

CONCEPT DOCUMENT:

RE-ZONING THE BETTY'S BAY MPA AS A FULLY NO-TAKE MPA

BACKGROUND

The Betty's Bay Marine Protected Area, originally proclaimed as the H.F. Verwoerd marine reserve in terms of the Sea Fisheries Act (1973), lies between Stony Point and Jock's Bay, extending two nautical miles to sea. Initially, no fishing of any kind was allowed, but representations by recreational anglers brought about an amendment to exempt shore angling from the prohibition. In Government Notice No. 21948, 29 December 2000, the H.F. Verwoerd Marine Reserve was re-proclaimed in terms of the Marine Living Resources Act ("MLRA"), Act 18 of 1998. In the process the name was changed to the Betty's Bay Marine Protected Area, in line with the new practise of naming MPAs after geographical features.

The Betty's Bay Marine Protected Area, was originally proclaimed in order to address the progressively declining trends in the availability of line-caught fish and to protect abalone –*Haliotis midae* from over exploitation. The Betty's Bay Marine Protected Area furthermore forms part of the core zone of the United Nations Educational and Scientific Organisation ("UNESCO") designated Kogelberg Biosphere Reserve, with the adjacent marine area from Steenbras Mouth to the Bot River vlei zoned as part of the buffer zone. A core zone of a Biosphere Reserve is intended for biodiversity and ecosystem conservation purposes, where no consumptive utilization should be allowed.

The Betty's Bay MPA is on the western end of the warm temperate south coast. It is a productive and biologically diverse area, supporting substantial fish, invertebrate and algal fisheries. The environment is diverse, with rocky headlands, wave-cut platforms, high energy sandy beaches, pocket beaches, kelp forests, estuaries and extensive sub-tidal reefs and pelagic habitat.

The proclamation and management of marine protected areas is now tending towards ecological functioning where the systems are managed as a whole, aiming for a pristine functioning system as opposed to the preservation of one or two token species. It has been widely recognised that protection of the habitat, and its associated functional processes, is a key element of ensuring ecological sustainability and is therefore a key element of the application of an 'ecosystem approach' (Frid *et al.* 2008). Historically, marine protected areas were selected based on the presence of a specific species or habitat which was the case with Betty's Bay MPA. However, it is now accepted that the preservation of the entire ecosystem and its individual components is more

valuable as it aims for pristine ecosystem functioning providing more opportunity for sustainable protection (Lubchenco *et al.* 2003; Frid *et al.* 2008).

In order for Betty's Bay MPA to reach a state of ideal ecological functioning, all aspects of the ecosystem need to be protected. As it stands, the MPA offers protection to the highly threatened abalone, their habitat and the West Coast rock lobster (WCRL) but offers little protection to the line fish species found in the area. In order for the MPA to function effectively line fish species need to be protected as well.

As a result of the ecological shift in the range of the WCRL there has been added pressure on the already struggling abalone population. The WCRL are threatening the abalone population indirectly by preying on the sea urchins which offer protection to the juvenile abalone (Parker 2012) and adult abalone are under threat by illegal harvesting. The explosion of the rock lobster population is of concern and needs to be addressed. The functioning of the MPA as a no-take will go a long way to rectifying the already dysfunctional ecosystem function.

The Betty's Bay MPA has no defined zones such as Restricted or Controlled zones in terms of Marine Protected Area legislation; however it is managed as a Controlled zone by definition in that certain activities are allowed, whilst others are prohibited. In this case shore-angling is allowed.

Within the boundaries of the MPA, all marine organisms are protected and no fishing is allowed, with the exception of shore angling between Stony Point and to the east of Jock-se-baai, extending two nautical miles seawards from the high-water mark. The latter includes shore angling competitions which are held on a regular basis in the Betty's Bay MPA.

The surrounding area is intensively utilised for recreational rock and surf fishing, rock lobster fishing, boat fishing and bait collecting. The area is also a very popular holiday area and experiences increased fishing pressure during long weekends, school holidays and public holidays. Fish stocks have been heavily exploited by continuous angling with little regard for size and bag limits.

The Bettys Bay MPA has been at the centre of discussions for at least fifteen years over illegal harvesting of abalone and the impact of recreational fishing on the fish stocks in the region. No concrete actions have been taken by the Department of Environmental affairs to revise the MPA despite:

1. Presentations made to the Consultative Advisory Forum (2000), the Deputy Director-General (Pretoria, 2000), and the Director-General (Plein Street, 2003) recommending that the MPA be closed to all forms of exploitation. The CAF endorsed the proposal;

2. A broad stakeholder meeting attended by the Provincial Minister of Economic Affairs, where MCM was represented by, among others, the Deputy Director-General to discuss the MPA and related problems (Kleinmond, May 2002);
3. A WWF-funded project to establish a Business Plan for a revised Bettys Bay MPA (2003-2004);
4. Representations by commercial fishers to the Department to implement the revised plan as the existing MPA is detrimental to their operations;
5. Repeated proposals by concerned residents through the coastal committee of the Cape Action for People and the Environment (CAPE) Programme and the Kogelberg Marine Working Group; and
6. The implementation of the WWF C.A.P.E. Marine Programme which focussed on the Kogelberg area, with the objective of ensuring socio-economic benefits while also securing the biodiversity estate. A proposal from this programme suggested that 20% of the project area be set aside as a no-take MPA. Bettys Bay MPA was highlighted as a priority for re-zonation within this programme of work.

These attempts did not come to fruition, primarily because of a lack of a suitable management agency and funding at the time. These obstacles have now largely been removed. Funding is available and CapeNature is managing the MPA. The proposed Kogelberg Integrated Coastal and Marine Management Plan also sets out clear guidelines for operational management of the area.

RATIONALE FOR RE-ALIGNMENT:

Clark & Lombard (2007) in the Agulhas Bioregional Plan identified re-zonation of the Bettys Bay MPA to a full no-take MPA as a priority for meeting national targets to protect intertidal habitats and to assist in linefish conservation. The Agulhas Bio-Regional Plan also stressed that more important than expanding the existing MPA network, was the need to improve management within existing MPAs and for upgrading the levels of protection in those MPAs that allow for the exploitation of living resources. In other words, this further supports the proposal towards rezoning the Bettys Bay MPA to include no-take areas from the shore.

As part of the broader proposal for a Kogelberg Marine Area within the Kogelberg Biosphere, Clark *et al.* (2007) proposed three no-take zones within the boundaries, including the re-zonation of the current Bettys Bay MPA to a fully restricted zone. This is suggested to allow areas where stocks of

commercially valuable species can recover, breed and provide spill-over benefits to the surrounding area and thereby ensure long-term sustainability.

According to the Bettys Bay MPA management plan (Du Toit; 2009), the Kogelberg was proclaimed as South Africa’s first Biosphere Reserve in 1998. Marine and Coastal Management, who was the management authority at the time (Now DEA: Branch Oceans & Coasts) was a signatory to the agreement, and pledged to include the marine area into the Biosphere Reserve. Preservation of natural resources and sustainable utilisation of those resources are the objectives around which Biosphere Reserves are designed. Biosphere Reserves are always zoned into areas of varying levels of human activity. It was proposed that the existing marine reserve be used as the core area (zone of highest protection where no consumptive utilisation is allowed), while the other areas would be classed as buffer zones (zones where controlled exploitation would occur).

The National Protected Area Expansion Strategy (2008) sets protected area targets for the inshore marine bioregions and recommends an increase of fifteen additional kilometres of No-Take MPA within the Agulhas region (Table 1). Closure of the Bettys Bay MPA to shore-based angling will go a long way to meeting these minimum targets.

Table 1: National Protected Area Expansion strategy for inshore marine targets.

Bioregion	Length km*	Required in next 5 years			
		No-take		Total	
		km	%	km	%
Namaqua	684	26	3.8	43	6.3
SW Cape	420	3	0.7	--	--
Agulhas	1706	15	0.9	38	2.2
Natal	693	15	2.2	8	1.1
Delagoa	153	--	--	--	--
Total	3656	56	1.5	88	2.4

A key finding of the National Biodiversity Assessment (Sink *et al.* 2011) is that South Africa's MPA network plays a key role in protecting marine and coastal habitats and sustaining fisheries. Coastal protected areas can support rural livelihoods and local economic development through providing jobs and opportunities for ecotourism and conservation-related industries. Fully protected MPAs help sustain fisheries by protecting breeding resources and by seeding. The report further suggests that the existing MPA network is expanded by implementing new no-take zones within the current network of MPAs.

Turpie *et al.* (2011) in "The Ecology, Value and Management of the Kogelberg Coast" states that the restoration and conservation of depleted and collapsed marine resource stocks through improved conservation measures will greatly enhance the economic and social benefit of the Kogelberg coastline and that this may be achieved through ensuring that the Bettys Bay MPA becomes a full no-take MPA.

In summary, there is repeated evidence of efforts made over the last decade to ensure that the Bettys Bay Marine Protected Area is re-gazetted as a full no-take MPA. This will ensure protection of critically important commercial species and allow the proper functioning of the MPA. The process for re-zonation has been highlighted as a priority action at a number of recent National MPA Forums and sits on the workplan of DEA: Branch Oceans & Coasts personnel that are responsible for the management of South Africa's MPAs.

OPTIONS FOR DESIRED STATE:

Delivery of the ecological functioning of a healthy ecosystem can be incorporated in the designation of MPA management in two ways. First, in setting the boundary of the MPA to ensure key functions are protected by the MPA designation, and second, in setting the management objectives for the site, so that performance of the management regime can be assessed against them (Frid *et al.* 2008). At the present time the latter objective is more desirable as the Betty's Bay MPA already encompasses the key functions of the area and what is needed is a shift towards a no-take scenario where the MPA is shifted towards optimal ecological functioning. Rezoning of the MPA to allow for effective ecological functioning and developing monitoring and compliance protocols will move the MPA towards the desired ecological state.

The Bettys Bay MPA is a no-take area for ski-boat angling and spearfishing but shore-based angling is allowed. Through this proposal it is suggested that the entire area be re-gazetted as a full no-take MPA where no consumptive resource use may take place. Non-consumptive utilization will continue

to be allowed. Due to the rampant abalone and crayfish poaching that is currently taking place, it is further recommended that:

1. SCUBA diving in the MPA is permitted with a recreational diving permit only (This is the same for most other MPAs in the country. It will be possible to purchase a permit for this purpose from the Post Office as is the case for a recreational fishing licence).
2. Free diving in the MPA is permitted with a recreational dive permit only (This is not applicable in other MPAs in the country and is designed specifically as an anti-poaching measure for the Betty's Bay MPA– i.e. is designed to exclude non-bone fide recreational divers from the MPA. The aim would be to enable prospective free divers to purchase a permit from the Post Office as is the case for a recreational fishing licence. The feasibility of this must still be confirmed. Ideally a single licence would cover both SCUBA and free diving in the Betty's Bay MPA).
3. Diving (SCUBA and free diving) in the MPA is only be permitted between 08h00 and 16h00 every day (i.e. no night diving).

This approach will greatly aid compliance and legislation within the MPA.

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