



Great Barrier Reef Marine Park

Established 1982 under federal legislation (GBRMP Act)

Binding agreement with regional government (QLD) for day to day management

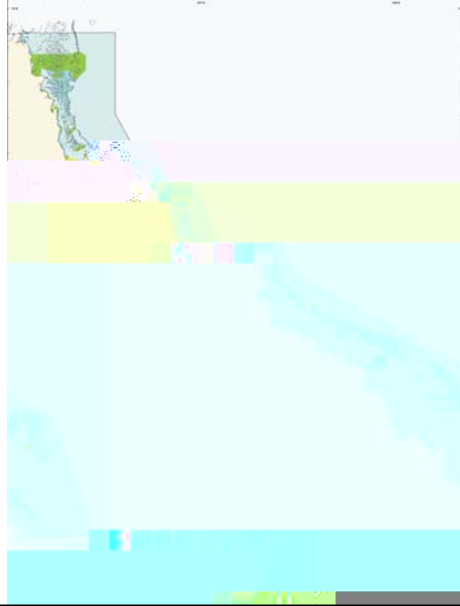
Conservation of the GBR and sustainable use

Spatial zoning and “permitted use” as principle multiple use management tools

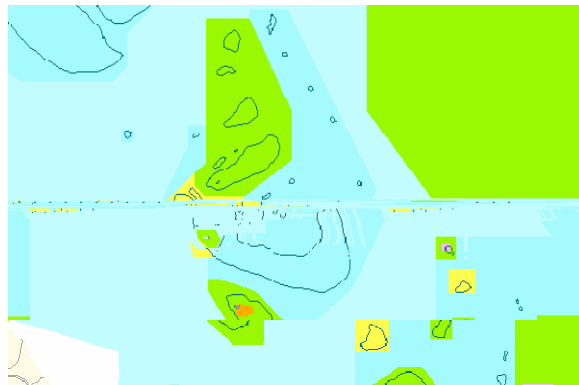
Regional management plans to reflect large-scale differences in ecology of system

The concept of adaptive management explicit from outset (5-7 yr review cycle)

Long history of stakeholder participation in establishment and planning and management



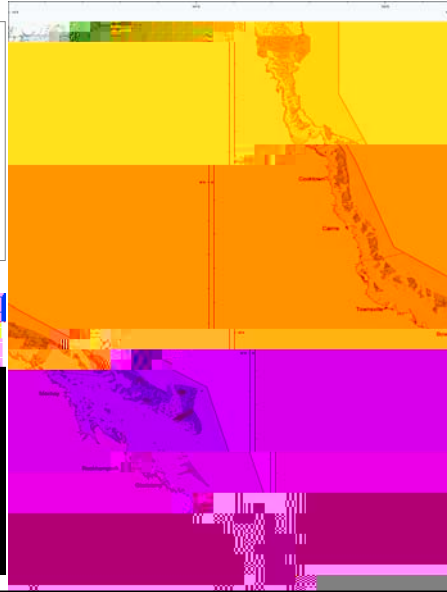
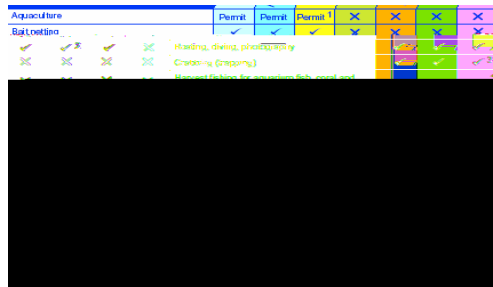
Great Barrier Reef Marine Park





Great Barrier Reef Marine Park – early 1990's

Preservation Zone ('no go')	0.1%
Marine Nat Park ('no take')	4.6%
Scientific Research	0.01%
Buffer Zone (trolling only)	0.1%
Conserv Park (limited fishing)	0.6%
Habitat Protection (no trawling)	15.2%
General Use (reasonable use)	77.9%



Great Barrier Reef Marine Park – Representative Areas Program (RAP)

- Initial zoning based on limited information and best available science at time

- Aim to represent all bioregions in fully protected MPAs

- D02017 TD-0.0003 Tw(Representative Areas Program (RAP))Tj12.8entative Area



Great Barrier Reef Marine Park – Representative Areas Program (RAP)

Biophysical Operating Principles

1. Minimum size 20km across if possible
2. The larger, the better
3. Replicate no-take areas within bioregions to reduce risk
4. Don't 'split-zone' reefs if possible
5. Minimum of at least 20% per bioregion (*reef*) and (*non-reef*).
6. Consider cross-shelf & latitudinal diversity
8. Include examples of all community types & physical environments
9. Consider connectivity
10. Consider special & unique sites/locations
11. Consider adjacent uses

Social, Economic, Cultural & Management Operating Principles

1. Maximise complementarity with adjacent areas
2. Recognise social benefits / costs
2. Complement existing & future management
3. Maximise public understanding & enforceability



Great Barrier Reef Marine Park – 2004

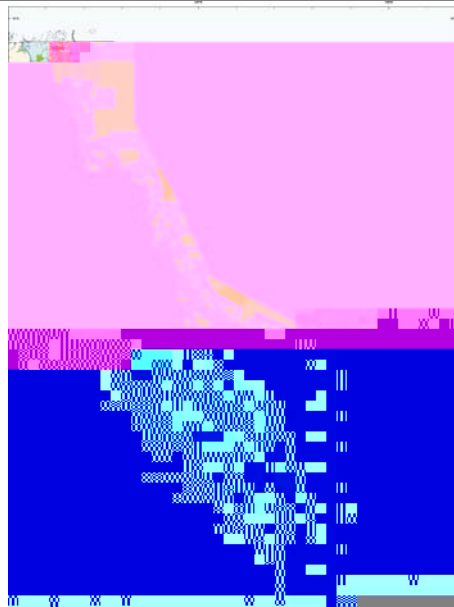
Increased protection of the entire Marine Park, providing a framework for conservation and sustainable use of the GBR.

Over 33% (>117,000 sq km) in highly protected 'no-take' zones (*noting the entire GBRMP is protected*)

Creation of a new network of 'no-take' zones representative of all 70 bioregions (*at least 20% of every bioregion*)

Assistance to fisheries (trawl, line, collection) and coastal communities to minimise social impact and improve economic performance

Forward program focussed on land-based inputs, EBM fisheries and threats of global climate change





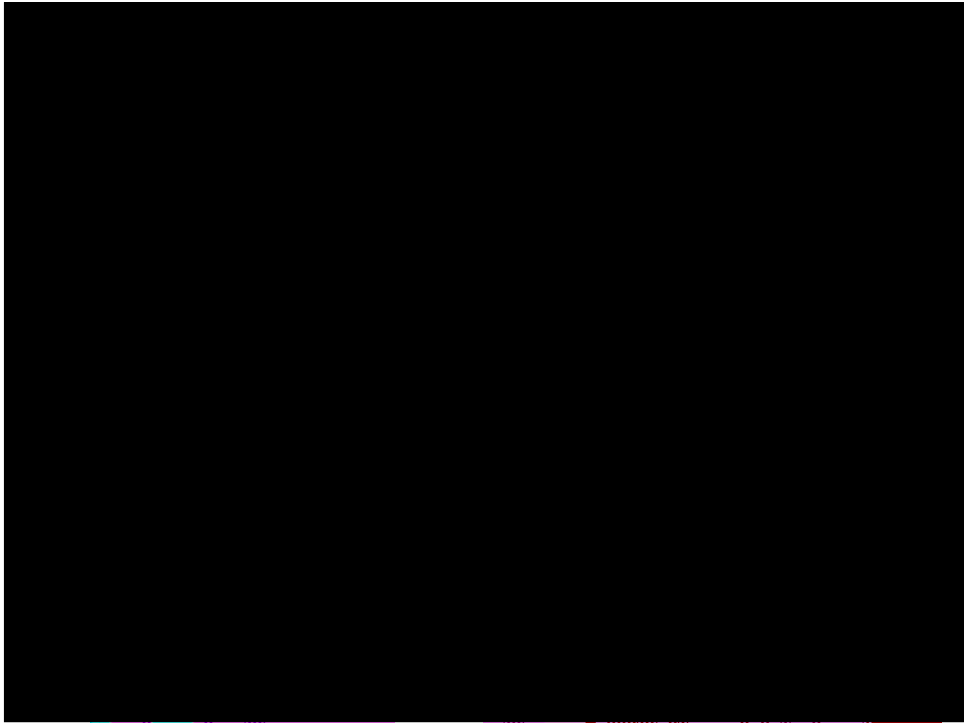
Australia's Oceans Policy

Integrated, ecosystem-based management of oceans

Amendments to primary environment legislation resulting in the *Environment Protection and Biodiversity Conservation Act 1999* provide for strategic assessment of potential impacts of activities

Key initiatives

- **Marine Bioregional Plans**
- **National System of Representative Marine Protected Areas (NSRMPA)**
-





South East Regional Marine Plan

- Broad Areas of Interest for MPA siting identified based on representative criteria for biodiversity at provincial and biomic levelled

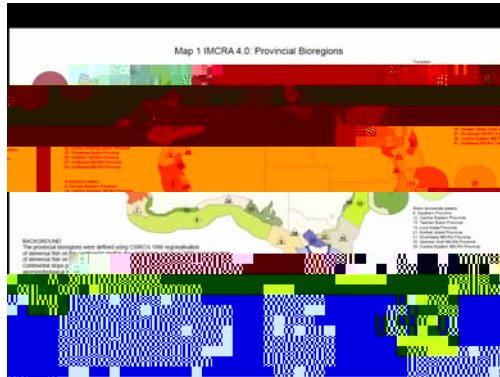




National Marine Bioregionalisation - Spatial planning framework for EBM

Benthic bioregionalisation

- Provinces (46)
 - Centre of endemism
 - Transitional communities
- Biomes
 - shelf to abyss depth structure
- Biogeomorphological units
 - Large-scale features



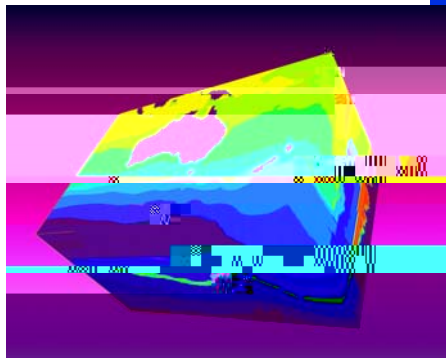
National Marine Bioregionalisation - Spatial planning framework for EBM

Pelagic regionalisation

3D regionalisation of water masses

Based on:

- Physical ocean properties
 - Primary production
 - Phytoplankton community structure
- Multi-levels (water masses to features)
Need to test surrogacy assumptions





Transition to EBFM - Strategic Assessments of Fisheries

Under EPBC Act commercial fishing is considered trade in native wildlife

All Commonwealth fisheries, and state fisheries that export product, are required to undertake a strategic assessment against specific criteria to determine whether the fishery is ecologically sustainable

The assessment is based on fisheries management plans for each fishery, which are prepared by the fishery management authority, for approval by the Minister for Environment.

There are two classes of approval:

- § Exemption: Exempt from provisions of the Act with 5 year review of operation of the fishery against assessment criteria
- § Permit: Permit to export is approved with conditions requiring improvement in specific aspects of the fisheries operation to meet assessment criteria within a specified period (generally 1-2 years)



Transition to EBFM – ecological risk assessment of effects of fishing

Developed in partnership with fisheries and environment agencies and stakeholders

Designed to provide consistent method for ecological risk assessment for strategic assessment of ecological impacts of fisheries

Formally recognised by fisheries and environment agencies for use in strategic assessment

Provides for stakeholder input and expert opinion

Is explicitly risk averse in the face of uncertainty (lack of information on potential impacts results in risk avoidance)

Provides a formal framework in which to assess the value of information



Transition to EBFM - ecological risk assessment of affects of fishing

Risk from what to what?

The risk that fishing activities pose to achievement of (environmental) management objectives relevant to each component of the ecosystem

Comprehensive list of “activities” considered

5 ecological components evaluated

- § Target species
- § Byproduct and Bycatch species
- § Threatened, Endangered and Protected species (TEP)
- § Habitats
- § Communities (including food chains)



Transition to EBFM - ecological risk assessment of affects of fishing

Hierarchical approach with three levels of assessment that allows screening & elimination of low risk and cost-effectiveness

