



# Reef 2050 Plan

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## INDEPENDENT EXPERT PANEL - MINUTES

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**Date:** Monday, 30 October 2023, 09:00am – 4:30pm AEDT

**Venue:** Stamford Hotel, Brisbane and videoconference.

### ATTENDEES

#### *Members*

Dr Russell Reichelt AO A/g Chair  
Prof Terry Hughes  
Prof Damien Burrows  
Adj Assoc Prof Stephan Schnierer  
Dr Rebecca Bartley

Prof Helene Marsh AO  
Dr Stuart Whitten (apologies 3:30pm – 4:30pm)  
Prof Tiffany Morrison  
Prof Catherine Lovelock

### APOLOGIES

Dr Richard Brinkman  
Dr Mitchell Gibbs  
Ms Jane Waterhouse  
Prof Matthew England

#### *Other attendees*

Mr John Foster	Branch Head, Department of Climate Change, Energy, the Environment and Water
Ms Katrina Maguire	Division Head, Department of Climate Change, Energy, the Environment and Water
Mr Stephen Briggs	Assistant Director, Secretariat, Department of Climate Change, Energy, the Environment and Water
Ms Liz Borburgh	Policy Officer, Secretariat, Department of Climate Change, Energy, the Environment and Water
Louise Smyth	Director, Office of the Great Barrier Reef, Department of Environment and Science
Dr Roger Beeden	Chief Scientist, Great Barrier Reef Marine Park Authority
Ms Erin Bell	Manager, Great Barrier Reef Marine Park Authority
Mr Richard Quincey	General Manager, Great Barrier Reef Marine Park Authority ( <i>Item 7</i> )
Mr Ian Walker	General Manager, Great Barrier Reef Marine Park Authority ( <i>Item 7</i> )

Dr John Rolfe	A/g Chair, Reef Water Quality Independent Science Panel ( <i>Item 8</i> )
Ms Libby Evans-Illidge	Manager, Australian institute of Marine Science ( <i>Item 6</i> )
Mr John Liston	Manager, Australian institute of Marine Science ( <i>Item 8</i> )
Dr Line Bay	Director, Australian institute of Marine Science ( <i>Item 9</i> )
Dr David Wachenfeld	Director, Australian institute of Marine Science ( <i>Item 9</i> )
Dr Chaojiao Sun	Group Leader, Commonwealth Scientific and Industrial Research Organisation ( <i>Item 7</i> )
Dr Bruce Taylor	Principal Research Scientist, Commonwealth Scientific and Industrial Research Organisation ( <i>Item 9</i> )
Prof Peter Mumby	Marine Spatial Ecology Lab, University of Queensland ( <i>Item 9</i> )
Dr Cedric Robillot	Executive Director, Reef Restoration and Adaptation Program ( <i>Item 9</i> )

### **1. Acknowledgement of Country**

The Chair acknowledged the traditional custodians of the lands on which the meeting was held, and paid respects to their Elders past, present and emerging.

### **2. Welcome to Members**

The Chair welcomed members and noted apologies. The Chair outlined the main items of business on the agenda, which would include discussions on the Panel's forward strategy, opportunities for partnerships and knowledge sharing, communications considerations, applying modelling and monitoring to inform Reef 2050 policy and program development, principles of management and policy in a rapid changing environment using Reef restoration as a case study, and an update from the Commonwealth and Queensland governments.

### **3. Conflict of Interest**

Panel members were asked to update their declared actual and perceived conflicts and the Chair outlined actions to manage potential conflicts in accordance with the Panel's protocol.

### **4. Panel Business**

The Panel endorsed the minutes of Meeting 25, held on 1 and 3 June 2023, and reflected on recent accomplishments, most notably the Panel's delivery of two letters to Ministers, which are published on the DCCEEW website, on:

- the impacts of climate change on biodiversity across the whole of the Great Barrier Reef (Reef); and
- preparing for the risk of Stony Coral Tissue Loss Disease to the Reef.

The Chair acknowledged the Reef 2050 Advisory Committee's recent advice to Ministers (see item 10), reflected on the common themes of both groups and prompted Members to consider the actions required for improving the protection and improvement of the Reef's world heritage values in the face of climate change.

The Panel requested an update on the Queensland government fisheries strategy and engagement with the Traditional Owners, noting that the Future Fisheries taskforce provided recommendations which are with government for consideration. The Queensland Government Department of Environment and Science representative noted that short timeframes may have hindered respectful consultation with Traditional Owners, which is a missed opportunity.

The Panel requested the Secretariat follow up:

- Responses from Commonwealth Ministers to the two recently published advice letters;
- Queensland Department of Agriculture, Fisheries and Forestry in relation to Future Fisheries taskforce recommendations.

## **5. Panel's strategic approach**

The Chair reflected on the key themes of the recent climate change advice and proposed that the Panel work with the Secretariat to develop a strategic agenda of future meeting topics. The Panel is seeking ways to ensure their meetings are focused on impactful topics for delivery of the Reef 2050 Plan, addressing adaptation or mitigation of climate change and preparing for predictable severe events, such as the coral bleaching event in Florida Keys.

## **6. Opportunities for scientific partnerships and knowledge sharing with Indigenous communities**

The Panel received a presentation on the Australian Institute of Marine Science (AIMS) Indigenous partnership and engagement framework from Ms Libby Evans-Illidge. The framework is based on:

- Shared interest and synergies in science.
- Respect and value Traditional Owner system next to western science, respect the principle of free prior informed consent.
- Support the Traditional Owners inherent rights and responsibilities for sea Country.
- Engagement Tiers across research where we follow customary laws (lore) along with the standard regulations.
- Recognising and differentiating separate rights and governance of Indigenous Knowledge and Intellectual Property.

The Panel thanked Ms Evans-Illidge for her presentation and discussed:

- The accessibility, scope and data collection needs of the projects that AIMS partners with Indigenous Australians on.
- The need for researchers generally to extend their expertise into understanding the benefits these projects have on the social landscape.
- Whether existing frameworks, such as under the Great Barrier Reef Marine Park Authority Act allow for the LORE alignment.
- The alignment of AIMS' individual framework across national programs e.g., for the National Environmental Science Program.

## **7. Applying modelling and monitoring results to inform Reef 2050 policy and program development**

The Panel received multiple presentations during this session.

Mr. Richard Quincey, Great Barrier Reef Marine Park Authority (Reef Authority) presented the latest Reef summer forecast which combines models from NOAA and BoM to inform pre-summer forecasts of marine heatwaves and coral cover.

Mr. Ian Walker, Reef Authority proceeded to provide an update on workstreams of the Reef Integrated Monitoring and Reporting System [RIMReP]:

- A purpose of RIMReP is to inform the adaptive and resilience-based management against the Reef 2050 targets and will assist in understanding management needs.
- Core monitoring programs communicated through Reef Knowledge systems where data is interpreted through a series of dashboards and maps.
- This in turn will be used for management decisions and the Reef outlook report.

Dr. Chaojiao Sun from CSIRO presented the preliminary dynamical downscaling modelling results on potential climate refugia in the Great Barrier Reef, to extrapolate the effects of large-scale climate processed to local scales.

- The finer 1km scale models predicted there will be persistently cooler regions with likelihood of less severe bleaching events due to upwelling of cold water and Dr Sun noted that these cooler regions will remain vulnerable to future global warming.

The Panel discussed:

- How climate refugia could link into management, priority setting and zoning since this information can provide insights when targeting specific objectives or areas.
- Local conditions need to be accounted for and interactions with physical and climatic pattern; and since the 2015/16 mass bleaching events most of the areas described as refuges have also experienced coral bleaching, meaning that areas thought once to be refuges and no longer safe from bleaching
- The need for a stronger focus on understanding and measuring the interactions within the Reef system, through linking data from multiple monitoring programs.

## 8. Communication considerations for water quality and other drivers

The Australian Institute of Marine Science presentation explained the analysis and methods that generate the public reporting and communication of the Long-Term Monitoring Program results. The key communication messages were:

- Shaping the information environment leads to greater penetration of messaging.
- Be the first to tell your story and the findings, be consistent.
- Balanced and accurate reporting with supporting information and credible scientists will facilitate greater media and public understanding and trust.

The Panel discussed varying, but all accurate, interpretations by different audiences and how best to communicate the coral cover metric to explain coral health.

Prof Rolfe, Acting Chair of the Independent Science Panel [ISP] provided an update on the ISP's work:

- Progress update on the Scientific Consensus Statement update and spatial management prioritization.
- An overview of the review of the ground cover and riparian extent results and methods.
- Progress of catchment modelling results and measures and the inclusion of human dimensions for water quality report card.
- Pesticide condition results and methods.
- Wetland condition results and methods.

The Panel discussed the suitability and accuracy of using groundcover as a metric to assess the effects of management actions. If the groundcover is not corrected for changes in rainfall, then it is largely reflecting the recent climate (rainfall) and is not capturing changes in land management. At worst, it is suggesting there has been improved management, when there has simply been above average rainfall. There are tools available to help de-trend the data, and consideration should be given to applying these in future modelling scenarios.

## 9. Principles of agile and coherent management and policy for Reef restoration

The Chair introduced this topic as a follow up discussion based on the Panel advice to ministers delivered in July 2023. One of the recommendations made by Panel was that policy and programs need to be flexible to the pressures of climate change. Many, often technical, considerations need to be quickly made by decision makers in response to the evolving reef restoration science. The Panel can use reef restoration as a case study to consider conceptual models, a framework of what is needed where and when.

Panel Member Prof Terry Hughes spoke to the Panel on:

- Practical questions to consider for conceptual models for coral reef restoration approaches.

- Findings from recent research (refer 'Principles for coral reef restoration in the Anthropocene', available in *One Earth*) on coral reef resilience and implications for management options.

Dr Line Bay from AIMS provided a presentation on:

- Findings from a recent research paper titled 'Management approaches to conserve Australia's marine ecosystem under climate change', focusing on the coral reef conservation aspects.
- Conceptual models used in the Reef Adaptation and Restoration Program (RRAP) and specifically, the conservation aquaculture and deployment sub-component.

Scientists from the RRAP were invited to join this session and participate in the discussion with the Panel, which covered a range of risks and opportunities with various approaches and considerations for underlying conceptual models.

Several Panel Members expressed concerns that risks and knowledge gaps aren't always clearly or consistently described in scientific literature on proposed marine interventions. Panel Members also expressed the importance of the research community being as honest as possible about the state of knowledge underpinning work as a way to inoculate against adverse allegations.

## **10. Government update**

The Panel received updates from government and a briefing on the Reef 2050 Advisory Committee (RAC) advice from the Hon Dr Penelope Wensley AC, Chairman of the RAC. The RAC is an independent advisory body to provide advice to ministers on Reef investments and action priorities.

The advice contained 5 key points:

1. Reef 2050 Plan is the right framework and maintain momentum with well-developed programs and projects attached to it.
2. We should have a rolling collaborative strategy that allows for an adaptive approach of reef action.
3. Regional or place-based planning, due to the size of the Great Barrier Reef catchments it requires a local ground up approach that is holistic.
4. To ensure we can meet Water Quality targets we need to accelerate landscape and ecosystem repair. There is concern of permitting land clearing while investing in landscape repair.
5. We need recognise the rights and interests of Reef Traditional owners.

The Department of Climate Change, Energy, the Environment and Water provided a short update:

- The UNESCO and World heritage committee decision for Australia to produce a progress report on climate change commitments to the reef by both the Commonwealth and the Queensland government.

- As a response to the Panel and RAC advice we are progressing the landscape repair program with a regional delivery model. We have engaged Professor Ian Chubb to implement the advice into practical measures.

## **11. Other Panel Business**

The Chair concluded the meeting with an invitation to the Panel members to consider inputs to the forward strategic approach discussed at the start of the day and noting some of the conversations today need to be continued in 2024 and the IEP will play a critical role in shaping the linking of best available scientific knowledge with traditional knowledge and having regard for the insights coming from all sources of expert knowledge that will ensure providing best available advice to the Reef 2050 Plan Ministers.