



CASE STUDY OF IMPACT
June 2016



Ensuring a vital future for the Great Barrier Reef

 eReefs platform transforming our ability to manage and protect the Great Barrier Reef for the long term.

The challenge

The Great Barrier Reef is a national treasure that brings significant economic, cultural and social benefits to Australia. As well as being the jewel in the crown of Australia's UNESCO World-heritage listed sites, it brings in \$5.2 billion annually and generates more than 64,000 full-time jobs. However, the Reef is under threat from elements such as climate change, poor water quality from land-based run-off, and impacts from coastal development. These challenges must be managed to ensure the future vitality of the Reef.

Coral cover in the Great Barrier Reef has declined by 50% in just 27 years¹.

The response

CSIRO has partnered with the Great Barrier Reef Foundation, the Bureau of Meteorology, the Australian Institute of Marine Science and the Queensland Government to address these challenges. eReefs is a public-private collaboration to develop a comprehensive coastal information system for the Reef, allowing integrated decision support for improving management of the Great Barrier Reef.

The five-year eReefs project, which began in 2012, spans the entire Great Barrier Reef area from catchment to ocean. It covers data management, modelling, reporting and real-time decision-support tools.

This comprehensive real-time reef information system will provide an important tool for reef managers by

helping them improve environmental decision-making. For example, the information can be used to understand how actions taken on land impact on water quality and the Reef. It can also be used to test what actions might be taken to improve water quality.

The impact

The potential impacts derived from the eReefs project include protecting and improving marine ecosystems, more efficient tourism and shipping operations, and sustainable growth in aquaculture in the Great Barrier Reef.

Based on conservative assumptions, the net present value of benefits to 2025-26 from the eReefs project is \$80.8 million. The project has a benefit-cost ratio of over 10².

¹ De'ath G, Fabricius K, Sweatman H, Puotinen M. 2012. The 27-year decline of coral cover on the Great Barrier Reef and its causes. *Proceedings of the National Academy of Sciences of the United States of America*, 109(44), 17995-17999.

² ACIL Allen Consulting. 2016. *eReefs – An Independent Assessment*. ACIL Allen Consulting, Canberra.

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