

ZONING THE SUBMERGED LANDS OF PUERTO RICO: THE INTEGRATION OF COASTAL ZONE MANAGEMENT TO MARINE SPATIAL PLANNING

PLANIFICACION DE LOS ESPACIOS MARINOS:
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The human uses of the coast are expanding at a rate that challenges the ability to plan and manage them focusing solely in existing permitting process

Marine natural spaces have been disturbed particularly by infrastructure works, excess fishing, and other underwater recreational or commercial activities

Recent scientific and ocean policy assessments have demonstrated that a fundamental change in our current management system is required to achieve the long term health of our ocean and coast in order to sustain the benefits they provide to society



Llega la droga colombiana en semisubmarinos caseros

Narcorred bajo el mar



Marine Spatial Planning

A process of analyzing and allocating parts of a three dimensional marine space for specific uses, to achieve ecological, economic, and social objectives that are usually specified through political process

Numerous countries around the globe are embracing this tool to combat crowded usage of their territorial sea waters.

Ocean zoning

Is an element of marine Spatial Planning consisting of zoning maps and regulations to some or all areas of a marine region.

Real World Examples of Marine Spatial Planning and Ocean Zoning :



What are the outputs of marine spatial planning?

The principal output is a comprehensive spatial management plan for a marine area or ecosystem. This plan sets out priorities for the area and defines what these priorities mean in time and space.

In the Caribbean Puerto Rico has initiated this approach creating core areas for conservation and preservation of submerged lands in the territorial sea. The coastal zone is considered as a biological corridor managed for the selection of multiuse areas that can be implemented through existing state programs and regulations used to determine if they are compatible or not, and natural reserves acting as buffer zones managed for preservation of natural resources, observation, and research. Establishing a range of zoning districts sets a path toward comprehensive ecosystem based ocean management.

In Puerto Rico an extensive array of existing laws and planning regulations are used as guidelines for considering appropriate siting or making decisions on suitable ocean uses

1899–1992

Código Civil (1889)–Propiedad y servidumbres
Constitución de Puerto Rico (1952)
Ley de Muelles y Puertos (1968)
Ley Política Pública Ambiental (1970 y 2004)
Ley Orgánica de Recursos Naturales (1972)–
ZMT
Ley Orgánica de la Junta Planificación (1975)
Planes uso del terreno, plan integral PR, OZC
Ley sobre el Uso del Recurso Agua(1976)
Plan de Manejo de la Zona Costanera de Puerto
Rico (1978)
Reglamento 17 JP (1983) – ZCAPC
Ley Municipios Autónomos (1991)
Reglamento 4068 DRNA (1992)– DZMT

1992 –2010

Ley para la Promoción y el Desarrollo de la Pesca
Deportiva
y Recreacional de Puerto Rico (1997)
Leyes Ecoturismo (1998)
Ley de Pesquerías de Puerto Rico (1998)
Ley de Vida Silvestre(1999)
Código Penal (2004)– Delitos ambientales
Ley Plan Uso de Terreno de PR (2004)
Ley Desarrollo Sostenible (2006)
Reglamento de Pesca (2010)
Ley de desarrollo de Recursos Minerales de
Puerto Rico
Ley de Arqueología Subacuática
Ley para la protección de cuevas cavernas y
sumideros
Orden Ejecutiva Presidencial del 19 de julio de
2010. Stimulates the sustainable use of marine
spaces and resources.

Marine life and habitats of the southern region of Puerto Rico were selected for developing a plan following principles and practices of MSP.



Step process for the development and implementation of Marine Spatial Plans .

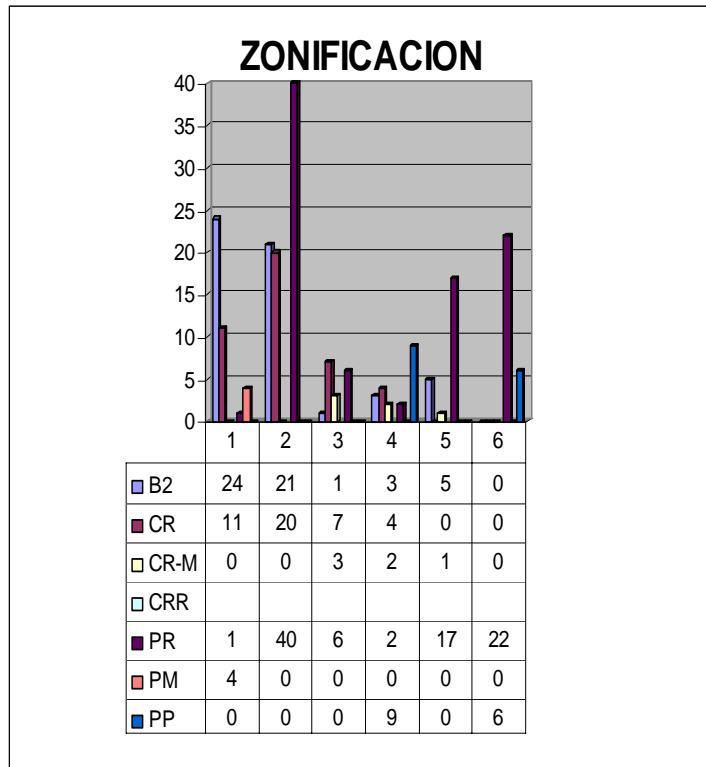
Identifying needs and establishing authority	1
Obtaining financial support	
Organizing the process through pre-planning	2
Organizing stakeholder participation	4
Defining and analyzing existing conditions	3
Defining and analyzing future conditions	
Preparing and approving the spatial management plan	6
Implementing and enforcing the management plan	
Monitoring and evaluating performance	
Adapting the marine spatial management process	5

Planning is a dynamic open process; these ten steps are not a linear process that moves sequentially from step to step. changes can be accommodated as the process evolves over time.

The draft for the submerged lands of the southern region contains spatial maps depicting conservation and preservation zones for marine resources, and a regulatory frame wok for managing, reviewing and permitting proposed uses in submerged lands.



OCEAN ZONING

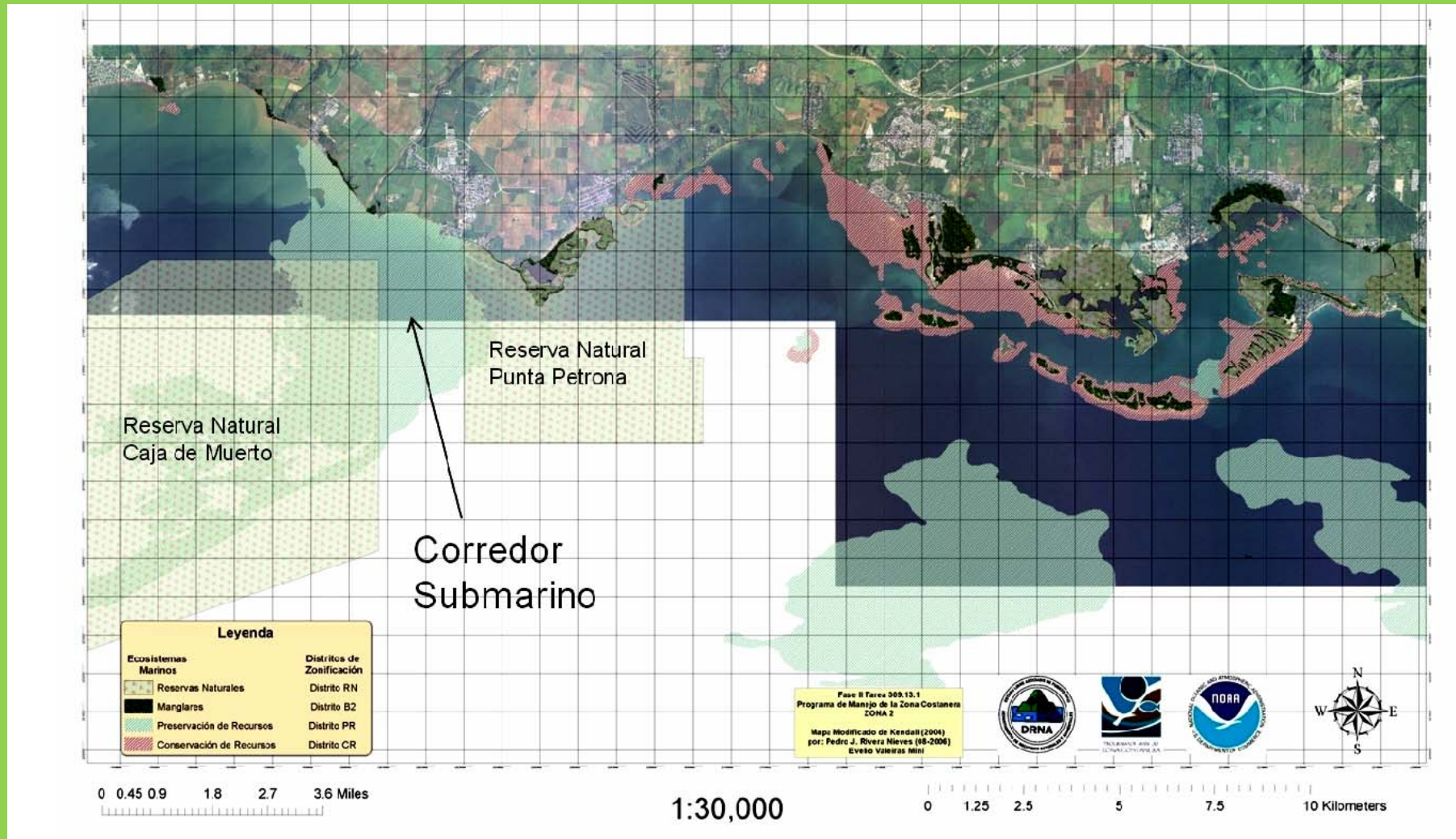


Zoning districts:

PR=88 CRM= 06
 PM=04 CRR= 02
 PP=06 CR= 42
 B2= 53



Submerged Land Map



Zoning would allow the creation of submarine corridors linking fragmented ecosystems to the limits of the marine natural reserves

Monitoring and evaluating performance

Zoning guidelines for the submerged lands of Puerto Rico (2008–09)

Intention of the guide is to provide a planning approach to users, for the production of comprehensive zoning maps that will guide stake holders, user groups, developers and the public to proactively minimize conflicts and look for ways to maximize benefits in our marine spaces.

Alert Response Net

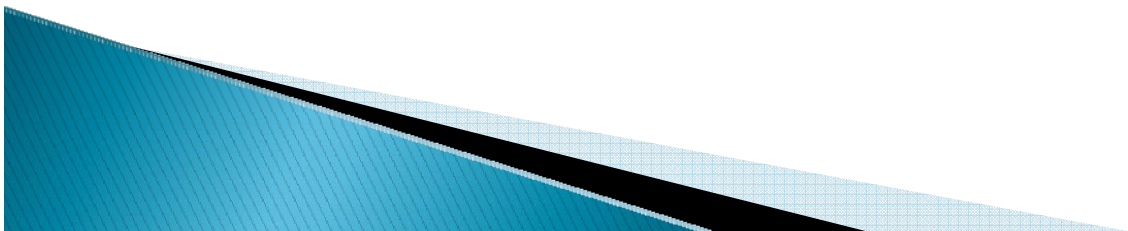
- ▶ A voluntary program to collect available data from marine resources and allocate and analyze the spatial and temporal distribution of human activities in areas(hot spots).
- ▶ Track effectiveness of management measures.

Integrating Coastal Zone Management to Marine Spatial Planning

The Puerto Rico Coastal Management Program will participate in the process for coastal and marine spatial planning, as described in the Final Recommendations and Subsequent guidance from the presidential Executive Order of July 19, 2010.

In many ways coastal zone management is similar to MSP. Both are integrated, strategic, and both aim to maximize compatibilities and reduce conflicts among human uses and between human uses and nature

The integration of coastal zone management to marine spatial planning has initiated a new approach in managing natural resources: **CMSP**



Coastal and Marine Spatial Planning

In practical terms CMSP identifies areas most suitable for various type or classes of activities in order to reduce conflicts among users, reduce environmental impacts, facilitate compatible uses, and preserve critical ecosystem services to meet economic, environmental security and social objectives for future generations.

CMSP public policies would be developed adding a regional approach to allow for the variability of the economic, environmental and social aspect among different areas of the US and the Caribbean .

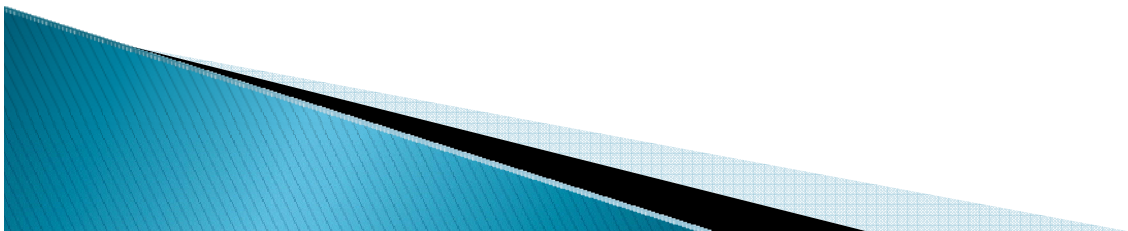
The geographic scope of the planning area of the CMSP in the US includes the territorial sea including bays and estuaries, eez and the continental shelf, extending landward to the mean high water line. In the case of Puerto Rico this new approach implies modifying the traditional scale of the coastal zone jurisdiction.

Zoning the Submerged Lands

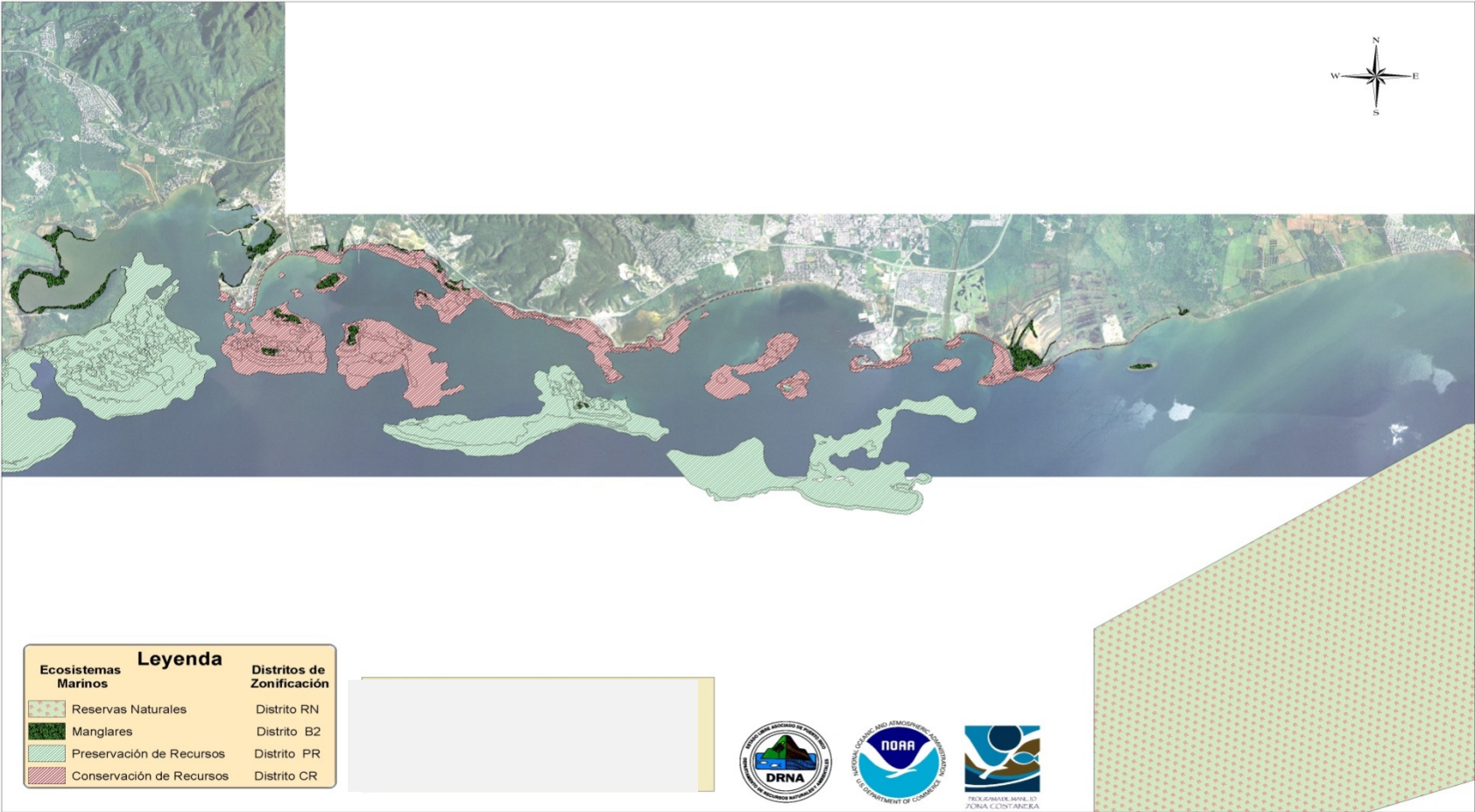
WISH LIST:



- ▶ Identification of areas for conservation and biodiversity protection.
- ▶ Promotion of productive activities with no adverse impacts in suitable areas.
- ▶ Obtain an equilibrium between productive activities and natural resource protection.
- ▶ Facilitate the decisional process and inter-relationships between government and society.
- ▶ Stimulate the sustainable use of marine spaces and the effectiveness of public policies.
- ▶ Offer investment opportunities for private and public sectors (Industrial, Mariculture, Tourism.)



Mapa de zonificación de terrenos sumergidos



MARINE ZONING
SAVES



Executive order

- ▶ Sec. 6. Agency Responsibilities. (a) All executive departments, agencies, and offices that are members of the Council and any other executive department, agency, or office whose actions affect the ocean, our coasts, and the Great Lakes shall, to the fullest extent consistent with applicable law:
 - ▶ (i) take such action as necessary to implement the policy set forth in section 2 of this order and the stewardship principles and national priority objectives as set forth in the Final Recommendations and subsequent guidance from the Council; and
 - ▶ (ii) (b) Each executive department, agency, and office that is required to take actions under this order shall prepare and make publicly available an annual report including a concise description of actions taken by the agency in the previous calendar year to implement the order, a description of written comments by persons or organizations regarding the agency's compliance with this order, and the agency's response to such comments.
- ▶ (c) Each executive department, agency, and office that is required to take actions under this order shall coordinate and contribute resources, as appropriate, to assist in establishing a common information management system as defined in the Final Recommendations and shall be held accountable for managing its own information assets by keeping them current, easily accessible, and consistent with Federal standards.
- ▶ (d) To the extent permitted by law, executive departments, agencies, and offices shall provide the Council such information, support, and assistance as the Council, through the Co-Chairs, may request.

