The National Coastal and Marine Spatial Biodiversity Plan

Map of Critical Biodiversity Areas and Ecological Support Areas (CBA Map) and Sea-Use Guidelines Version 1 (Beta 1)



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of the Federal Republic of Germany

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- Biodiversity planners of South Africa who have developed a strong community of practice over the last two decades
- Scientists who contribute the foundational research to inform spatial assessments and plans
- DEFF's National Marine Biodiversity Scientific Working Group
- National EBSA Working Group
- Provincial and Metro Biodiversity Planning Working Group
- Participants of the **Biodiversity Planning Forum**
- Estuarine and inland water scientists for initial discussions around advancing and integrating spatial biodiversity priorities across realms
- Altogether, representatives from nearly <u>100 organisations</u> have attended various presentations and discussions relating to this work
- International reviewers: Dr Hedley Grantham (Wildlife Conservation Society) and Dr Kira Gee (Helmholtz-Zentrum Geesthacht)

What is a Spatial Biodiversity Plan?



 Spatial plan for the natural environment designed to inform planning and decision-making in support of sustainable development

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ABLE 4.6: Critical Biodiversity Area Categories and Land Use Zone

Map of Critical Biodiversity Areas and Ecological Support Areas (CBA Map)



FIGURE 3.1: Biodiversity Spatial Plan Map of the Western Cape

Accompanying land-use (or sea-use) guidelines

	LAND USE CATEGORIES	Conse	rvation	Agric	ulture	Touris Recrei Faci	m and ational ities	Ru Accom	iral odation		Urban		Bu	siness (& Indus	trial	Infras	tructur	e Install	ations
	LAND (SE SUB-CATEORES (Paller 1: table 4.7 for descriptions)	Proclaimed Protected Areas	Other Nature Areas	Intensive Agricuture	Extensive Agriculture	Low Impact Fadiities	High Impact Facilities	Agri-worker Accommodation	Small holdings	Urban Development & Expansion	Community Facilities & Institutions	New Settlements	Rural Business	Non-place-bound Industry (forw-moderate impact)	Non-place-bound Industry (high impact)	Extractive Industry (ind. Prospecting)	Linear – roads & rail	Linear – pipetines & canals	Linear – powerines	Other Utilities
MAP CATEGORY	DESIRED MANAGEMENT OBJECTIVE		s: Permis ompromis	sible lan e the bio	d uses th diversity	at are lii objectiv										No: La the biod	iversity i not per	that will i objective missible	and are	ise
Protected Area	Must be kept in a natural state, with a management plan focused on maintaining or improving the state of biodiversity.			Lan	d use wi	thin proc	laimed p	rotected a	areas are	subject	to manaç	jement p	lan draw	n up for	that spe	cific prot	ected are	18.		
Critical Biodiversity Area 1	Keep natural, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land-uses are appropriate.	Ø	Ø	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
Critical Biodiversity Area 2	Keep natural, with no further loss of habitat. Degraded areas should be rehabilitated. Only low-impact, biodiversity-sensitive land-uses are appropriate.	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	8	8	0
Ecological Support Area 1: Terrestrial	Maintain in a functional, near-natural state. Some habitat loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised.	Ø	Ø	0	8	8	0	0	0	0	0	0	8	8	0	0	8	8	8	8
Ecological Support Area 1: Aquatic	Maintain in a functional, near-natural state. Some habitat, loss is acceptable, provided the underlying biodiversity objectives and ecological functioning are not compromised.	Ø	Ø	0	8	8	0	0	0	0	0	0	0	0	0	0	8	8	8	0
Ecological Support Area 2	Restore and/or manage to minimise impact on ecological infrastructure functioning especially soil and water-related services.	Ø	Ø	0	8	8	0	0	8	0	0	0	0	0	0	0	8	8	8	8
ONA: Natural to Near-Natural	Minimise habitat and species loss and ensure ecosystem functionality through strategic landscape planning. Offers flexibility in permissible land-uses, but some authorisation may still be required for high impact land uses.	Ø	Ø	8	Y	8	8	0	8	8	8	ß	8	8	8	8	8	8	8	8
ONA: Degraded	Minimise habitat and species loss and ensure ecosystem functionality through strategic landscape planning. Offers flexibility in permissible land-uses, but some authorisation may still be required for high impact land uses.	8	8	ß	Y	Y	8	8	Ø	8	8	ß	ß	ß	8	8	Ø	Ø	Ø	0
No Natural Remaining	These areas are suitable for development but may still provide limited biodiversity and ecological infrastructure functions and should be managed in a way that minimises impacts on biodiversity and ecological infrastructure.	8	8	Ø	Ø	Ø	0	0	Ø	0	0	Ø	Ø	Ø	0	0	0	0	0	0

Pool-Stanvliet et al 2017

What is a Spatial Biodiversity Plan?





Well established on land Botts et al 2019 Cons. Biol.

What are Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs)?

There are five categories of biodiversity priority areas

Category	Definition	Broad management
		objective
Protected	Protected areas declared or recognised in the National Environmental	As per each Protected Area
Areas	Management: Protected Areas Act (No. 57 of 2003)	Management Plan

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Category	Definition	Broad management objective			
Protected	Protected areas declared or recognised in the National Environmental	As per each Protected Area			
Areas	Management: Protected Areas Act (No. 57 of 2003)	Management Plan			
CBA 1	Irreplaceable or near-irreplaceable sites where there are no other options to represent the features they contain in the landscape. Ideally these sites are natural or near-natural, but exceptions can be made if the only sites where a feature exists are degraded.	Must be kept in a natural or			
CBA 2	Sites that are the best option available for representing the features in a spatial prioritisation. Ideally these sites are natural or near-natural, but exceptions can be made if the only sites where a feature exists are degraded.	near-natural state			

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CBA 2	Sites that are the best option available for representing the features in a spatial prioritisation. Ideally these sites are natural or near-natural, but exceptions can be made if the only sites where a feature exists are degraded.			
ESA 1	Sites that are not CBAs but are still important for meeting targets for biodiversity and ecological processes. These sites must be in natural, near-natural or moderately modified ecological condition.	Must be kept in at least a functional state (ideally at		
ESA 2 Sites that are not CBAs but are still important for meeting targets for b and ecological processes. These sites are generally in severely modifie ecological condition.		modified ecological condition)		

Version 1 (Beta 1)



Beta version: a version that is made available for testing, typically by a limited number of users beyond the people developing it, before its general release.

We will have **two beta versions** before releasing Version 1 in Feb/March 2021

Unprecedented opportunity to do proper planning across the land-sea interface



New integrated map of ecosystem types

Ecologically determined coastal zone

Harris et al. 2019 Biol. Cons., Harris et al. 2019 NBA Coast

Planning domain

Coastal land: existing priorities included **Ocean**: new prioritisation



How to develop a CBA Map

Input layers

Biodiversity features and design elements



Spatial Prioritisation

Marxan analysis, criteria from the Technical Guidelines



CBA Map

Compiled spatial biodiversity priorities including protected areas, critical biodiversity areas, and ecological support areas



Input layers: biodiversity features and design elements

Ecosystem Types





EBSAs



Unique features

Input layers: biodiversity features and design elements



Biodiversity inputs to be expanded to include more features, species, processes, ecological infrastructure

Input layers: cost

NBA 2018 cumulative pressure map: combined (current and historical) intensity of all activities at sea



Design element to be improved to strengthen conflict avoidance

CBA Map Version 1 (Beta 1)





Activity compatibility with the management objective of CBAs and ESAs

		Critical Biodiversity Areas	Ecological Support Areas			
	Type of activity	Compatibility with the management objective to: keep the site in a natural / near- natural state	Compatibility with the management objective to: keep the site in at least a functional state			
	Activities that would (or could) result in Severe or Very Severe degradation over broad areas	Not compatible <u>Management recommendations</u> : The activity should not be permitted to occur in this area because it is not compatible with the management objective. If it is considered to be permitted as part of compromises in MSP negotiations, it would require alternative CBAs and/or offsets to be identified. However, if this is not possible, it is recommended that the activity remains prohibited within the CBA.	Conditionally compatible <u>Management recommendations</u> : Careful regulations and controls over and above the current general rules and legislation would be required to be put in place to avoid unacceptable impacts on biodiversity features. Examples of such regulations and controls include: avoiding intensification or expansion of current impact footprints; exclusions of activities in portions of the zone; additional gear restrictions; temporal closures of activities during sensitive periods for biodiversity features; etc.			
		Conditionally compatible	Conditionally compatible			
	Activities that would (or could) result in Severe or Very Severe degradation of localised sites	Management recommendations: Careful regulations and controls over and above the current general rules and legislation would be required to be put in place to avoid unacceptable impacts on biodiversity features. Examples of such regulations and controls include: avoiding intensification or expansion of current impact footprints; exclusions of activities in portions of the zone; additional gear restrictions; temporal closures of activities during sensitive periods for biodiversity features: etc.	Management recommendations: Careful regulations and controls over and above the current general rules and legislation would be required to be put in place to avoid unacceptable impacts on biodiversity features. Examples of such regulations and controls include: avoiding intensification or expansion of current impact footprints; exclusions of activities in portions of the zone; additional gear restrictions; temporal closures of activities during sensitive periods for biodiversity features: etc			
		Conditionally compatible	Compatible			
	Activities that would (or could) result in or contribute to Moderate degradation	Management recommendations: Careful regulations and controls over and above the current general rules and legislation would be required to be put in place to avoid unacceptable impacts on biodiversity features. Examples of such regulations and controls include: avoiding intensification or expansion of current impact footprints; exclusions of activities in portions of the zone; additional gear restrictions; temporal closures of	Management recommendations: Activities should be allowed and regulated by current general rules. Notwithstanding, there should still be duty of care, possibly requiring monitoring and evaluation programmes, to avoid unintended cumulative impacts to the biodiversity features for which this area is recognised.			
		Compatible	Compatible			
	Activities that would (or could) result in low to very low degradation	<u>Management recommendations:</u> Activities should be allowed and regulated by current general rules. Notwithstanding, there should still be duty of care, possibly requiring monitoring and evaluation programmes, to	Management recommendations: Activities should be allowed and regulated by current general rules. Notwithstanding, there should still be duty of care, possibly requiring monitoring and evaluation programmes, to			
the second second second	by biodiversity zones	avoid unintended cumulative impacts to the biodiversity features for which this area is recognised.	avoid unintended cumulative impacts to the biodiversity features for which this area is recognised.			

Sea-use guidelines: compatibility with the CBA or ESA management objective

Broad sea use	Associated MSP Zones	Associated sea-use activities	CBA	ESA
	Strict Biodiversity Conservation Zone I: Marine Protected Area	Sea-use activities as per gazetted MPA regulations	N/A	N/A
Conservation	Strict Biodiversity Conservation Zone II: Other Effective Conservation Measures	Critical Biodiversity Area (CBA)	Y	N/A
	Environmental Impact Management Zone	Ecological Support Area (ESA)	N/A	Y
		Beach visiting, recreation, non-motorised water sports	Y	Y
		SCUBA diving	Y	Y
		Shark cage diving	Y	Y
D. I		Whale watching	Y	Y
Recreation and tourism	Marine Tourism Zone	Motorised water sports (e.g., jet skis)	С	Y
		Recreational boat-based linefishing	С	Y
		Recreational shore-based linefishing	С	Y
		Spearfishing	С	Y
		Shark control	С	Y
		Shipwrecks	Y	Y
Heritage	Heritage Conservation Zone	Sites of historic importance	Y	Y
J		Sites of land- or seascape value	Y	Y
		Crustacean trawling	N	Ċ
		Demersal inshore trawling	N	c
		Demersal offshore trawling	N	C
	Priority Fishing Zone	Abalone harvesting	C	v
		Commercial linefishing	C	
		Demercial hake longlining	C	
		Kelp happenting	C	
		Nelp harvesting	0	T
		Reach esiming	0	T
		Beach seining	0	Y
Fisheries		Gilinetting	C	Y Y
		Oyster harvesting	C	Y
		Pelagic longlining	C	Y
		Small pelagics tishing	C	Y
		South coast rock lobster harvesting	C	Y
		Squid fishing	C	Y
		Tuna pole fishing	C	Y
		West coast rock lobster harvesting	С	Y
	Small Scale/Subsistence Fishing Zone	Subsistence fishing	С	Y
	Fisheries Resource Protection Zone	Resource protection	Y	Y
Aquaculture	Priority Mariculture Zone	Sea-based aquaculture	С	Y
		Mining: prospecting (non-destructive)	С	Y
Mining	Mining Zone	Mining: prospecting (destructive, localised impact, e.g., bulk sampling)	С	С
		Mining: mining construction and operations	N	С
		Petroleum: exploration (non-destructive)	С	Y
Petroleum	Petroleum Zone	Petroleum: exploration (destructive, localised impact, e.g., exploration wells)	С	С
		Petroleum: production	N	С
Renewable Energy	Renewable Energy Zone	Renewable energy installations	С	Y
	Military Practice Zone	Missile testing grounds	С	Y
Defence	Military Fractice 2016	Training and practice areas	Y	Y
	Disused Ammunition Dumping Areas	Ammunition dumping site (*disused)	N*	N*
Transport		Shipping lanes (including port approach zones)	Y	Y
	Mailine Trends d Zana	Ports and harbours	N	С
	Manume Transport Zone	Anchorage areas	С	Y
		Bunkering	С	Y
		Undersea cables	С	Y
	Underwater Infrastructure Zone	Seawater inlets	С	Y
Infrastructure		Pipelines	С	Y
	Land-based Infrastructure Zone	Coastal development (including piers, breakwaters and seawalls)	N	C
		Waste-water	C	Y
Disposal	Disposal Zone	Dumping of dredged material	N	C

The process towards MSP

The envisaged process



Next steps for the CBA Map and sea-use guidelines



Planning-unit size and coastal integration

Estuary priorities

Sea-use guidelines

Technical Guidelines

Next steps for the CBA Map and sea-use guidelines

Unmapped areas of high conflict





Species data



N/A N/A

Y N/A

Ecological corridors



Ecological infrastructure

Technical Guidelines for CBA Maps:

Guidelines for developing a map of Critical Biodiversity Areas & Ecological Support Areas using systematic biodiversity planning





Revisions to the Technical Guidelines

Sea-use activities as per gazetted MPA regulations rine Protected Area ict Biodiversity Conservation Zo Critical Biodiversity Area (CBA SCUBA diving Shark cage divir hale watchin ecreatio and touris reational boat-based linefishi eational shoreeritage Conservation Zon tes of historic tes of land- or seascape va rustacean trawlir emersal offshore traw balone harvesting mercial linefishir elp harvestin water trawl Beach seining illnetting lyster harvestin

Planning-unit size and coastal integration

Estuary priorities

Sea-use guidelines

Timelines and opportunities to contribute

22 October 2020	National Coastal and Marine Spatial Biodiversity Plan Version 1 (Beta 1) released
15 November 2020	Deadline for data
early December 2020	National Coastal and Marine Spatial Biodiversity Plan Version 1 (Beta 2) released
31 January 2021	Deadline for data
End February/early March 2021	National Coastal and Marine Spatial Biodiversity Plan Version 1 released
March 2021	Initial input from the biodiversity sector into MSP
During MSP process	Iterative updates and revisions: CBA Map and MSP processes
December 2022	National Coastal and Marine Spatial Biodiversity Plan Version 2

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South Africa

Marine Spatial Biodiversity Priorities: Feedback forms

- 1. Comments and questions
- 2. Data submission
- 3. EBSA zoning and management (sea-use guidelines)



Content on the EBSA Portal (including this meeting's page) is being updated: 22 October – 2 November 2020



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On behalf of:

of the Federal Republic of Germany