

A new approach to managing the NSW marine estate

FAQs 3 – Threat and risk assessment framework

March 2013

A marine estate **threat and risk assessment framework** will be developed in response to the recommendations of the *Report of the Independent Scientific Audit of Marine Parks in NSW*.

Why do we need a threat and risk assessment framework?

The threat and risk assessment framework will underpin the Marine Estate Management Strategy by identifying the most significant issues affecting the health of our marine estate and informing what high priority studies are required to identify the most cost effective management actions to avoid or manage these risks.

The government wants to ensure that public resources are appropriately targeted at better understanding the most significant threats facing the marine estate and towards the most effective and efficient actions to manage them.

The government acknowledges that the NSW marine estate is subject to a range of current and potential threats, as highlighted by the Audit. These include land based activities, development, pollution, resource use including fishing, tourism and mining, pests and disease, and climate change. The combination of these threats and the associated risks vary in importance along our coast. They can operate to diminish the important social, economic and ecological values we place on our publicly owned marine estate. For example, the Audit found the impacts of climate change on Australian fisheries and aquaculture are predicted to be most severe off the south-east coast because of a much greater than average predicted increase in sea surface temperature in this region.

Multiple threats often act together and can be difficult to unravel and address. Management of individual threats by specific sectors is often inefficient and generally does not account for interactions among activities or cumulative impacts over space and time. The Audit has found that marine parks can effectively contribute to the management of some threats. It also recognised that there are gaps in our understanding of threats and that a range of actions are needed to address current and future threats to the marine estate.

As the nature, scale of impact and timeframes over which threats are present varies across the marine estate, the priority research and management actions must be tailored to respond to these issues. For example, coastal rivers, lakes and estuaries, and interface between the land and sea are subject to different threats than inshore marine waters. Similarly, areas of the marine estate adjacent to highly developed metropolitan regions or those with agricultural uses are subject to different pressures.

The need to better understand the threats and related risks to the entire marine estate and for a framework to more effectively manage them was strongly advocated by the Audit.

How will a threat and risk assessment framework be used?

A threat and risk assessment framework will be used to guide future management action. It will identify, assess and rank the key threats and associated risks to the NSW marine estate. It will also consider multiple threats and highlight areas where information is lacking and research is needed.

It will take a long term view and provide for the assessment of threats and risks to the marine estate over at least the next 20 years. It will also provide for the assessment of threats and risks at local, regional and statewide scales in the marine estate.

The Marine Estate Management Authority, taking into account advice from the Marine Estate Expert Knowledge Panel, will further evaluate the priority of specific recommendations made by the Audit in relation to early detection pest monitoring programs, a statewide survey of contaminant levels, the management of and licensing of dredging and better management of stormwater as part of the development and application of the threat and risk assessment framework.

Will it include social and economic values?

The threat and risk assessment framework will consider threats across the entire marine estate, including its social, economic and ecological values.

For example, the framework could ascertain the circumstances in which the threat of nutrient runoff is a high, medium or low risk to the ecological values of the marine estate and likely flow on impacts on social and economic values. Social and economic values could inform the priority for management action.

How will it be applied to marine parks?

The threat and risk assessment framework should be applicable at regional and local levels and can be used to analyse the threats and risks to biodiversity and likely flow on impacts to the social and economic values of marine parks. This information will help government make decisions that are easily understood, effective and maximize ecological, social and economic outcomes.

Spatial information on the ecological values of marine parks will be expanded to cover social and economic values of marine parks.

How will it be developed?

Threat and risk assessment processes involving stakeholder and expert input have informed management of the Great Barrier Reef, notably in preparing the [2009 Outlook Report](#).

A similar approach will be applied to develop a threat and risk assessment framework for the NSW marine estate. Development of the framework will be informed by expert and stakeholder input and will be overseen by the Marine Estate Expert Knowledge Panel.

How have public submissions influenced our response?

Submissions on the Audit from a range of different stakeholders supported a threat and risk assessment approach.

There was a strong emphasis in submissions that more economic and social science should not be at the expense of ecological science. The Strategy represents a robust mechanism for ensuring knowledge needs are prioritised and addressed based on assessment of threats and risks.

More information

More information is available at www.marine.nsw.gov.au

© State of New South Wales through the Department of Trade and Investment, Regional Infrastructure and Services 2013. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (March 2013). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent adviser.

Published by the Department of Primary Industries, a division of NSW Department of Trade and Investment, Regional Infrastructure and Services.

OUT13/5846