



STATUS REPORTS

The following ten Status Reports outline progress and future work on some actions contained in the 'Action Plan.'

STATUS REPORT 1

Adaptive Management and Performance Assessment for the South-east Marine Region

ACTIONS: 2.10 AND 4.1

These actions collectively contribute to the development of a comprehensive adaptive management framework which includes the performance assessment system for the South-east Marine Region.

DESCRIPTION

The Australian Government is committed to a transparent, accountable and effective approach to ecosystem-based management and multiple-use management. Adaptive management is a cyclical process through which the effectiveness of management decisions is reviewed and revised if necessary.

Australia's Oceans Policy states that management needs to be capable of rapid responses to the assessment of adverse impacts in order to manage for uncertainty. Ocean planning and management should also include the development of outcome-based performance indicators and performance assessment procedures. Performance assessment should include monitoring of both human activities and ocean health in a manner that is open and transparent, with results made publicly available (*Australia's Oceans Policy*, 1998, vol. 1, pp. 12, 13, 38).

The use of the Oceans Adaptive Management Framework described below builds on the programs of sectoral management agencies, and will improve efficiency in monitoring and reporting requirements. It allows us to measure our progress towards ESD in the Region across all sectors. The Framework is a new and ambitious concept that brings together management and assessment of all elements of the ocean system for the first time.

Therefore the implementation of the Framework will be staged to allow sectors and agencies to work through the relevant steps, and the issues they generate, in a considered manner.

The adaptive management theory can also include formal experimental evaluation of management strategies. While the Framework described here does not explicitly include this, it can easily accommodate it.

In addition, some actions in the Plan target Management Strategy Evaluation for the South-east Marine Region.

PROGRESS TO DATE

Progress to date has been in three key areas of work:

1. Describing the Oceans Adaptive Management Framework;
2. Developing a process for setting measurable objectives; and
3. Undertaking a 'stocktake' of performance assessment systems currently in operation which are relevant to regional marine planning.

1. Describing the Oceans Adaptive Management Framework

The aim of adaptive management is to ensure that:

- the management, regulatory processes and policy measures that the Government uses contribute to desired environmental, social and economic outcomes and mitigate identified threats to ecologically sustainable development; and
- expenditure by the Government on behalf of the Australian people is appropriate, effective and efficient.

The ocean is a dynamic system over which we have little direct control. Natural variability is high and our understanding of how ecosystems work is very limited, as is our understanding of the complex interactions within a multiple-use environment. In such a system it is essential to base management on an understanding of ecosystem boundaries and characteristics, that is ecosystem-based management, rather than on arbitrary human-imposed boundaries. Multiple-use management also provides us with the ability to manage complex interactions by jointly considering all uses of the same ocean resource so that their overall impacts on the oceans, and the impacts they have on each other, can be understood.



We can continuously improve management through regular review of existing management, regulatory processes and policy, and by considering ecosystem trends, new information and technologies, and changing social values.

Using a risk-based approach to adaptive management we acknowledge that we are managing uses and activities, and not ecosystems directly. Therefore management actions have a direct effect on human uses and activities but only indirect effects on ecosystem, social and economic outcomes.

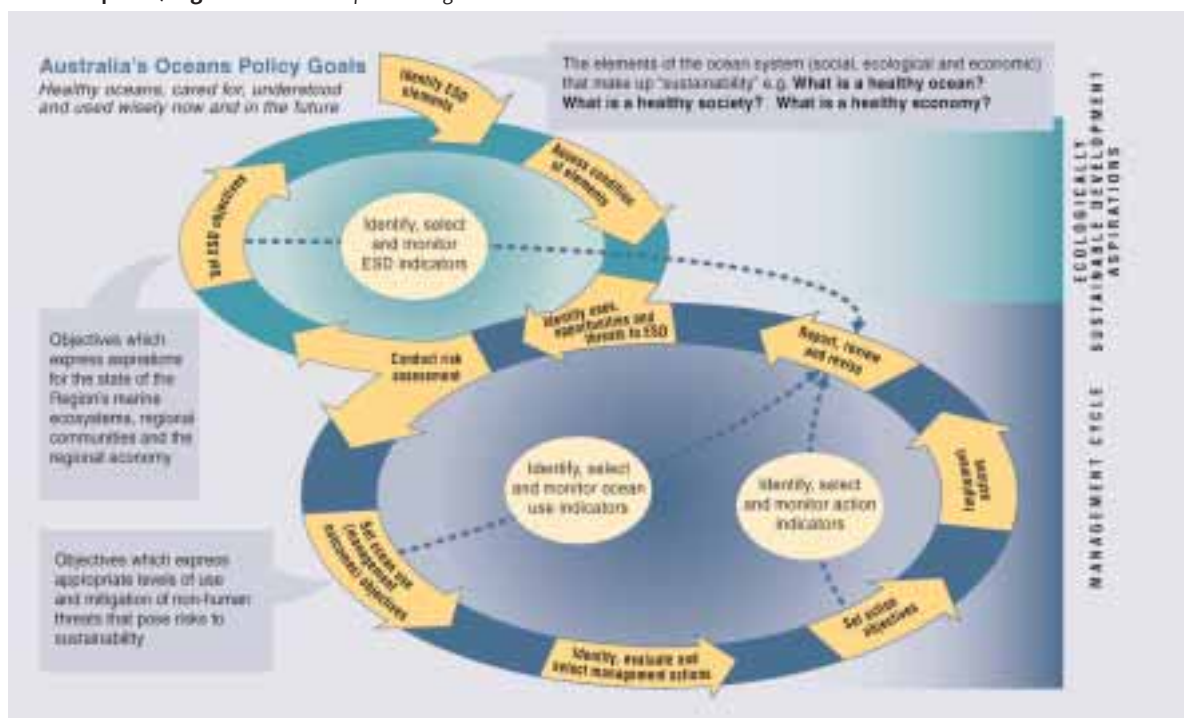
For this reason, the Adaptive Management Framework is divided into two cycles, sustainability aspirations and the management cycle, interlocked via human uses (Status Report 1, Figure 1):

- ‘Ecologically sustainable development aspirations’ refers to our aims for sustainable environment and social and economic systems. Oceans managers and planners are not able to manage these directly but have a capacity to influence them through management actions; and
- ‘Management cycle’ refers to the objectives and actions undertaken within organisational and management systems. An organisation may be held accountable for meeting the objectives and doing actions through a performance assessment system.

The key steps in the Oceans Adaptive Management Framework are:

- **Identify the Ecologically Sustainable Development (ESD) elements.** This defines the aspects of ecosystems, society and the economy that are critical for sustainability.
- **Assess the current condition of those ESD elements** and any trends.
- **Identify uses, opportunities and threats to ESD for oceans and analyse risks.**
- **Set clear, measurable objectives** that are linked to **identified indicators** that we can measure to see how we are going in meeting our objectives. Under the Oceans Adaptive Management Framework there are three types of objectives and their associated indicators:
 - *ESD objectives* identify our aspirations for our environmental, social and economic systems. *ESD indicators* measure progress towards these objectives.

Status Report 1, Figure 1: Oceans Adaptive Management Framework





- *Ocean use objectives* (management outcomes) identify how we want identified human uses or non-human threats to respond to management to help us meet our sustainability objectives. *Ocean use indicators* measure the effectiveness of management actions in appropriately regulating human use of the oceans
- *Action objectives* identify the actions that we are implementing to meet our ocean use (management outcomes) objectives. *Action indicators* measure the efficiency of management actions in terms of actions done and resources spent.
- While initially objectives are very high-level, all types must be systematically defined at an 'operational' level, which means they need to be specific, measurable, achievable, identify targets and be time-bound. Finalising the objectives and associated indicators for the South-east Marine Region will be the result of a process involving stakeholders, technical experts and governments. Not all indicators that are identified will be monitored because of resource, technology and logistic constraints. A cost-benefit analysis will be undertaken to identify the set of indicators that will provide the most information for the least cost. The assumptions that are made in choosing those indicators will also be articulated.
- Decide what management action to take based on an **evaluation of the range of management actions**, and then **implementing the actions**.
- **Monitor** the indicators and **assess** how they are performing in relation to the desired objectives.
- **Report on performance** towards the objectives.
- **Review and change management** when objectives are not being met.

2. Developing a process for setting measurable objectives

The objectives listed in the *South-east Regional Marine Plan* are aspirations for the Region held by all those with a stake in the Region and its management. This includes industry, the wider community and government. While these objectives provide a broad overview of what we want for the South-east Marine Region they are not operational, that is they are not stated in measurable terms, which will make it difficult to determine whether we are actually meeting them. For the Adaptive Management Framework and performance assessment system to function effectively, the objectives for the Region need to be defined in a clear and structured way in measurable terms.

The process for developing and finalising operational objectives for the South-east Marine Region, and hence for defining indicators, will build on the work undertaken throughout the planning process. The process will include two streams of work: developing objectives for ESD and for ocean use (management outcomes); and ensuring that action objectives as outlined in the *'Action Plan'* are measurable with indicators assigned.

Developing objectives for ESD and for ocean use (management outcomes)

- Collate all objectives already identified through the south-east regional marine planning process, categorise them into objectives for ESD, for ocean use (management outcomes) and for actions, and identify whether or not they are measurable.
Who: *National Oceans Office*
- Develop draft ESD elements (arranged in a hierarchical way called an 'element tree') for the South-east Marine Region. The proximate parts of the element tree identify those elements for which ESD objectives need to be set.
Who: *National Oceans Office*
- Seek expert advice on the ESD elements and revise if necessary.
Who: *National Oceans Office in conjunction with advice from ecosystem, social and economic experts*
- Using the collated objectives, identify the elements that have existing objectives (both ESD and ocean use (management outcomes) and also identify those elements for which there are gaps in objectives.
Who: *National Oceans Office*



- Agree on the ESD elements for the South-east Marine Region, fill in gaps in objectives and agree on ESD objectives. Setting these objectives will be informed by risk assessments and by the information obtained in the assessment phase (particularly that contained in the impacts, ecosystems and resources reports). This work will be done through cross-sectoral work including all sectors, government, and expert advisers (ecological, social and economic).

Who: National Oceans Office with Australian Government agencies, stakeholders and expert advisers

- In parallel with setting ESD objectives, objectives for ocean use (management outcomes) will be developed.
Who: National Oceans Office with Australian Government agencies, stakeholders and expert advice
- Identify and agree on appropriate potential indicators of objectives for ESD and ocean use (management outcomes).
Who: National Oceans Office with Australian Government agencies and expert advice

Developing Action Objectives

Concurrently with developing the objectives for ESD and for ocean use (management outcomes) each action in the 'Action Plan' needs to be stated in a measurable way and indicators chosen.

Who: National Oceans Office with lead agencies and partners

Completing the objective-setting process

To complete the objective-setting process, the action objectives need to be matched to the higher-level objectives and decisions made about the indicators that will be monitored.

- Match the action objectives to the relevant ocean use (management outcomes) objectives and ESD objectives.
Who: National Oceans Office
- Conduct cost-benefit analysis of indicators to determine which ones will be monitored. As stated in the Adaptive Management Framework, not all indicators identified will be necessarily monitored if there are resource, technology and logistic constraints. A risk-based cost-benefit analysis will be used to identify those indicators that will provide the most information for the least cost.

The assumptions that are made in choosing those indicators will also be articulated.

Who: National Oceans Office with all Board agencies, and expert advice

- Distribute completed ESD elements, objectives for ESD, for ocean use (management outcomes) and for actions and associated indicators, revise based on comment and provide to the National Oceans Ministerial Board for approval.
Who: National Oceans Office with Australian Government agencies, stakeholders and expert advisers

3. A stocktake of performance assessment systems

The National Oceans Office has commissioned a project to identify and evaluate existing performance assessment systems in the Australian Government (being undertaken by the Bureau of Rural Sciences and ABARE). An interim report has been received which focuses on 11 systems particularly relevant to the South-east Marine Region. The review includes information on scale, scope, objectives, indicators, and reporting cycles. This information will be used in the further development of the Adaptive Management Framework and performance assessment system to ensure that where possible the framework builds on and enhances work already being done to assess performance in the Region.

FUTURE WORK PROGRAM

The future work program for the development of the Oceans Adaptive Management Framework and the performance assessment system includes the following actions:

- Further develop hypothetical examples of the Adaptive Management Framework and performance assessment system (June 2004)
- Agree on a schedule for setting objectives (June 2004)
- Finalise the stocktake project (June 2004)
- Establish agreed ESD elements and objectives through the objective-setting process (January 2005)
- Implement the Adaptive Management Framework for the Region (ongoing).



STATUS REPORT 2

Marine Education Needs and Priorities

ACTION 3.1.1

Identify needs and set priorities for marine science, education and training through a coordinated Australian Government approach.

DESCRIPTION

Marine education is essential for fostering stewardship of the marine environment. In the context of *Australia's Oceans Policy* this includes fostering a greater understanding of all ocean users and their respective needs, differences and interests. Education is critical to bringing about cultural change which recognises the complexity of the marine environment and the way it is used. In response to the pivotal role of education in implementing *Australia's Oceans Policy*, the draft Plan included the action 'develop and implement a South-east Marine Region education strategy'. This work aimed to identify and build on current marine education initiatives in the Region as well as identifying and addressing key gaps. The work takes a holistic approach to education, recognising the different needs of more formal education (primary, secondary and tertiary), the general community, Indigenous communities and industry.

PROGRESS TO DATE

A draft education strategy has now been developed by the National Oceans Office. This strategy summarised current education initiatives in the Region and nationally, and identified key needs of the education community with regard to marine education resources. From this strategy, an Education Action Plan has been publicly released and includes initiatives such as:

- Developing and implementing an Oceans Office marine education strategy to ensure that information is provided to all education sectors in an appropriate way;
- To reach the formal education sector, incorporating marine issues in the development of a National Environmental Education Program and, in the shorter term, developing teaching packages called 'tackle boxes', which contain marine education resources for schools;
- For the wider community, supporting the establishment of a Marine Discovery Centre (MDC) network and providing the network with oceans education resources to reach the community;
- For tertiary marine science, education and training, identifying needs and setting priorities for a coordinated Australian Government approach; and
- To provide an avenue for government, industry and communities to explain how the ocean is being used and managed, piloting a 'regional' tourism trail which focuses on information about the local marine environment, seafood industries, Indigenous culture, and marine science and education.

A number of other actions in the Plan that are not specifically 'education actions' will also contribute to fostering stewardship and improving understanding of the South-east Marine Region.

FUTURE WORK PROGRAM

The future work program for education will be focused on the implementation of the actions identified in the *South-east Regional Marine Plan*.



STATUS REPORT 3

Key Economic Issues Facing Marine-based Industries in the Region

ACTION: 1.3.2

Undertake scoping studies to identify economic issues and strategic directions for marine-based industries within the Region.

DESCRIPTION

As outlined in *Australia's Oceans Policy*, the Australian Government is committed to the goal of promoting ecologically sustainable economic development and job creation for marine-based industries (*Australia's Oceans Policy*, 1998, vol.1, p 4). The first step in achieving this goal involves gaining a better understanding of the economic pressures and operational issues that face marine-based industries.

To inform the development of this Plan, the National Oceans Office undertook preliminary research into the range of pressures facing marine-based industries within Australia's South-east Marine Region. This broadly-based research and the subsequent stakeholder consultation process identified a need for more formal scoping studies to be done.

PROGRESS TO DATE

The National Oceans Office engaged the Australian Bureau of Agricultural and Resource Economics (ABARE) to undertake a project to identify the key economic issues facing marine-based industries operating in Australia's South-east Marine Region, their causes, and an indication of areas where further work may be needed. This work identified and reviewed:

- the importance of each marine industry to the local, regional and national economy;
- cross-cutting macroeconomic drivers that are likely to affect the Region's marine industries and their strategic direction;
- the main strategic directions of the Region's marine industries and key economic forces driving them in this direction; and
- areas where further, more detailed understanding of both directions and drivers is required for the marine industries of the South-east Marine Region.

PRELIMINARY FINDINGS

Marine-based industries in the Region include: fisheries (aquaculture, commercial and recreational fishing); seawater and seabed mining (oil and gas, offshore mining); marine-related manufacturing (biotechnology, ocean waste disposal, ship/boat building); seabed energy infrastructure (electricity transmission lines); marine-based tourism; marine-based transport (shipping and ports and marinas); and seabed communications infrastructure (submarine cables). The following preliminary views are:

- These industries supply domestic and international markets and are largely influenced by international as well as national trends (e.g. global fisheries catches, oil prices) and new and developing technologies (e.g. petroleum exploration and extraction, fishing efficiency).
- World economic growth, world trade, world energy trade and prices, Australia's economic growth, and Australia's population dynamics have been identified as important cross-cutting macroeconomic industry drivers that are likely to affect the Region's marine-based industries and their strategic direction.



The areas where a more detailed understanding of strategic directions or drivers for marine-based industries is required include:

- **Aquaculture and wild fisheries:** trends in domestic and international markets for aquaculture and wild fisheries products to increase understanding of likely future returns from fisheries products.
- **Marine tourism:** more specific information on the numbers of tourists likely to visit the South-east Marine Region, and the specific types of activities that attract them there.
- **Seabed and seawater mining:** the economic viability of oil and gas resources in basins (other than the Gippsland Basin) where exploration is currently being carried out in the South-east Marine Region.
- **Maritime transport and trade:** planned port developments in Victoria and Tasmania, and regional transport strategies.

FUTURE WORK PROGRAM

The National Oceans Office will pursue work with other agencies to determine priority areas for future studies so as to assist in dealing with emerging issues and industry trends.



STATUS REPORT 4

Multiple-use Management Case Study

ACTION 1.6.1

Compile a list of tools and approaches for achieving multiple-use management initially through case-studies in the Otways area. Examine the scope and application of a multiple-use management model.

DESCRIPTION

The Case Study provides an opportunity to learn lessons from existing multiple-use management processes – management processes that need to consider the interests of multiple users. It will do this by documenting and collaboratively evaluating a range of management processes developed for specific management issues in the Otways area – the area of ocean from Robe in South Australia to Macquarie Harbour in Tasmania. It is focused on understanding how sectors/users are currently working together to achieve their own objectives and is designed to identify effective processes for doing this, including the aspects of stakeholder consultation, information sharing, conflict resolution and achieving outcomes. The Case Study is not aimed at setting benchmarks, reviewing regulation or determining new arrangements that restrict current uses and activities. It is a theoretical exercise focused on learning from previous experiences (i.e. not linked to any regulations or administrative procedures) that will not delay existing approvals processes.

The Case Study will:

- Document specific examples of multiple-use management processes in the Otways area;
- Identify a range of effective approaches and tools for multiple-use management at different scales in the Region; and
- Identify opportunities to improve existing multiple-use management processes, and where appropriate, facilitate practical outcomes in consultation with management agencies and key stakeholders.

The Case Study is being progressed in two phases.

The first phase is focused on developing the Case Study method to ensure that the approach to reporting and evaluation is objective and consistent. Phase two is mostly focused on documenting and evaluating the selected multiple-use management processes.

The findings of the Case Study will be collaboratively evaluated (including participation from relevant agencies of the Australian and State governments and also key stakeholders) using the direction provided in *Australia's Oceans Policy*, including:

- Deal fairly with all interests;
- Integrate across institutional, jurisdictional and policy boundaries;
- Allow for flexibility and adaptability of governance;
- Ensure transparency of processes and accountability of decisions;
- Engender stewardship and a duty of care amongst ocean users and managers;
- Provide certainty about rights and responsibilities of ocean users and managers; and
- Use public funds efficiently.

PROGRESS TO DATE

A Working Group comprising representatives from South-east States and Australian Government agencies have helped to identify suitable management processes for inclusion in the Case Study and to discuss the development of the project. The following multiple-use management processes have been identified for inclusion in the Case Study:

1. **Interactions between giant crab and trawl fishers** – focusing on the current process for developing ways to manage interactions occurring off the west coast of Tasmania;
2. **Interactions between conservation, fishing and petroleum exploration** – focusing on processes for planning and conducting seismic survey;
3. **Efficiencies for integrating conservation measures** – focusing on recent government and stakeholder efforts to integrate the conservation of shark species;



4. **Sustainable industry expansion** – focusing on the application of the Australian Government’s Acreage Release Process for expansion of offshore petroleum exploration;
5. **Ecosystem health** – focusing on the trial of methods for multiple-use risk assessment, initially covering ecosystem impacts;
6. **Indigenous participation** – focusing on the Australian Government’s approach to development of a Sea Country Plan for the Framlingham/Windamara Indigenous communities in Victoria; and
7. **Stakeholder awareness and communication** – focusing on the stakeholder engagement process for the development of the Draft *South-east Regional Marine Plan*.

The Working Group has also provided advice on the approach for reporting and evaluating, and the work program for documenting the management processes listed above. To maximise stakeholder participation and information sharing, the Working Group agreed that work on the *interactions between conservation, fishing and petroleum exploration* will be deferred until the outcomes of pending projects and reviews have been determined.

FUTURE WORK PROGRAM

The future work program is primarily about implementation of the second phase of the Case Study. This will include discussions with key stakeholders and management agencies on reporting and evaluation of management processes included in the Case Study.

Opportunities to improve the existing multiple-use management processes included in the Case Study will be discussed, and where appropriate facilitated, in consultation with government agencies and key stakeholders.



STATUS REPORT 5

Pilot Sea Country Plans

ACTION 3.11.2

Provide support to Indigenous communities through the development of Sea Country Plans as a potential vehicle for Indigenous involvement in natural resource use and management processes, including through regional natural resource management.

DESCRIPTION

To plan and initiate two pilot Sea Country Plans in South-west Victoria and South Australia in collaboration with coastal Indigenous groups.

Sea Country Plans are a mechanism for Indigenous people to:

1. Consider and plan their interests and responsibilities relating to the use and management of marine areas with which they are culturally associated.
2. Negotiate with other marine managers and users to develop policies and institutional arrangements that are respectful of Indigenous people's rights, interests and responsibilities in Sea Country.
3. Seek resources and other support to enable Indigenous people to use and manage their Sea Country according to their rights, interests and responsibilities.

COMMUNITY/LOCAL AREA AND CURRENT MARINE INVOLVEMENT

A Victorian Pilot Sea Country Plan was developed in collaboration with the Gunditj Mara people whose Sea Country extends (approximately) from Lorne in the east to the Victorian/South Australian border in the west. The Winda-Mara Aboriginal Corporation and the Framlingham Aboriginal Corporation are representing the interests of Aboriginal people in the development of the Plan.

These people have a long history of management and dependence on marine resources. Their pre-colonial society and economy was built around access to and utilisation of coastal and marine resources. The unique lifestyle and continuing culture of the Indigenous people of the area includes a strong focus on their utilisation of the short-finned eel, a migratory species which links the land-based activities of the local people to the South-east Marine Region.

ISSUES FACING INDIGENOUS COMMUNITIES

Key issues that were identified in the planning process are:

1. Involvement in decision making on matters affecting access to and protection of their marine resources and habitat.
2. Addressing land-based impacts on marine and aquatic habitats.
3. Equity in sharing of economic benefits of exploitation of marine natural resources.

BACKGROUND

The development of Pilot Sea Country Plans is in response to several studies and strategic initiatives relating to the recognition of Indigenous rights and interests in marine environmental and resource management. These include the *Coastal Zone Inquiry* (1993), the development of an *Aboriginal and Torres Strait Islander Fisheries Strategy* (1998) and consultations during the preparation of the *South-east Regional Marine Plan*. These processes confirmed that particular groups of Indigenous people have an ongoing cultural attachment to and a broad range of interests and responsibilities in specific areas of coastal land and sea, which are difficult to accommodate in State or national planning or management processes.

The development of Sea Country Plans that recognise this fundamental relationship between Indigenous people and their Sea Country might address the spectrum of interests at the appropriate geographic scale. Therefore they may be a potential vehicle for more effective Indigenous involvement in natural resource management.



DESCRIPTION OF PLANNING PROCESS (PROJECT MANAGEMENT)

- The planning process was endorsed by an Indigenous Reference Group from the South-east Marine Region, who provided advice on potential pilot project areas.
- Dr Dermot Smyth and Mr Steve Szabo, consultants with many years' experience in strategic planning and policy development relating to Indigenous peoples' rights and interests in environmental and resource management, were contracted to facilitate the development of the two pilot Sea Country Plans in collaboration with representative Aboriginal organisations.
- The South-west Victorian Pilot Sea Country Plan outlines key marine and coastal environmental and resource management issues of concern to Aboriginal people, and explores options for enhancing their involvement in decision making.
- Consultations with the Native Title Unit of the Aboriginal Legal Rights Movement of South Australia commenced in November 2003, but due to unavailability of key Indigenous people and organisations it was not possible to formally commence the South Australian pilot study in 2003. An initial planning meeting with the Aboriginal Legal Rights Movement, during which options for pilot areas and communities will be discussed, is scheduled for early 2004.

FUTURE WORK ON THIS PILOT PROJECT INCLUDES:

- Completion of a South Australian pilot Sea Country Plan.
- Supporting negotiations between Indigenous groups and other marine managers regarding the implementation of the Pilot Sea Country Plans.

PRELIMINARY OUTCOMES

The completion of the South-west Victorian Pilot Sea Country Plan has already demonstrated that such Plans can:

- Meet the *Australia's Oceans Policy* commitment to engaging Indigenous people in marine planning at an appropriate geographic scale and across a spectrum of cultural, ecological and economic issues.
- Assist government agencies and other stakeholders to better understand Indigenous people's interests and responsibilities with respect to their Sea Country.
- Provide a framework for constructive negotiations between coastal Indigenous groups, government agencies and other marine stakeholders on future use, management and equitable benefit-sharing of marine environments and resources.
- Build a more integrated and cooperative approach to marine resource management.

PRELIMINARY RECOMMENDATIONS

- Mechanisms, such as Sea Country Plans, which engage Indigenous communities in marine resource management at culturally appropriate scales, should be an integral part of future regional marine planning. They should be considered more broadly as a vehicle for effective Indigenous engagement in natural resource management.
- Sea Country Plans have sufficient flexibility to cater for variation in Indigenous interests and responsibilities within regions and enable regional marine plans to be more responsive to local cultural, social and economic requirements.



- Sea Country Plans could potentially be an important tool for implementing a range of government environmental and social initiatives of importance to Indigenous people. Examples include the Australian Government's *Aboriginal and Torres Strait Islander Fisheries Strategy*, and the Victorian Government's *Indigenous Partnership Strategy*, as well as Indigenous components of Natural Resource Management Regional Plans funded through the second phase of the *Natural Heritage Trust*.
- The National Oceans Office should facilitate the development and implementation of Sea Country Plans as part of its ongoing role in regional marine planning.
- Sea Country Plans have the potential to inform and be implemented (in whole or part) through regional natural resource management processes supported by the *Natural Heritage Trust*.



STATUS REPORT 6

Development of a Decision Support Toolkit for Estuarine Managers in the Region

ACTION: 2.8.3

Support the development of a decision support toolkit for estuarine managers in the Region.

DESCRIPTION

As part of the assessment phase for the development of the *South-east Regional Marine Plan*, the report, *Ecosystems: Nature's Diversity*, was produced. It documented a clear biophysical relationship between estuaries and inshore and offshore marine ecosystems. In summary, estuaries form a critical link to the broader marine ecosystem:

- as a primary production zone;
- as an integral link in the cycle of nutrients and food energy to and from inshore and offshore marine systems;
- as critical spawning grounds, nurseries and sheltered feeding grounds for many commercially, recreationally and ecologically significant species in the South-east Marine Region; and
- as both buffer and conduit for excess nutrients, sediments and contaminants originating on land, that then cycle through the entire marine ecosystem. (See Appendix 3, Figure 5, page 96.)

ISSUES

The importance of estuaries presents two issues for regional marine planning in the South-east Marine Region. It demonstrates that sustainably managed estuaries are integral to the overall health of the marine ecosystem; and it highlights the importance of ensuring that estuarine and catchment managers and users understand the link between estuarine and offshore marine environments, and respond appropriately.

At present in the South-east Marine Region, the management of the majority of estuaries is guided by general policy frameworks, for example legislation and regulation, catchment management plans, and programs such as the *Coastal Catchments Initiative*, the *National Water Quality Management Strategy* and the *National Principles for the Provision of Water for Ecosystems*.

A few estuaries have specific management strategies and scientific investment, including the Derwent, D'Entrecasteaux and Huon estuaries, Tasmania; and Port Phillip Bay, Victoria. Consequently, there are disparate levels of knowledge and management for estuaries. Therefore, a logical first step to facilitate better estuarine management is through the development of decision support systems for managers.

One of the challenges facing estuary managers is 'knowing where to start': such as knowing what information to gather towards answering relevant planning and management questions (for example, siting aquaculture developments), how to interpret that data, and how to predict changes in an estuary as a result of management decisions and outcomes.

In addition, a difficult aspect of estuarine management is the ability to visualise the cause, effect and ultimately results of various natural events and/or management strategies for a particular estuary. Data, and in particular, models, rely on users and managers having a high degree of understanding of the information and abstract representations of results to grasp their real meaning and implications.

PROJECT

Within the South-east Marine Region, the presence of well-studied estuaries with ongoing management programs has provided an opportunity to develop software that:

- effectively demonstrates the utility of estuarine data and modelling for management;
- assists estuarine managers in interpreting and presenting their data and undertaking scenario modelling; and
- can be trialled and will be transferable to other estuaries to guide management projects with regard to information gathering and management strategy evaluation.



The project will utilise the data available through the Derwent Estuary Program to trial the visual presentation of complex scientific data to non-technical audiences. It will also provide an excellent national case study on methods to integrate monitoring and modelling data with water quality targets using visualisation software.

The project addresses a number of priorities identified in both the *South-east Regional Marine Plan* and the *National Water Quality Management Strategy (NWQMS)*, recognising the links between catchments and marine environments. In particular, the project will:

- identify values and permissible pollution levels for coastal water bodies in accordance with the NWQMS;
- raise community and industry awareness of the importance of monitoring and build capacity for enhanced participation; and
- support the development of a decision support toolkit for estuarine managers.

FUTURE WORK PROGRAM

When the project is complete it will be of practical value to the Derwent Estuary Program and will be transferable to other estuaries. It will enhance the use of monitoring and modelling data to support more effective management. The display, analysis and interpretation of estuarine water quality data will be greatly enhanced through the visualisation tools which will be developed as part of this project. The project will result in the development of one component of a decision support tool – Data Model Access and Visualisation Software – to assist managers in evaluating outcomes of alternative management actions on estuarine health indicators and targets.



STATUS REPORT 7

Risk Assessment

ACTION 2.9.1

Develop and apply methods of multiple-use risk assessment for threats to the marine environment, industry and communities.

ACTION 4.2.3

Assess the cumulative, social, economic and ecological impacts of multiple uses in the Region to determine priority issues and areas for research and management.

DESCRIPTION

Risk assessment is an essential tool for managers to achieve a precautionary, adaptive and ecosystem-based approach to oceans planning and management. Risk assessment is a critical step in the Adaptive Management Framework. (Refer to Status Report 1 for 'Adaptive Management and Performance Assessment in the South-east Marine Region'.)

Risk assessment is characterised by systematic and transparent analysis of information to predict and describe likely outcomes of specific events that may occur and the magnitude of their consequences. This leads to the identification of priorities for management responses and further research. Risk assessment can be used to underpin many aspects of decision making for oceans management.

While risk assessment has been applied in many areas of environmental management, there is a need to develop a standard approach to assessing risks to all aspects of the sustainable use of broad areas of ocean.

A multiple-use risk assessment approach to be applied in the South-east Marine Region is being developed. This risk assessment approach will:

- Assess risks to ecosystems, economies and communities in an integrated way;
- Simultaneously consider the cumulative impacts arising from multiple uses and threats;
- Build on rather than duplicating existing risk assessment processes;
- Be open and transparent and involve stakeholders at various stages;
- Use a staged approach to risk assessment consisting of an overview phase and subsequent more detailed investigations where appropriate; and
- Be consistent with the Australian and New Zealand environmental risk assessment standard.

This risk assessment approach will identify current and emerging threats to marine ecosystem health, and marine-dependent industries and human communities. It will also assist in determining appropriate planning and management responses to those threats.

Within the Oceans Adaptive Management Framework, multiple-use risk assessment adopts a methodical and staged approach to the analysis of system elements (for example, ecosystems, economies and society) and their potential threats (for example, human uses, policy changes etc.) based on available information. The cumulative effect of some threats or groups of threats also needs to be considered. The first stage of multiple-use risk assessment is a broad analysis of system elements and threats to identify management and research priorities. Subsequent phases of risk assessment focus on a narrower spectrum of elements and threats that require a more detailed examination.

The steps of multiple-use risk assessment are:

1. Description of activities or processes that constitute a source or risk; the description includes their nature, frequency and location;
2. Identifying the elements of the ecosystem (ecological, economic, socio-cultural) that might be impacted upon and the nature and location of these elements;
3. Description of the potential impacts on the selected ecosystem components;
4. Analysis of the extent to which the activity and the elements might interact;



5. Estimation of the likelihood of the impact occurring (where there is interaction);
6. Ranking the relative levels of risk posed to the ecosystem elements;
7. Ranking the relative levels of risk posed by each of the activities or processes; and
8. Consideration of any risk management measures already in place in estimating risk levels.

Following from the risk assessment process would be the development of risk mitigation measures, including the ranking of possible mitigation measures that may be applied.

PROGRESS TO DATE

Substantial work toward assessment of risks to sustainable oceans use has already been done, including:

- Development of a framework for risk assessment including a standard method, building on the *Australian/New Zealand Standard Risk Management Standard AS/NZS 4360:1999*.
- Collection of a large amount of information during the assessment phase, resulting in several reports:
 - Identification of ecosystem components (*Ecosystems: nature's diversity, Resources: using the ocean*)
 - Identification of ecological threats (*Resources: using the ocean; Impacts: identifying disturbances*).

The focus has initially been on identifying and addressing threats to marine ecosystem health, and a method for conducting ecological multiple-use risk assessment has been developed and is being trialled in the Otways area (refer to Status Report 4 – Multiple-use Management Case Study).

FUTURE WORK PROGRAM

The risk assessment work program involves trialling the standard risk assessment method as part of the Multiple-use Management Case Study and specifically for the *Managing Risks to Marine Ecosystem Health* issue. (Refer to Status Report 4 – Multiple-use Management Case Study.)

Risk assessment in the Otways will initially focus on risks to ecosystems and this work is expected to be completed by June 2004.

The methods will then be revised as necessary before applying them across the whole of the Region. This is expected to be completed in the second half of 2004.

Further work needs to be done to develop detailed methods for social and economic risk assessment and to incorporate these into a full assessment of the risks to the marine environment, industries, and human communities in the Region.



STATUS REPORT 8

Regulatory Efficiency Review

ACTION 1.7.1

Conduct a targeted regulatory efficiency review with the input of stakeholder and government representatives. The review will focus on industry and government concerns, look at possible improvements to government regulation, and will complement existing work, e.g. Department of Industry, Tourism and Resources (DITR) strategic assessment of the possible impacts of petroleum exploration activities in Commonwealth waters.

DESCRIPTION

The review will identify areas for regulatory reform to remove inefficiencies and to provide greater clarity to industry.

PROGRESS TO DATE

The review is focusing on practical examples of industry, community and government concerns regarding ocean regulation. The National Oceans Office (NOO) has worked primarily with the individual members of the National Oceans Advisory Group and Board agencies to identify and analyse the concerns.

The review has found that sectoral agencies, by and large, are aware of and are addressing major issues that affect ocean users; for example, duplication in regulation. An example is the perceived overlap in legislative approvals between the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and the *Petroleum (Submerged Lands) (Management of Environment) Regulations 1999* (Cth) for the petroleum industry. This issue is being addressed by the Department for the Environment and Heritage (DEH), DITR and NOO. Where there are such processes in place to address stakeholder issues, they will be reported on in the final Regulatory Efficiency review.

Stakeholders have raised further opportunities to realise efficiency in Australian Government marine management. Thus the review is analysing issues where improvement can be made through planning and integration and where agencies have identified an across-sector opportunity for improvement in marine management. The issues are:

- Improving certainty in marine resource management, particularly for:
 - resource-use planning across sectors.
 - stakeholder engagement processes.
 - decision making in multiple-sector matters.
- Providing incentives for stewardship.
- Improving access to regulatory and other information.
- Improving coordination and accessibility of information about marine ecosystems.

National Oceans Ministerial Board agencies are working through these issues. A report will be released on the detail of the issues and options to address them at the culmination of the analysis process.

FUTURE WORK PROGRAM

The Review will develop policy advice on the above issues through further consultation with stakeholders on the National Oceans Advisory Group in the first instance and outside that group as necessary. It is expected that the National Oceans Ministerial Board will consider any recommendations on these issues and decide on any further scope for the review by the middle of 2004.



STATUS REPORT 9

The Commonwealth Marine Protected Areas (MPAs) Program in the South-east Marine Region

A marine protected area (MPA) is an area of sea (which may include land, the seabed and subsoil under the sea) established by law for the protection and maintenance of biological diversity and of natural and cultural resources.

MPAs are recognised nationally and internationally as being central to protecting ocean ecosystems, which in turn sustain marine industries and communities. It is also widely recognised that strategic regional marine planning that provides for the establishment of MPAs and the complementary sustainable management of adjoining waters is the best way of achieving conservation of marine biodiversity.

One of the major initiatives under *Australia's Oceans Policy* is the accelerated development of a *National Representative System of Marine Protected Areas (NRSMPA)*. By linking this work with regional marine planning around Australia, we are pursuing what the world recognises as a best-practice approach to conservation of our oceans. For more information on the NRSMPA see the information box on page 87.

A GOOD FOUNDATION

Since the Great Barrier Reef Marine Park was declared in 1975, another 13 MPAs have been declared in Commonwealth waters – that is, between 3 nautical miles and 200 nautical miles out to sea, around Australia's coast. State governments have also been active in contributing areas to the NRSMPA (Status Report 9, Figure 1).

In the mid to late 1990s the process began in earnest to identify and declare MPAs where they were needed (see Status Report 9, Figure 2). During this period, new declarations in Commonwealth waters include the Great Australian Bight Marine Park, Tasmanian Seamounts Marine Reserve, Macquarie Island Marine Park, Lord Howe Island Marine Park, Cartier Island Marine Reserve, and Heard Island and McDonald Islands Marine Reserve.

The six new MPAs add an extra 249,570 km² (approximately the size of Victoria) bringing the existing marine reserve area to a total of 272,219 km² (not including the Great Barrier Reef Marine Park which protects a further 345,000 km²).

However, despite the achievements to date, a number of gaps remain in Australia's distribution of MPAs, especially in deepwater and cooler temperate oceans. For this reason, the Australian Government made it a priority to establish MPAs in large-scale bioregions that were not already represented within the NRSMPA. Through the *South-east Regional Marine Plan*, the Australian Government has accelerated the development of a system of MPAs in the temperate waters around the south-east of the continent.

When the system is finished, Australia will have the benefit of the most comprehensive system of MPAs in the world.

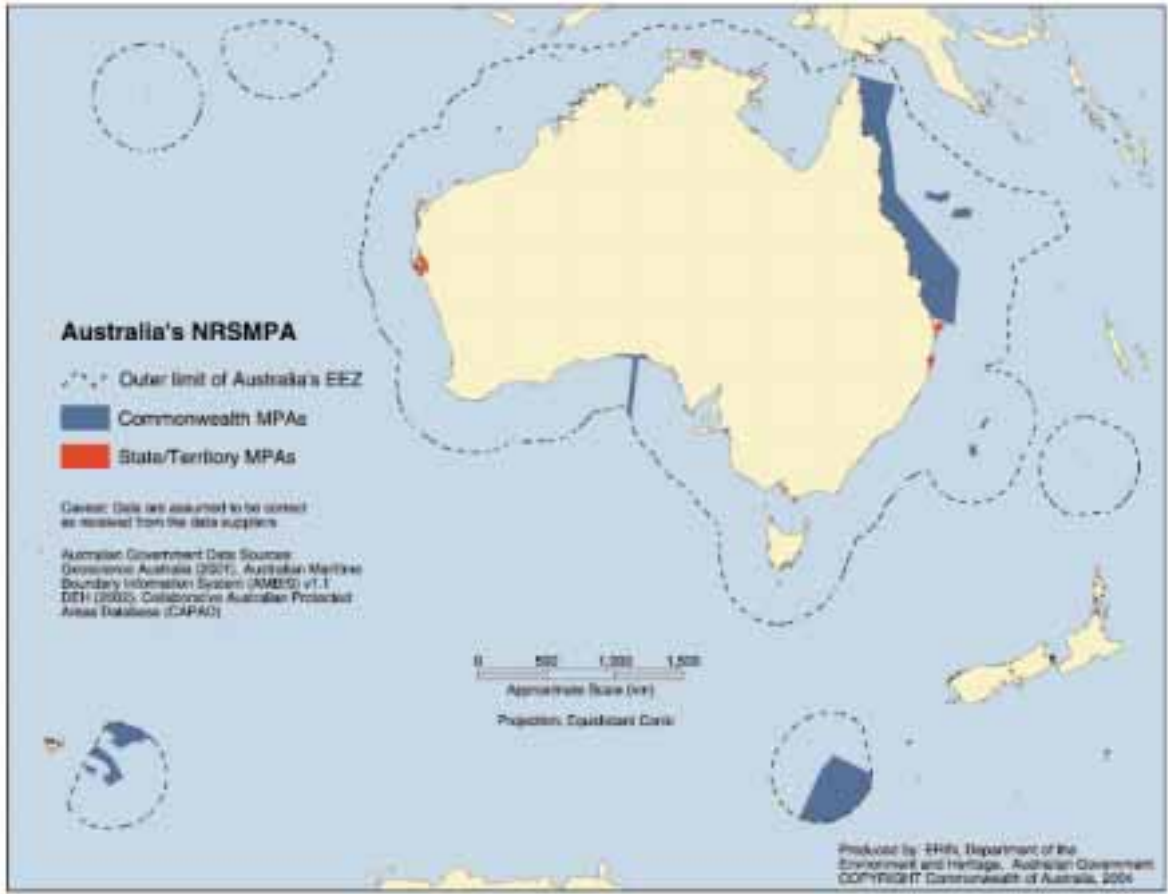
INCREASING THE PACE IN THE SOUTH-EAST

The South-east was the first Region identified for planning under *Australia's Oceans Policy*. Accordingly, this is the first time the regional marine planning process has been used to support the design of a comprehensive, adequate and representative system of MPAs in Commonwealth waters, under the direction of the National Oceans Ministerial Board.

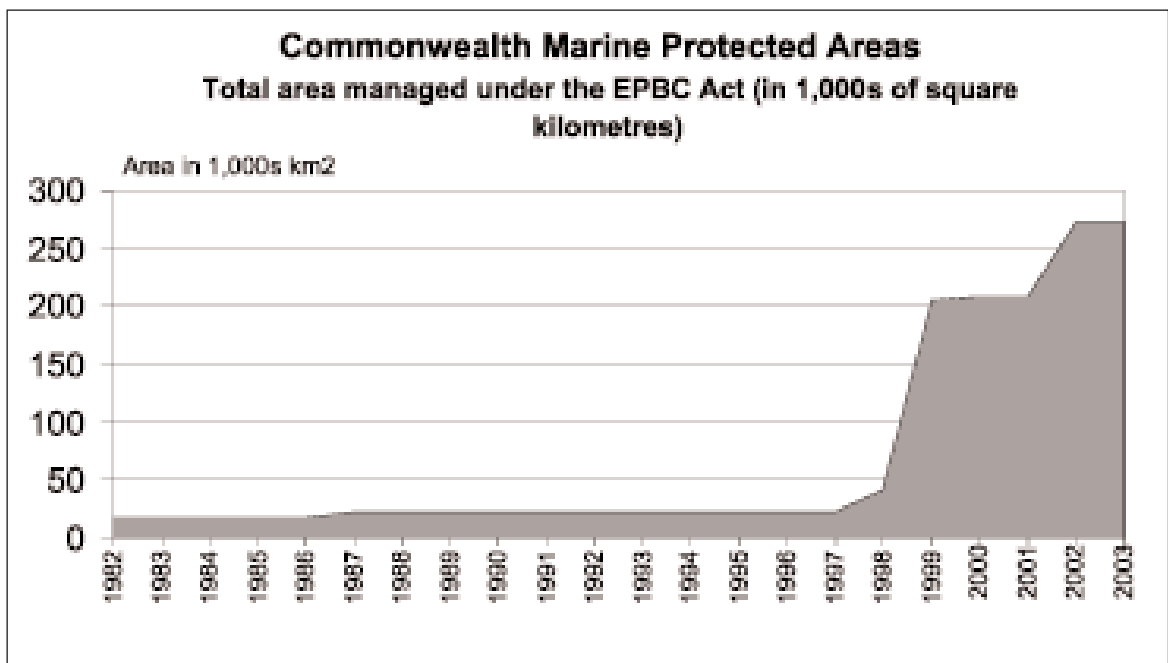
The work being done in the South-east Marine Region is also the first time representative MPAs are being identified and established across a large-scale deep offshore marine region. This system-wide approach has involved close cooperation, not only between diverse Australian Government departments and agencies, but with State Governments and a range of other stakeholder groups.

Development of the system of MPAs in the South-east Marine Region will build on two existing Commonwealth MPAs (the Tasmanian Seamounts

Status Report 9, Figure 1: The National Representative System of Marine Protected Areas 2002



Status Report 9, Figure 2: Illustration of the increasing area of Commonwealth MPAs between 1982 and 2002 [excludes the Great Barrier Reef Marine Park]





Marine Reserve and the Macquarie Island Marine Park) as well as complementing MPAs established in adjoining state waters. These existing MPAs, the new approach combining MPA identification and regional marine planning, and the commitment across stakeholder groups to participate in the design of MPAs, provide an excellent foundation from which to tackle the many challenges we face in identifying MPAs in the South-east Marine Region.

A SYSTEM OF MPAs IN THE SOUTH-EAST MARINE REGION

The goals of the National Representative System of Marine Protected Areas (NRSMPA) relate primarily to the conservation of biodiversity and sustainable and equitable management of human use. The priority is to establish MPAs in large-scale bioregions that are not already represented within the NRSMPA.

In the South-east marine Region, eleven Broad Areas of Interest (BAOI) (see Status Report 9, Figure 3) have been defined that contain the greatest diversity of bioregions and sea floor features (for example the shelf, shelf edge, slope, abyssal plain, seamounts and rotated continental blocks) for sampling within candidate MPAs. The aim of the MPA design process is to use both stakeholder and scientific information to design options for a network of MPAs across the Region to protect representative samples of defined bioregions while minimising impact on industry.

In addition, the integration of the regional marine planning and MPA processes provides an exceptional opportunity to consider other conservation measures when designing the MPA system, and to ensure that MPAs are not identified in isolation from the management of sustainable resource use.

See more on the Department of the Environment and Heritage website at www.deh.gov.au/coasts/mpa/southeast/index.html

CHALLENGES

Learning and working together

Fisheries management, and major known and potential energy developments, are particularly complex issues for the South-east Marine Region. In addition the offshore waters and their biodiversity values in the Region are largely unknown.

For these reasons it is vital that the MPA process is supported by stakeholders and underpinned by a realistic and credible amount of scientific advice and technical support.

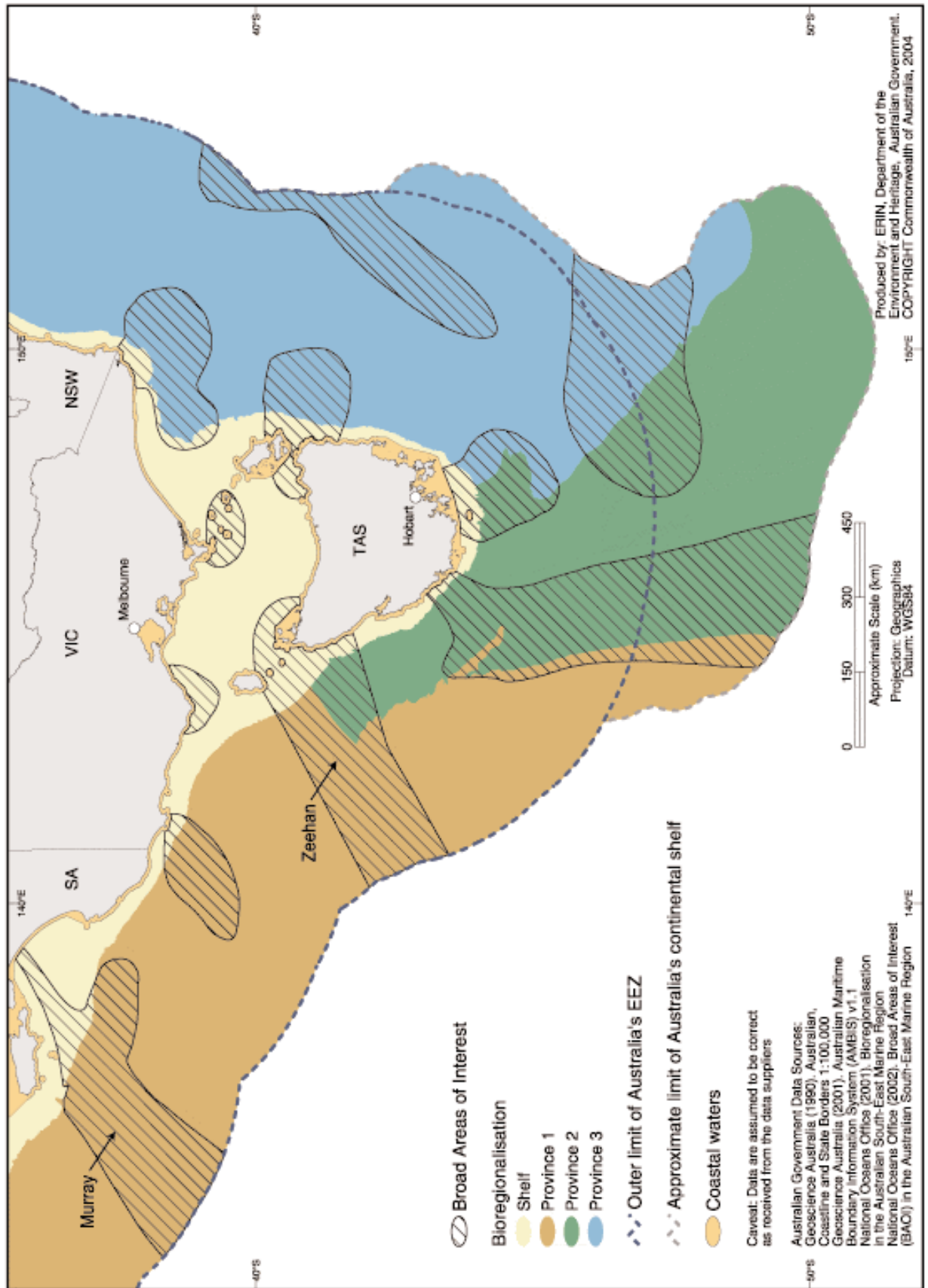
Stakeholder engagement is essential to develop MPA options that minimise social and economic impacts of MPA establishment, and to secure ongoing commitment and support for subsequent MPA management. This requires, at the earliest stage of MPA design, the involvement and consideration of the needs of stakeholders, including knowledge of cultural, social and economic impacts.

Key challenges include:

- ongoing development of integrated policy responses to achieve industry development, energy policy and conservation objectives
- continuing to support innovative ways of communicating with stakeholders to enhance the information sharing in the MPA process
- timely advice on the determination of zoning and management of MPAs, including how management arrangements would change in response to new information and technologies
- moving forward the integration of MPAs with other mutually beneficial spatial management measures such as fisheries closures.

Overcoming these challenges will require an ongoing and significant investment from stakeholders and government to bring together industry and other interested groups to generate MPA options for the Region.

Status Report 9, Figure 3: Broad Areas of Interest in the South-east Marine Region





ACHIEVEMENTS IN THE REGION

While there is still further work needed to address these challenges, we have made significant progress and achieved major outcomes for the design of candidate MPAs in the Region.

These achievements include:

- **An agreed collaborative process to actively involve stakeholders in the design of candidate MPAs for the Region.**

During the last year, the Australian Government and stakeholders have worked together to develop products that provide stakeholders with critical information needed to design candidate MPAs in the Region. These products include a list of operational criteria for identifying and selecting a comprehensive, adequate and representative (CAR) system of MPAs within the South-east Marine Region, a map of eleven Broad Areas of Interest (BAOI) to provide focus in identifying candidate options for MPAs (see Status Report 9, Figure 3), and the User Guide, including MPA Specifications, to assist stakeholders to design options for candidate MPAs within each BAOI.¹

As well as these products, the Government has established a range of consultative forums and networks to ensure a comprehensive, transparent, equitable process for stakeholder engagement in developing MPA outcomes for the South-east Marine Region. In particular, the Australian Government has funded two liaison positions – one within the commercial fishing industry and one within the conservation sector. These positions help to strengthen the capacity of these sectors to engage in the design of options for candidate MPAs.²

- **Candidate MPAs in the Murray and Zeehan broad areas of interest, totalling over 40,000 km².**

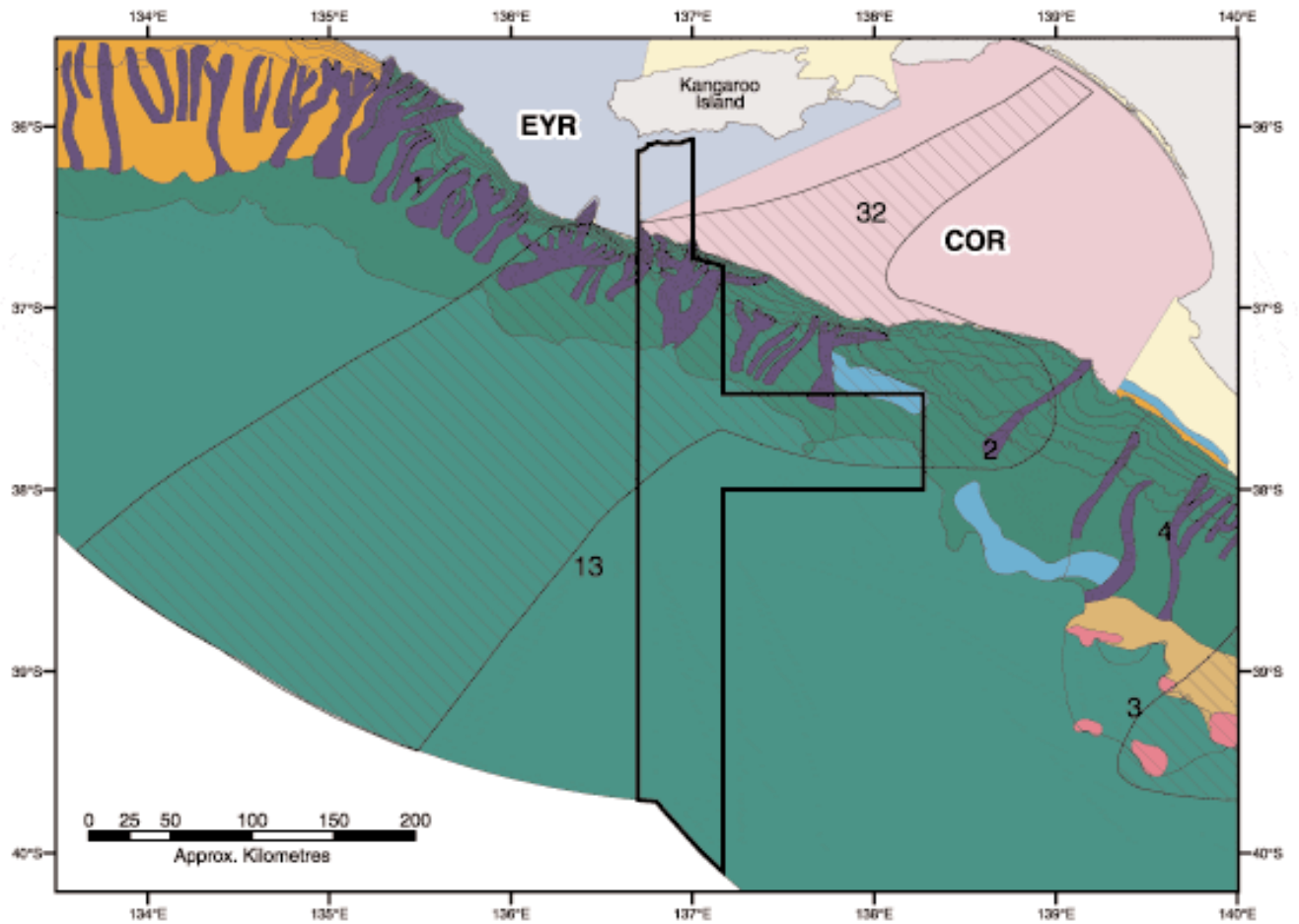
In developing candidate MPAs, all stakeholder groups have been invited to work with the Government to minimise impacts on marine-based activities while maintaining scientific credibility and achieving conservation objectives for the Region. Leaders of peak industry associations from the oil and gas and commercial fishing sectors, as well as conservation and Indigenous groups coordinated input on behalf of their members to develop options for candidate MPAs in two BAOI – the Murray (1A) and Zeehan (1C). The result was multiple options for the development of candidate MPAs in each of the two BAOIs.

Using these various options as a basis, the candidate MPAs shown in Figures 4 and 5 are proposed by the Australian Government to be advanced as proposals for declaration. There will be additional consultation to seek stakeholder support for these candidate MPAs as part of the process to refine boundaries and potential management and zoning arrangements. As shown in Figure 6, the candidate MPAs for Murray and Zeehan areas will not enter the statutory process for declaration until a representative system has been finalised for the South-east Marine Region (see Next Steps).

¹ The User Guide including descriptions of the broad areas of interest, the specifications, maps and other resources can be found at: www.deh.gov.au/coasts/mpa/southeast/index.html Environment Australia, CSIRO Marine Research and the National Oceans Office (2003) *Australia's South-east Marine Region: A User's Guide to Identifying Candidate Areas for a Regional Representative System of Marine Protected Areas*. Commonwealth of Australia, August.

² For information on how to get involved please contact your peak representative body or the Department of the Environment and Heritage Marine Protected Areas Taskforce ph 02 6274 1111. It is expected that leaders of peak industry associations and other non-governmental groups will coordinate and collate input from and on behalf of their members to ensure a 'whole of sector' development of options.

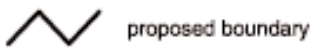
Status Report 9, Figure 4: Candidate MPA – Murray Broad Area of Interest¹



Broad Area of Interest



Candidate MPA



Geomorphic Units

- Land
- shelf
- abyssal-plain
- slope
- trench/trough
- terrace
- canyon
- knoll/abyssal-hills/hills/mountains/peak
- escarpment

IMCRA Regions

- COR - Coorong
- EYR - Eyre

Australian Government Data Sources:
 Geoscience Australia (2003). Geomorphic Units (Draft v1.1)
 DEH (1997). IMCRA

Caveat: Data are assumed to be correct
 as received from the data suppliers

Projection: Geographics
 Datum: WGS84

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- **An Australian Government policy statement on MPAs and Displaced Fishing and a toolkit to guide social and economic assessment.**

A policy statement on MPAs and displaced fishing was released by the Australian Government in January 2004 in response to concerns about the impacts on fishers and fishing dependent communities of decisions to establish MPAs. The Government's policy on MPAs and displaced fishing will be applied to the Murray and Zeehan candidate MPAs to illustrate to stakeholders how the policy will apply in practice. For more information see *Marine Protected Areas and Displaced Fishing: A Policy Statement* at www.deh.gov.au/coasts/mpa/legal.html.

As well as the policy statement, the Australian Government (through the Bureau of Rural Sciences) is developing and testing methods of assessing the potential social and economic impacts of MPAs. This work will provide a toolkit to guide more detailed social and economic assessments of MPAs. The toolkit will be applied to future options for candidate MPAs in the Region and to MPAs proposed in Commonwealth waters around Australia.

- **Approach identified to progress integration of fisheries spatial management and MPAs in the Region where there are complementary objectives.**

The Australian Government has committed to exploring ways to integrate spatial management measures to increase efficiencies in planning and management across sectors. Work will start in the South-east Marine Region and focus on integrating MPAs and fisheries closures where there are complementary objectives.

- **Staged and adaptive approach to zoning and preliminary risk assessment framework for fishing impacts.**

The long-term aim of the NRSMPA is to achieve a comprehensive, adequate and representative system of MPAs with a mix of the World Conservation Union (IUCN) categories, including highly protected zones³. For representative MPAs in Commonwealth waters, the Australian Government considers that this broad objective will be better met through large, rather than small MPAs.

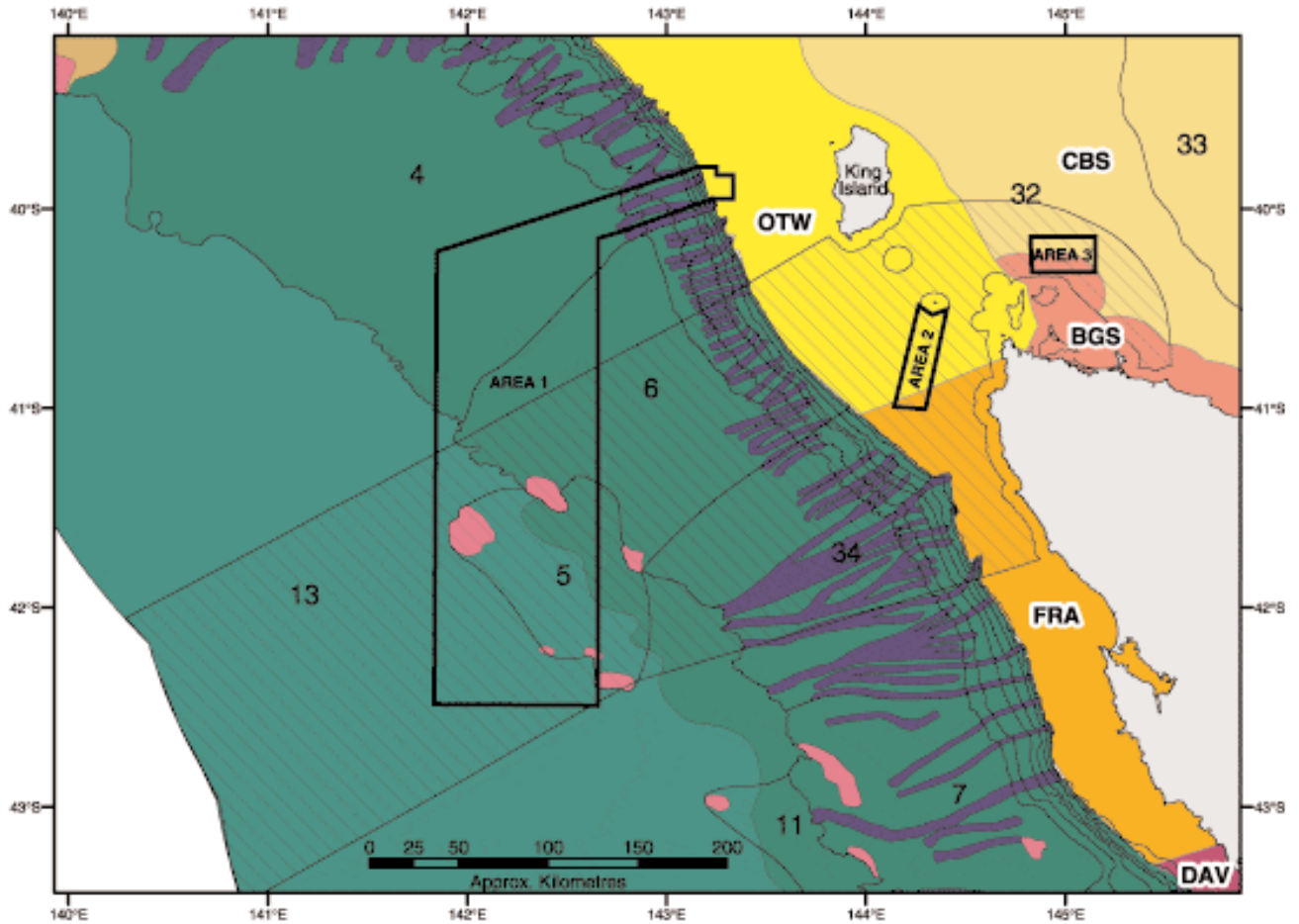
Where adequate information exists to make an informed decision, areas of high conservation value will be highly protected. Where information gaps create uncertainties for management and decisions on zoning, the Australian Government will adopt a staged and adaptive approach to setting levels of protection as more information about the specific economic, cultural and ecological values in the area is gathered and assessed. It is envisaged that information will be sought and discussed in a collaborative manner involving Government and stakeholders. The Australian Government welcomes industry contributions to improve knowledge of biodiversity and other environmental values through, for example, sponsored research. This staged process of MPA review will take place transparently within the framework of the development and review of management plans.

In relation to managing fishing activities in MPAs, Australian Government agencies in consultation with State fisheries agencies, marine ecologists and gear technology experts, have developed a preliminary framework to assess the impacts of fishing activities within the BAOI in the South-east Marine Region.

The assessments will guide the analysis of fishing gear impacts in candidate MPAs, and help develop appropriate management strategies to protect MPA values. Industry, government and conservation groups will be consulted in making these assessments. The risk assessment framework, while initially for the South-east Marine Region, will be developed to be applicable, as far as possible, to other regions where representative MPAs are to be developed.

³ For further information of IUCN categories please see *Environment Protection and Biodiversity Conservation Regulations 2000* and also the *Commonwealth Marine Protected Areas Program 2003* www.deh.gov.au/coasts/mpa/publications/index.html

Status Report 9, Figure 5: Candidate MPA – Zeehan Broad Area of Interest⁴



Broad Area of Interest



Candidate MPA



Geomorphic Units

- Land
- abyssal-plain
- slope
- canyon
- knoll/abyssal-hills/hills/mountains/peak
- ridge

IMCRA Regions

- BGS - Boags
- CBS - Central Bass Strait
- DAV - Davey
- FRA - Franklin
- OTW - Otway

Australian Government Data Sources:
Geoscience Australia (2003). Geomorphic Units (Draft v1.1)
DEH (1997). IMCRA

Caveat: Data are assumed to be correct
as received from the data suppliers

Projection: Geographics
Datum: WGS84

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⁴ The candidate MPAs shown in Figures 4 and 5 have been developed by the Australian Government based on input provided by the fishing industry, the oil and gas industry, conservation groups, Indigenous representatives, relevant Australian and State government agencies including scientists from CSIRO Marine Research, the Bureau of Rural Sciences and Geoscience Australia. Other groups consulted through the Commonwealth Marine Protected Areas Stakeholder Reference Group and the South-east Regional Marine Plan Working Group include shipping, ports, recreational fishing, tourism and minerals, have also identified issues for further consideration.

The candidate MPAs are proposed by the Government to be advanced into proposals for declaration. In so doing, the Government will seek stakeholder support for these candidate MPAs as part of a consultative process to refine boundaries and propose potential management and zoning arrangements. Additional refinements may also be made as part of a system wide review of candidate MPAs across the Region, including consideration of the results of the risk and social and economic assessments. Once approved by the National Oceans Ministerial Board, a proclamation process will be conducted including a notice inviting public comment as part of the statutory processes under the *Environment Protection and Biodiversity Conservation Act 1999*.



NEXT STEPS

The tools, policies, processes and information so far developed will help us generate options for candidate MPAs in the remaining nine BAOI in the South-east Marine Region and to continue development of the candidate MPAs for Murray and Zeehan. The key stages in this process are outlined in Figure 6. This work will continue to be underpinned by the best available scientific, cultural, social and economic information and with the direct participation of all stakeholders. The timing of these stages is indicative and subject to external factors, such as inputs from stakeholders and the risk and social and economic assessments.

As shown in Figure 6, the Murray and Zeehan candidate MPAs will continue to be progressed (with possible minor adjustments to boundaries that will only be made after consultation with all relevant stakeholders) in parallel to work on generating candidate MPAs for the remaining BAOI.

Proposed zoning and management arrangements for the Murray and Zeehan candidate MPAs will be developed as soon as feasible. This will draw on risk assessments, including of typical fishing activities in the Region. The potential displaced fishing effort that could arise from the proposed zoning and management arrangements will be estimated through social and economic assessments for Murray and Zeehan. The Government's policy on MPAs and displaced fishing, released in January 2004, will be applied to the Murray and Zeehan candidate MPAs as soon as the proposed zoning for the Murray and Zeehan candidate MPAs has been determined.

The form of activities permitted in multiple use (IUCN VI) zones of MPAs in the South-east Marine Region will be established and made available to stakeholders as soon as possible.

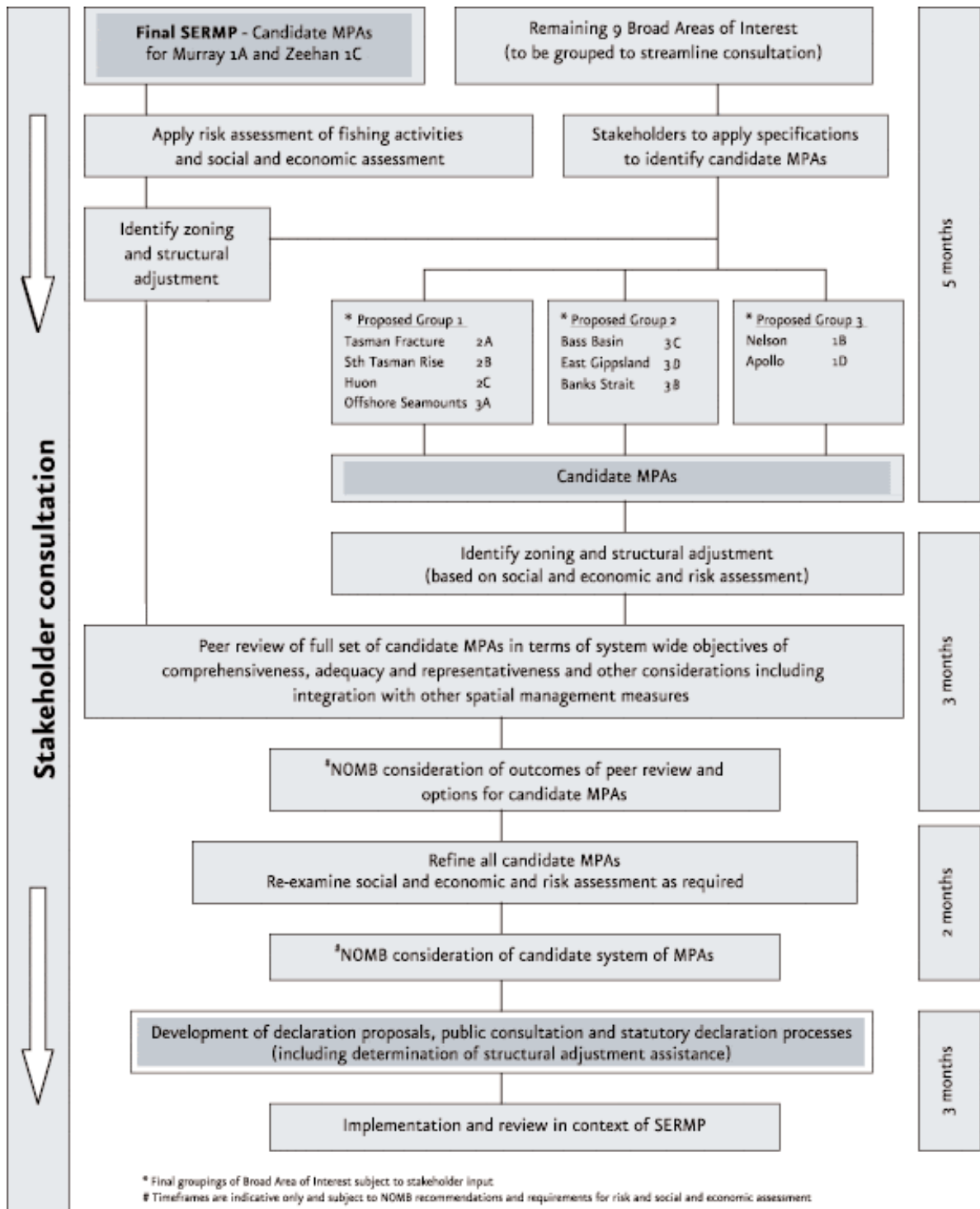
This approach aims to clearly illustrate to stakeholders how the risk and socio-economic assessments, zoning and displaced fishing policy will apply in practice. While work on the remaining BAOI will continue as far as possible in parallel, stakeholders will not be asked to agree to candidate MPA outcomes for the remaining BAOI until these issues have been clarified for the Murray and Zeehan candidate MPAs.

Before candidate MPAs enter the statutory declaration processes, a review across all the Region's MPA candidates will ensure that as a set they are consistent with the reserve system criteria of comprehensiveness, adequacy and representativeness. Continuing consultations and the peer review could result in some fine-tuning of candidate MPAs. For example, the system-wide review may recommend enhancements to the Zeehan candidate MPA to better meet the reserve system criteria and specifications. Any modifications to the proposed candidate MPAs would be considered in direct consultation with stakeholders in terms of any impacts on marine industries.

Once the South-east Marine Region's MPA candidates are approved by the National Oceans Ministerial Board, the statutory process for declaration of a Commonwealth reserve under section 351 of the *Environment Protection and Biodiversity Conservation Act 1999* will commence with a notice inviting comment on a declaration proposal.

The progressive implementation of the *South-east Regional Marine Plan* and integration with other conservation tools and spatial management arrangements will provide for the protection of the biodiversity values of the Region while minimising impacts and costs to industry, Government and the wider community, noting that this process will not supersede the relevant Government agencies with primacy for the management of particular activities such as the Australian Fisheries Management Authority. A review of the MPA process will be undertaken in the context of the broader implementation and review of *South-east Regional Marine Plan* and the full range of conservation measures available for the protection and maintenance of marine ecosystems in the Region.

Status Report 9, Figure 6: Next steps in the development of a representative system of MPAs for the South-east Marine Region





WHAT IS THE NATIONAL REPRESENTATIVE SYSTEM OF MARINE PROTECTED AREAS?

National Representative System of Marine Protected Areas (NRSMPA)

The National Representative System of Marine Protected Areas (NRSMPA) is one of the key Australian Government initiatives to achieve marine biodiversity conservation.

Australia's governments are working together to set up a national system of protected areas throughout our entire marine zone. As at 2002 the NRSMPA covered approximately 64,600,000 hectares or 7% of Australia's marine jurisdiction, excluding the Australian Antarctic Territory (Status Report 9, Figure 1). The primary goal of the NRSMPA is to establish and manage a system of MPAs that will be:

- comprehensive – include MPAs that sample the full range of Australia's ecosystems;
- adequate – include MPAs of appropriate size and configuration to ensure the conservation of marine biodiversity and integrity of ecological processes; and
- representative – include MPAs that reflect the marine life and habitats of the areas they are chosen to represent.

The development of the NRSMPA also fulfils Australia's responsibilities and obligations under a number of international conventions and agreements.

The NRSMPA exists within a broader range of national and State and Territory mechanisms to achieve biodiversity conservation and the complementary sustainable management of Australia's marine jurisdiction. Each Australian jurisdiction has its own laws and processes for establishing and managing MPAs.

While the primary goal of the NRSMPA is the conservation of marine biodiversity, many other values and uses can be accommodated in MPAs where these are compatible with the objectives of the protected area.

For further information on how MPAs are established and managed please see www.deh.gov.au/coasts/mpa/nrsmpa/index.html.



STATUS REPORT 10

Introduced Marine Species

ACTIONS: 2.5 AND 2.6

These actions collectively contribute to the further development and implementation of the National System for the Prevention and Management of Introduced Marine Pest (IMP) incursions, and the undertaking of strategic research, and the implementation of strategic control programs for the effective mitigation and, where possible, elimination, of marine pests in the South-east Marine Region.

DESCRIPTION

During the assessment phase of the south-east regional marine planning process, Introduced Marine Species (IMS) were identified as a priority issue of concern to stakeholders and governments in the Region. IMS were also recognised as one good example of the need for clear processes for *integrated oceans management* (IOM) since their management requires a cross-sectoral approach and IMS incursions have implications for multiple industries as well as for the general community. The *South-east Regional Marine Plan* includes a number of actions designed to improve management of, and information on IMS, both in the Region, and nationally. These actions are supportive of the development and implementation of the *National System for the Prevention and Management of Introduced Marine Pest Incursions*. This system is being managed at a national level through the Natural Resource Management Ministerial Council (NRMMC) National Introduced Marine Pests Coordination Group (NIMPCG) which reports to the Marine and Coastal Committee, recognising the importance of a single efficient national system.

PROGRESS TO DATE: ACTION 2.5

Progress in the development and implementation of the *National System for the Prevention and Management of Introduced Marine Pest Incursions* has been made in a number of areas. A high-level officials group (HLG) was formed by the NRMMC in recognition of the need for high-level advice on the key issues of appropriate legislative, governance and funding approaches for implementation of a national approach.

The HLG first met in December 2002 and comprised of nominees from the Australian Government, and all State and Northern Territory governments.

The HLG conducted extensive consultation with all relevant stakeholders who broadly supported the principles underlying the HLG's work, with the shipping industry indicating its support for the proposed approaches in the report.

The outcome of the HLG process was a report to the NRMMC including 23 recommendations to assist development of a National System. The National System is comprised of three elements. The key recommendations were that:

- **The prevention element** be based on shared jurisdictional arrangements between all governments for all vector risks, with the Australian Government responsible for managing the risks of marine pest introduction to Australia, and the States and Northern Territory responsible for managing the risks of marine pest translocations between Australian ports;
- **the emergency management element** be based on the current interim coordination arrangements, with additional measures to address post-event evaluations, detection strategies, containment of establishing pests and protocols for moving from emergency response to the ongoing control and management;
- **the ongoing control and management element** be based on implementation of agreed National Control Plans, enacted through jurisdictional legislation;



- funding be based on a mixed cost recovery basis for prevention and beneficiary-based funding for emergency management and ongoing management and control;
- the recommendations be supported by an inter-governmental agreement; and
- a single national interface for shipping and a range of protocols and best practice models to address biofouling be developed.

The NRMCC considered and endorsed the HLG report in October 2003 and the implementation of its recommendations over a three-year period. The Council noted that agreement to the recommendations in the report were subject to resolution of funding arrangements by each jurisdiction and also noted that to achieve effective implementation, significant further work will be necessary.

The HLG report will also be provided to the Australian Transport Council (ATC), which has responsibility for shipping, ports and recreational boating, through NRMCC processes. The comments of the ATC will be considered prior to final implementation of the recommendations. The Standing Committee on Transport considered and noted the report in October 2003 and agreed that the Australian Marine Group should engage directly with NIMPCG on the development and implementation of the National System.

PROGRESS TO DATE: ACTION 2.6

Work on progressing strategic research and the implementation of strategic control programs for the effective mitigation/elimination of marine pests in the South-east Marine Region has included:

- **Management Strategy Evaluation for *Asterias amurensis*:** A formal Management Strategy Evaluation commenced as part of implementation of the National Control Plan for *Asterias amurensis* and is scheduled to be completed in May 2005. This will detail the estimated costs and benefits of management and control options in the National Control Plan and provide a model that can be extended to other high-profile marine pest species in the South-east Marine Region.
- **Agreed protocols for National Control Plans:** The development of agreed protocols for the development and implementation of National Control Plans at regional and national levels was discussed at NIMPCG's 9th (3 December 2003) and 10th (16–17 March 2004) meetings. Draft protocols are to be finalised before signing of Intergovernmental Agreement on the National System, the text of which is scheduled to be settled in June 2004.

FUTURE WORK PROGRAM

The future work program is focused on further developing and implementing the National System through NIMPCG in accordance with the agreed workplan, including implementation of the actions identified in the Plan.