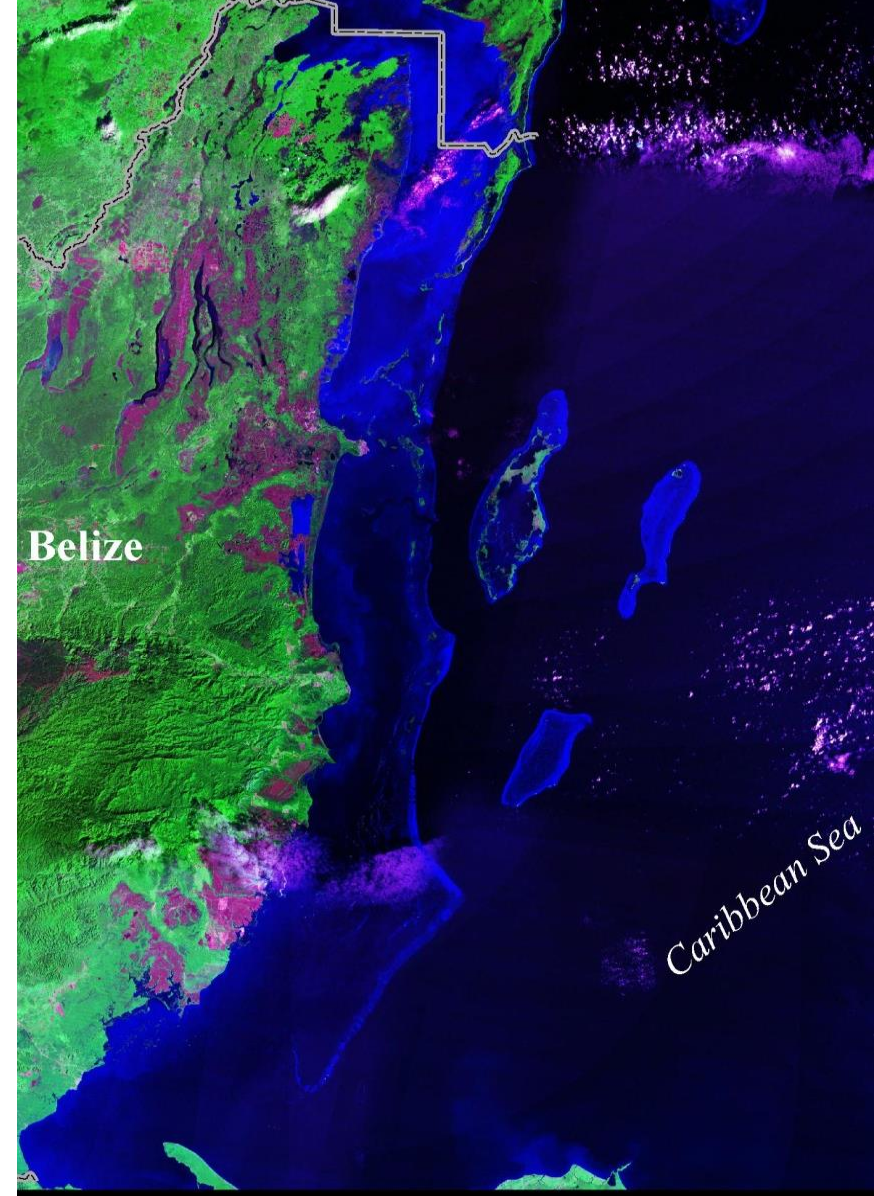


Expanding Belize's Network of Marine Protected Areas

Ralva Lamb Lewis
10th May, 2022





National Replenishment Zones Expansion Project Overview

Project Overview

Project Rationale: Small marine area under full protection and under-representation of key habitats

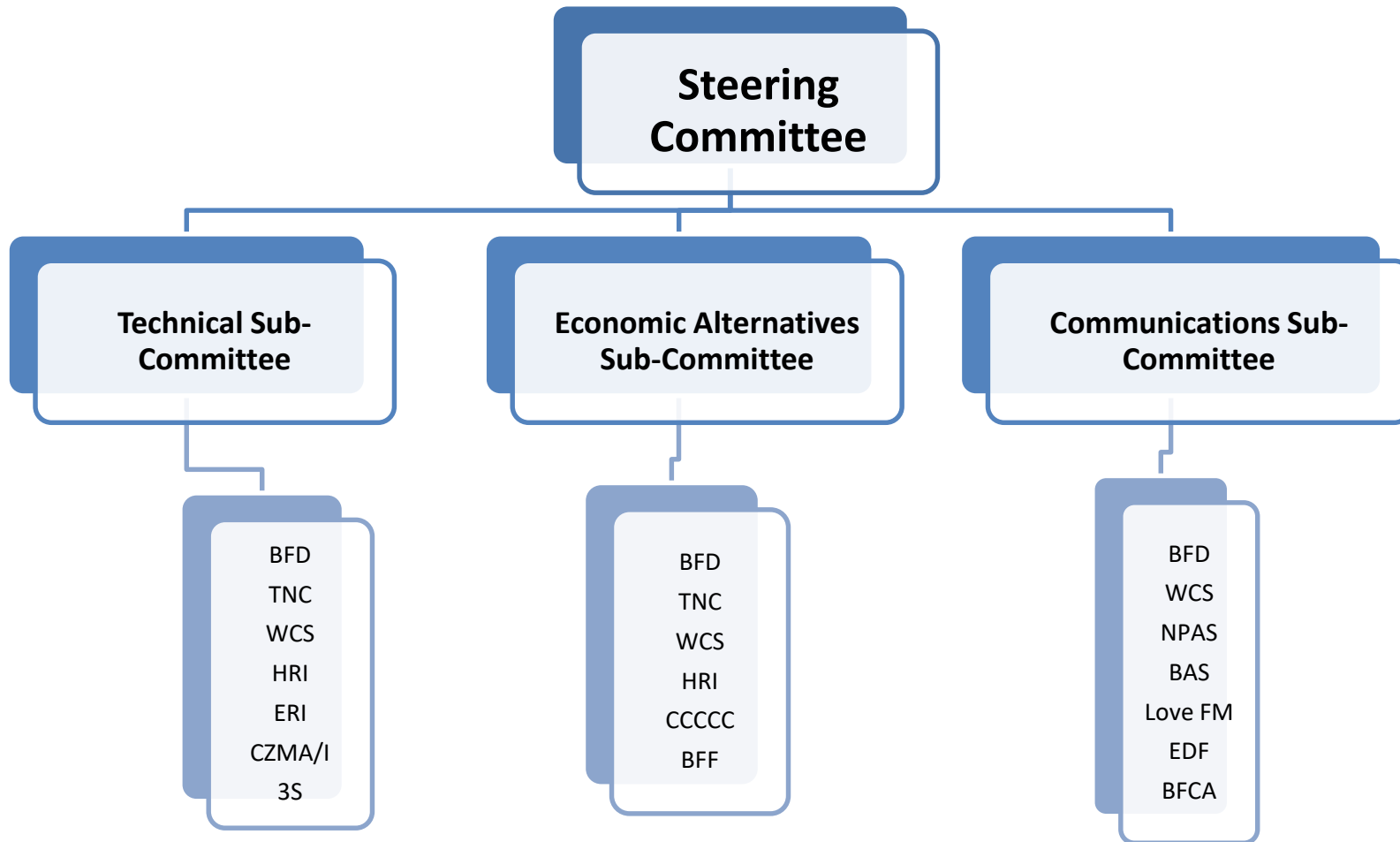
Project Goal: To expand Belize's network of marine protected areas to designate at least 10% of the territorial sea as strictly protected areas (IUCN Cat. I & II) by the end of 2020

Project Outputs: At least 10% of marine ecosystems are fully protected and form integral part of MPA network
Fully compliant with international obligations
Increased biodiversity protection and economic benefits to fishers

Project Benefits:
Strengthen National Security Efforts
Ensure Food Security
Secured Livelihoods



Project Oversight



Economic Alternatives and Fisheries Diversification Plan



Communications Strategy

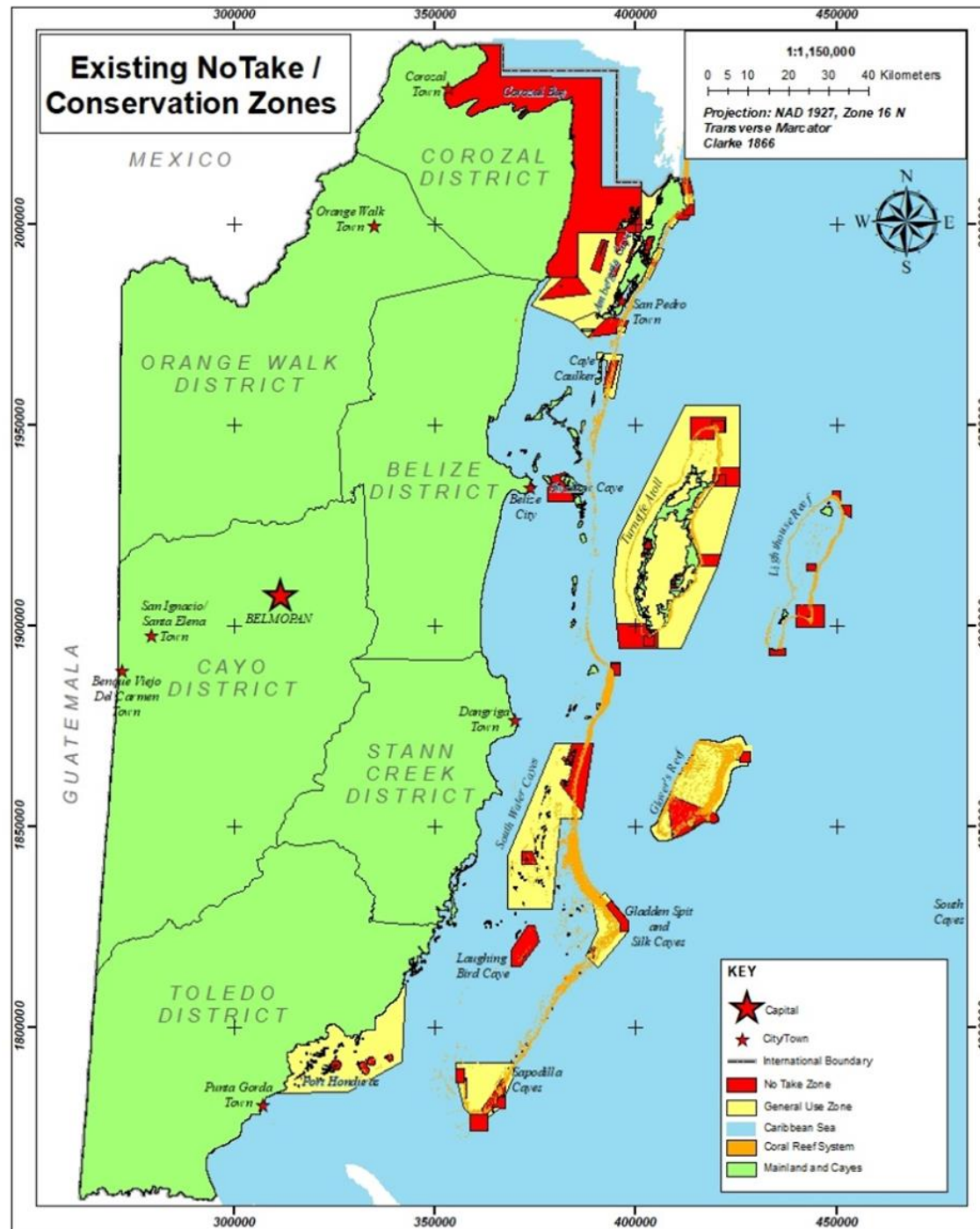




Initial Status of Protection at Start of the Project

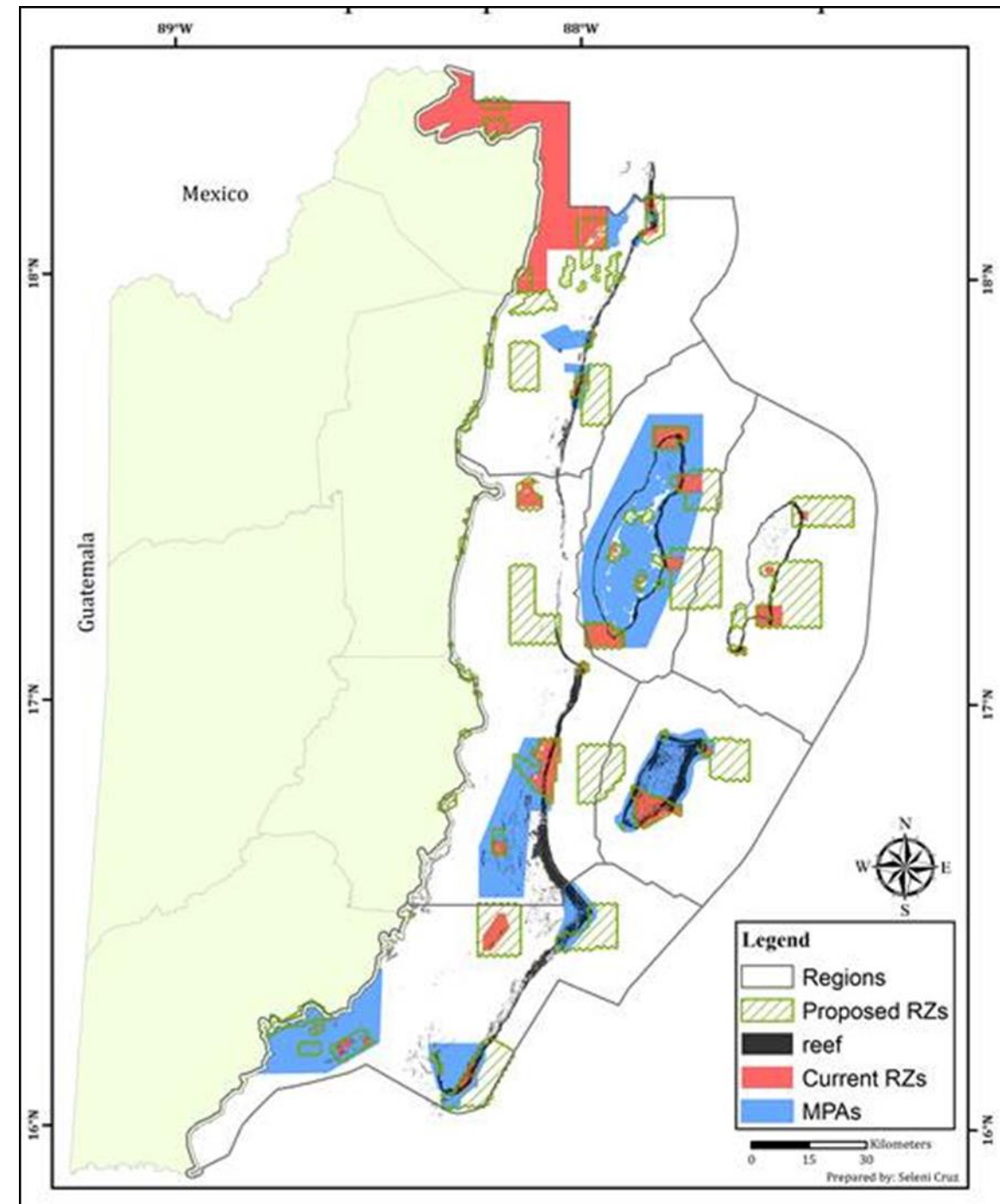
Representation of Replenishment Zones and General Use Zones within Belize's Territorial Waters (2019 prior to SCMR Expansion)		
	Area (ha)	Area (%)
Belize Territorial seas without Cayes	1865,416.95	100%
Marine Protected Areas	405,512.67	21.74%
Legally designated No-Take/Replenishment Zones	134,262.41	7.20%

The Government of Belize in collaboration with partners have agreed that in order to meet biodiversity, fisheries and climate adaptation objectives, a minimum of 10% of all habitat types need to be fully protected in an efficient network of Replenishment Zones (RZs) where no extractive activities are allowed.



Technical Design

- 20 fisheries, climate and ecosystem data layers
- 10 socio-economic data layers
- Incorporation of a cost model
- Interactive PC based tool for consultation
- Results: Great synergy among all scenarios
- Keeping existing replenishment zones and preferably expanding in existing marine reserves



Recommendations for Project Design

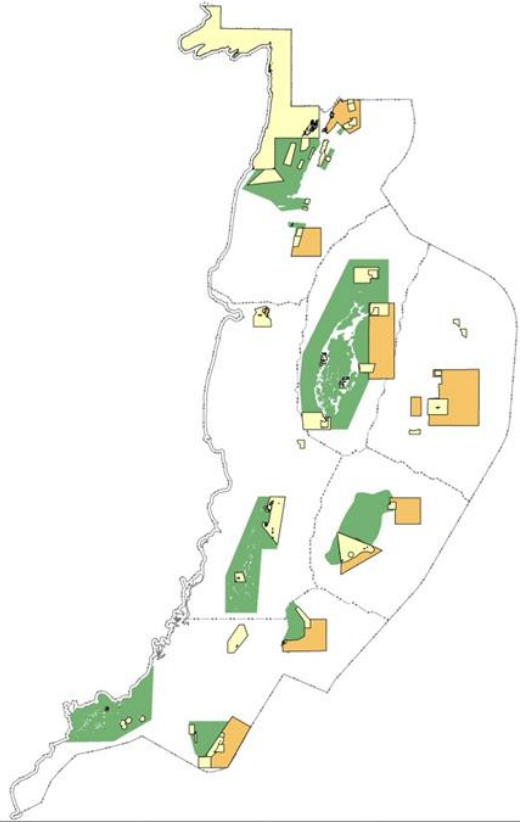
- It was recommended that a phased approach be taken for expanding the system of replenishment zones.
- Phase 1 refers to open sea expansion.
- These areas are the most underrepresented in the present Marine Protected Areas (MPA) system.
- The deep sea fishery is a developing fishery. Anticipating the expansion of the fishery, the precautionary principle is being applied.
- Satisfies the 10% conservation goal, including areas of special interest such as SPAGS, turtle nesting sites, resilient sites.
- Satisfies the guiding principles for replenishment zones including connectivity, representativeness and replication of habitats.

Community Consultations

Consultation 1: Phase I Replenishment Zone Expansion		
Date	Location	MPA
20 th May 2015	San Pedro	Bachalar Chico Marine Reserve
21 st May 2015	Belize City	Turneffe Atoll Marine Reserve & Lighthouse Reef Atoll
21 st May 2015	Placencia	Gladden Spitt & Silk Cayes Marine Reserve
28 th May 2015	Hopkins	Glovers Reef Marine Reserve
2 nd June 2015	Caye Caulker	Caye Caulker Marine Reserve
3 rd June 2015	Punta Gorda	Sapodilla Cayes Marine Reserve
Consultation 2: Phase I Replenishment Zone Expansion		
Date	Location	MPA
8 th July 2015	San Pedro	Bachalar Chico Marine Reserve
9 th July 2015	Belize City	Turneffe Atoll Marine Reserve & Lighthouse Reef Atoll
10 th July 2015	Placencia	Gladden Spitt & Silk Cayes Marine Reserve
15 th July 2015	Hopkins	Glovers Reef Marine Reserve
10 th March 2016	Caye Caulker	Caye Caulker Marine Reserve
11 th March 2016	Punta Gorda	Sapodilla Cayes Marine Reserve
16 th March 2016	Belize City	Presentation to Belize Game Fish Association



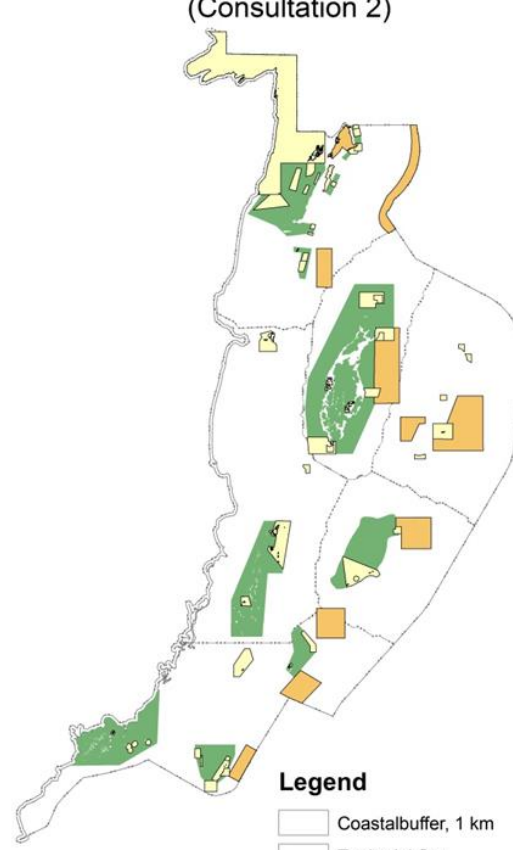
Proposed Phase 1 before consultations



Proposed Phase 1 Consultation 1



Proposed Phase 1: Validated (Consultation 2)



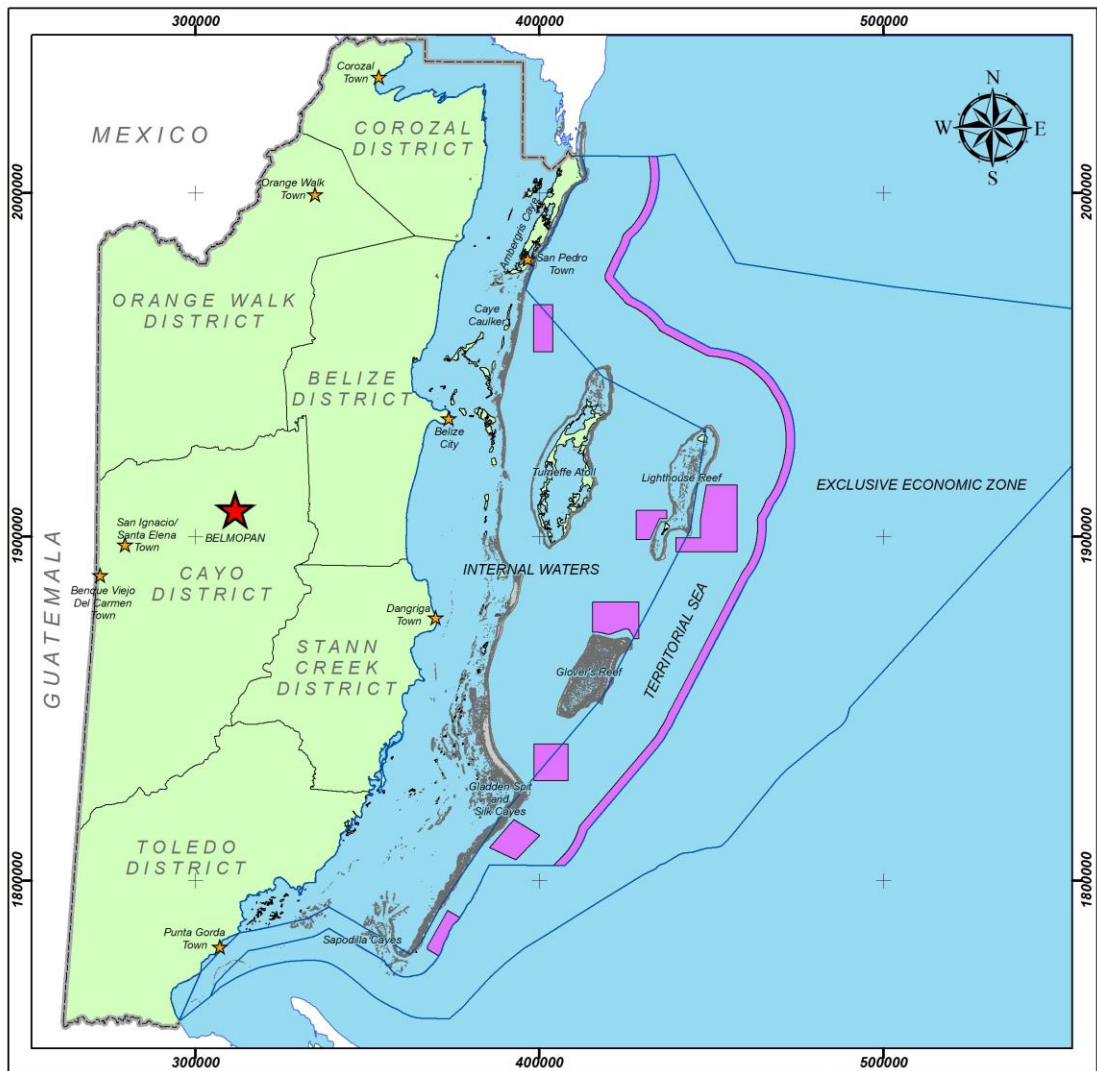
% Habitat Representation

Habitat	Existing RZ	Phase 1	Consultation 1	Consultation 2
Abyssal	0.0	10.0	10.1	10.1
Bathyal	0.2	10.5	14.3	14.3
Mesopelagic	2.9	11.1	11.7	12.0
Coastal Shelf	7.8	14.4	10.5	10.1



Legend

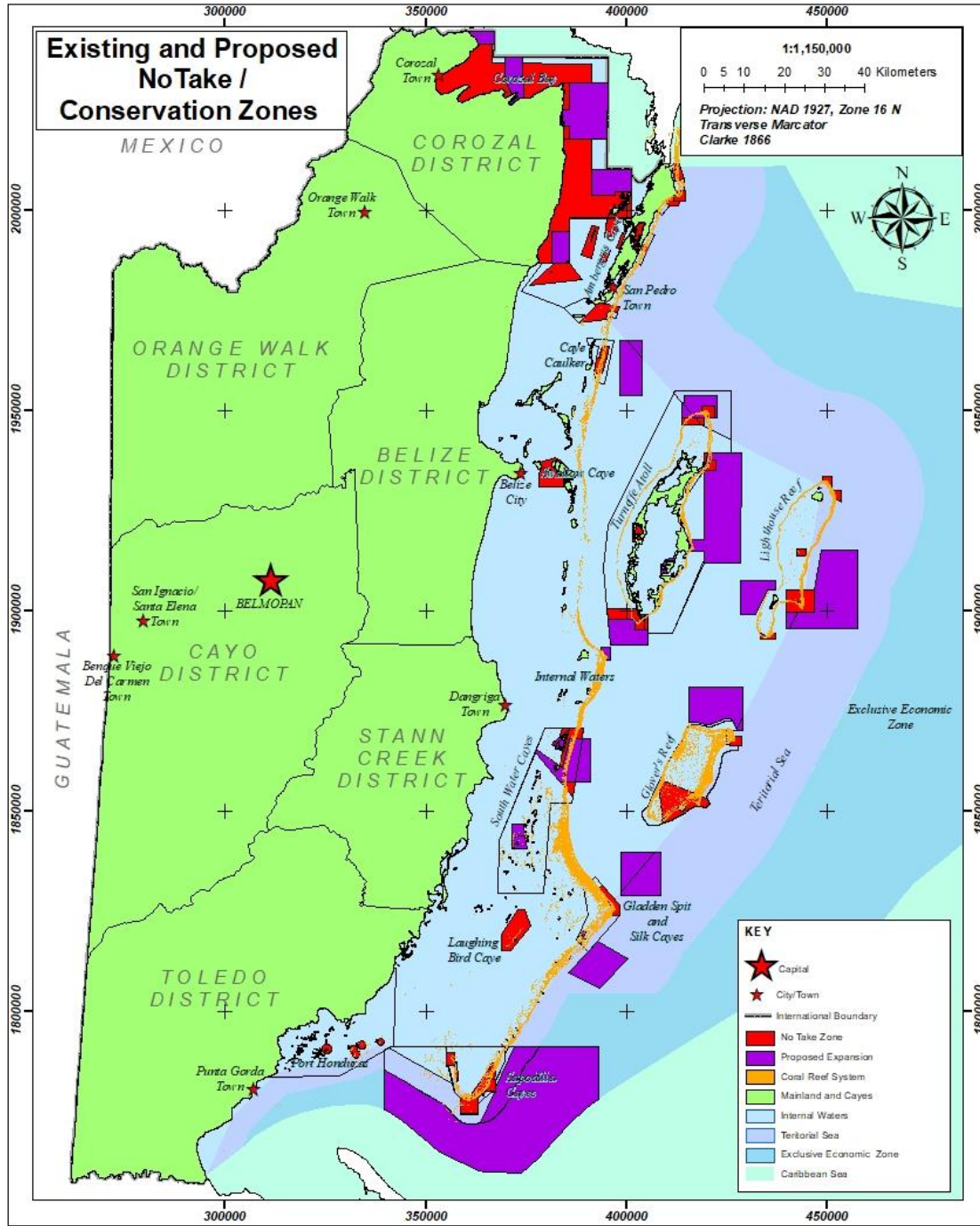
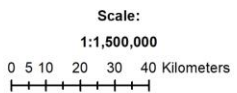
- Coastal buffer, 1 km
- Territorial Sea
- Regions
- MPA- Replenishment Zones
- MPA- General Use Zones
- Proposed RZ



Proposed Replenishment Zones Expansions within the Territorial Sea, Belize, C.A.

- KEY**
- ★ Capital
 - ★ City/Town
 - International Boundary
 - ▭ Territorial Sea Regions
 - ▭ Reef
 - ▭ Mainland and Cayes
 - ▭ Proposed Replenishment Zones
 - ▭ Caribbean Sea

Projection: NAD 1927, Zone 16 N
Transverse Mercator
Clarke 1866



Existing and Proposed NoTake / Conservation Zones

1:1,150,000
0 5 10 20 30 40 Kilometers
Projection: NAD 1927, Zone 16 N
Transverse Mercator
Clarke 1866

- KEY**
- ★ Capital
 - ★ City/Town
 - International Boundary
 - ▭ No Take Zone
 - ▭ Proposed Expansion
 - ▭ Coral Reef System
 - ▭ Mainland and Cayes
 - ▭ Internal Waters
 - ▭ Territorial Sea
 - ▭ Exclusive Economic Zone
 - ▭ Caribbean Sea

Projection: NAD 1927, Zone 16 N
Transverse Mercator
Clarke 1866

BELIZE:

STATUTORY INSTRUMENT

No. 107 of 2020

ORDER made by the Minister responsible for Fisheries in exercise of the powers conferred upon him by section 14(1)(b) of the Fisheries Resources Act, Act No. 7 of 2020, and all other powers thereunto him enabling.

(Gazetted 29th July, 2020.)

1. This Order may be cited as the

FISHERIES RESOURCES (SAPODILLA CAYES MARINE RESERVE) ORDER, 2020.

2. The area known as the Sapodilla Cayes, as more fully described in Schedule I to this Order, is hereby declared to be a marine reserve for the purposes of the Fisheries Resources Act.

3. The map of the Sapodilla Cayes Marine Reserve is set out in Schedule II.

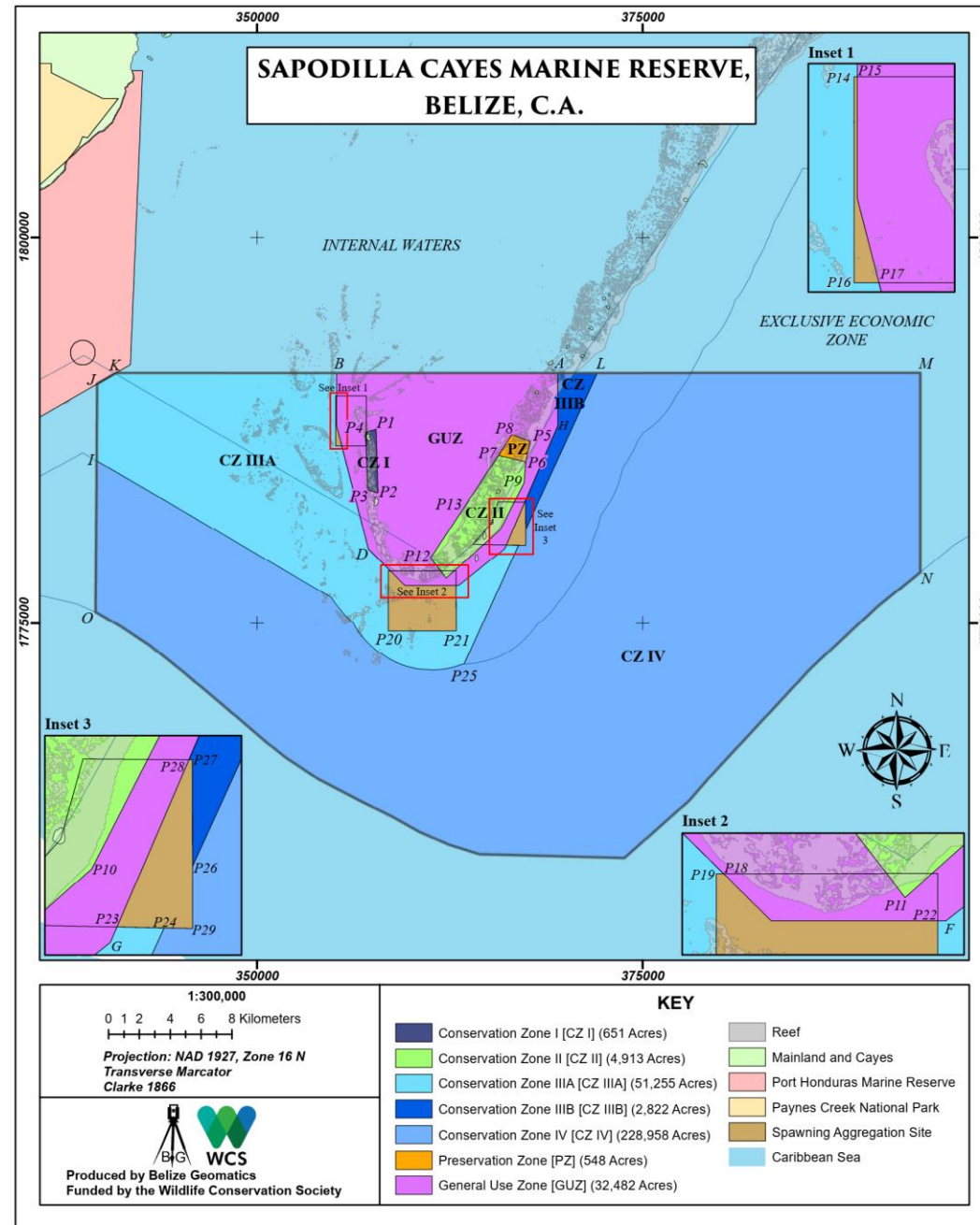
4. The Fisheries (Sapodilla Cayes Marine Reserve) Order, 1996 is repealed.

Citation.

Declaration of Marine Reserve. Schedule I. Act No. 7 of 2020.

Map of Marine Reserve. Schedule II.

Repeal. S.I. 117 of 96. 50 of 2009.



The background of the entire page is a deep blue color, populated with numerous stylized illustrations of fish. In the foreground, there are several larger fish, including two prominent yellowfin tuna with their characteristic yellow stripes, and a large, dark-colored shark with a prominent dorsal fin. The background is filled with many smaller, lighter blue fish, creating a sense of a diverse and healthy marine ecosystem.

Blue Bond Supports Sustainable Oceans

A blue bond is an innovative financial instrument used to raise financing from capital market investors for projects that support the sustainable use of ocean resources.

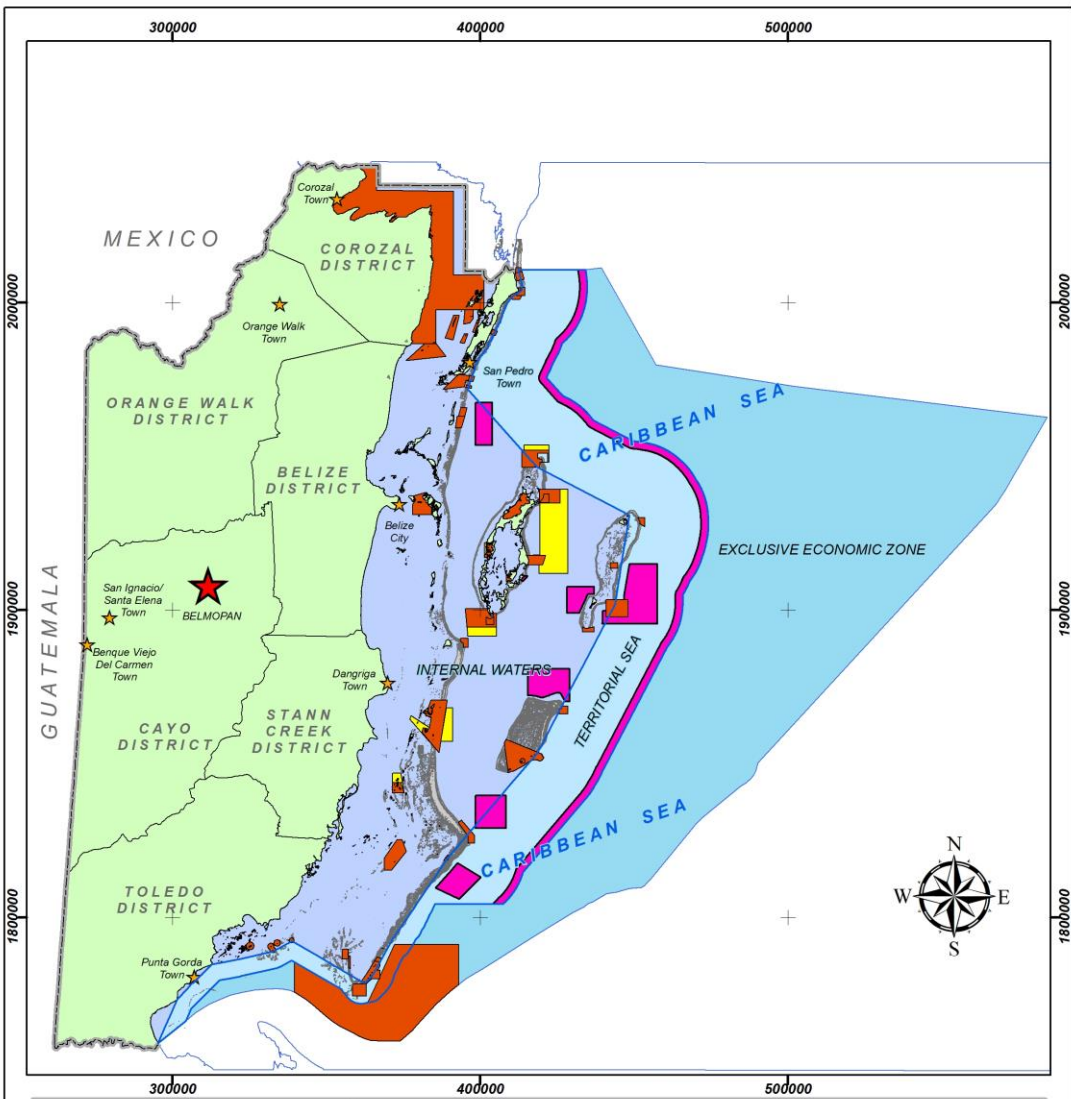
On November 4, 2021 the Government of Belize signed a Conservation Fund Agreement, legally committing Belize to the expansion of biodiversity protection zones under “high protection” to represent up to 15% of Belize’s ocean.

In this agreement, Belize’s ocean refers to all waters encompassing Belize’s EEZ, territorial sea, and internal waters as defined by UNCLOS, whereas biodiversity protection zones under “high protection,” refers to the expansion of no-take or replenishment zones.

Within the first 6 months of the agreement, up to 11.57% of Belize’s ocean will be declared as biodiversity protection zones under high protection.

The sites that will be included in this expansion will be those that were approved in 2019 by the sitting Cabinet.

This includes Phase I sites identified in the National Replenishment Zones Expansion project, and the declaration of additional sites from the MCCAP at South Water Caye Marine Reserve and Turneffe Atoll Marine Reserve.



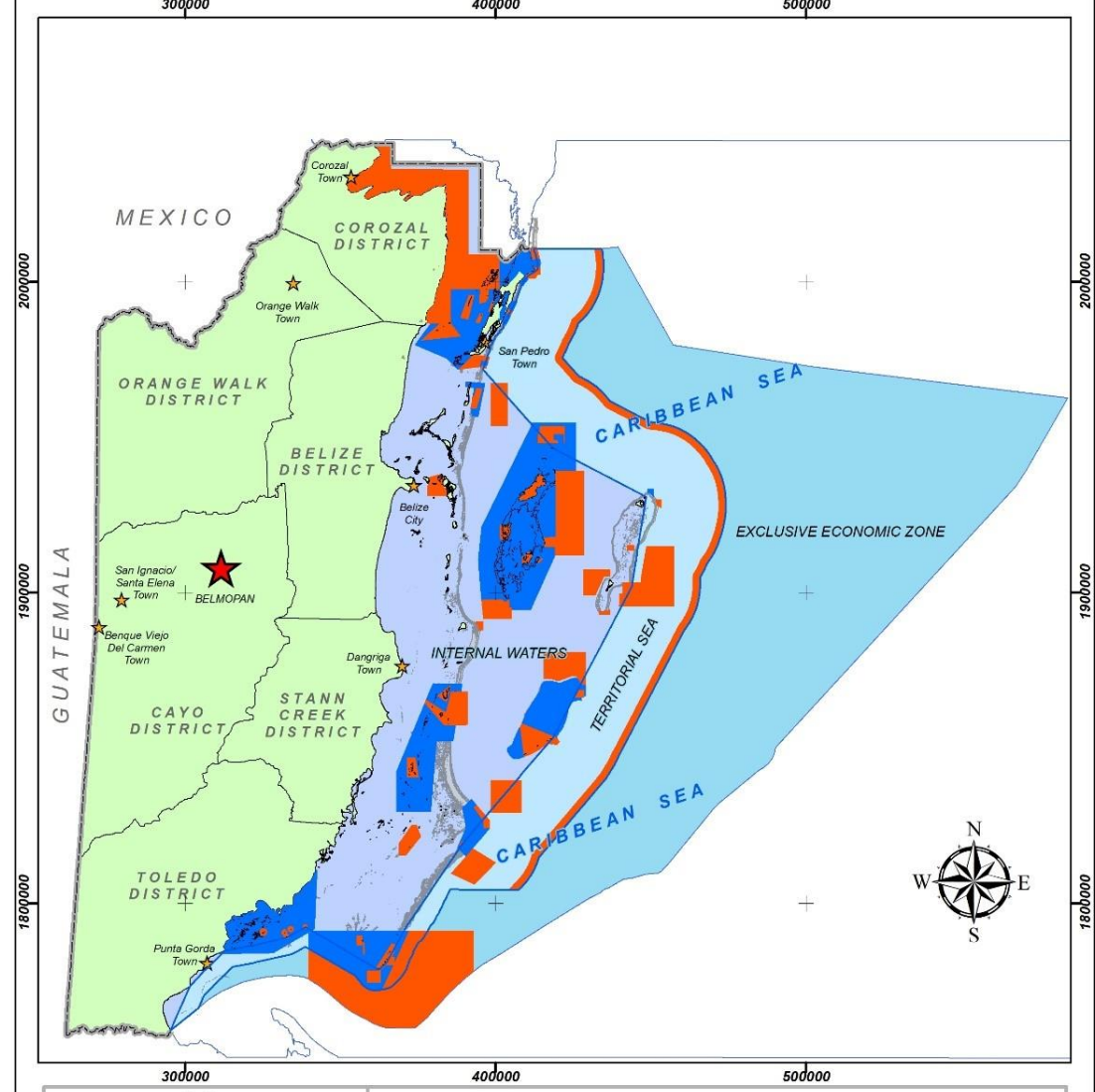
Scale: 1:1,650,000
 0 10 20 40 60 Kilometers

Projection: NAD 1927, Zone 16 N
 Transverse Mercator
 Clarke 1866

KEY

- ★ Capital
- ☆ City/Town
- International Boundary
- Mainland and Offshore Cayes
- Reef
- Internal Waters
- Territorial Seas
- Exclusive Economic Zone
- Existing Replenishment Areas (2381.21 Sq. KM= 7.05%)
- Replenishment Zone Project Proposed Areas (1,295.61 Sq. KM= 3.84%)
- MCCAP Project Replenishment Areas (487.61 Sq. KM = 1.44%)

Produced by Belize Geomatics



Scale: 1:1,650,000
 0 10 20 40 60 Kilometers

Projection: NAD 1927, Zone 16 N
 Transverse Mercator
 Clarke 1866

KEY

- ★ Capital
- ☆ City/Town
- International Boundary
- Mainland and Offshore Cayes
- Reef
- Internal Waters
- Territorial Seas
- Exclusive Economic Zone
- Existing Replenishment Areas (2381.21 Sq. KM= 7.05%)
- Replenishment Zones
- Marine Protected Areas (MPA)

Produced by Belize Geomatics

Current Parentage Coverage of Protection of Belize's Ocean

% Coverage of Belize Ocean Waters			
Existing Replenishment Zones	National Replenishment Zones Expansion Project	MCCAP Proposed Conservation Zones without Overlapping	Total Area Existing, National Replenishment Zones Expansion Project, and MCCAP Proposed Replenishment Zones without Overlapping
7.05%	3.84%	0.94%	11.83%





Technical Sub-Committee (L to R): Janet Gibson (WCS), Chantalle Clarke (CZMAI), Virginia Burns (WCS), Seleni Cruz (TNC), Roberto Pott (Healthy Reefs), Julie Robinson (TNC)
Not Pictured
Ramon Carcamo (Belize Fisheries Department) & Dr. Leandra Cho-Ricketts (ERI/UB)
Spatial Analyst: Richard Tingey (S3)

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