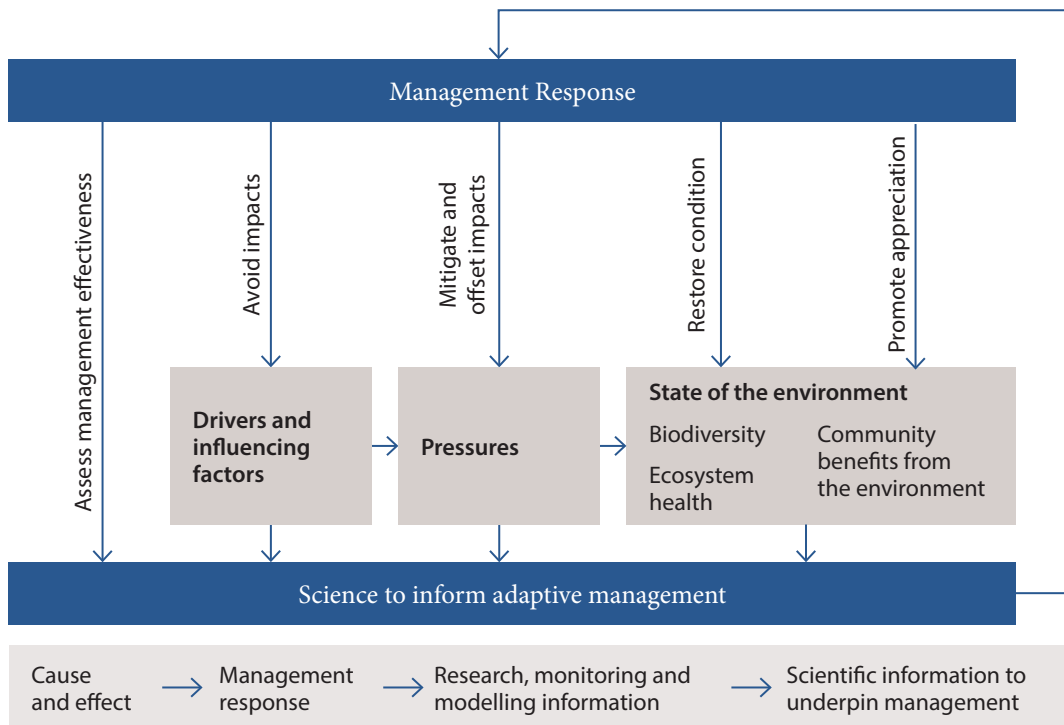


2.6 Adaptive management cycle

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 gain this understanding. This will inform evaluation and adaptive management responses.

Key indicators are needed to monitor condition, trend and resilience of values as well as trends in pressures and drivers. They also need to be sensitive to management actions to inform assessments of management effectiveness. The Driver, Pressure, State, Impact and Response (DPSIR) Framework will be used to underpin the Program (Figure 2).

FIGURE 2.
Adaptive management cycle using the Driver, Pressure, State, Impact and Response Framework



3. Program components

3.1 Program design

The Program design will be based on the seven themes in the Reef 2050 Plan:

- Ecosystem health
- Biodiversity
- Heritage
- Water quality
- Community benefits
- Economic benefits
- Governance

Indicators will be established for each of the themes to evaluate performance towards targets and outcomes in the Reef 2050 Plan. Existing conceptual and quantitative models will be reviewed to examine cause-and-effect relationships and assess the adequacy of existing monitoring programs to report against indicators. Design options will be developed to address gaps and improve alignment of existing programs, including community monitoring (citizen science). This will involve consideration of the level of statistical power or confidence in results achieved through existing programs and the development of agreed monitoring protocols.

3.1.1 Types of monitoring

The Program will measure and report progress towards achieving the outcomes, objectives and targets, and guide adaptive management. The integrated program will include:

- **short to medium-term, response monitoring**—to examine the condition of, extent of impact on and recovery rates of species, habitats or community benefits over the short to medium-term (up to 10 years). Examples include monitoring to assess damage caused by cyclones, intensive monitoring of crown-of-thorns starfish outbreaks and plume monitoring following major floods.
- **long-term monitoring**—to assess the condition and trend of the Reef’s values and broad scale 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.
- **compliance monitoring**—focused on the impacts of development actions (for example, construction of a marina) and undertaken in accordance with conditions specified in a permit, licence or approval. Examples include monitoring the condition of habitats, and processes that may be affected by the development.
- **citizen science monitoring**—volunteer based monitoring and observations of condition of habitats and presence of species. Examples include CoralWatch and Seagrass-Watch.

3.2 Synthesis and reporting

The Reef 2050 Plan outlines high level synthesis and reporting requirements for the Program and the timing of these is summarised in Figure 3. Management questions will be addressed on a one to five-year timescale via a nested approach. These reports include the annual Reef Water

Quality and Protection Plan Report Card, regionally specific water quality, social, economic and cultural elements in regional report cards and the five-yearly Great Barrier Reef Outlook Report. In addition, regular performance reporting on implementation of Reef 2050 Plan actions will be undertaken.

FIGURE 3.
*Reef 2050 Plan
implementation
reporting*

	Reef 2050 Plan Reports	Reef Report Cards and Outlook Reports
	Aug 2014	Comprehensive Strategic Assessment Great Barrier Reef Outlook Report 2014
	Reef 2050 Plan Mar 2015	
Reef 2050 Plan Implementation Strategy		
Reef 2050 Plan Investment Framework Baseline	Jun 2015	Annual Reef Water Quality Protection Plan Report Card
	Dec 2015	Annual Reef Water Quality Protection Plan Report Card
Reef 2050 Implementation Report	June 2016	Reef Water Quality Protection Plan mid-term review
Progress Report on 2050 Plan for UNESCO	Dec 2016	
Reef 2050 Implementation Report	Jun 2017	Annual Reef Water Quality Protection Plan Report Card
	Dec 2017	
Reef 2050 Implementation Report		
Mid-term review of Reef 2050 Plan	Jun 2018	Annual Reef Water Quality Protection Plan Report Card
	Dec 2018	Annual Reef Water Quality Protection Plan Report Card
Reef 2050 Implementation Report	Jun 2019	Great Barrier Reef Outlook Report 2019
State Party Report for UNESCO	Dec 2019	
Review of Reef 2050 Plan	Jun 2020	Annual Reef Water Quality Protection Plan Report Card

3.2.1 Types of reporting

Program data will be synthesised for the five-yearly **Great Barrier Reef Outlook Report**. It will report on the condition and trend of the Reef’s values, threats and risks to the Reef’s health and resilience and the effectiveness of actions to achieve desired outcomes for each of the seven themes in the Reef 2050 Plan. It will integrate findings for management questions that need a longer timescale to be addressed and be the principal guide informing the review of the Reef 2050 Plan.

Program data will inform the annual **Reef Water Quality Protection Plan Report Card** that will continue to be produced through the Paddock to Reef Integrated Monitoring and Modelling Program. This report card will provide an assessment of the annual health of the inshore marine environment and progress towards water quality and management practice targets.

Regional reporting recognises the local values of freshwater and estuarine systems as well as their relationship and connection to the Reef and data from existing regional report cards will inform evaluation of management questions at a more local level. A number of regional report cards have been developed in response to different local pressures and further report cards are planned. Work to standardise core monitoring indicators and ensure cross-regional comparability will form part of the Program.

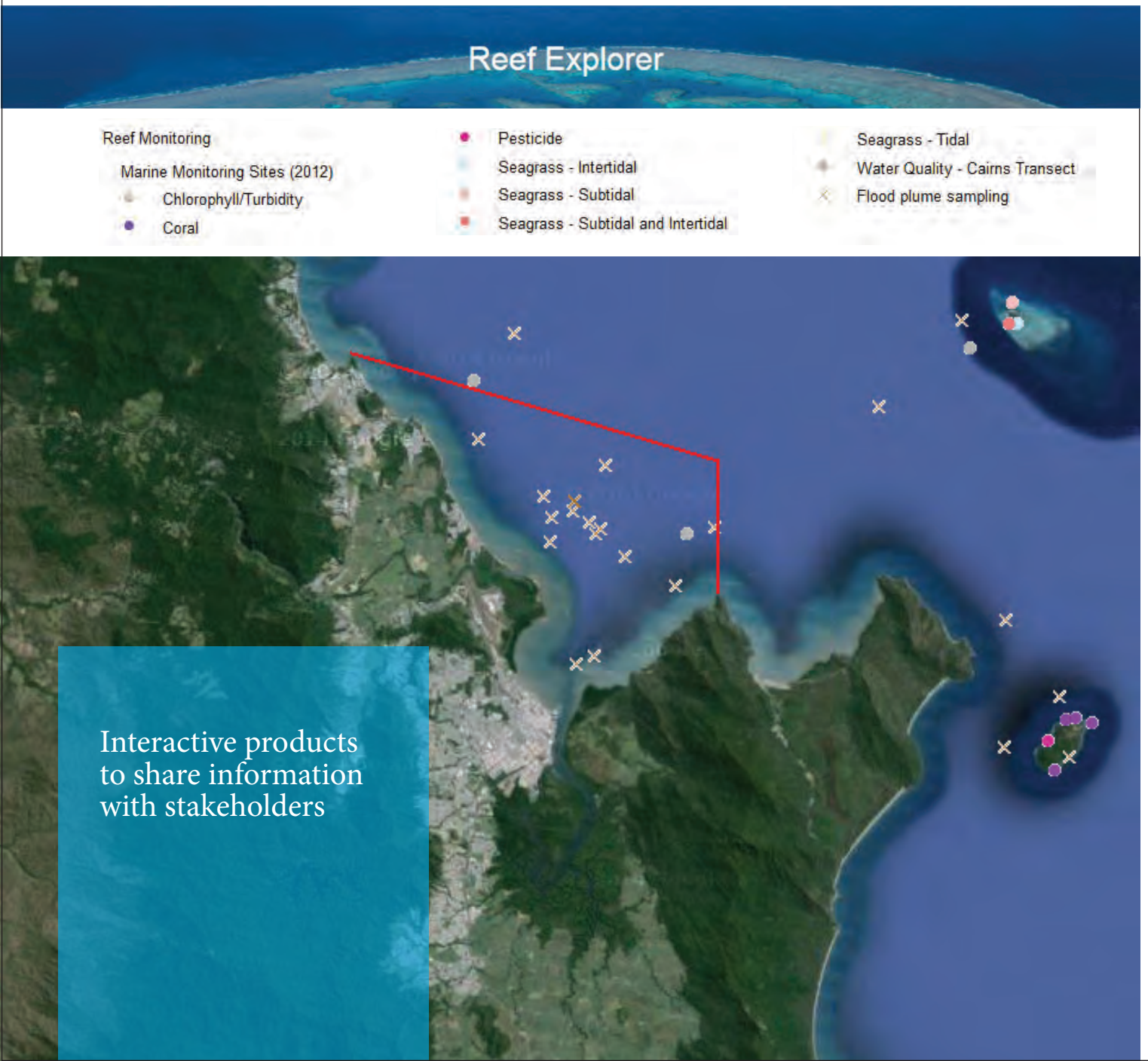
As well as these static reports, an **online interactive website** will be progressively developed to enable access to all information on the Reef in one location and the presentation of information in a nested way via an interactive map. This will also allow access to updated information as it becomes available between five-yearly reports.


3.3 Data management and systems

Currently data collected by existing programs is housed in numerous locations by various providers and data sharing agreements need to be negotiated for many of the datasets to enable their use in the Program and related reports. There is considerable work to be done to integrate and aggregate existing datasets.

Data storage protocols will be developed to ensure data stored is discoverable and accessible. Existing data management infrastructure will be used wherever possible but new data management systems may be developed, where necessary. Discoverability and accessibility will be further enhanced by the development of web-based mapping search tools and presentation products which draw on existing data streams.

There is also a need to develop protocols for managing culturally sensitive information and development of data management systems for the appropriate storage and handling of this information with Traditional Owners.





A coordinated and
integrated framework
linked to Reef 2050
outcomes

4. Program governance

The Great Barrier Reef Ministerial Forum is responsible for overseeing the implementation of the Reef 2050 Plan, including the Program. Management arrangements, approved by the Great Barrier Reef Ministerial Forum, to support implementation of the Reef 2050 Plan include the establishment of the Reef 2050 Integrated Monitoring and Reporting Program Steering Group as one of three advisory bodies.

Governance arrangements for the implementation of the Reef 2050 Plan are outlined in Figure 4.

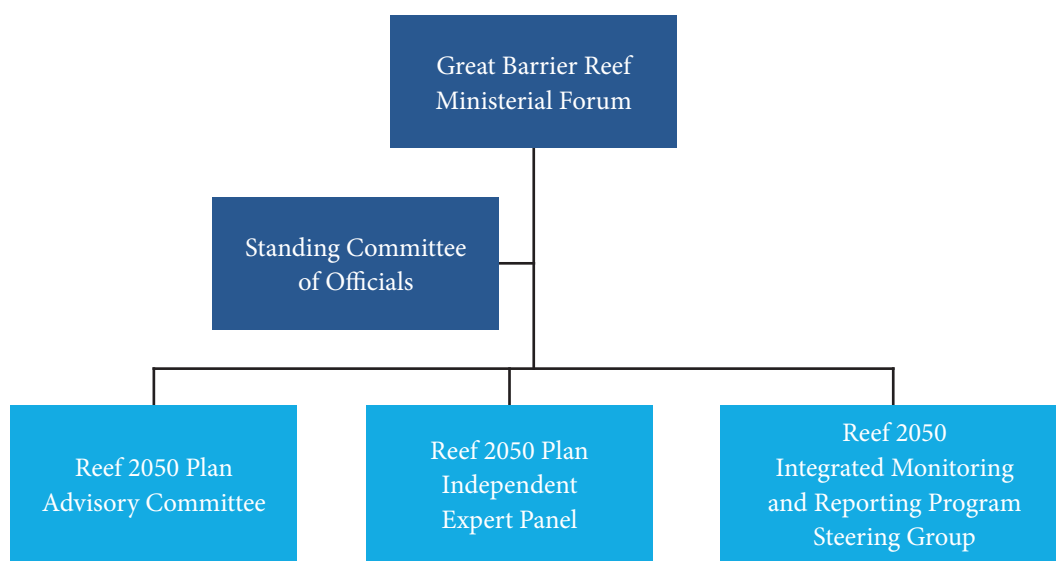


FIGURE 4.
Reef 2050 Plan governance structure (advisory bodies shown in light blue)

The **Standing Committee of Officials**, which supports the Ministerial Forum, will take on the role of the Reef 2050 intergovernmental operational committee. This committee is made up of senior officials from member departments of the Great Barrier Reef Ministerial Forum, the Great Barrier Reef Marine Park Authority and the Queensland Government Department of the Premier and Cabinet, and other relevant government departments.

The **Reef 2050 Plan Independent Expert Panel**, chaired by the Australian Government Chief Scientist, Professor Ian Chubb AC, will provide advice on implementation and review of the Plan including advice on research and monitoring priorities.

The **Reef 2050 Plan Advisory Committee**, chaired by the Hon. Penelope Wenny AC, will replace the previously established Reef 2050 Partnership Group. The Committee will provide advice on strategic Reef policy matters including stakeholder priorities for Reef research and monitoring.

4.1 Reef 2050 Integrated Monitoring and Reporting Program Steering Group

The steering group for the Program is co-chaired by the Chair of the Great Barrier Reef Marine Park Authority and the Director-General of the Queensland Government Department of Environment and Heritage Protection. It will bring together monitoring partners and data end-users to design and deliver a robust monitoring and reporting program for the Reef 2050 Plan. The Great Barrier Reef Marine Park Authority will lead the Great Barrier Reef World Heritage Area component of the Program, and the Queensland Government will lead the catchment component.

Scientific and expert advice on the design and implementation of the Program will be sought through the Reef 2050 Plan Independent Expert Panel. Advice on stakeholder priorities will be sought through the Reef 2050 Plan Advisory Committee.

Under the Reef 2050 Plan's timeframes, significant components of the Program require establishment within the next two years to inform the Plan's 2018 mid-term review. However, development of some elements of the Program (annual performance reporting against Reef 2050 Plan actions) is required sooner to inform a progress report to the World Heritage Centre in December 2016.

4.2 Working groups

The Reef 2050 Plan provides a good, high-level description of the requirements of the monitoring program but these need to be further interpreted and refined. To achieve this, the steering group will convene working groups to address specific tasks and refine work packages.

The proposed working group focus areas are: program design; synthesis and reporting; and data management and systems. There will be overlap and inter-dependencies between the three working group focus areas and coordination across work packages will be essential. These work packages will be refined, sequenced and costed as a first order of business.

The synthesis and reporting working group will have communication expertise to ensure information from all groups is appropriately targeted, uncertainties around data and modelling are communicated and risks are managed. All working group outputs will be presented to the steering group for comment and approval.

At the same time, the Queensland Government will be working with monitoring and reporting stakeholders across Queensland to improve comparability and consistency between both existing and proposed report card programs through implementation of a strategy for integrated water quality monitoring, modelling and reporting. There are likely to be considerable synergies between this process and working group tasks, therefore it will be important for collaboration.

4.3 Program partners

A network of organisations that use or generate monitoring data or reporting products will be engaged in the development of the Program. It is anticipated that the majority of partners will sit on a working group. The network will meet approximately once per year to review progress and provide advice to the steering group. Updates on the Program development will be regularly communicated to partners.

Program partners include:

- Great Barrier Reef Marine Park Authority
- Australian Government Department of the Environment
- Queensland Government Department of the Premier and Cabinet
- Queensland Government Department of Environment and Heritage Protection
- Queensland Government Department of Agriculture and Fisheries
- Queensland Government Department of National Parks, Recreation, Sport and Racing
- Australian Institute of Marine Science
- CSIRO
- James Cook University

- Australian Research Council Centre of Excellence for Coral Reef Studies
- Reef & Rainforest Research Centre (National Environmental Science Programme)
- Great Barrier Reef Foundation (eReefs)
- Integrated Marine Observing System
- Association of Marine Park Tourism Operators
- Queensland Seafood Industry Association
- Queensland Ports Association
- Great Barrier Reef Traditional Owners
- Natural resource management bodies
- Australian Government Department of Defence (Shoalwater Bay)
- Recreational fishers
- Cane farmers
- Cultural Systems Solutions Resourcing

As part of its commitment to protect and improve the long-term health of the Great Barrier Reef, the Australian Government is investing \$8 million over four years to establish the monitoring and reporting program for the Reef 2050 Plan. These funds will capitalise on existing investments and be used to leverage resources required to establish a fully functional Program across the Reef and catchment.

Formal and informal partnerships with monitoring partners (research institutions, industry, community and government) and managers will be critical to the successful establishment and implementation of the Program. In-kind contributions, as well as existing resources dedicated to monitoring, research, modelling and reporting from all partners, will contribute to the Program's establishment and future success. It is expected that the establishment phase will take approximately two years.

The Australian and Queensland governments will coordinate this process, including operation of the partnership and working groups. During the establishment phase it is expected that existing monitoring programs will continue to operate with their current resourcing arrangements.

4.4 Communication and engagement

A communication and engagement strategy will be developed for the Program. It will align with the broader Reef 2050 Plan communications strategy and cover activities that will support the delivery of the Program's objectives. The strategy will cover:

- communication goals and objectives
- key messages
- target audiences
- communication tools
- communication protocols
- a guide for visual and text elements
- standard terminology and statements
- risk management
- review and evaluation processes.

The strategy will maximise use of existing communication tools and channels, ensuring messages around the Program are communicated in corporate materials.

Similar to other joint initiatives, Great Barrier Reef Marine Park Authority will lead communication and engagement activities for the Great Barrier Reef World Heritage Area component of the Program and the Queensland Government will lead catchment activities. Coordination and consistency will be achieved through overarching messages and communication protocols.

Ongoing communication with Program partners, together with the Reef 2050 Independent Expert Panel and Reef 2050 Plan Advisory Committee, will form a key part of the strategy.

A review of the joint communication strategy will be conducted after six months. This will incorporate an evaluation of the communication strategy.

4.5 Reef 2050 Plan implementation reports

A number of reports on a one to five-year timescale will be prepared to report on implementation and effectiveness of the Reef 2050 Plan (Figure 5).

An annual report on implementation of the Reef 2050 Plan will be provided to the Great Barrier Reef Ministerial Forum and made publicly available. These reports will be prepared by the Standing Committee of Officials in consultation with the Reef 2050 Plan Advisory Committee and Independent Expert Panel and will assess progress towards delivering the Reef 2050 Plan's actions.

A progress update on implementation of the Reef 2050 Plan, as well as a State Party Report on the state of conservation of the Great Barrier Reef World Heritage Area will be prepared and provided to the World Heritage Centre by December 2016 and December 2019 respectively.

FIGURE 5
Reporting cycle



An aerial photograph of a tropical coastline. The foreground is dominated by a dense, lush green forest. Beyond the forest, a wide, white sand beach stretches across the frame. The water is exceptionally clear, showing various shades of turquoise and light green, with visible sandbars and shallow reefs. In the distance, there are more islands and a clear blue sky with scattered white clouds. A semi-transparent blue rectangle is overlaid on the upper right portion of the image, containing white text.

Investments deliver
measurable results

5. Program timeframes and next steps

Implementation timeframes for the Program, including key milestones, are outlined in Table 2.

TABLE 2.
Program implementation timeframes

Date	Lead responsibility	Task
July 2015	Steering group	<ul style="list-style-type: none"> Agree on program scope, timeframes and overall strategy
July 2015–December 2016	Great Barrier Reef Marine Park Authority	<ul style="list-style-type: none"> Establishment of task-based working groups, in collaboration with partners, to deliver work packages required to support the establishment of the Great Barrier Reef World Heritage Area component of the program including: program design; synthesis and reporting; and data management Identification of key linkages to the catchment component and coordination of work packages to align
July 2015 – October 2015	Department of Environment and Heritage Protection	<ul style="list-style-type: none"> Improve comparability and consistency between report card programs Strategic gap analysis across existing catchment programs and identification of priority information needs and work areas Identification of key linkages to the marine component and coordination of work packages to align
From mid-2016	Monitoring partners	<ul style="list-style-type: none"> Individual monitoring programs are adjusted where appropriate to align with the design of the overall Program Ongoing alignment and development of online reporting and synthesis products (including annual report cards) and data management systems Report on Program establishment as part of the progress report to the World Heritage Centre on Reef 2050 Plan implementation (due 1 December 2016)
Early 2018	Steering group	<ul style="list-style-type: none"> Outputs from Program to inform the mid-term review of the Reef 2050 Plan (due 2018) Program outputs support preparation of Great Barrier Reef Outlook Report 2019 (due 1 June 2019)
June 2019	Steering group	<ul style="list-style-type: none"> Program fully operational across Great Barrier Reef World Heritage Area and catchment components Effectiveness of Program as a tool to drive adaptive management independently assessed as part of Great Barrier Reef Outlook Report Report on the Program as part of the State Party Report on the state of conservation of the Great Barrier Reef World Heritage Area (due 1 December 2019) Program outputs support review of Reef 2050 Plan (due 2020) Ongoing program oversight and coordination, including alignment of Great Barrier Reef World Heritage Area and catchment components



