



24<sup>th</sup> September 2007

### **Submission: Marine protected areas - draft classification and protection standards**

Forest & Bird appreciates the opportunity to comment on the above standards. Our submission provides specific comments on each of the standards. We also outline a proposal for the next steps in the development of the MPA Policy in relation to the standards and the government's commitment to protecting 10% of our marine environment by 2010.

#### **Forest & Bird**

The Royal Forest and Bird Protection Society (Inc) (Forest & Bird) was established in 1923 and has campaigned for over 80 years for the protection of New Zealand's native species and the habitats on which they depend.

The constitutional purpose of Forest & Bird is to:

*“To take all reasonable steps within the power of the Society for the preservation and protection of the indigenous flora and fauna and natural features of New Zealand, for the benefit of the public including future generations.”*

#### **Summary**

We support the general principles of the draft marine protected area (MPA) standards and view them as a good step towards implementing overdue protection of our marine biodiversity.

However, many aspects of the draft standards are inadequate to effectively meet the objectives of the MPA Policy and Implementation Plan.

Recommendations for further development of the standards include:

*Proposed overall structure for MPA planning and implementation – building on the draft MPA standards*

- The MPA network should be defined as regional networks of core protection areas, supported by buffer zones, based on the value of different MPA tools and their ability to meet the MPA Policy objectives (section 2.1);

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- Targets for MPA protection are adopted to guide participants during the first MPA planning process (sections 2.2 and 2.3);
- Development of MPA planning and implementation in the offshore marine environment, as this is most likely to achieve the national target of establishing 10% protection of our habitats and ecosystems by 2010 (section 2.3);
- A transparent MPA management framework should be developed, including establishment of an independent national MPA advisory group (section 2.4).

#### *Gaps in achieving the objectives of the MPA Policy*

- An overriding strategic management framework that can be applied at a regional level needs to be developed (section 3.1 of this submission);
- Strengthening of the MPA standards so that guidelines are much clearer and provide concrete outcome statements (section 3.2);
- Integration of independent marine experts to standardise the MPA implementation process nationally and to ensure expert advice is provided to all marine protection planning forums (MPPFs) on how best to achieve biodiversity objectives (section 3.3);
- Independently proposed MPAs should be further recognised and reflected in the standards and integrated into the management framework (section 3.4);
- Consideration the advantages of MPA selection in areas where the impacts of land-based activities on the marine environment are controlled (section 3.5).

#### *Classification standard*

- Biogeographic regions should be further sub-divided to better reflect biological and practical management boundaries (section 4.1);
- MPA planning and implementation around the Kermadec Islands, Snares and Subantarctic Islands be integrated into the offshore process or an alternative process established (section 4.1);
- The classification criteria framework should incorporate both physical and biological information to meet definitions for ecosystem protection (section 4.2);
- Strengthen guidelines to better reflect the need to protect whole ecosystems (section 4.3);
- Further define the nature of the MPA networks in terms of replication and connectivity of MPAs (section 4.4);
- Clarify that MPA size should not inhibit biodiversity protection (section 4.5);
- Review Planning Principle 5, to ensure that the fundamental objective to protect biodiversity is not compromised over minimisation of effect on users (section 4.6);
- MPA development timeframes should not be impeded as this limits the ability to meet the national target of achieving 10% protection of our habitats and ecosystems by 2010 (section 4.7).

### *Protection standard*

- Modification of the standard to ensure that the burden of proof lies with those causing negative impacts to our marine biodiversity, rather than those trying to protect it (section 5.1);
- Provide clear guidance on the value of different MPA tools in relation to their ability to meet the MPA Policy objectives (section 5.2);
- The MPA network design, comprising multiple marine reserves, should be made explicit to meet design principle 3 of the MPA Policy (section 5.3);
- Ensure that achievement of biodiversity objectives are prioritised over user impact (section 5.4);
- Strengthen the standard to better reflect planning principle 8 - the precautionary approach to MPA planning and implementation (section 5.5);
- MPA monitoring and evaluation should assess how well the national biodiversity protection objective is achieved, plus achievement of regional social and economic objectives (section 5.6).

## **1. Introduction**

Under the International Convention on Biological Diversity (CBD) the New Zealand government have a stated goal to protect 10% of the marine environment in a network of representative marine protected areas (MPAs) by 2010.

Despite having over 30 marine reserves in place, over half of which were external applications from tangata whenua, conservation groups, fishers, divers and marine science interest groups, only 0.3% of our total marine environment is currently protected by them.

In 2005 the government released the Marine Protected Areas Policy and Implementation Plan (MPA Policy), which outlines the process through which our marine biodiversity will be safeguarded both now and for future generations.

The objective of the MPA Policy is to:

*“Protect marine biodiversity by establishing a network of MPAs that is comprehensive and representative of New Zealand’s marine habitats and ecosystems.”*

This is further clarified:

*“The MPA network will protect representative examples of the full range of marine habitats and ecosystems, and also outstanding, rare, distinctive or internationally or nationally important marine habitats and ecosystems”.* (Para 16)

The draft MPA standards, on which we are submitting comment, are intended to guide MPA planning participants in meeting the objectives of the MPA Policy. In their current format, the draft standards do not adequately achieve this.

As technical documents, the draft standards make a good start at digesting the comprehensive and complex considerations necessary when planning marine biodiversity protection. However, they fail to provide enough clear and practical guidance to decision makers in terms of how to adequately achieve the MPA Policy objectives within the necessary timeframes.

Forest & Bird's submission recommends an overall outline for implementation of the MPA Policy and identifies critical gaps in the MPA standards. We also provide an outline of which aspects of the draft standards need to be strengthened to better reflect the MPA Policy objectives. In doing so, we hope that urgently needed marine protection can be implemented and the government's 10% protection goal can be met by 2010.

## **2. Proposed overall structure for MPA planning and implementation**

The draft MPA standards do not currently provide clear guidance on how the MPA Policy should be implemented nationally and specifically within different biogeographical regions.

In this section, Forest & Bird proposes an overall structure that seeks to clarify the draft standards and give clear direction in terms of meeting the government's marine protection goals.

### **2.1 Definition of the MPA network**

Building on the outlined definition of MPA networks in the draft standards, Forest & Bird proposes a refined definition comprising the following categories:

#### **Core protection zones**

Permanent, no-take zones.

High value protection and ability to meet MPA objectives.

#### **Buffer zones**

Restricted extraction and restricted use zones that surround and compliment the core protection zones.

Medium to low value protection and ability to meet MPA objectives.

#### **Additional tools**

Tools that offer a limited ability to meet the MPA Policy objectives. This may be due their being designed for purposes other than biodiversity protection, of poor or questionable compliance and of limited longevity and ability to ensure long-term protection of habitats and ecosystems.

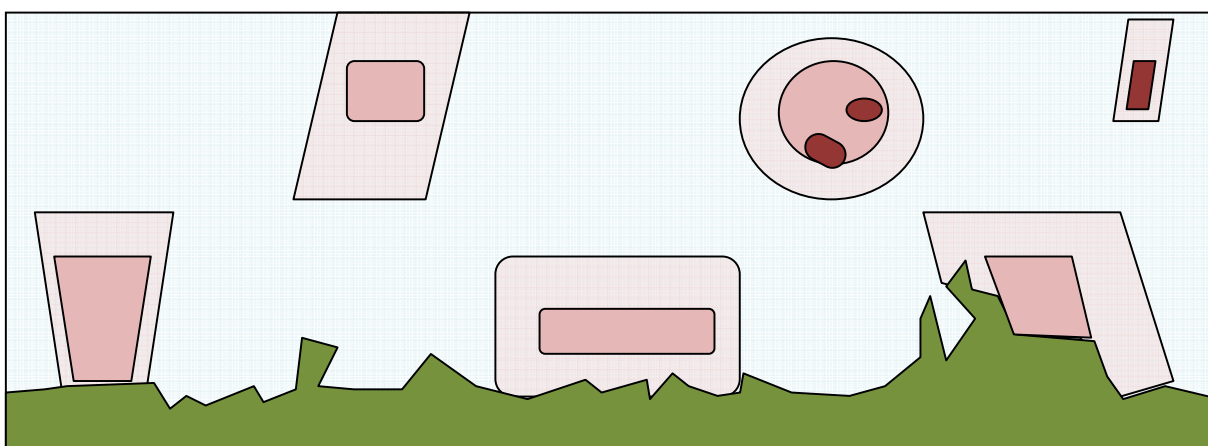


**Marine Reserves** Protection value: Very High  
*No take, open access areas (as defined under the Marine Reserves Act 1971).*  
Applied as a network to achieve high levels of marine protection, at least 2 of which should be of substantial size.

**Buffer Zone tools** Protection value: Medium to low  
*Restricted take and restricted access areas (e.g. fisheries closed areas, taiapure, marine mammal sanctuaries, mataitai, marine parks, rohe moana, RMA tools).*  
Applied around the core protection zones to minimise edge effects and support the objectives of the MPA Policy.

**Other tools** Protection value: Very low  
Tools that offer a limited ability to meet the MPA Policy objectives (e.g. fisheries regulations such as catch limits, benthic protected areas, cable protection zones).  
Treated as supportive tools but not used to meet biodiversity protection targets.

A simplified example of the application of the MPA network is illustrated:

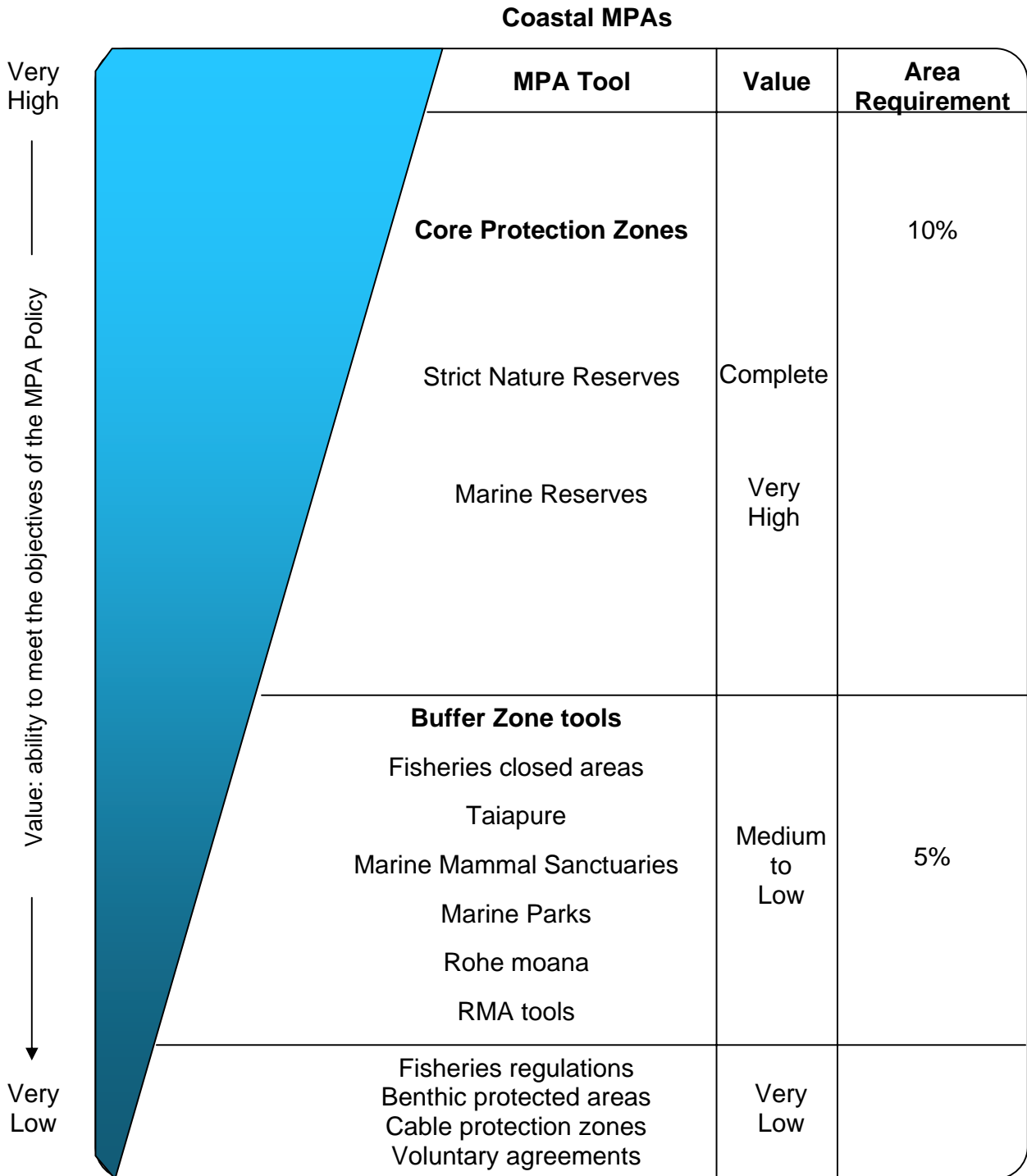


Where ● = SNR, ○ = marine reserves and ○ = buffer zone tools

## 2.2 Hierarchical structure for coastal MPA planning

Forest & Bird proposes that as an initial target, each coastal biogeographic region should protect **15%** of its marine habitats and ecosystems. (The use of conservation targets is discussed in section 3.2 of this submission.)

To achieve 15% protection, the classification standard would be applied with the following hierarchical structure and specific area requirement targets:



### **2.3 Hierarchical structure for offshore MPA planning**

The initial target for habitat and ecosystem protection in the EEZ should be **30%**. This is in line with the target identified by the fishing industry through its BPA proposal and better reflects international targets for biodiversity protection (Stewart et al 2006; IUCN, 2003).

Offshore MPAs should follow the same MPA network design as defined above. Their development requires:

1. Strengthening of the classification standard – a new MEC being developed by NIWA, which incorporates biological data, is already at a stage where authors could confidently propose high value MPAs. Subject to review and public consultation, these offshore MPAs could be implemented by 2010.
2. Despite the BPA accord agreement being interpreted as not allowing MPA development in the EEZ until 2013, the BPA accord states:

*“The Minister reserves the right to make further closures in the EEZ for the purpose of avoiding, remedying or mitigating any adverse effects of Bottom Trawling on, or maintaining biodiversity of, the benthic environment, should significant information become available that would materially affect whether the Minister’s legislative obligations or government policy are being met.”* (Para 5.3 of BPA accord.)

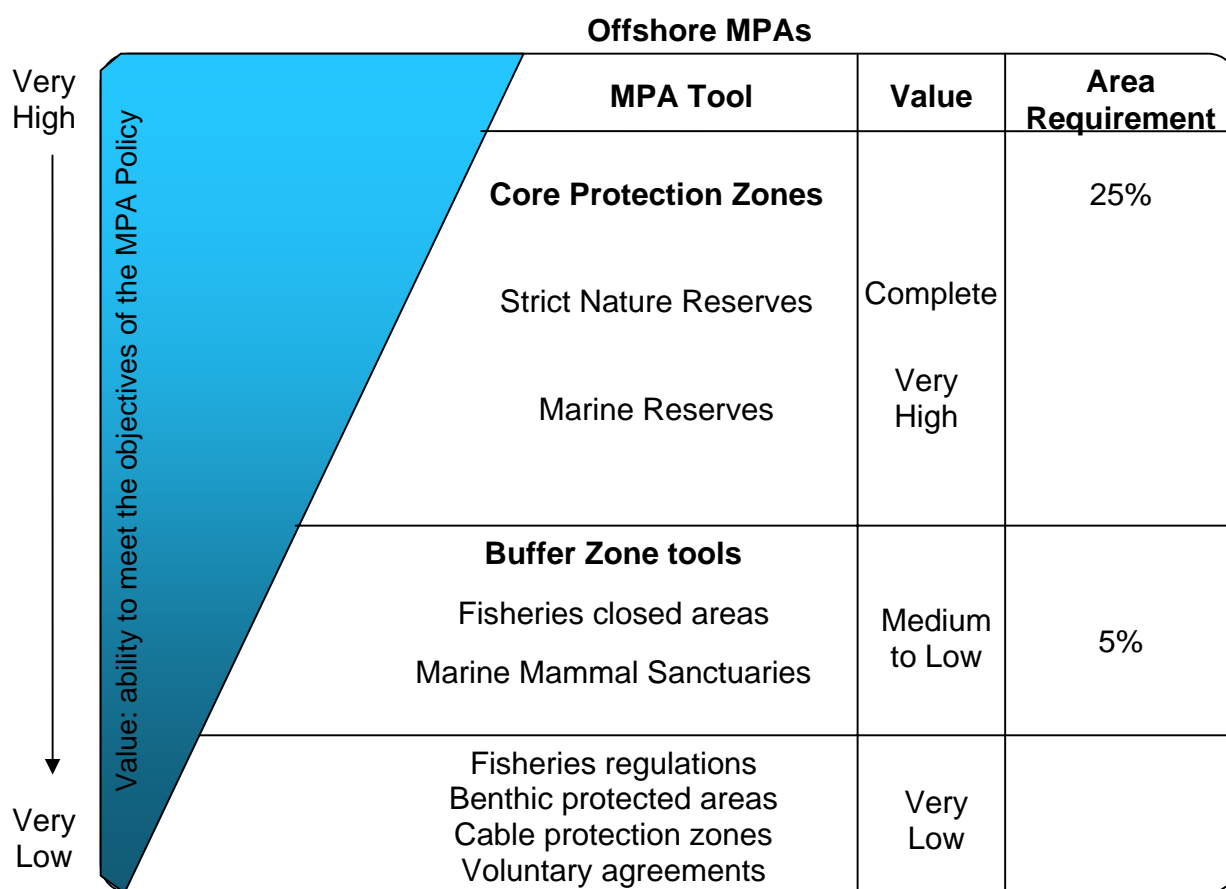
There are a number of new pieces of information, including the work by scientists developing the MEC, which meet this agreement. Recognition of this information is therefore required.

3. Passing of the Marine Reserves Bill to enable high value MPAs to be established in the EEZ.

Timeframes involved in coastal MPA planning and implementation is likely to be problematic given wide stakeholder involvement and the lack of a robust classification system that integrates biological data.

However, development of MPA planning and implementation in the offshore marine environment is the most likely action that can be taken to achieve the national target of establishing 10% protection of our habitats and ecosystems by 2010

Forest & Bird proposes the following hierarchical structure and specific targets for MPA planning and implementation in the EEZ:



## 2.4 Proposed MPA management framework

Provision of a transparent overarching strategic management framework for MPA planning and implementation is critical. However, it is missing from the MPA Policy and the two draft standards. Forest & Bird proposes the following simplified framework.

### Key participants in the MPA management framework:

#### *Minister of Conservation / Minister of Fisheries*

- Review all MPA proposals and supporting advice papers;
- Process or reject MPA proposals for further development.

#### *Department of Conservation / Ministry of Fisheries*

- Develop clear framework and terms of reference (TOR) for forums, expert offshore panel and advisory group;
- Advise forums on selection of areas in relation to MPA objectives, in particular any known outstanding, rare, distinctive or internationally or nationally important marine habitats and ecosystems;
- Develop standard monitoring and evaluation processes (biological, social and economic);

- Manage framework.

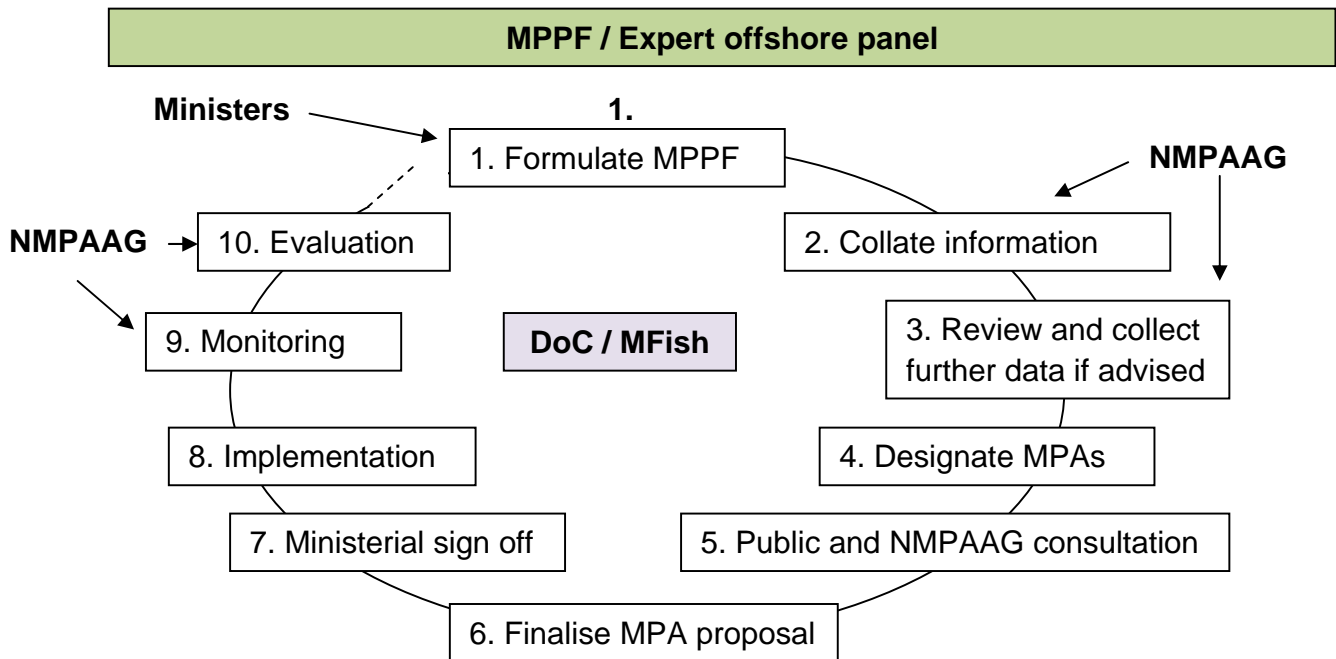
*Marine Protection Planning Forums (MPPFs)*

- Ensure independent facilitation and balanced representation of stakeholders as defined by TOR;
- Define biodiversity objectives for the region in accordance with the MPA Policy and standards, plus social and economic objectives for the region.
- Identify any special conditions (i.e. areas of cultural, national or international significance);
- Establish MPA management proposal (detailing which MPA tools will be used, to what degree each will be implemented and where MPA will be delineated) within defined timeframes;
- Establish an evaluation process (in conjunction with other MPA management participants).

*National MPA Advisory Group (NMPAAG)*

- Ensure independent facilitation of group comprising significant representation of marine scientists as defined by TOR;
- Review existing data and provide advise on any requirements to meet minimum standards;
- Review and provide advice on MPA proposals plus monitoring and evaluation processes.

Implementation framework:



This framework would formulate the first cycle of a repetitive management cycle.

### **3. Critical gaps between the MPA Policy and the MPA standards**

#### **3.1 Strategic Management Framework**

The MPA Policy presents a rough overview of how the policy will be coordinated by the Ministry of Fisheries and the Department of Conservation nationally. However, an overarching strategic management framework is lacking from the policy and from the draft standards.

Given that coastal MPA planning and implementation is being proposed at a regional level, a practical management framework is needed to guide decision makers. Such a framework should clarify the roles of different participants and the management stages for planning, implementation, monitoring and evaluation. This will ensure a standardised approach to implementing the MPA Policy is adopted.

In support of an overarching strategic management framework, clear terms of reference (ToRs) for each of the participants involved are needed.

A simplified framework is suggested in section 2.4 of this submission.

#### **3.2 Clear guidelines for decision makers – the use of conservation targets**

Guidance on the process for MPA site selection is addressed by the classification standard. The protection standard addresses the range of tools available. However, the standards should also provide guidance on how best to implement those tools. Attempts to do so are unclear and need further development to meet the goals of the MPA Policy.

The New Zealand government has estimated an initial optimum fraction of MPA protection of 10% of our marine environment. This is in line with international requirements under the Convention on Biological Diversity (CBD). However, the draft MPA standards do not set out any clear guidelines or protection targets to explain how this goal will be met.

There is a line of thought that provision of percentage targets for biodiversity protection is arbitrary and likely to be inadequate in achieving conservation outcomes (Stewart et al 2006). This is largely due to the assumption that biological diversity will be sustained if a specific threshold of protection is applied, but that no general consensus has been reached on what that threshold should be (Jennings, 2000).

There are also a wide number of proponents of the application of conservation targets (Margueles and Pressey, 2000) on the basis that they can be of considerable practical use to decision-makers. This is particularly true during the initial planning and implementation phase of an MPA management cycle.

Internationally, research on the fraction of protection required to maintain sustainable populations call for between 20% and 50% of the total area in question (Stewart et al

2006). For example, the technical advisory body to the CBD recommends that at least 20-30% of habitats should be protected in 'strictly protected areas'. The Pew Fellows in Marine Conservation also recommends a high degree of protection: inclusion of 10-50% of ecosystems in no-take zones Ernst & Young (2006).

Given New Zealand's long history of non-systematic marine protection, there is a great deal of need to implement protection as soon as possible and in the easiest way possible whilst adequately meeting biodiversity objectives. After the initial implementation of MPA networks, subsequent MPA management cycles can review the use of targets and chose to either continue along an incremental design basis or adopt a system without protection targets.

The draft MPA standards do not provide any targets for the amount of each level of protection needed within each biogeographic region. In excluding this guidance, the challenge of the task at hand is made very complex, confused and exaggerated.

Forest & Bird recommends the provision of guidance in relation to the range of MPA tools available (see section 2.1) and targets for initial MPA implementation (sections 2.2 and 2.3) to aid rapid development of the MPA planning and implementation processes.

### **3.3 Integration of independent marine experts**

Marine scientific expertise is not evenly spread throughout New Zealand. Consequently it is going to be very difficult to ensure their expertise is represented on all coastal marine protection planning forums (MPPFs). It is therefore fundamental that a range of high quality scientific advice is available to all MPPFs by pulling together a national advisory committee.

In November 2006, the New Zealand Marine Sciences Society proposed to the Ministers of Conservation and Fisheries that a science advisory body be established to develop the MPA planning and implementation process. Similarly, WWF-NZ proposed that a national oversight group be established to guide MPA Policy implementation.

Forest & Bird recommends that rather than developing another set of network design guidelines, an independent advisory group, largely comprising marine scientists, should be integrated into the management framework directly. In doing so, the benefits outlined by WWF-NZ would apply:

- *Standardisation and improved legitimacy of the implementation process across the country;*
  - *Time and cost reduction of regional implementation processes; and*
  - *Reduced political contention offered by a science-led process.*
- (Background paper supporting a letter from WWF-NZ to the Ministers of Conservation and Fisheries, dated 24 November 2006.)*

In other countries, successful MPA planning and implementation have been founded on the active participation of independent scientists. For example, an independent Scientific Steering Committee provided an integral part of MPA implementation by Australia's Great Barrier Reef Marine Park Authority (Fernandes *et al*, 2005).

Integration of such an advisory body into the MPA management framework is presented in section 2.4.

### **3.4 Alternative MPA processes**

The MPA Policy gives clear direction that MPA planning and implementation should follow a process involving marine protection planning forums (MPPFs) and an expert offshore panel for EEZ MPAs. However, the policy also recognises that there still needs to be an open system whereby '*marine reserve proposals can still be advanced independently by community groups*' (para. 23). How such a process would be integrated into the proposed process and how it may proceed external to MPPFs needs to be explained.

It is critical that such a process is clearly defined so that marine protection with a high degree of value in relation to the MPA objectives can be implemented should the MPPF system be inadequate in any given biogeographic region.

### **3.5 Consideration of the land-sea continuum**

There is currently no consideration given in the MPA Policy and draft standards for designation of MPAs that may be compatible with terrestrial protection measures. Where a number of habitat and ecosystem types are present in a biogeographic region, it may be beneficial for MPPFs to consider existing terrestrial protection measures. For example, where a nature reserve adjoins the coast or coastal regulations occur, land based impacts on the marine environment are reduced. This in turn would enhance the ability of MPAs to meet protection objectives.

Forest & Bird recommends that greater consideration is given to external land-based impacts on MPAs. Where appropriate, MPA's should be selected in areas where adjacent complimentary terrestrial protection is in place.

#### 4. A critique of the coastal and marine habitat and ecosystem classification

##### 4.1 Biogeographic regions (*Para.30*)

The proposed coastal biogeographic regions are largely supported by Forest & Bird. However, the scale at which some regions are delineated is too large, both in biological and practical terms.

Classification of our marine environment has been thoroughly debated and researched in recent years. However, it appears that the classification standard has not adequately taken into account a number of important publications in this area such as work done by Shears *et al* (submitted), Leathwick *et al* (2006) and WWF-NZ (2004).

In the coastal environment, there is a clear need to further subdivide some regions, not only for biological reasons outlined by Shear *et al* and WWF-NZ, but also on the basis of practical implementation of functional marine protection planning forums (MPPFs). If MPPFs are too large, adequate and timely planning and implementation of MPAs is likely to be inhibited.

Included in the proposed coastal biogeographic regions are 3 offshore zones: the Kermadec Islands, Snares and Subantarctic Islands. Although comprising coastal biological communities, these areas do not fit in with the MPPF management framework and are more suited to the process outlined for planning and implementing MPAs in the offshore marine environment or an alternative process altogether.

Forest & Bird therefore proposes the following coastal biogeographic regions (changes to the MPA classification standard are noted in bold):

1. Three Kings Islands coastal biogeographic region – **Three Kings Islands, including Cape Reinga to North Cape.**
2. **North-northeastern coastal biogeographic region** – Ahipara around the tip of north Island to **western Bay of Plenty.**
3. **South-northeastern coastal biogeographic region** – **Western Bay of Plenty** to East Cape.
4. Eastern North Island coastal biogeographic region – East Cape down to Cape Turnagain.
5. Western North Island coastal biogeographic region – Ahipara to Cape Egmont.
6. North Cook Strait coastal biogeographic region – Cape Egmont on the west to **Cape Palliser** on the **southeast** coast.
7. **Wairarapa coastal biogeographic region** - Cape Turnagain **down to Cape Palliser.**
8. South Cook Strait coastal biogeographic region – Kahurangi Point on the west coast Strait and the Marlborough Sounds to Cape Campbell on the east coast.
9. **Northeastern South Island coastal biogeographic region** – Cape Campbell to **Conway River.**

10. **Southeastern South Island coastal biogeographic region - Conway River to Timaru.**
11. West coast South Island coastal biogeographic region – Jackson Head north to Kahurangi Point.\*
12. **Fiordland coastal biogeographic region – Jackson head to Long Point, west of Te Waewae Bay.**
13. Southern coastal biogeographic region - **Long Point, west of Te Waewae Bay to Long Point, Catlins.**
14. **Otago/Catlins shelf coastal biogeographic region – Long Point, Catlins up to Timaru.**
15. Chatham Islands coastal biogeographic region – Chatham Islands / Rekohu.

\* The West coast of the South Island should really be divided into two to cover the Buller region and the Westland region. This would be in line with biological regions outlined by Shears *et al* but would also provide smaller and more manageable regions for MPPFs. Forest & Bird supports the proposed region because the West coast marine forum is already established.

The proposed biogeographic regions not only reinforce biological regions supported by peer reviewed reports, they also support practical management regions. For example, Department of Conservation conservancy boundaries (Shears *et al*).

Development of an expert offshore panel for MPA planning and implementation is supported by Forest & Bird. However, it is critical that all stakeholders are equally represented and that clear terms of reference (ToRs) are established. The need for clear ToRs is also applicable to the coastal MPPFs.

#### **4.2 Incorporation of biological data to meet the habitat and ecosystem protection objective (Para. 31-35)**

The draft standards are intended to facilitate the objective of the MPA Policy to protect the full range of marine habitats and ecosystems.

The term ‘habitat’ is fairly well defined in the glossary (p. 27) in terms of giving clear direction towards the ‘physical’ environment. However, physical variables affecting biodiversity include more than simply depth and substrate (referenced in para. 33 and 34). Factors such as exposure (mentioned para. 63), tidal flow regime, temperature, salinity, topography and proximity to oceanographic currents all play fundamental roles in defining our marine biodiversity.

The term ‘ecosystem’ is also fairly well defined. However, the standard appears to have completely disregarded the fact that this includes ‘*communities and surrounding environments*’ (p.26 of the draft standard). Although the term ‘environment’ is not defined, it is realistic that this includes functional biological processes and other biological information. Indeed, network design principle 3 of the MPA Policy states that:

*“Where possible, MPA network planning should be designed to ensure the maintenance of ecosystem processes.”* (para. 70)

It is therefore unacceptable to state that:

*“While additional information results in a more detailed and comprehensive description of the coastal marine environment, it is not required to be represented in an MPA”* (para. 36)

This is contradictory to the definition of network design principles, which includes the statement:

*“Conservation planners therefore should make the best use of all available environmental and biological data to inform decision-making.”* (p.28)

MPA planning in many parts of the world is based on detailed survey work. The argument for adopting a system based purely on physical variables is poorly justified (para. 17 and 18) on the basis of a poor systematic knowledge of our marine environments. Bypassing biological information, even at a baseline level, is not acceptable. To do so would effectively result in the failure to adequately protect our marine ecosystems and therefore the ability to fulfil the objectives of the MPA Policy.

Failure to specify the integration of biological data is also contradictory to the New Zealand government’s approach at the recent CCAMLR/CEP Bioregionalisation Workshop in which biological data was agreed to be incorporated into classification systems for the pelagic and benthic realms. The workshop further made significant progress in deciding upon the important differences between pattern and process data, where the latter are data that describe critical ecological functions but which may vary temporally and spatially.

It must be explained explicitly within the standard how information on ecosystems will be incorporated into MPA planning and implementation and what strategies exist or need to be developed to achieve a baseline level of knowledge to inform the process in each biogeographic region.

The precautionary approach to MPA planning is reflected in planning principle 8, which states:

*“Management actions to implement MPAs should not be postponed because of a lack of full scientific certainty, especially where significant or irreversible damage to ecosystems could occur or indigenous species are at risk of extinction.”*

In those regions with incomplete scientific information, the precautionary approach would be to implement a large MPA network, comprising MPA tools of high value and

ability to meet biodiversity objectives. In doing so decision-makers would be ensuring that a complete range of representative marine habitats and ecosystems are protected.

The proposed use of the 2005 marine environment classification (MEC) (Snelder et al, 2005) for division of the offshore marine environment is unacceptable for similar reasons. The 2005 edition of the MEC was developed for environmental modelling and is a large-scale, physically derived classification that was not intended to represent biodiversity. Although preliminary analysis of some demersal data is incorporated, it lacks essential biological and ecological drivers that are essential to meet the objectives of the MPA Policy.

Current work, which integrates biological data, now provides the best available information (Leathwick *et al*, 2006). Forest & Bird supports the use of this classification system for offshore MPA planning and implementation and insists on the integration of biological data in coastal MPA planning.

#### **4.3 Protection of whole ecosystems**

Marine environments are highly complex and multi-dimensional. Given the multitude of benthic and pelagic couplings, encompassing microscopic symbiotic relationships to intricate predator-prey interactions and extensive vertical migrations, it is fundamental that the ecosystem approach to MPA management is adopted. This requires protection of whole systems, representing both latitudinal and longitudinal variation, but also 3-dimensional variation, from the sea bed to the sea surface.

Forest & Bird is therefore very supportive of the guideline to protect whole habitats and ecosystems (para. 63).

Paradoxical recognition of vertically stratified MPAs in the MPA Policy and draft standards is not supported by Forest & Bird. Such tools ignore biological interactions between seabed biodiversity and other associated fauna in the water column, thus fail to satisfy the objectives of the MPA Policy as defined by the term 'ecosystem'.

Forest & Bird recommends that guidelines be strengthened to better reflect the need to protect whole ecosystems.

#### **4.4 Adequate representation, replication and connectivity**

Representation and replication of latitudinal and longitudinal variation (para. 63) is critical, particularly given the scale of the biogeographic regions. Even if the regions are further subdivided as proposed by Forest & Bird, there still exists huge variation in each. The need for adequate replication must be made more explicit in this regard in the classification standard.

The MPA Policy network design principle 3 states:

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*“The number of replicate MPAs included in the network will usually be two. However, in circumstances where a habitat or ecosystem is particularly vulnerable to irreversible change, more replicates may be established as a national priority.”*  
(para. 70.)

This principle does not appear to be reflected in the draft standards.

The effectiveness of MPA networks in terms of ecological connectivity, one of the factors underpinning the strengths of such designs, is going to be particularly difficult to assess in short-term MPA planning. The draft standard does not provide any guidance on how connectivity between MPAs should be addressed.

Forest & Bird recommends that greater guidance is given in terms of representative MPA replication and strategies to assess ecological connectivity.

#### **4.5 MPA size**

Guidelines directing fewer larger (versus numerous smaller) MPAs (para. 63 and 64), is not fully supported by Forest & Bird. Large MPAs are likely to offer a greater degree of achievement of biodiversity objectives and may hedge against the uncertainties in MPA management (Lauck et al, 1998 and Clark, 1996). However, it is critical that this guideline does not exclude the value of small MPAs, which can still be effective in meeting biodiversity objectives (Roberts and Hawkins, 1997; Halpern, 2003) and may be more applicable in certain situations.

The advantage of MPA networks is that both views can be incorporated depending on the goals and objectives, physical characteristics (currents, topography, exposure, tidal flow regime, fishing pressure) and biological characteristics (community structure, connectivity, endemism and vulnerability) of a region. By limiting the scale of MPAs, the standard could be limiting the ability of an MPA network to protect representative ‘samples’ of our marine biodiversity in each biogeographic region.

Forest & Bird recommends that the draft standards clarify that MPA size should not inhibit biodiversity protection and that small MPAs can be applied where appropriate.

#### **4.6 Planning principle 5 – avoiding user impact**

Forest & Bird is concerned about aspects of the draft standards that deflect from the primary objective of biodiversity protection to a compromise option that addresses minimising impacts on user groups. Planning principle 5 of the MPA Policy states:

*“Adverse impacts on existing users of the marine environment should be minimised in establishing MPAs”*

Impacts on users should indeed be minimised, however, not at the cost of meeting the objectives of the overriding policy in hand. Many MPAs around the world, particularly those with a fisheries focus, have been located and delineated largely on the basis of opportunism and compromise, rather than science (Roberts, 2000). It would be very disappointing if New Zealand followed this inadequate pattern.

The key objective of the MPA Policy is to protect our marine biodiversity through establishment of a network of MPAs. This must be upheld. If MPAs are delineated on the basis of compromise, the objective of the MPA Policy may itself be compromised. New Zealand's MPAs would thus be nothing other than paper parks, contributing little to the protection and recovery of our unique marine biodiversity.

The process of establishing marine reserves in Fiordland suffered from such compromises. Rather than protecting the regions biodiversity hotspots, vulnerable habitats and ecosystems, many of the marine reserves are ill placed and are inadequately meeting the MPA objective.

The draft classification standard outlines that adverse impacts on users should be taken into account where there are choices of several sites that would add similar ecosystem or habitat to the MPA network. Given the limitations to how these terms have been defined and reflected in the draft standards, such an assessment would have to be treated with extreme caution.

Forest & Bird recommends a review of planning principle 5 and development of clearer guidelines in respect of addressing resource users, whilst giving preference to meeting the biodiversity objectives of the policy.

#### **4.7 Timeframes for MPA implementation**

The NZ government has the stated goal to protect 10% of the marine environment in a network of representative MPAs by 2010.

There is no outline of any timeframes for the coastal MPA planning and implementation processes. In order to facilitate the management framework, realistic timeframes need to be agreed.

Due to the need to plan and implement MPAs in accordance with Planning Principle 2 (maintenance and recovery of a site's biodiversity components) and Planning Principle 5 (avoiding impacts on existing users), it would be of most benefit for marine protection in the NZ territorial sea to identify areas rapidly. This would provide timely protection for vulnerable habitats.

In practical terms, the logistics of planning and implementing MPAs in the coastal environment is likely to delay protection and therefore not achieve the stated goal by 2010. A strategy to identify and ensure some interim level of protection for particularly

outstanding, rare, distinctive or internationally or nationally important marine habitats and ecosystems is therefore urgently needed.

Development of MPAs in the offshore marine environment is more feasible within the present timeframe. This is because there is likely to be only one decision making forum and existence of a biologically derived classification system (Leathwick *et al*, 2006).

Acceptance of the Benthic Protected Areas (BPA) proposal includes the agreement to postpone MPA development in the exclusive economic zone (EEZ) until 2013 (para. 5.2 of the BPA accord).

Analysis conducted at the time of the BPA proposal (Leathwick *et al*, 2006) showed that the proposal allowed the least cost imposition on the fishing industry and was not representative of species diversity. The introduction of BPAs is therefore not a sound reason to delay any further marine protection to vulnerable marine systems, nor to identify and implement representative areas of different habitat types for marine protection.

Forest & Bird strongly contests the BPA accord to limit MPA development in the EEZ. Such a restriction is not in the best interests of the biological resources or habitats being managed, nor in accordance with the stated objectives of the MPA Policy.

Given objective 3.6(c) of the NZBS to review the Marine Reserves Act for offshore protection ( Marine Reserves Bill) and the opportunity to meet the target of 10% protection by 2010, Forest & Bird urges the government to progress the development of MPA planning and implementation in the EEZ.

## **5. A critique of the interpretation and application of the protection standard**

### **5.1 Inappropriate burden of proof**

One of the key concerns regarding the MPA protection standard is the approach set out in paragraph 5 and throughout section 9.4, which focuses on MPA delineation on the basis of the degree of a particular threat posed:

*“To declare a site an MPA, we therefore need to identify any human activities and influences that pose a foreseeable threat to biodiversity, and we need to manage those threats by selecting appropriate management tools.”* (Para. 5 of protection standard.)

This requires a high level of information to prove there is an unacceptable impact on biodiversity.

Forest & Bird asserts that this is totally unacceptable as it is contradictory to the precautionary approach to biodiversity protection (planning principle 8 of the MPA Policy) and contradictory to the draft classification standard. It has the effect of putting the burden of proof onto the MPPF and expert offshore panel to prove the nature and extent of any threats at the detriment of biodiversity protection.

Instead, the protection standard should focus on providing adequate MPA tools to protect biodiversity, the burden of proof being laid on users of the marine environment to prove that they do not pose a threat. Where there is no evidence of an effect on biodiversity, but the area comprises a representative habitat or ecosystem for the region, an appropriate MPA tool should be applied. If information is lacking on the adequacy of a tool in meeting biodiversity objectives, decision-makers should be directed to take a cautious approach. This would involve implementing a tool with a greater ability to protect habitats and ecosystems in their entirety.

Forest & Bird recommends that the standard be reviewed to better place the burden of proof on those having a negative impact on our marine biodiversity, rather than those trying to protect it.

### **5.2 Outlining the value of different MPA tools**

Another key concern regarding the MPA protection standard is the failure to clarify the range of MPA tools under consideration and the value of each tool in meeting the objectives of the MPA Policy.

The draft standard states:

*“The draft standard is important because it sets out the outcome we want to achieve for every MPA site in New Zealand – that is we want to have the appropriate management tool(s) in place so that an MPA’s biological diversity is*

*maintained or recovers to a healthy functioning state at the habitat and ecosystem level.” (Para. 4)*

For this objective to be met adequately, the whole ecosystem must be protected. In many parts of the world, MPAs are no-take marine reserves. The draft standard, however, proposes that only certain attributes of habitats and ecosystems be maintained (para. 9).

Fisheries tools such as fishing restrictions or catch limits, cable protection zones, benthic protected areas (BPA) and other voluntary agreements are not usually designed for biodiversity protection. Neither are they of guaranteed quality in terms of compliance and protection of habitats and ecosystems both in the short and long-term.

Failure to clarify the value of the different MPA tools in relation to the objectives of the MPA Policy may have catastrophic effects that would compromise the ability of decision makers to adequately implement the policy itself.

For example, analysis of the proposed benthic protected areas (BPAs) at the time they were proposed by the fishing industry shows that BPAs contain an average protection for demersal fish species of just 9.26%, which is less than a quarter of the protection that would be provided by an equivalent area chosen solely for their biodiversity values (32.8%) (Leathwick *et al*, 2006). In terms of endemic species protection, the study found that BPAs only offer 6.8% protection compared with protection of 56.7% that would be provided by unconstrained selection of sites. So, despite their large geographic area, the BPAs offer a very poor option for the long-term protection of demersal fish diversity in New Zealand’s EEZ (Leathwick *et al*, 2006).

Forest & Bird therefore recommends that the MPA protection standard be re-worded to better reflect how well the MPA tools protect biodiversity.

### **5.3 Representation and replication of MPAs to satisfy the MPA Policy objectives**

Despite offering the highest level of protection and most closely achieving the objectives of the MPA Policy, the protection standard requires that marine reserves protect just one sample of each habitat or ecosystem type. This is somewhat confusing. In practise, this may involve a number of marine reserves within each biogeographic region. However, it may also imply that just one or two marine reserves (if incorporating a number of the habitat and ecosystem types) would satisfy the protection standard.

In implementing an MPA network, it is essential that ecological variability be directly considered on a range of scales. For example, communities on soft sediments at East Cape are unlikely to be the same as those at Cape Turnabout. Similarly, within finer scales, variation exists from one rocky reef to an adjacent reef.

If the MPA Policy is fully implemented to involve a network of MPAs that both protects representative habitats and ecosystems (including those of outstanding, rare, distinctive or

important value) **and** replicates that protection, then a network of tools with a high ability to protect biodiversity (such as marine reserves) is needed within each biogeographic region. Edge effects and external impacts on this network should then be buffered by other MPA tools with a medium to low ability to protect biodiversity.

Forest & Bird recommends that the MPA network design, comprising multiple marine reserves, be made explicit to meet design principle 3 of the MPA Policy.

#### **5.4 Ensuring biodiversity objectives are met**

Selecting sites on the basis of them being remote from human uses to avoid user conflict (Planning Principle 5) and ease the implementation process assumes that all of our marine biodiversity is remote. In practise, this is very clearly not the case, with many unique systems being in close proximity to humans.

The approach to MPA planning should first be to identify any outstanding, rare, distinctive or internationally or nationally important marine habitats and ecosystems and provide some form of interim protection to them. The next step is to collate a more comprehensive assessment of the range of habitats and ecosystems in each biogeographic region.

High level protection can then be strategically applied to those habitats and ecosystems for which there are just one or two examples. Where there are multiple replicates, other planning principles and considerations can be applied.

The primary objective of protecting the full range of habitats and ecosystems must be given the highest priority.

#### **5.5 Inadequate application of planning principle 8 - the precautionary approach**

Forest & Bird supports the proposal to act cautiously when implementing MPAs, taking into account best available information and the precautionary approach. Although recognising costs of MPA implementation to user groups, it is essential that this intention and the following statement are applied throughout the standard:

*“Some human activities may be prohibited in an MPA even though they would be acceptable at that site if no MPA was established”.* (Para 52)

The draft protection standard does not currently reflect this in section 9.4, where consideration is given to how the standard could be applied to different tools available for threat management.

Indeed, the document is misleading in this regard. Attention is directed towards specific threats and tools to manage those threats rather than tools that will best meet the objectives of the MPA Policy.

Better reflection of the precautionary approach (planning principle 8) is needed throughout the draft standard.

### **5.6 MPA monitoring and evaluation processes**

Forest & Bird supports the need for clear monitoring and evaluation of outcomes (section 9.3). These processes need to reflect the degree of achievement of MPA goals and objectives.

The standard proposes the need to assess biological objectives. However, to do so there would have to have been baseline biological monitoring of each MPA. This is not discussed in the document and needs to be considered as part of the overall MPA Policy planning and implementation process.

It is essential in coastal MPA planning that additional objectives, other than biological ones are also recognised so that additional MPA network benefits can be realised. For example, specific social and economic objectives should be clearly stated by each MPPF to reflect the requirements of all stakeholders, particularly local communities that directly influence management activities. These wider objectives must be agreed prior to MPA implementation.

Imbalances in the achievement of economic, social and biological objectives provide the fuel for debate of MPA effectiveness. By maintaining separation between each, a transparent and objective framework is established (Campbell and Gallagher, 2007).

Forest & Bird therefore recommends that monitoring and evaluation of New Zealand's MPA management should assess how well the national biodiversity protection objective is achieved, plus the regional social and economic objectives.

Should you have any queries regarding our comments, please do not hesitate to contact me.

Yours sincerely,

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