



Outcomes from the Estuarine, Coastal and Marine Information Program 2006–2008

A national program that supported 14 projects involving collaboration with over 130 people and more than 30 national, state and regional agencies.

Key achievements

- National Intertidal/Subtidal Benthic Habitat Map Series, the first nationally consistent compilation of ECM habitat mapping
- National Shoreline Geomorphic and Stability Map, depicting beaches and coastal vulnerability
- public access to environmental information about 12,000 beaches, held in the Australian Beach Safety & Management Program database
- advances in deeper water benthic mapping data sets, particularly within Western Australia, Victoria, and New South Wales
- continuing the development of access to high-quality national information on the OzCoasts website
- public access (through a partnership led by CSIRO Land and Water) to processed high-spatial and high-temporal resolution satellite imagery
- successful collaboration with the Australian Government, state and territory governments, research agencies.
- support for the emerging Environmental Condition Assessment Framework.

The program aimed to:

- Further develop indicators under the National Natural Resource Monitoring & Evaluation Framework including guidelines on collecting and collating data
- Develop information products to support policy and management needs
- Facilitate the development of data and information management systems.



More Information on key outputs

- Status of information for reporting against indicators under the National Natural Resource Management Monitoring and Evaluation Framework

The ECM booklet is part of a series that describes the status of data and information relevant to national indicators agreed under the National Natural Resource Management Monitoring and Evaluation Framework. It specifically reports on the current status of information relating to indicators of the extent, distribution and condition of estuarine, coastal and marine (ECM) habitats and is a vital step towards more strategic future investment.

These booklets can be viewed online at www.nlwra.gov.au.



Examples of the series: Status of information for reporting against indicators under the National Natural Resource Management Monitoring and Evaluation Framework

- The Environmental Condition Assessment Framework (ECAF) (in Draft)

The ECAF enables vulnerability, pressure (threat) and risk assessments to be made in the absence of resource condition information, and in data-poor environments. The framework flexibly aligns and translates between different reporting mechanisms so that reports can be standardised and compared rather than seeking to compile data nationally from fragmented, incompatible data sets.

The preliminary framework, which has received strong support from key ECM managers, is designed to enable more efficient national assessments by better aligning the natural resource information to managers' requirements. The ECAF will facilitate the growth of data and information needed to support management.

- The ECM National Assessment Scoping Report
- This report assessed the current and foreseeable context for producing national level assessments of the condition of estuarine, coastal and marine environments and scopes a direction for future national assessment.

- Indicator Guidelines

Nineteen nationally agreed indicators have been identified to support the assessment of the condition of ECM environments. These have been prioritised following state-based trials, and guidelines for measuring ten of those indicators have been developed. National standardisation of indicators and their collection and management methods should continue. Many are widely collected and it is important to capture and store data that can be used and reused for different purposes.

Guidelines can be downloaded from www.nlwra.gov.au.



Cover of one of the Indicator Guidelines for Estuarine, Coastal and Marine Habitat Integrity matter for target.

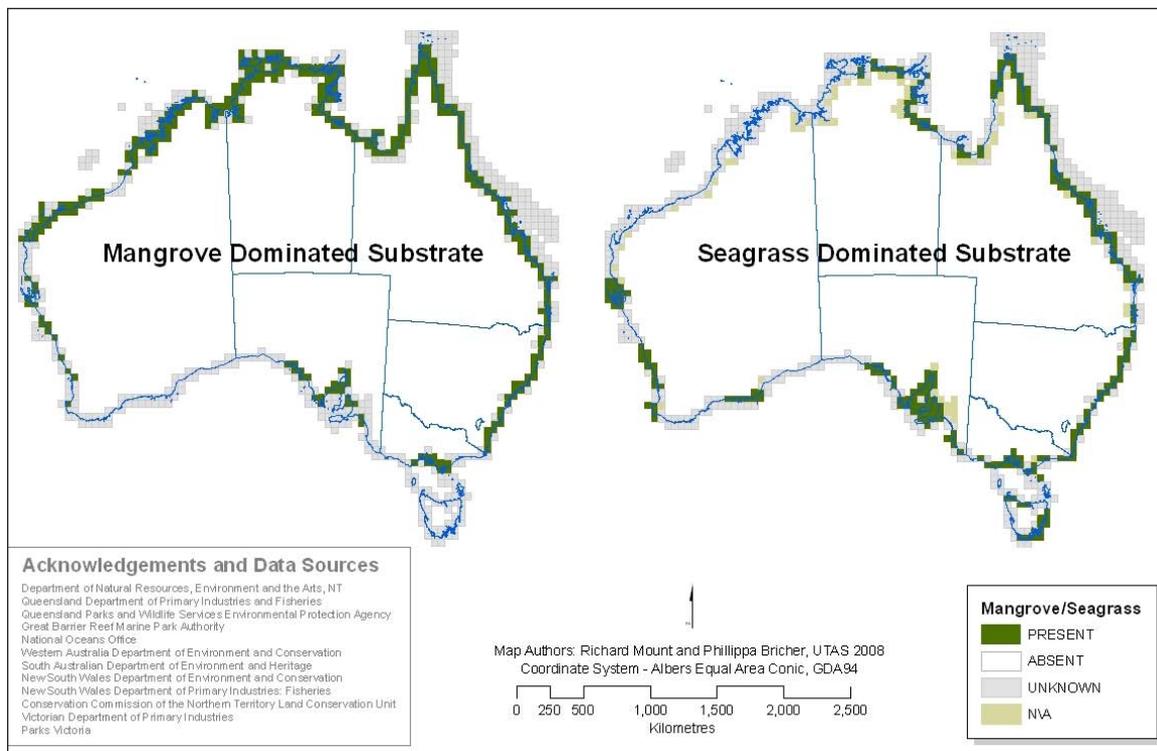
- The Australian Shallow Waters Spectral Library

The Australian Shallow Waters Spectral Library has been developed via a collaboration of CSIRO, NLWRA, Geosciences Australia, state/territory coastal management agencies and selected universities.

It is a comprehensive spectral library of water column optical spectral properties measured in Australia, and can be used for the interpretation of models of satellite imagery to assess sub surface habitat type, extent and where possible condition. Access is via www.ozcoasts.gov.au.

- Acquisition of High Spatial Imagery for priority areas of Australia's coastline

Over 24,000 km² of high spatial resolution Quickbird (2.5 m pixels) satellite data has been acquired of priority locations around Australia. A system for discovery, visualization and access for this imagery will be made available via Geoscience Australia subject to standard use and condition terms.



A sample of habitat distribution maps for mangroves and seagrass produced through the National Intertidal/Subtidal Benthic Habitat Map Series, the first nationally consistent compilation of ECM habitat mapping.

Continuing improvements for reporting

A number of Australian Government, and state and territory initiatives continue to increase capacity to report on estuarine, coastal and marine resources. These include:

- redeveloping the national marine pests monitoring standards and database by the National Invasive Marine Pests Coordinating Group
- major collations of data and information about estuaries by state agencies, particularly in New South Wales, Queensland, Victoria and Western Australia
- expanding mapping programs in deeper marine waters by the Australian Government, NRM regions and state and territory agencies
- applying consistent monitoring methods for seagrass, rocky substrates (reef) and coral reef habitats
- ongoing development of the OzCoasts website by Geoscience Australia as a key piece of information infrastructure
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- emergence and ongoing development of an integrated estuarine assessment framework based on the concept of stressors
- a proposal for acceptance of a generic assessment framework (such as the ECAF) that will support efficient reporting and assessments at regional, state and territory and national levels.

More information

All project reports and publications from the ECM program are available online from the National Land & Water Resources Audit website: www.nlwra.gov.au. To find current national estuarine coastal and marine data and information visit www.ozcoasts.gov.au.

Into the Future

A number of challenges still exist. The following are proposed to address these challenges:

- further development of relationships amongst stakeholders and provision of national leadership
- adopting an assessment framework, such as the ECAF, that gives a logical, practical basis to collecting, managing and interpreting environmental information
- collecting and collating “fundamental” data sets
- producing national standards for data collection and the long term storage of, and access to this data
- producing conceptual models of natural resources as an essential tool for understanding, communicating about and managing these resources
- ongoing identification of NRM “assets” (i.e. “key ecological features”) and management objectives for those assets
- establishing guidelines and national standards around the production of NRM report cards
- training for all parties involved in NRM environmental information management and reporting
- ongoing development of the OzCoasts web site as a major piece of the national ECM information infrastructure
- establishing long-term monitoring programs, especially of key habitats such as intertidal (mangrove, saltmarsh, dune and beach) and soft sediment (sand and mud) habitats.

Program Team

The program was coordinated by Alana Innes (NLWRA), Rob Thorman (NLWRA) and Richard Mount (Spatial Science Group, School of Geography and Environmental Studies, University of Tasmania).

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