

Marine Water Quality Dashboard

Timely access to water quality information is essential to maintain a vibrant and healthy reef ecosystem. The Marine Water Quality Dashboard will provide this information to reef stakeholders.

What is the Dashboard?

The Marine Water Quality Dashboard is a tool to access and visualise a range of water quality indicators for the Great Barrier Reef.

What does it include?

The Dashboard enables access to near real-time data on sea surface temperatures, chlorophyll levels, sediments and light for the entire Great Barrier Reef and will supplement existing data measurements.

Data from the Dashboard can be displayed in different formats – such as animations of changing temperatures over time – or downloaded from the web for further analysis and interpretation.

Who can use the Dashboard?

Anyone can use the Marine Water Quality Dashboard – government agencies, reef managers, policy makers, researchers, industry and local communities.

The Dashboard will provide access to over ten years of water quality information to identify changes over time, as well as up-to-date assessments of the likelihood of coral bleaching events or the impact of sediment plumes from large rainfall events.

How does it work?

The Bureau of Meteorology receives daily satellite information about the frequency of light which enables the water colour and the sea surface temperature to be determined for the Great Barrier Reef.

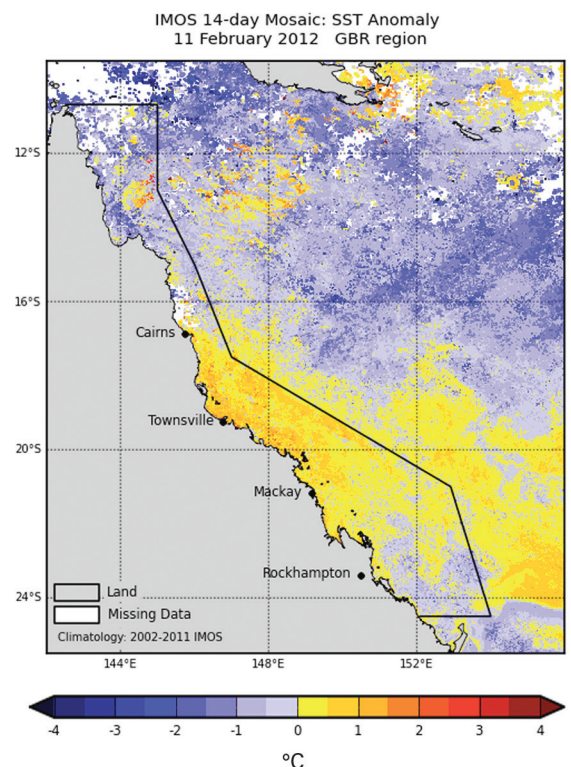
By comparing the colour of the water to measurements of sediments, chlorophyll and dissolved organic matter, relationships are made between satellite imagery and the actual water in the reef.

Why is this important?

The temperature of the sea surface is an important environmental indicator. It can be used to assist decision-making where water temperature is a major factor influencing operations on or near the ocean's surface, or where it can be used to infer properties of the ocean environment just below the surface.

A specific example is in helping to predict and respond to coral bleaching events.

Information about the amount of light in the water and the concentrations of chlorophyll and sediments are important for managing sea grass beds and the production of large algae that may compete with coral for space on the reef.



Example of the type of images shown on the dashboard with colours showing sea surface temperature anomalies. Blue tones represent cooler than average temperatures, yellow to red tones represent warmer than average temperatures. Image provided by CSIRO.



When will it be available?

The Dashboard will be publicly available online from December 2013.

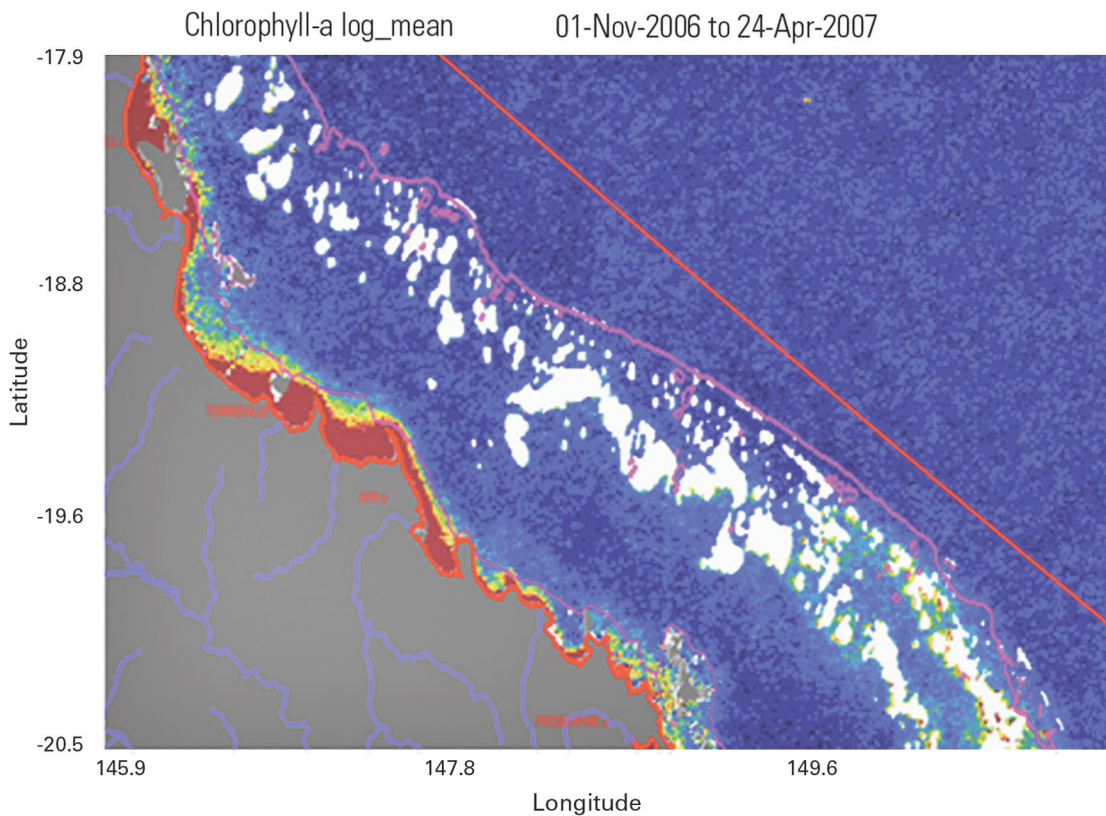
A collaborative project

The Dashboard has been developed through collaboration between the Australian Institute of Marine Science, Bureau of Meteorology, CSIRO, Great Barrier Reef Foundation and the Queensland Government.

The Dashboard will be delivered as part of eReefs, a project that is contributing to the sustainability of the Great Barrier Reef. eReefs commenced in January 2012 and forms a significant step in building a comprehensive coastal information system for Australia.

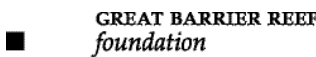
For more information

For further information about the eReefs project, visit www.bom.gov.au/environment or contact environment@bom.gov.au



An example image showing average chlorophyll concentrations in the Burdekin Region of the Reef. Red colours represent higher concentrations of chlorophyll in the water. Image provided by CSIRO.

eReefs is a collaboration between:



Supported by funding from:

