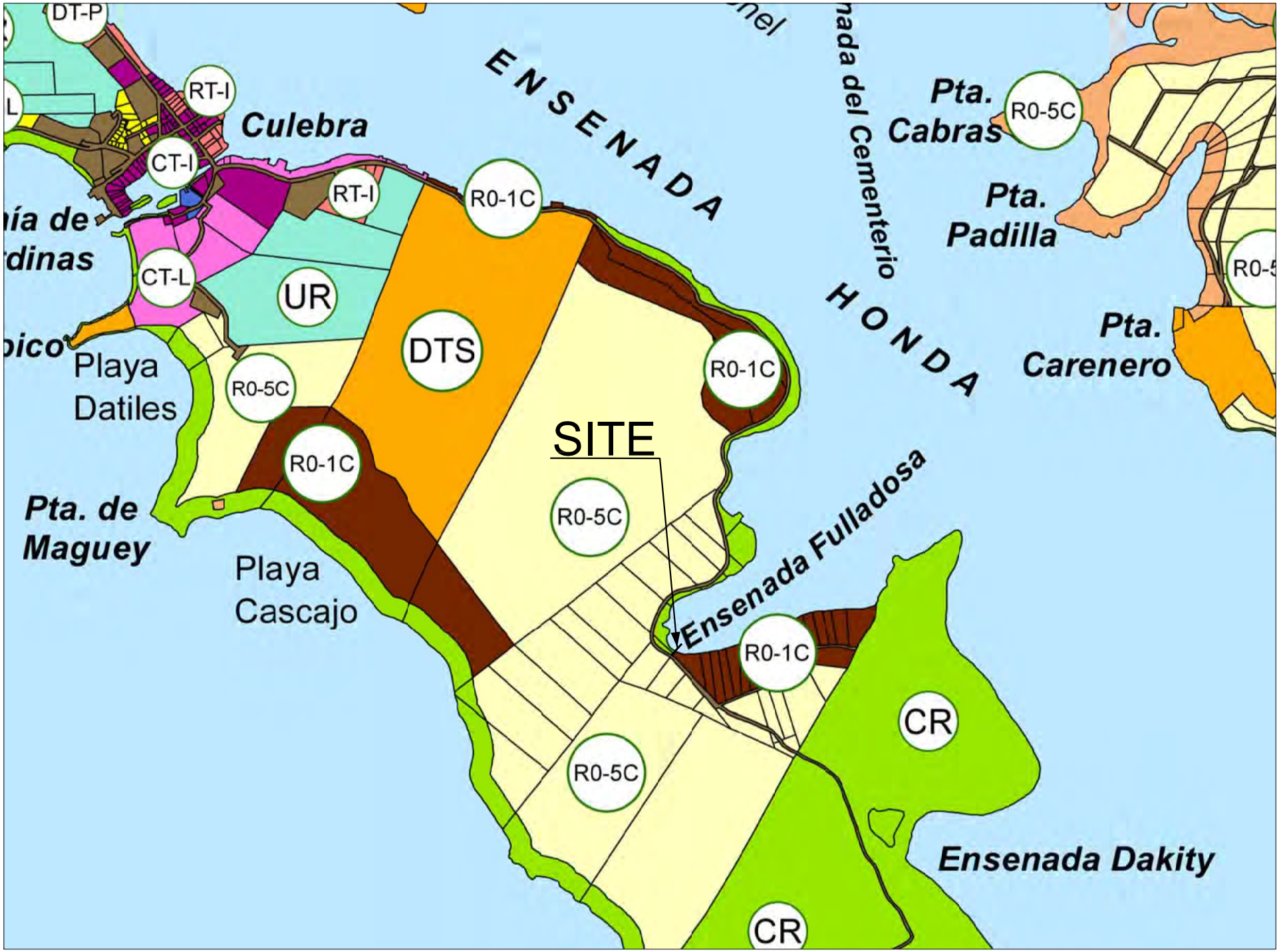
ANEJO 1:

- **Localización del muelle en el cuadrángulo topográfico de Culebra.**
- **Localización del muelle en el Mapa de Calificación de Suelos de Culebra.**
- **Localización del muelle en el Mapa de Inundaciones de FEMA.**
- **Localización del muelle en la foto aérea.**

NO A ESCALA.

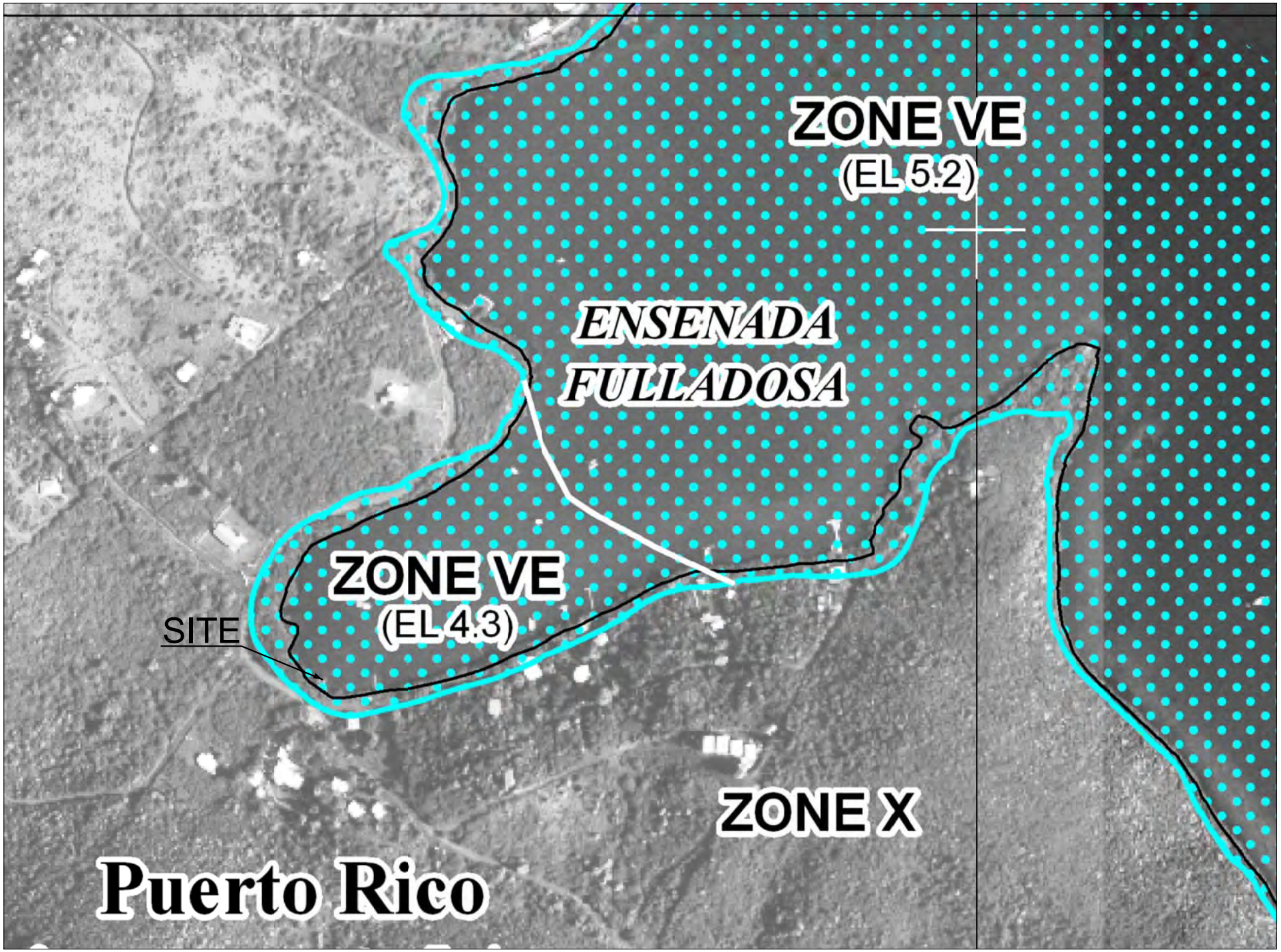
Localización del Muelle en el Cuadrángulo Topográfico del U.S. Geological Survey (USGS).



NO A ESCALA.

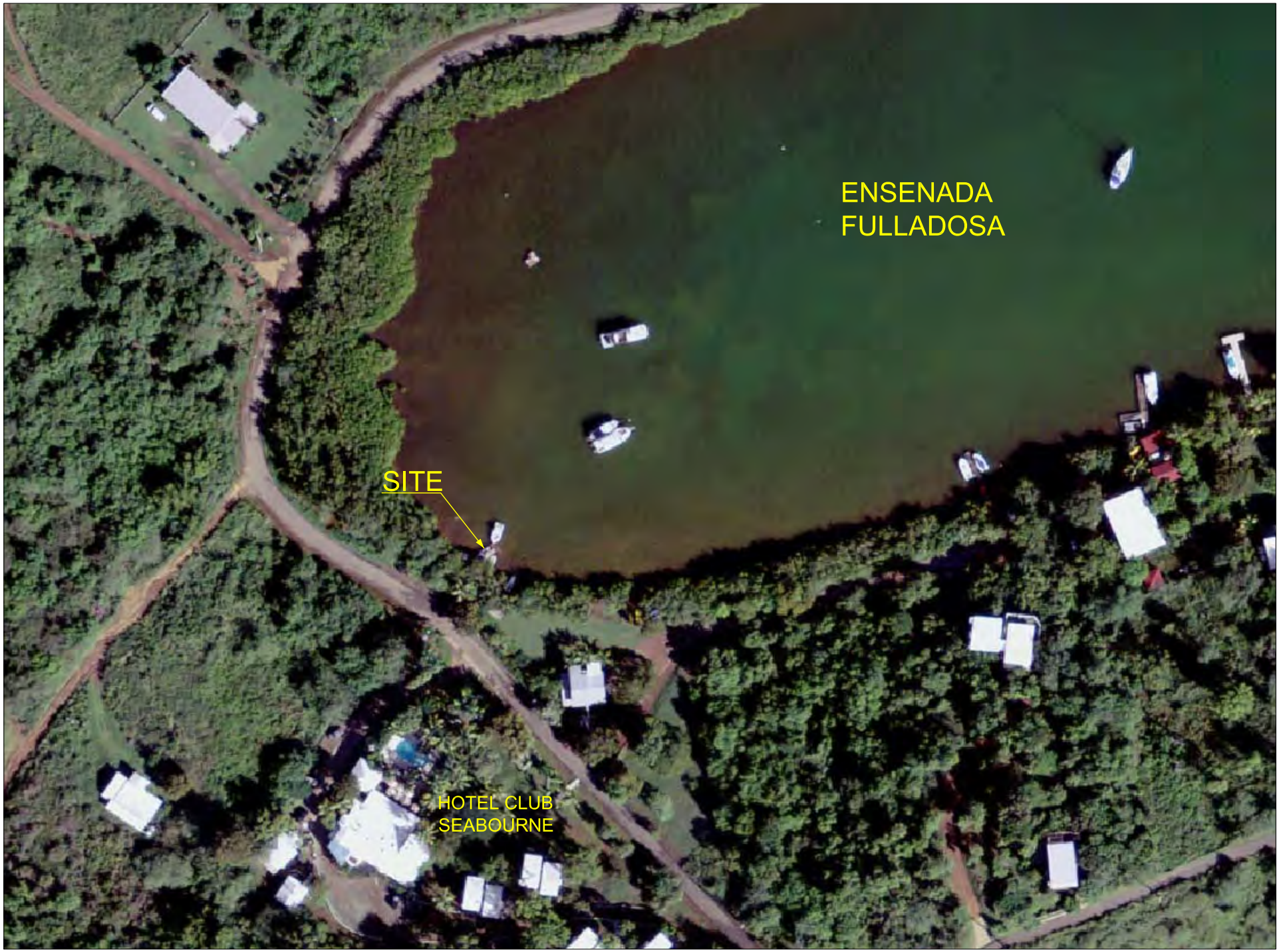
Localización del Muelle en el Mapa de Claificación de Suelo de Culebra.

CR - Conservación de Recurso



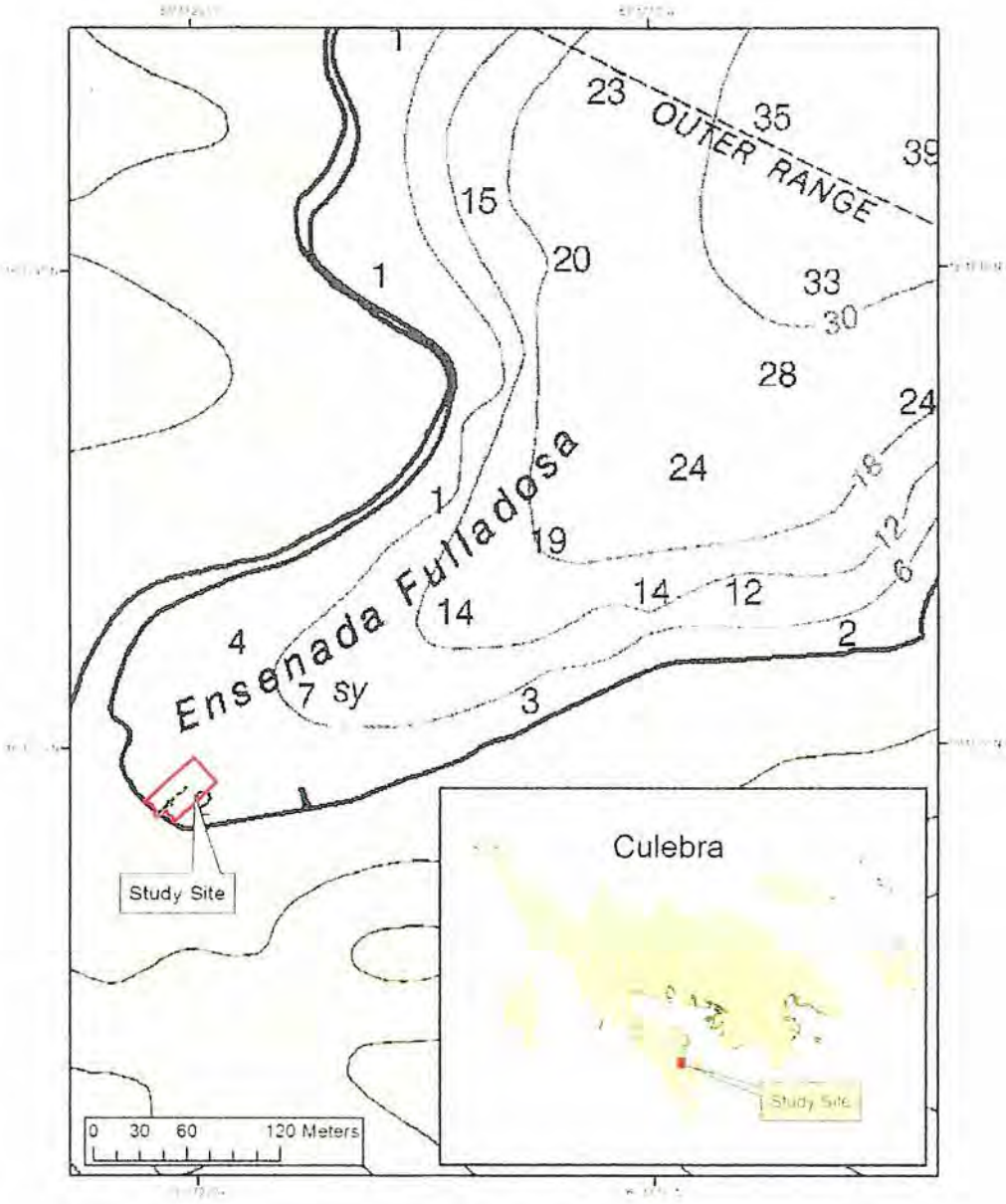
NO A ESCALA.

Localización del Muelle en el Mapa de Inundaciones de FEMA (72000C0895J).



NO A ESCALA.

Localización del Muelle en la Foto Aérea.



Location of the Seabourne Hotel pier in Ensenada Fulladosa, Culebra.

ANEJO 2:

Estudio del Fondo Marino

Final Report

Submitted to:

Raul Negron Casasnovas, Esq.

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Biological survey and benthic habitat map in the vicinity of the Seabourne Hotel pier in Ensenada Fulladosa, Culebra, Puerto Rico

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August 2013

I. Introduction

This report forms part of the marine environmental study related to the permit application by the Seabourne Hotel to reconstruct and expand an existing pier in Ensenada Fulladosa, Culebra. The existing pier is about 12.2 m (40 ft.) long by 1.2 m (4 ft.) wide constructed of wood and supported by PBC pilings. The proposed pier has dimensions of 26.8m (88 ft.) in length and 1.2 m (4 ft.) in width (Appendix 1). The extent of the study area was determined using the proposed dock dimensions plus a buffer of 10 m at each side, thus encompassing a study area of approximately 40 m x 20 m long. The results include a general taxonomic inventory of the predominant marine epibenthic fauna and flora present within the study area (approximately 880 m^2), a geo-referenced benthic habitat map of the seafloor, and a representative collection of photos for each habitat type.

Ensenada Fulladosa is one of several inlets within a larger bay in Culebra called Ensenada Honda. This particular inlet, as the majority of the bay, is bordered by red mangrove (*Rhizophora mangle*) and has extensive areas of seagrass, mostly Turtle Grass (*Thalassia testudinum*), along the shore. The Seabourne Hotel pier is located at the western end of Ensenada Fulladosa where the water depth is particularly shallow (Figure 1). Both mangrove and seagrass habitats are important transient and resident habitats for a variety of marine invertebrates and fish.

The field survey associated with the Seabourne Hotel pier was performed during the period of August 21 to August 22, 2013. Photos of the existing pier and study site are presented as Appendix 2.

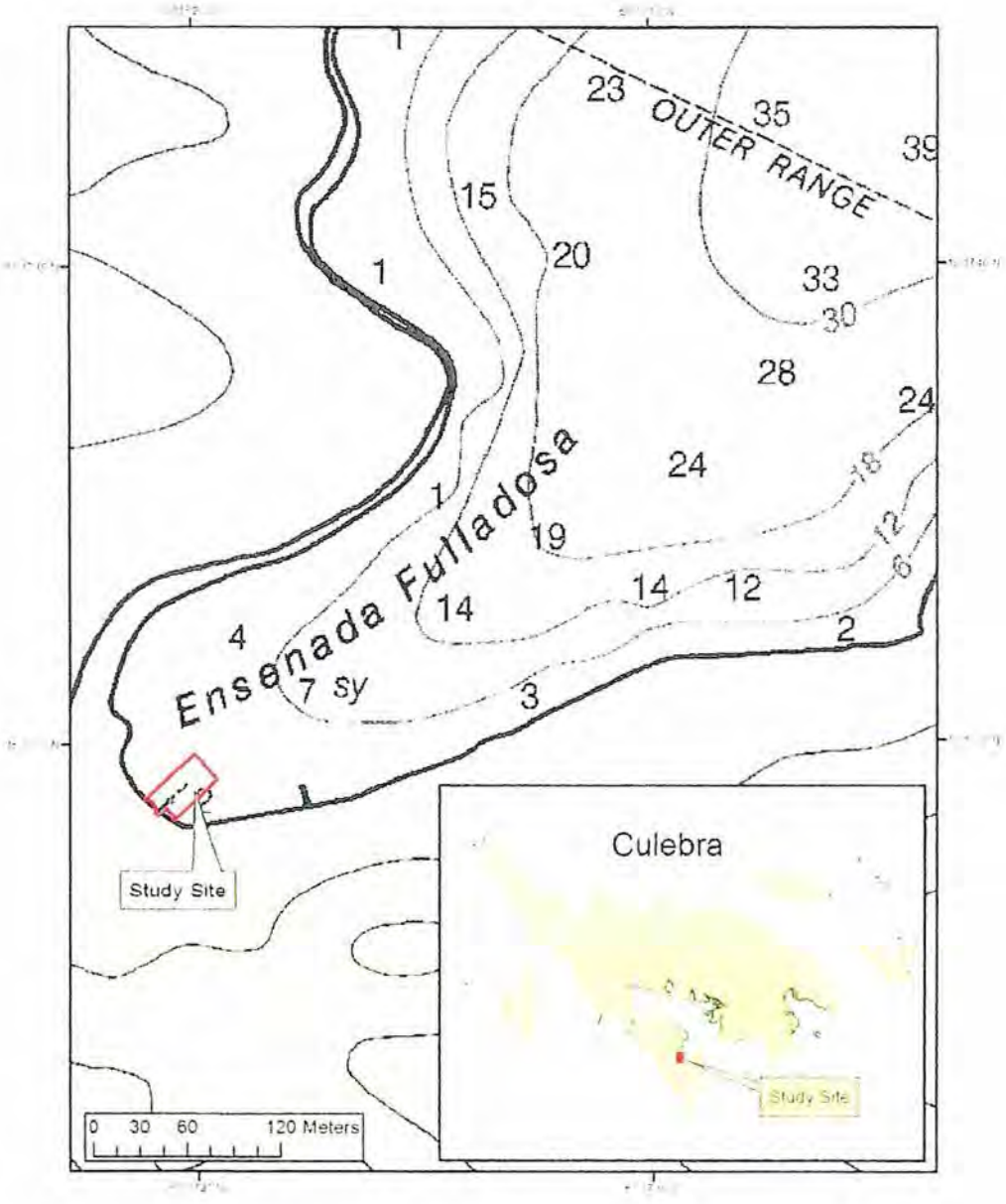


Figure 1. Location of the Seabourne Hotel pier in Ensenada Fulladosa, Culebra.

II. Methods

A. Benthic Habitat Map

Mapping of benthic habitats was prepared from data generated by direct observations of the bottom using snorkeling equipment. No SCUBA diving equipment was necessary since the average depth throughout the study site was only 1 m (3.3 ft.). After a general assessment of the study area, it was concluded that in order to properly differentiate between habitats it was necessary to establish a 4x4 m survey grid. The resulting grid consisted of 11 transects perpendicular to the pier and 6 transects parallel to the pier (Figure 2).

The first task was to mark the study area (880 m^2) with the use of measuring tapes and small wooden stakes. The geographical position at each of the four corners was then recorded using a handheld GPS device. The geographical position of the shoreline was also recorded using the GPS tracking functionality. After georeferencing the study area, transects were laid down from the NE towards the pier, moving the grid from the deeper end of the study area towards the shore. Because of the shallow depth and fair visibility encountered at the study site, it was possible to swim along the entire length of the transects, thereby providing continuous observations of the bottom. At each benthic habitat transition encountered along the transects (e.g. from mud to seagrass) the snorkeler stopped and recorded the relative position inside the grid using the measuring tape.

The recorded field data was later used to prepare the benthic habitat map using ArcGis 10 software. Transition points along transects were plotted on the digital grid in ArcGis to aid on the construction of each habitat polygon. The surface area covered by each habitat category was then calculated.

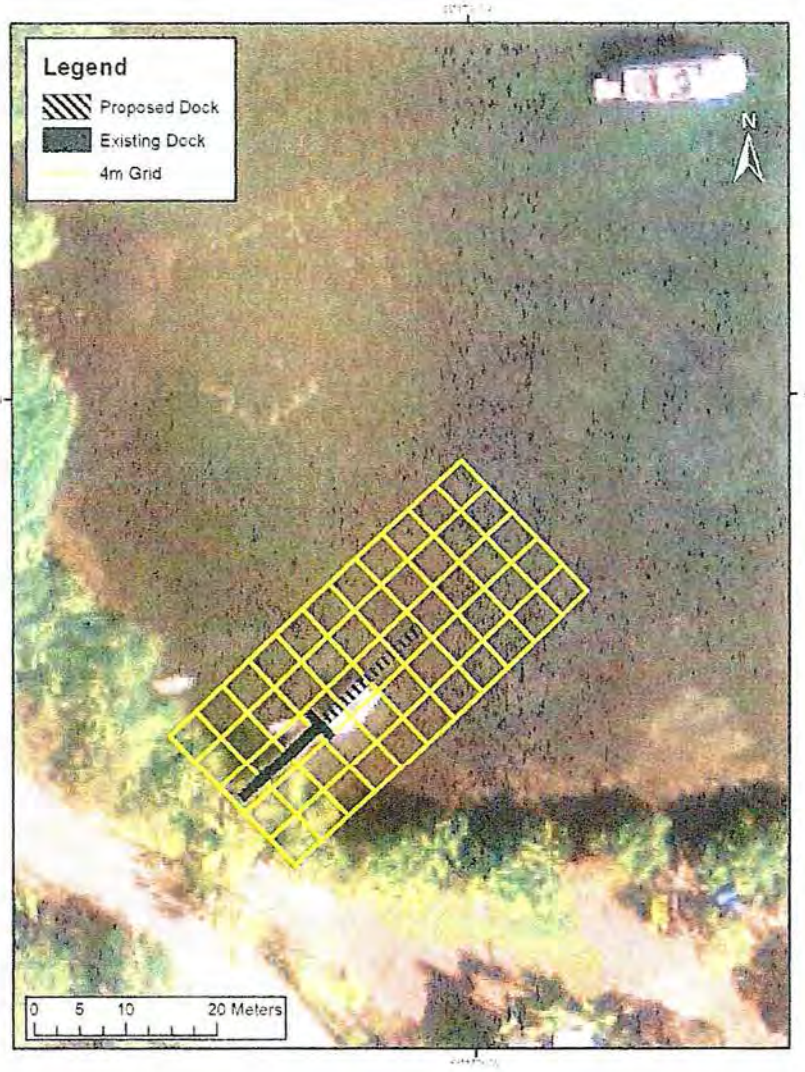


Figure 2. Survey grid used to construct the benthic habitat map in the vicinity of the Seabourne Hotel pier in Ensenada Fulladosa, Culebra

B. Biological Survey

Epibenthic (above ground) organisms observed along each transect and elsewhere within the study area were recorded for the preparation of a general taxonomic inventory of the biota associated within the benthic habitats. Particular attention was addressed to the location and taxonomic composition of seagrasses and corals within the study area. A general reconnaissance of the pier pilings was also performed. Only a qualitative assessment of organisms present in the different habitats surveyed is included in this report.

III. Results

A. General Description

Ensenada Fulladosa is characterized for having its shore almost entirely bordered by red mangrove (*Rhizophora mangle*) and also for having a band of Turtle Grass (*Thalassia testudinum*) along the edge. The extent of this band of seagrass is mostly defined by light penetration. Factors affecting light penetration are depth and water visibility. Because the weather in Culebra is generally dry and there is little runoff affecting water visibility, seagrass beds usually follow depth contours. The Seabourne Hotel pier is located at the western end of Ensenada Fulladosa where water depth is particularly low. Water depth at the end of the existing pier is approximately 0.9 m (3 feet) feet and the average depth for the whole study area was 1.0 m (3.3 ft.). The deepest point within the survey grid was located at the northeast end with a maximum depth of 1.5 m (5 ft.). This is where we find the transition from a seagrass habitat to an uncolonized mud habitat. From here on, as you will see later from the benthic habitat map, the study area is mostly covered by seagrass all the way up to the existing pier.

B. Benthic Habitat Map

A total area of 879.7 m^2 of the seafloor in the vicinity of the Seabourne Hotel pier was surveyed for benthic habitat characterization. The benthic habitat map was divided into four categories: 1) Turtle Grass/continuous, 2) Turtle Grass/50-70%, 3) Mud and Macroalgae, and 4) Mud. The total area covered by each category is presented in Table 1.

Table 1. Benthic habitat distribution within the study area in the vicinity of the Seabourne Hotel pier in Ensenada Fulladosa, Culebra.

Habitat	Area (m^2)	% Total Area Surveyed
Mud	28.4	3.2
Mud & Macroalgae	91.7	10.4
Turtle Grass/50-70%	261.8	29.8
Turtle Grass/Continuous	497.9	56.6
Total=	879.7	100.0

The area in close proximity to the existing Seabourne pier presented a muddy bottom colonized by macroalgae. The habitat extends about 4 m to each side of the pier and has a semicircular extension towards the end of the pier of about 8 m in diameter (Figure 3). The mud and macroalgae habitat was only present near and around the existing pier with a total area of 91.7 m^2. The other benthic category present in the study site which was completely uncolonized by seagrass was located at the far northeast end of the grid. It was there at the end of the 10 m buffer zone, where the water depth was deepest that the habitat changed to an uncolonized mud bottom. The section of uncolonized mud bottom was also semicircular with dimensions of approximately 10 m x 3.5 m and a total area of 28.4 m^2 (Figure 3). The combined cover of both of these categories which represent the area not colonized by seagrass was 120.1 m^2 and amount to 13.6% of the total area surveyed.

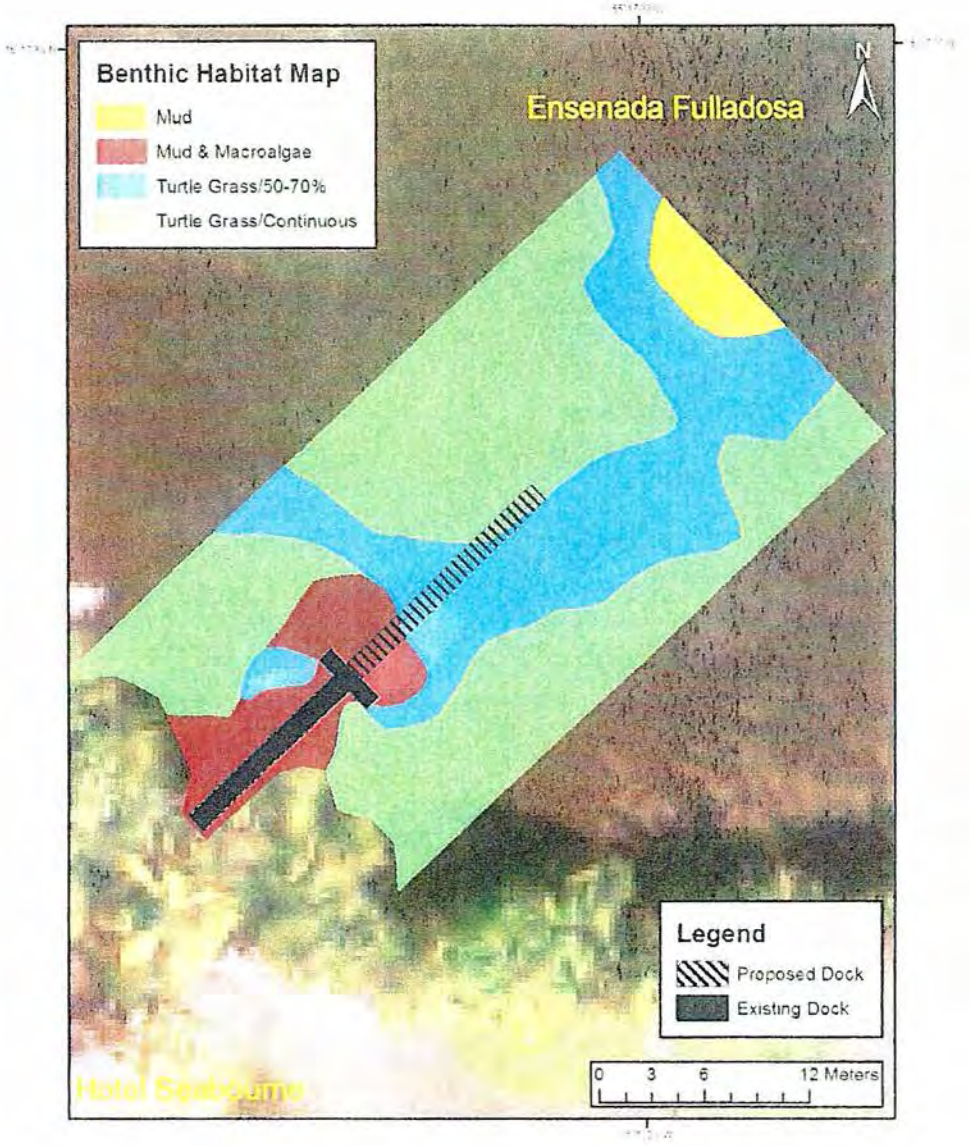


Figure 3. Benthic habitat map of the study area in the vicinity of the Seabourne Hotel pier in Ensenada Fulladosa, Culebra

A continuous stand of Turtle Grass, *Thalassia testudinum* covered about half of the seafloor in the study area with a total of 497.9 m^2 and contributed to 56.6% of the total area surveyed (Figure 3). The majority (61%) of continuous Turtle Grass habitat was concentrated towards the western side of the proposed pier, whereas at the eastern side, it was more concentrated towards the edges of the study area. Nevertheless, the continuous Turtle Grass habitat extends all the way up to the existing pier on its eastern side. This continuous bed of Turtle Grass also penetrated towards the shoreline along both sides of the existing pier reaching all the way up to the mangrove bordered shore. Turtle Grass was observed to grow as a dense, continuous meadow with some scattered associated macroalgae. Leaves were of intermediate to large size and the overall appearance of the stand was of a healthy and lush community with the typical associated fauna and flora.

The fourth and last category in the benthic habitat map, Turtle Grass 50-70%, is located along a corridor on the eastern mid-section of the proposed pier. It starts off from the mud and macroalgae habitat around the existing pier and runs perpendicularly to shore along the eastern side ending up at the deeper section where the mud habitat starts. This habitat is nearly identical to the continuous Turtle Grass habitat in terms of the composition of flora and fauna. What separates it from the previous habitat category is only the abundance of Turtle Grass. Seagrass in this section of the study area is less dense and patchier. Areas of mud are interspersed between the seagrass mounds and the abundance of macroalgae is higher than at the continuous Turtle Grass habitat. Additionally, some debris was found along the bottom which may be related to a previously existing pier.

C. Survey of Flora and Fauna

Mud Habitat

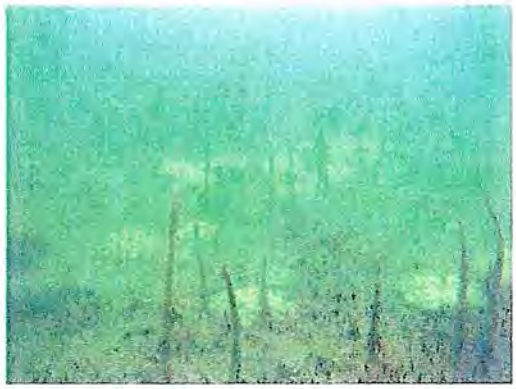
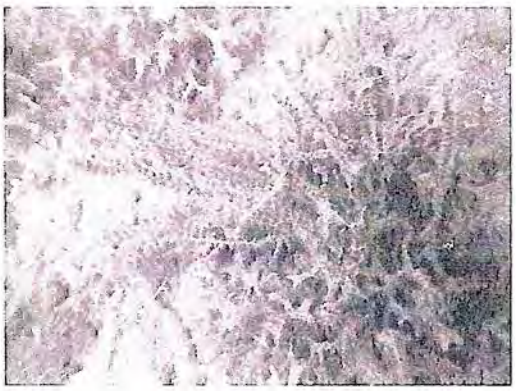
The muddy habitat was the smallest in terms of areal distribution within the study site and the least diverse in terms of flora and fauna (Table 2). Aside from an abundant population of upside down jellyfish (*Cassiopea spp.*) and an occasional sea cucumber (*Holothuria mexicana*) the seafloor was barren and uncolonized. The only other macroinvertebrates found in the habitat were one blue crab (*Callinectes sp.*) and a couple of fireworms (*Hermodice carunculata*). No stony corals or fishes were observed within the habitat.

Mud and Macroalgae Habitat

The mud and macroalgae habitat was the second smallest in terms of aereal distribution but contained a more diverse assemblage of macroalgae when compared to the seagrass habitats (Table 2). This habitat was also the shallowest and included fish species associated with the pier pilings. The most abundant macroalgae species within the habitat along its deeper section, located at the end of the existing pier, was the Y-Branched Alga (*Dictyota sp.* and *Dictyopteris sp.*). The algal composition shifted as the habitat became shallower and the filamentous green algae (*Briopsis sp.*) became more abundant towards the sides of the pier. Other macroalgae species found were the Calcareous Leaf Alga (*Halimeda sp.*) and the Green Feather Alga (*Caulerpa sp.*).

The same two macroinvertebrates abundant in the mud habitat were the predominant ones in the mud and macroalgae section. The upside down jellyfish (*Cassiopea sp.*) was found in numerous quantities as were the sea cucumbers (*Holothuria mexicana*). Red mangrove seedlings (*Rhizophora mangle*) were also very abundant.

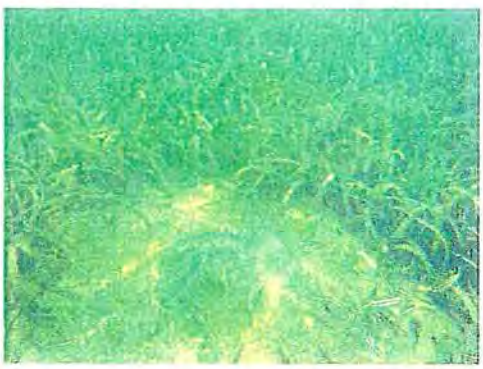
An assemblage of fishes typical of shallow coral reefs and estuaries were present within the habitat. Estuarine species included the mojarras (Gerreidae) and the mullets (Mugilidae). Among the mojarras, the spotfin Mojarra and the Yellowfin Mojarra (*Eucinostomus argenteus*, *Gerres cinereus*) were particularly abundant. Other species of fish found foraging around the pilings were the grey and lane snappers (*Lutjanus griseus* and *Lutjanus synagris*).


Seagrass Habitat

Both seagrass habitat categories combined make up 86.4 % of the total area surveyed. Several species of macroalgae were observed in association with the Turtle Grass habitat. These included the Y-Branched Alga (*Dictyota sp.*), Calcareous Leaf Alga (*Halimeda sp*), and Green Feather Alga (*Caulerpa sp.*). Other organisms found were the orange tunicate (*Ecteinascidia turbinate*), Magnificent Feather Duster (*Sabellastarte magnifica*), and the upside down jellyfish (*Cassiopea spp.*). Motile megabenthic invertebrates were rare at the seagrass habitats surveyed. Several White Sea Urchin (*Tripneustes esculentus*), green sea urchins (*Lytechinus variegatus*) and sea cucumbers (*Holothuria mexicana*) were observed during the visual survey. One small colony of the Lesser Starlet Coral (*Siderastrea radians*) was observed attached to some hard substrate between the seagrass leaves.

Juvenile reef fishes were observed in association with seagrass habitats within the study area. These included the Great Barracuda (*Sphyraena barracuda*), Striped Parrotfish (*Scarus iserti*), and the French Grunt (*Haemulon flavolineatum*). Seagrass residents, such as the Bucktooth Parrotfish (Sparisoma radians), and the Black-ear Wrasse (Halichoeres poeyi) were observed to occur at the Turtle Grass habitat. Mojarras (Gerres cinereus and Eucinostomus spp) were observed in transition between the seagrass and the muddy habitats. Needlefishes (Strongylura sp.) and Sardines (*Harengula sp.*) were also observed at the surface over the seagrass habitat.



Piling Habitat

The pier pilings were mostly colonized by filamentous green algae (Chlorophyta), barnacles (*Balanus amphitrite*), and oysters (*Isognomon radiates*) (Table 2). Also present were several species of colonial tunicates and hydroids, including *Halocordyle disticha* and *Ecteinascidia turbinata*. Some unidentified sponges were also observed attached to the pier pilings. Live stony corals were not observed in any of the pilings.

Special Note: Stony Corals

None of the seven corals recently listed as threatened under the Endangered Species Act (ESA) by NOAA were found at the study site. Moreover, stony corals in general were nearly absent in all habitats described. Aside from the small colony of the lesser star coral (*Siderastrea radians*) found on the seagrass habitat no other stony corals were observed.

Table 2. Marine species associated with benthic habitats at the Seabourne Hotel pier during August 2013

Survey Date: August 22-23, 2013

			BENTHIC HABITATS			
Phylum	**Class/Subclass**	**Taxa**	**Mud**	**Mud & Macroalgae**	**Turtle Seagrass**	**Pier Pilings**
Algae						
Chlorophyta	Order Bryopsidales	*Briopsis sp.*		X		X
Chlorophyta	Order Bryopsidales	*Dictyopteris sp.*		X	X	
Chlorophyta	Order Bryopsidales	*Halimeda sp.*		X		
Chlorophyta	Order Bryopsidales	*Penicillus sp.*			X	
Chlorophyta	Order Caulerpales	*Udotea sp.*			X	
Phaeophyta	Order Dictyotales	*Dictyota sp.*		X	X	
Phaeophyta	Order Dictyotales	*Padinasanctae-crucis*		X		
Rhodophyta	Order Ceramiales	*Acanthophora specifera*		X		
Seagrasses						
Magnoliophyta	Order Hydrocharitales	*Thalassia testudinum*			X	
Invertebrates						
Annelida	Class Polychaeta	*Sabellastarte magnifica*			X	
Annelida	Class Polychaeta	Sabellidae (Family)				X
Annelida	Class Polychaeta	*Hermodice carunculata*	X	X		
Arthropoda	Subclass Cirripedia	*Balanus amphitrite*				X
Arthropoda	Superfamily Brachyura	*Pachygrapsus transversus*				X
Arthropoda	Superfamily Brachyura	*Callinectes sp.*	X	X		
Bryozoa	Order Cheilostomata	Encrusting bryozoan				X
Chordata	Class Ascidiacea	Ecteinascidia turbinata		X	X	X
Cnidaria	Class Hydrozoa	*Halocordyle disticha*				X
Cnidaria	Class Anthozoa	*Siderastrea radians*			X	
Cnidaria	Class Anthozoa	*Bartholomea annulata*		X		

Table 2. Continued

Phylum	Class/Subclass	Taxa	Mud	Mud & Macroalgae	Turtle Seagrass	Pier Pilings
Cnidaria	Class Scyphozoa	*Cassiopea frondosa*	X	X	X	
Cnidaria	Class Scyphozoa	*Cassiopea xamachana*	X	X	X	
Echinodermata	Class Holothuroidea	*Holothuria mexicana*	X	X	X	
Echinodermata	Class Echinoidea	*Lytechinus variegatus*			X	
Echinodermata	Class Echinoidea	*Tripneustes esculentus*			X	
Mollusca	Class Bivalvia	*Isognomon radiatus*				X
Mollusca	Class Gastropoda	*Nerita spp.*				X
Mollusca	Class Gastropoda	*Littorina ziczac*				X
Porifera	Class Demospongiae	blue sponge				X
Porifera	Class Demospongiae	orange sponge		X	X	X
Family	**Common Name**	**Species**				
Fishes						
Clupeidae	Sardine	*Harengula sp.*			X	
Synodontidae	Sand Diver	*Synodus intermedius*		X		
Belonidae	Needlefish	*Strongylura timucu*			X	
Holocentridae	Squirrelfish	*Holocentrus rufus*			X	
Mugilidae	White Mullet	*Mugil curema*		X		
Sphyraenidae	Great Barracuda	*Sphyraena barracuda*			X	
Lutjanidae	Lane Snapper	*Lutjanus synagris*		X		X
Lutjanidae	Grey Snapper	*Lutjanus griseus*		X	X	X
Haemulidae	French Grunt	*Haemulon flavolineatum*			X	
Gerreidae	Yellowfin Mojarra	*Gerres cinereus*		X	X	
Gerreidae	Spotfin Mojarra	*Eucinostomus argenteus*		X		
Chaetodontidae	Four-eye Butterflyfish	*Chaetodon capistratus*			X	
Labridae	Blackear Wrasse	*Halichoeres poeyi*			X	
Scaridae	Bucktooth Parrotfish	*Sparisoma radians*			X	
Scaridae	Striped Parrotfish	*Scarus iserti*			X	

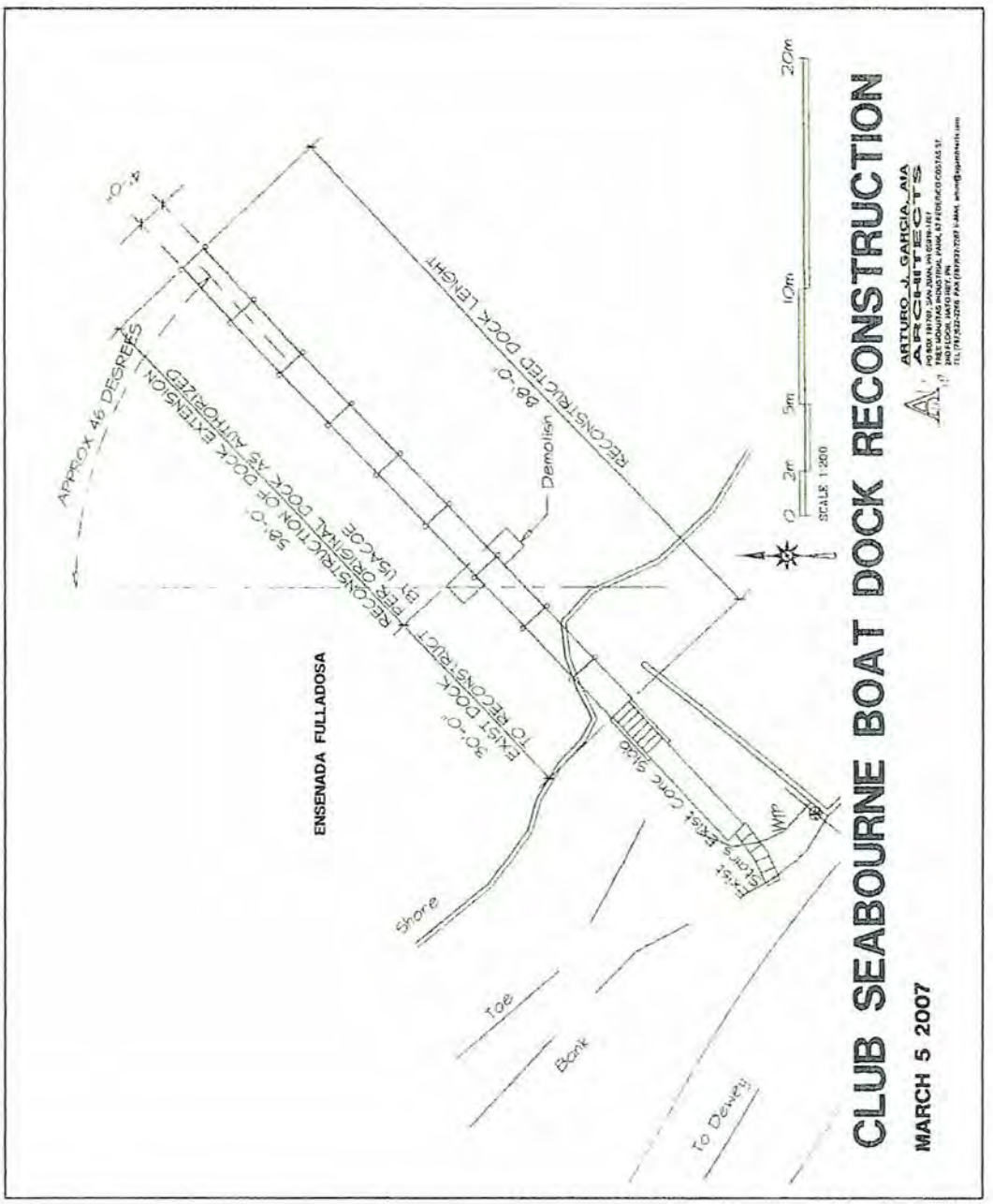
Literature Cited

Human, P. 1989. Reef Fish Identification. New World Publications, Inc., Florida, USA

Human, P. 1992. Reef Creature Identification. New World Publications, Inc., Florida, USA

Human, P. 1993. Reef Coral Identification. New World Publications, Inc., Florida, USA

Appendix 1. Plan of proposed dock at the Seabourne Hotel in Ensenada Fulladosa, Culebra.



Appendix 2. Photo album of the existing pier and study site at the Seabourne Hotel in Ensenada Fulladosa, Culebra

ANEJO 3:

Estudio de Profundidad y Localización de Boyas de Anclaje (Bathymetry Survey')

Submitted to:

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Torres & Garcia, P.S.C.

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San Juan, PR 00910-1539

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Bathymetry survey and mooring site selection in the vicinity of the Seabourne Hotel pier in Ensenada Fulladosa, Culebra, Puerto Rico

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February 2014

I. Introduction

This report forms part of the marine environmental study related to the permit application by the Seabourne Hotel to reconstruct and expand an existing pier in Ensenada Fulladosa, Culebra. A detailed report was already submitted on August 2013 describing the benthic habitats associated with the pier. As a continuation of the initial study, bathymetry data was collected using a depth sounder and GPS to construct a depth contour map of the study area. Additionally, two areas were selected as possible sites for the installation of mooring buoys.

The bathymetry survey associated with the Seabourne Hotel pier was performed during the period of February12-13, 2013. Photos of the selected mooring sites are presented as Appendix 1.

II. Methods

1) Bathymetry Map

Depth data was acquired at the study site using a GPS-Sounder combo (Lowrance 4-Elite) mounted onboard a kayak. The data was logged using a portable computer with the aid of Fugawi Marine Navigation software. Six lines parallel to the existing pier were navigated to a distance of approximately 45 m offshore, resulting in an area of 40x40 meters. After post processing and depth calibration, the XYZ matrix generated resulted in a total of 353 points. These points were then used to generate the corresponding surface and contour maps in ArcView GIS 10.

2) Mooring site selection

The mooring site area selection was initially done by navigating away from the existing dock and visually looking for the benthic habitat transition between seagrass and mud. Water clarity during the survey was very good which in turn aided the determination of where the transition occurred. Once the general transition area was selected, two possible mooring sites were plotted in GIS. The two sites were then marked and field verified to check for the presence of seagrass, describe the habitat, and determine the total depth.

III. Results and Discussion

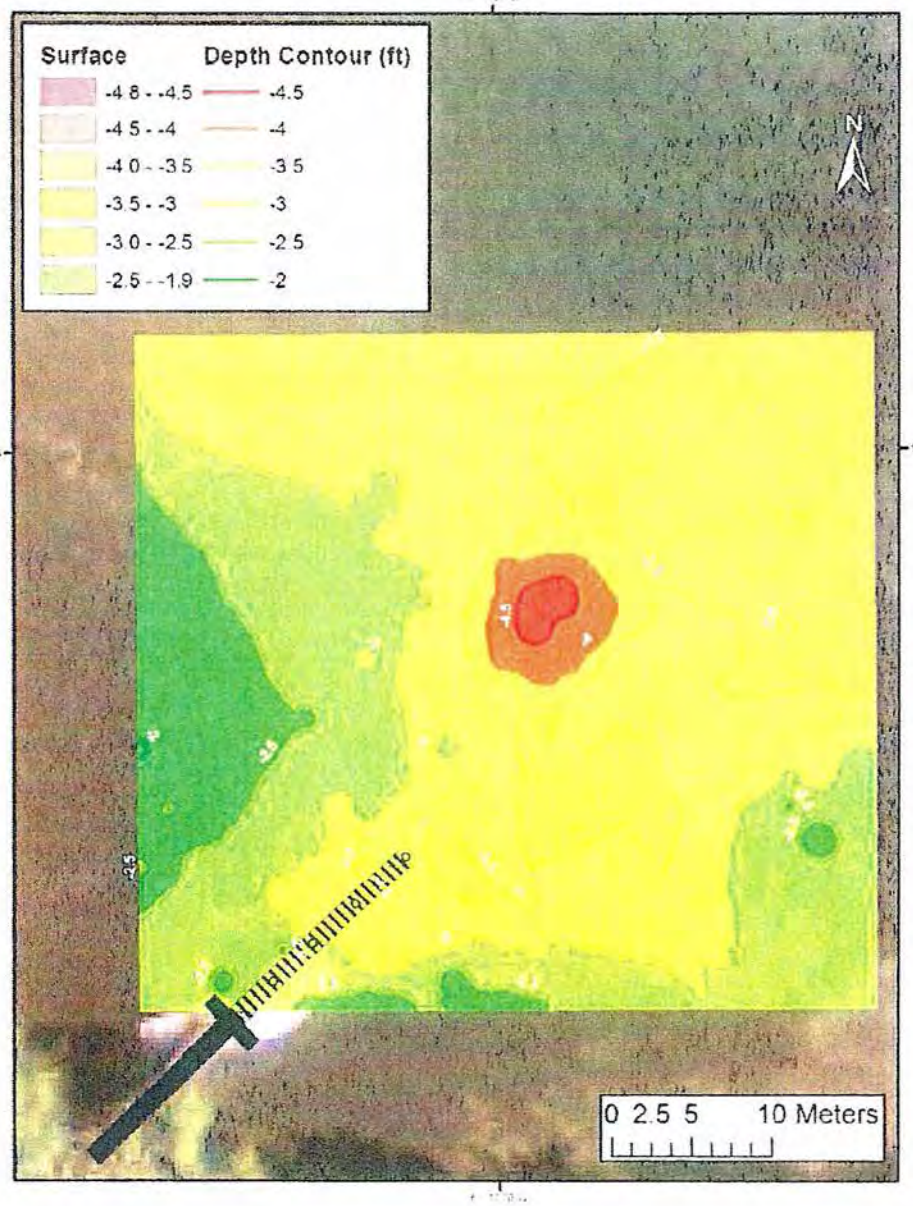


Figure 1. Bathymetry map in the vicinity of the Seabourne Hotel pier in Ensenada Fulladosa, Culebra.

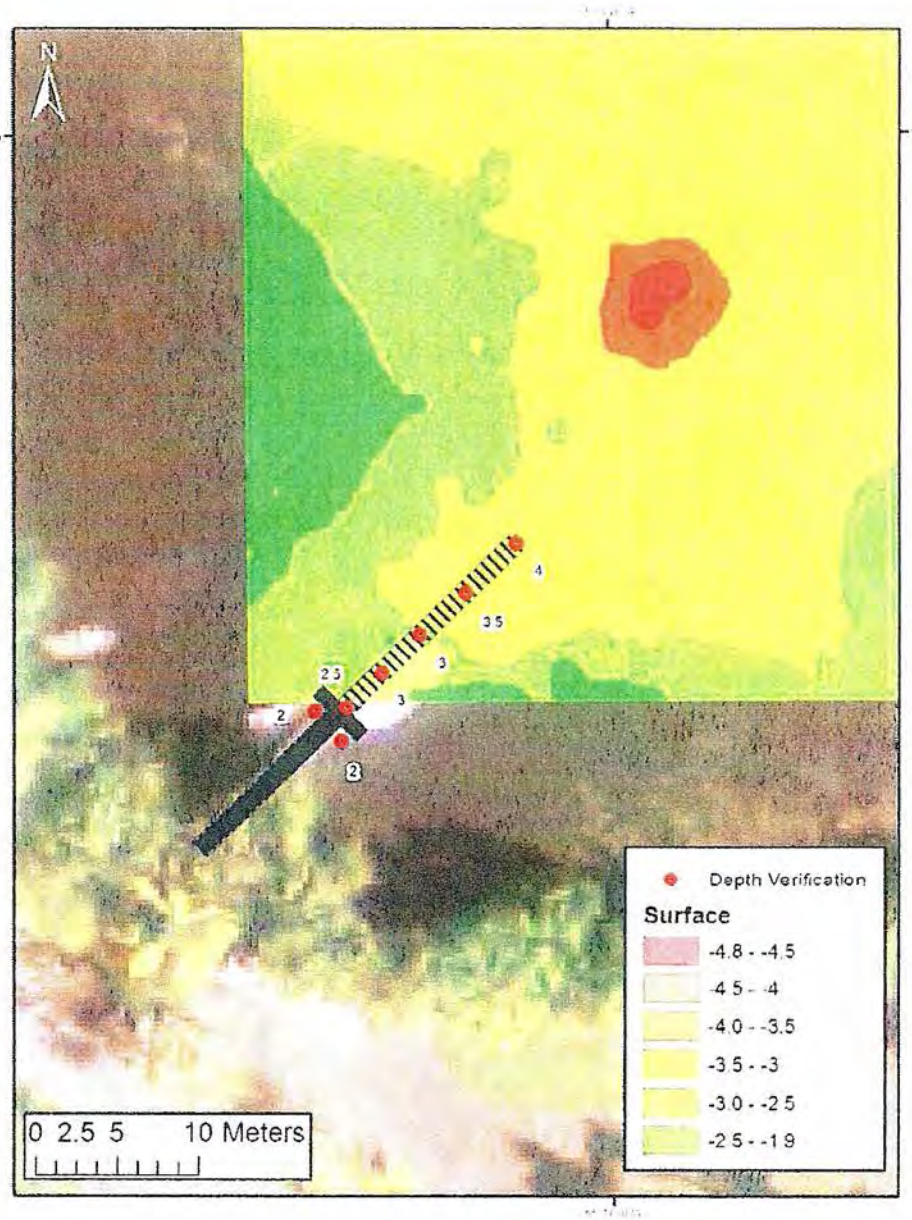


Figure 2. Depth verification points along the proposed pier in Ensenada Fulladosa, Culebra. Depth values are labeled besides each point in feet.

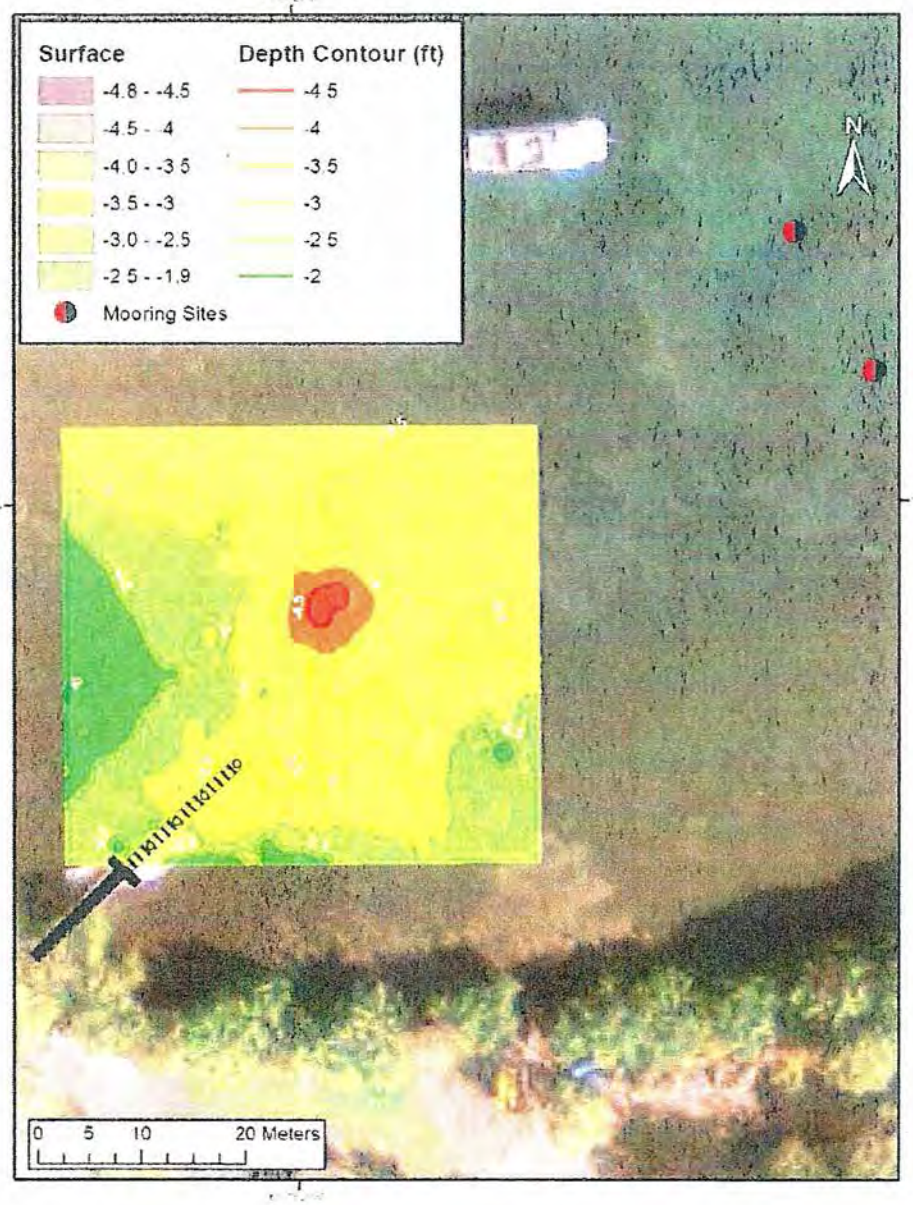


Figure 3. Bathymetry map and possible mooring locations in the vicinity of the Seabourne Hotel pier in Ensenada Fulladosa, Culebra.

The bathymetry contour map generated in GIS resulted in an area of 1,600 m^2 with a depth range of 0.6 to 1.5 m (2 to 5 feet) (Figure 1). The mean depth was roughly short of 1m (3 feet) and the deepest area of the map coincides with the mud habitat previously discussed in the benthic survey. To complement the bathymetry map, seven preselected points were verified for depth along the proposed pier. The results of the verification are shown in Figure 2.

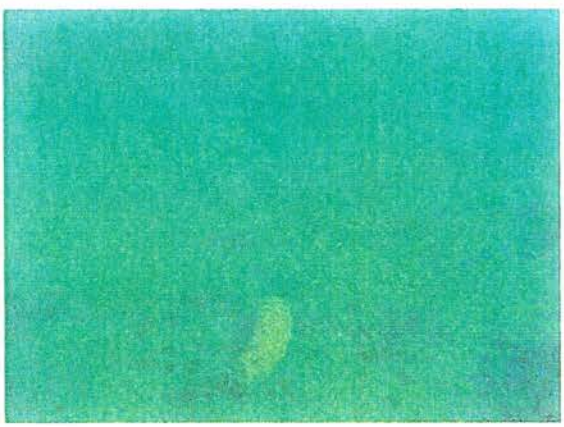
The proposed mooring sites were field verified for the presence of seagrass and was concluded that there is no Turtle Grass (*Thalassia testudinum*) in this deeper section of the bay. The transition between an area colonized by Turtle grass and an area of mixed algae in mud coincides with a depth isobaths of about 2.7 m (9 feet). The proposed mooring sites are shown in Figure 3 and their exact positions are presented in Table 1. The total depth for both sites is 3.3 m (10 feet) and the distance between the two sites is approximately 16 m (50 feet). Both sites are located northeast of the existing pier at a distance of approximately 85 m (280 feet).

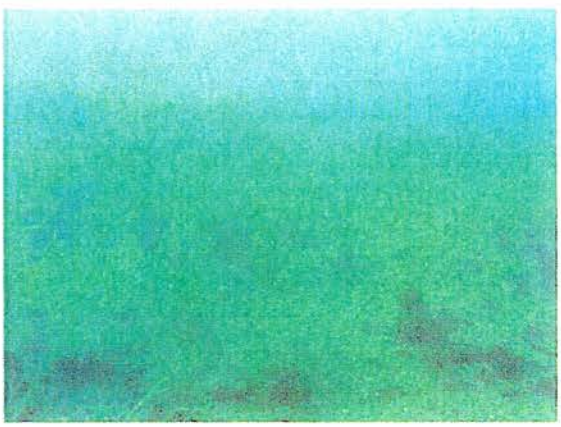
The benthic habitat at the chosen mooring sites can be described as an algal colonized muddy bottom. No seagrasses were found along a 6 meter radius and the dominant species on the colonized sections belonged to the green algae order mostly of the genus *Penicillus spp.*, *Udotea spp.*, and *Caulerpa spp.* The only invertebrate found at the site was the common donkey dong sea cucumber (*Holothuria mexicana*).

Table 1. Geographic position and depth of possible mooring sites near the Seabourne Hotel pier in Ensenada Fulladosa, Culebra.

Mooring	Latitude	Longitude	Depth (ft)
1	18.291902	-65.288429	10
2	18.291778	-65.288357	10

VI. **Appendix 1.** Photo album of possible mooring sites.

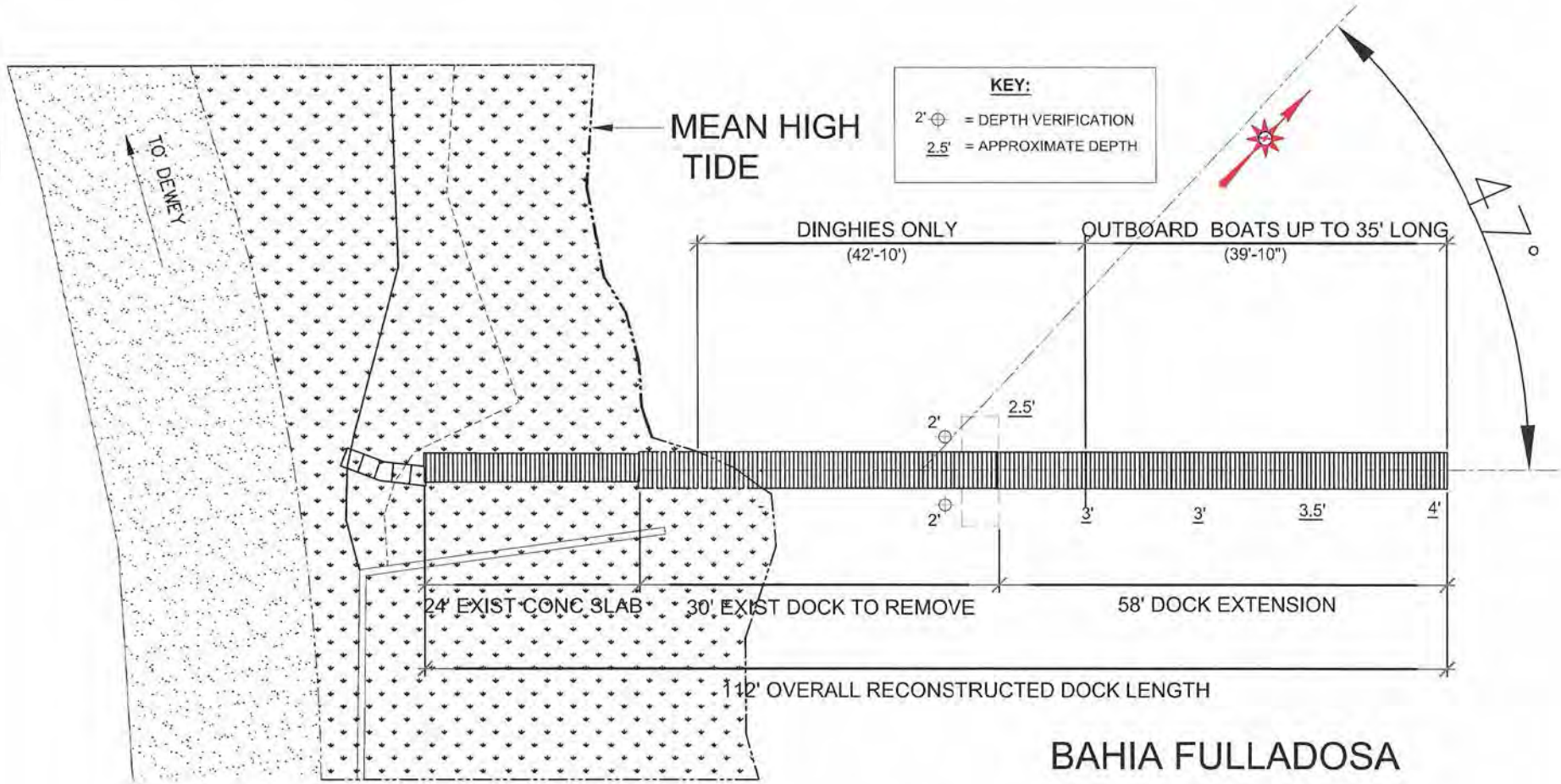




ANEJO 4:

Planos Esquemáticos del Proyecto

Anejo 4



SHEET 1 - SITE PLAN

NTS

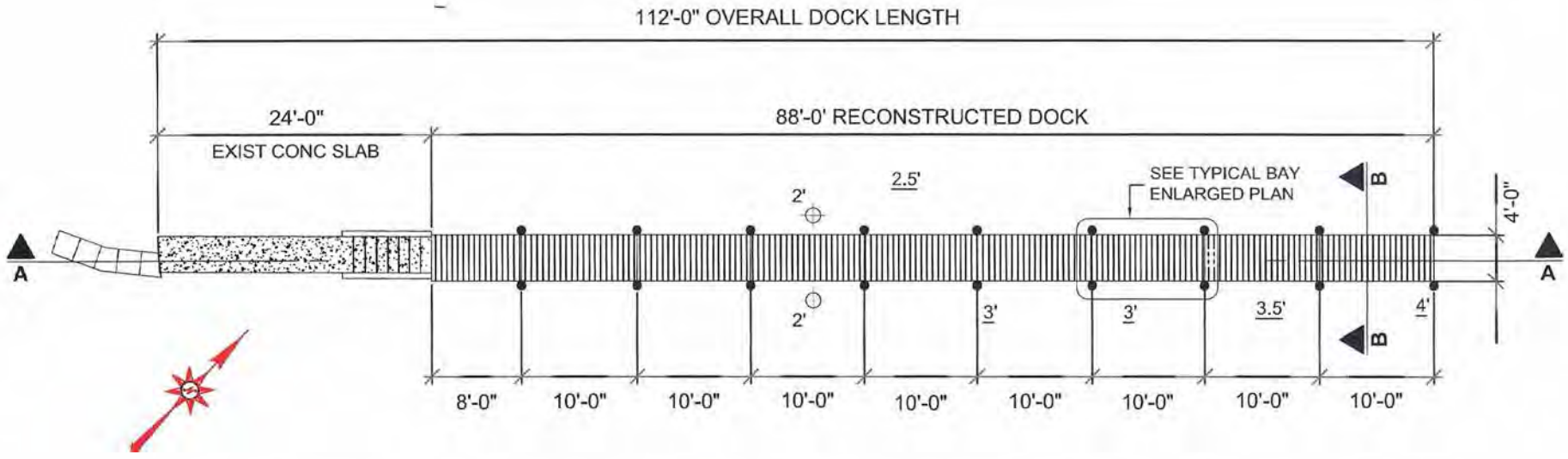
Joint Permit Application # SAJ-1988-57033 (LP-DCM)

Club Seabourne	Reconstruction of a Boat Pier, Ensenada Fulladosa Club Seabourne Boutique Hotel Culebra, Puerto Rico	**Arturo J. García, AIA** Licensed Architect / ICSC Certified Development, Design and Construction Professional ICSC Certified Retail Property Executive PO Box 191707, San Juan, PR, 00919-1707 • (787) 649-2372 • arturojgarcia@gmail.com	1/6

KEY:

2' ⊕ = DEPTH VERIFICATION

2.5' = APPROXIMATE DEPTH

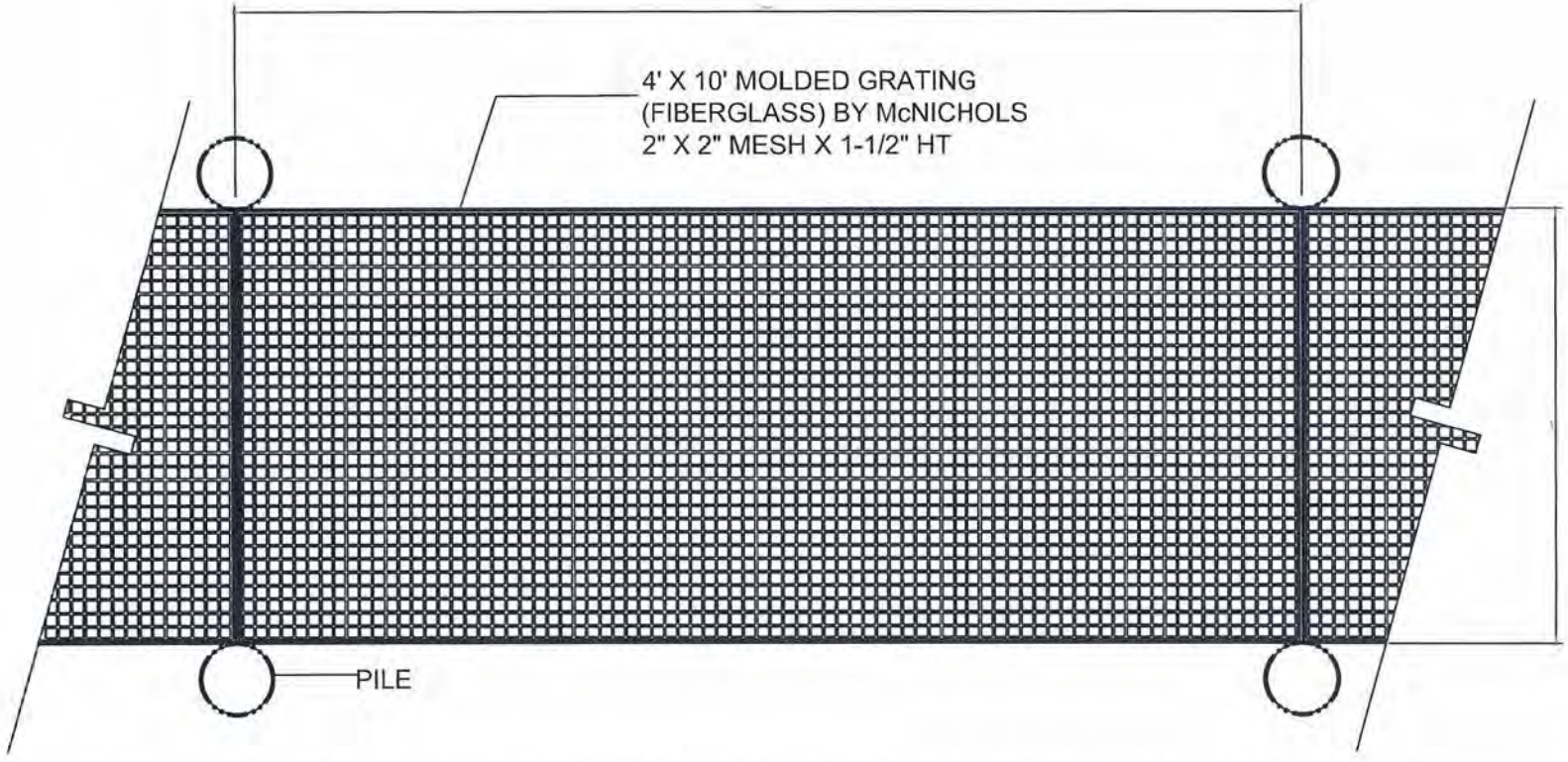


SHEET 2 - RECONSTRUCTED DOCK PLAN

NTS

Joint Permit Application # SAJ-1988-57033 (LP-DCM)

Club Seabourne	Reconstruction of a Boat Pier, Ensenada Fulladosa Club Seabourne Boutique Hotel Culebra, Puerto Rico	**Arturo J. García, AIA** Licensed Architect / ICSC Certified Development, Design and Construction Professional ICSC Certified Retail Property Executive PO Box 191707, San Juan, PR, 00919-1707 • (787) 649-2372 • arturojgarcia@gmail.com	2/6



SHEET 3 - TYPICAL BAY ENLARGED PLAN

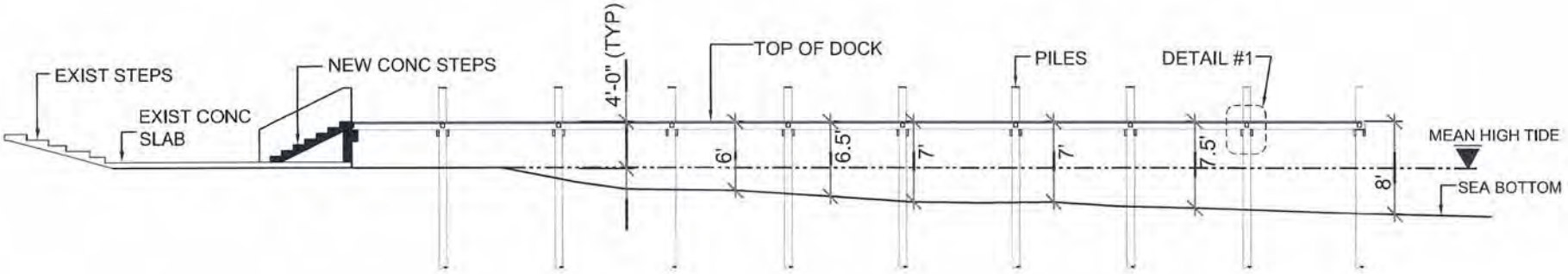
NTS

Joint Permit Application # SAJ-1988-57033 (LP-DCM)

Arturo J. García, AIA

Licensed Architect / ICSC Certified Development, Design and Construction Professional
ICSC Certified Retail Property Executive

PO Box 191707, San Juan, PR, 00919-1707 • (787) 649-2372 • arturojgarcia@gmail.com

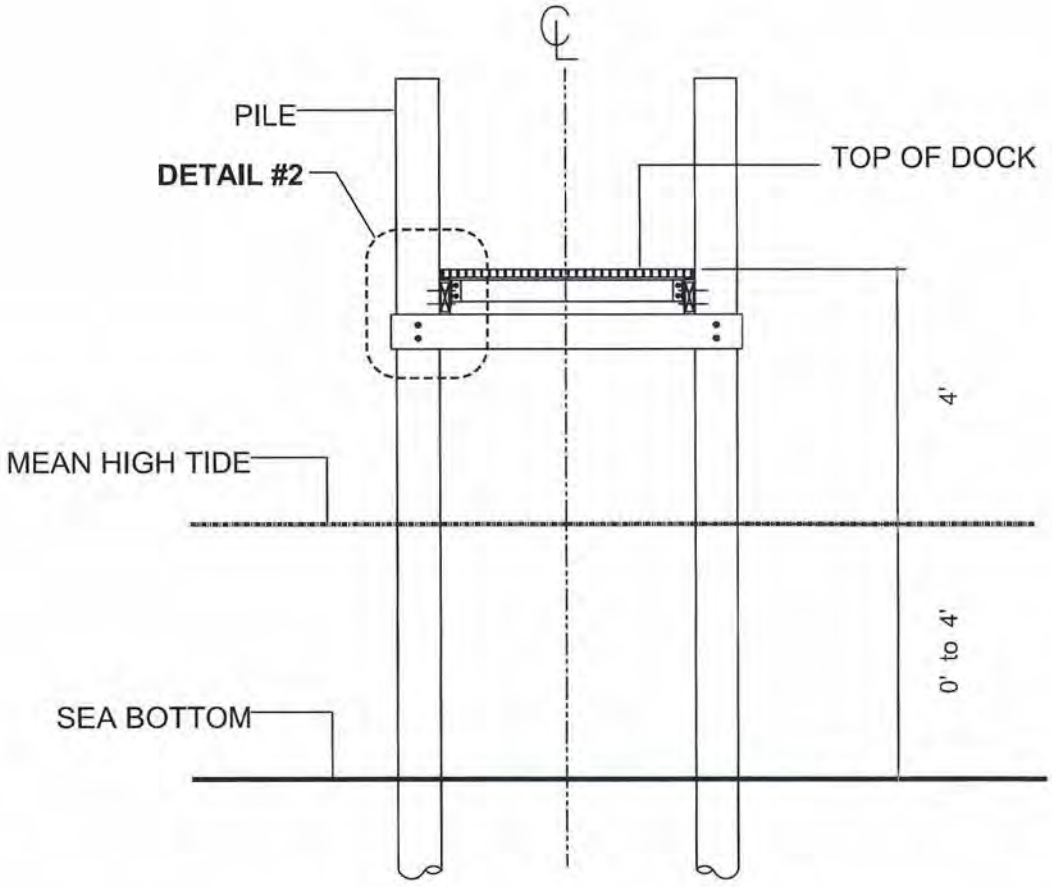


SHEET 4 - LONGITUDINAL SECTION A-A

NTS

Joint Permit Application # SAJ-1988-57033 (LP-DCM)

Club Seabourne	Reconstruction of a Boat Pier, Ensenada Fulladosa Club Seabourne Boutique Hotel Culebra, Puerto Rico	**Arturo J. García, AIA** Licensed Architect / ICSC Certified Development, Design and Construction Professional ICSC Certified Retail Property Executive PO Box 191707, San Juan, PR, 00919-1707 • (787) 649-2372 • arturojgarcia@gmail.com	4/6

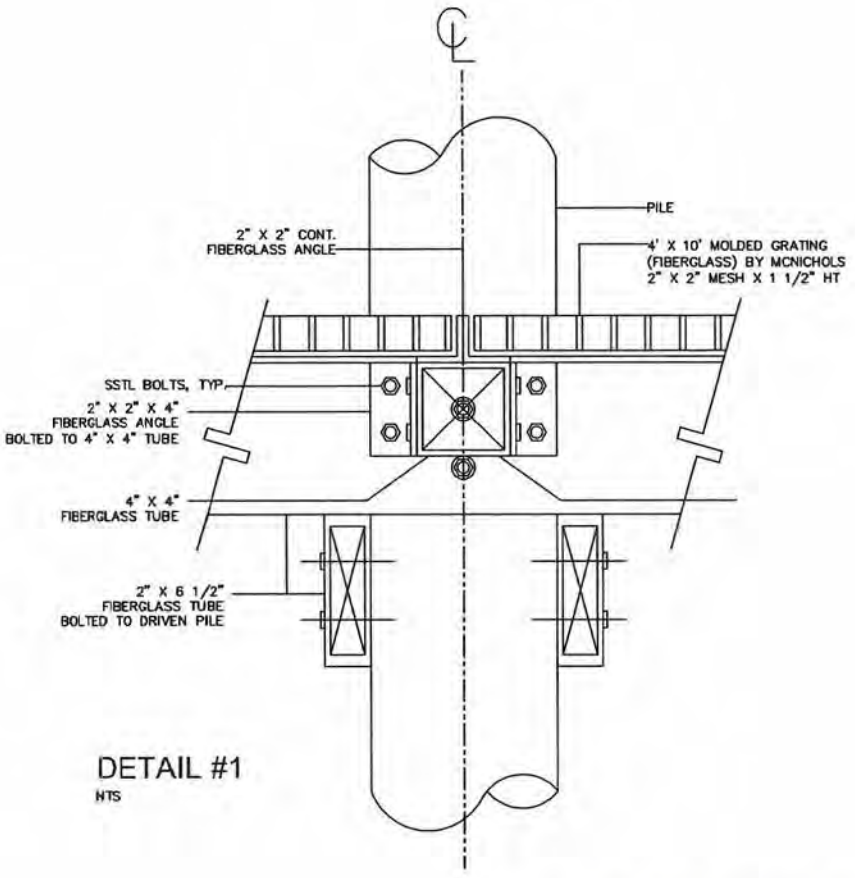


SHEET 5 - TRANSVERSE SECTION B-B

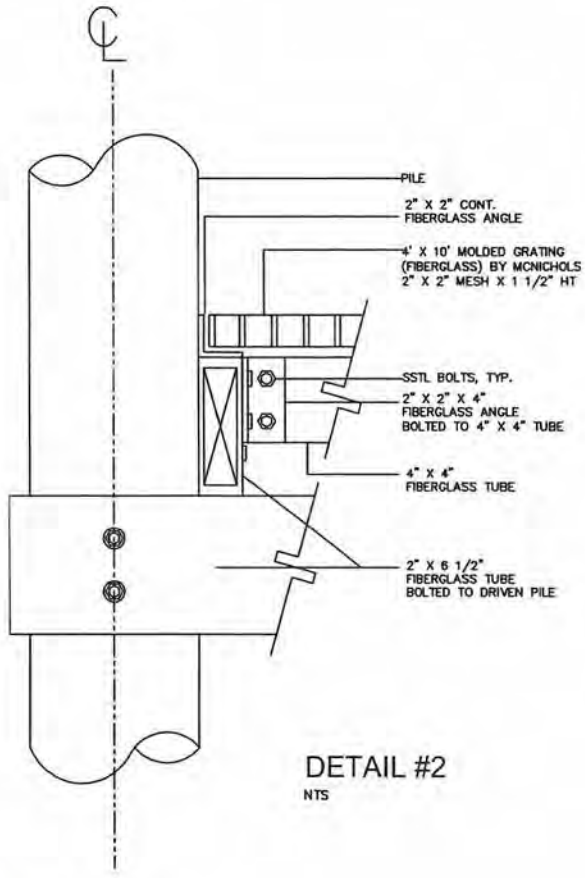
NTS

Joint Permit Application # SAJ-1988-57033 (LP-DCM)

Club Seabourne	Reconstruction of a Boat Pier, Ensenada Fulladosa Club Seabourne Boutique Hotel Culebra, Puerto Rico	**Arturo J. García, AIA** Licensed Architect / ICSC Certified Development, Design and Construction Professional ICSC Certified Retail Property Executive PO Box 191707, San Juan, PR, 00919-1707 • (787) 649-2372 • arturojgarcia@gmail.com	5/6



DETAIL #1
NTS



DETAIL #2
NTS

SHEET 6 - DETAILS

NTS

Joint Permit Application # SAJ-1988-57033 (LP-DCM)

Club Seabourne	Reconstruction of a Boat Pier, Ensenada Fulladosa Club Seabourne Boutique Hotel Culebra, Puerto Rico	**Arturo J. García, AIA** Licensed Architect / ICSC Certified Development, Design and Construction Professional ICSC Certified Retail Property Executive PO Box 191707, San Juan, PR, 00919-1707 • (787) 649-2372 • arturojgarcia@gmail.com	6/6

ANEJO 5:

Endoso de la Autoridad de Conservación y Desarrollo de Culebra

AUTORIDAD DE CONSERVACION Y DESARROLLO DE CULEBRA

5 de septiembre de 2012

Sr. José Martí, Presidente
Hotel Club Seaburne
PO Box 593
Culebra, Puerto Rico 00775
PETICIONARIO

Re: Solicitud de Endoso
Permiso de Construcción, Expansión de Muelle Existente
Bo. Fulladoza
ACDEC: 12-02-011

ENDOSO

El peticionario solicita de la Autoridad de Conservación y Desarrollo de Culebra (ACDEC) endoso para la actividad descrita en epígrafe.

En Reunión Ordinaria del 4 de septiembre de 2012, la Junta de Directores resolvió endosar lo solicitado bajo las siguientes condiciones:

1- El peticionario será responsable de conseguir la aprobación de cualquier agencia federal, estatal o municipal con jurisdicción en este asunto.

2- El peticionario deberá permitir el uso público del muelle y rotularlo a esos fines.

3- El muelle cumplirá con las guías de construcción establecidas utilizando materiales convencionales y aceptados para asegurar la permanencia de hierbas marinas y organismos asociados. Se utilizará paneles tipo "grate" que permite el paso de la luz para que minimice el impacto a las yerbas marinas del área.

4- El peticionario cumplirá fiel y cabalmente con todas las disposiciones reglamentarias de la Junta de Calidad Ambiental, el Cuerpo de Ingenieros, la Junta de Planificación, la Administración de Reglamentos y Permisos, el Departamento de Recursos Naturales y Ambientales, el Plan de Usos de Terrenos de Culebra vigente y el Mapa de Zonificación.

5- Esta comunicación no lo autoriza a mover material de la corteza terrestre ni a realizar ningún trabajo en el área hasta tanto se cumpla con todos los reglamentos y reglas aplicables a la acción propuesta. Para cualquier movimiento de terreno en dicho predio debe referirse al Reglamento para la Extracción de Materiales de la Corteza Terrestre, para el cumplimiento del mismo.

6- Este endoso no será valido sin la obtención de los permisos requeridos por otras agencias gubernamentales.

6- El peticionario será completamente responsable de cualquier daño que pueda sufrir alguna(s) persona(s) por motivo de la(s) obra(s) aquí endosada(s). Este endoso es intransferible. Se concede única y exclusivamente para realizar la actividad arriba descrita. Cualquier otra actividad aquí no incluida tendrá que solicitarse por separado.

7- Este endoso tendrá vigencia por un (1) año a partir de la firma del Presidente de la Junta de Directores de la Autoridad de Conservación y Desarrollo de Culebra (ACDEC), para iniciar los trámites con las agencias pertinentes.

8- El incumplimiento de cualquiera de estas condiciones podrá dar lugar a la revocación del endoso aquí aprobado.

Esta comunicación puede ser presentada por requerimiento de cualquier otra agencia gubernamental.

En Culebra, Puerto Rico, hoy 5 de septiembre de 2012.

Ernesto Garay Figueroa
Presidente
Junta de Directores

AUTORIDAD DE CONSERVACION Y DESARROLLO DE CULEBRA

15 de octubre de 2013

Sr. José Martí
Hotel Club Seabourne
PO Box 593
Culebra, P.R. 00775
PETICIONARIO

RE: Solicitud de Extensión de Endoso para construcción y expansión existente del Muelle del Seabourne en Barrio Fulladoza
ACDEC 12-02-011

Estimado señor Martí:

En Reunión Ordinaria de la Junta de Directores de la Autoridad de Conservación y Desarrollo de Culebra del 14 de octubre de 2013, luego de evaluar su petición se le otorga una extensión para que gestione los permisos necesarios y el Permiso del Cuerpo de Ingenieros. Se le solicita esta documentación para completar su expediente y proceder con el endoso.

Cordialmente,

Carlota Santos Grana

Carlota Santos Grana
Secretaria
Junta de Directores

ANEJO 6:

Carta del COE del 26 de abril de 2006

Anejo 6

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
ANTILLES OFFICE
400 FERNANDEZ JUNCOS AVENUE
SAN JUAN, PUERTO RICO 00901-3299

REPLY TO
ATTENTION OF

APR 26 2006

Antilles Regulatory Section
SAJ-1988-57033 (IP-VG)

Mr. José A. Martí
Club Seabourne Hotel
P.O. Box 357
Culebra, Puerto Rico 00775

Dear Mr. Martí:

Reference is made to a site inspection visit performed by a member of my staff on March 8, 2006, to the Club Seabourne's existing pier location. The pier is located at Fulladosa Cove, Culebra Island, Puerto Rico. Please refer to file number SAJ-1988-57033 (IP-VG) in future correspondence regarding this case.

The site inspection visit served to corroborate the presence of a pier measuring 54 feet in length, consisting of 30 feet wooden structure and a concrete tile measuring 24 feet.

The U.S. Army Corps of Engineers (Corps) hereby confirms that, according to our records, the authorized dimensions for the referenced pier correspond to 112 feet in length, consisting of a wooden structure of 88 feet and a 24 feet concrete tile. You have the option to expand the wooden structure to conform the originally approved dimensions (88 feet), in accordance with the specifications of the original Department of the Army (DA) permit However, please be advised that this determination does not obviate the need to obtain any Federal permits and any other State or local permits from the Commonwealth of Puerto Rico, which may be necessary for the proposed work.

Thank for your cooperation with our Regulatory Program. Should you have any questions regarding this matter, please contact Mrs. Vivian Gerena at the letterhead address or by telephone at 787-729-6905/6944, extension 3058.

Sincerely,

for Sindulfo Castillo
Chief, Antilles Regulatory Section

ANEJO 7:

Permiso Original del COE (22 de abril de 1982)

Anejo 7

DEPARTMENT OF THE ARMY
SAN JUAN AREA OFFICE, JACKSONVILLE DISTRICT
CORPS OF ENGINEERS
400 FERNANDEZ JUNCOS AVENUE
SAN JUAN, PUERTO RICO 00901

SAJDS
82(5)5011

22 April 1982

Mr. Mark M. Semich
General Delivery
Culebra, Puerto Rico 00645

Dear Mr. Semich:

This is in reference to your request for a permit to perform work in or affecting navigable waters of the United States. Upon recommendation of the Chief of Engineers, pursuant to Section 10 of the River and Harbor Act of 3 March 1899 (33 U.S.C. 403), you are authorized to construct a wooden pier, 92' long, in accordance with plans and conditions attached which are incorporated in and made a part of the permit.

Inclosed is a Notice of Authorization which should be displayed at the construction site. Work may begin immediately, but you must notify this office of the following:

a. the date of commencement of work (mail attached card)

b. the dates of work suspensions and resumption if work is suspended over a week, and

c. the date of completion.

If the work authorized is not completed on or before 22 April 1985, this authorization, if not previously revoked or specifically extended, shall cease and be null and void.

If you have any question, please visit or write us at the above address or call our Permits Section, telephone 753-4996.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

for WILLIAM C. BURNS
Lt Col, Corps of Engineers
Deputy District Engineer for
Puerto Rico and Virgin Islands

4 Incls
1. General Conditions
2. Permit Drawing
3. ENG Form 4336
4. SAJ FL 586

1. GENERAL CONDITIONS:

a. That all activities identified and authorized herein shall be consistent with the terms and conditions of this Permit; and that any activities not specifically identified and authorized herein shall constitute a violation of the terms and conditions of this Permit which may result in the modificaiton, suspension, or revocation of this Permit, in whole or in part, as set forth more specifically in General Conditions j or k hereto, and in the institution of such legal proceedings as the United States Government may consider appropriate, whether or not this Permit has been previously modified, suspended or revoked in whole or in part.

b. That all activities authorized herein shall, if they involve a discharge or deposit into navigable waters or ocean water, be at all times consistent with applicable water quality standards, effluent to Section 301, 302, 305, and 307 of the Federal Water Pollution Control Act of 1972 (P.L. 92-500; 85 Stat. 816) or pursuant to applicable State and local law.

c. That when the activity authorized herein involves a discharge or deposit of dredged or fill material into navigable waters, the authorized activity shall, if applicable water quality standards are revised or modified during the term of this Permit, be modified if necessary, to conform with such revised or modified water quality standards within six months of the effective date of any revision or modificacion of water quality standards, or as directed by an implementation plan contained in such revised or modified standards, or within such longer period of time as the District Engineer, in consultation with the Regional Administrator of the Environmental Protection Agency, may determine to be reasonable under the circumstances.

d. That the Permittee agrees to make every reasonable effort to prosecute the construction or work authorized herein in a manner so as to minimize any adverse impact of the construction or work on fish, wildlife, and natural environmental values.

e. That the Permittee (s) agrees to prosecute the construction or work authorized herein in a manner so as to minimize any degradation of water quality.

f. That the Permittee shall permit the District Engineer or his authorized representative (s) or designee (s) to make periodic inspections at any time deemed necessary in order to assure that the activity being performed under authority of this Permit is in accordance with the terms and conditions prescribed herein.

g. That the Permittee shall maintain the structure or work authorized herein in good condition and in accordance with the plans and drawings attached hereto.

h. That this Permit does not convey any property rights, either in real estate or material, or any exlusive privileges; and that it does not authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations, nor does it obviate the requirement to obtain State or local assent required by law for the activity authorized herein.

i. That this Permit does not authorize the interference with any existing or proposed Federal project and that the Permittee shall not be entitled to compensation for damage or injury to the structures or work authorized herein which may be caused by or result from existing or future operations undertaken by the United States in the public interest.

j. That this Permit may be summarily suspended, in whole or in part, upon a finding by the District Engineer that immediate suspension of the activity authorized herein would be in the general public interest. Such suspension shall be effective upon receipt by the Permittee of a written notice thereof which shall indicate (1) the extent of the suspension, (2) the reasons for this action, and (3) any corrective or preventive measures to be taken by the Permittee which are deemed necessary by the District Engineer to abate imminent hazards to the general public interest. The Permittee shall take immediate action to comply with the provisions of this notice. Within ten days following receipt of this notice of suspension the Permittee may request a Hearing in order to present information relevant to a decision as to whether his Permit should be reinstated, modified or revoked. If a Hearing is requested, it shall be conducted pursuant to procedures prescribed by the Chief of Engineers. After completion of the Hearing, or within a reasonable time after issuance of the suspension notice to the Permittee if no Hearing is requested, the Permit will either be reinstated, modified or revoked.

k. That this Permit may be either modified, suspended or revoked in whole or in part if the Secretary of the Army or his authorized representative determines that there has been a violation of any of the terms or conditions of this Permit or that such action would otherwise be in the public interest. Any such modification, suspension, or revocation shall become effective 30 days after receipt by the Permittee of written notice of such action which shall specify the facts or conduct warranting same unless (1) within the 30-day period the Permittee is able to satisfactorily demonstrate that (a) the alleged violation of the terms and the conditions of this Permit did not, in fact, occur or (b) the alleged violation was accidental, and the Permittee has been operating in compliance with the terms and conditions of the Permit and is able to provide satisfactory assurances that future operations shall be in full compliance with the terms and conditions of this Permit; or (2) within the aforesaid 30-day period, the Permittee requests that a Public Hearing be held to present oral and written evidence concerning the proposed modification, suspension or revocation. The conduct of this Hearing and the procedures for making a final decision either to modify, suspend or revoke this Permit in whole or in part shall be pursuant to procedures prescribed by the Chief of Engineers.

l. That in issuing this Permit the Government has relied on the information and data which the Permittee has provided in connection with his Permit application. If, subsequent to the issuance of this Permit, such information and data prove to be false, incomplete or inaccurate, this Permit may be modified, suspended or revoked, in whole or in part and/or the Government may, in addition, institute appropriate legal proceedings.

m. That any modification, suspension, or revocation of this Permit shall not be the basis for any claim for damages against the United States.

n. That the Permittee shall notify the District Engineer at what time the activity authorized herein will be commenced (as far in advance of the time of commencement as the District Engineer may specify), and of any suspension of work if for a period of more than one week, or resumption of work, and of completion of work.

o. That if the activity authorized herein is not completed on or before the date indicated on the Permit to which these conditions are attached, that Permit, if not previously revoked or extended shall automatically expire.

p. That no attempt shall be made by the Permittee to prevent the full and free use by the public of all navigable waters at or adjacent to the activity authorized by this Permit.

q. That if the display of lights and signals on any structure or work authorized herein is not otherwise provided for by law, such lights and signals as may be prescribed by the United States Coast Guard shall be installed and maintained by and at the expense of the Permittee.

r. That this Permit does not authorize or approve the construction of particular structures, the authorization or approval of which may require authorization by the Congress or other agencies of the Federal Government.

s. That if and when the Permittee desires to abandon the activity authorized herein, unless such abandonment is part of a transfer procedure by which the Permittee is transferring his interests herein to a third party pursuant to General Condition v hereof, he must restore the area to a condition satisfactory to the District Engineer.

t. That if the recording of this Permit is possible under applicable State or local law, the Permittee shall take such action as may be necessary to record this Permit with the Registrar of Deeds or other appropriate official charged with the responsibility for maintaining records of title to and interests in real property.

u. That there shall be no unreasonable interference with navigation by the existence or use of the activity authorized herein.

v. That this Permit may not be transferred to a third party without prior written notice to the District Engineer, either by the transferee's written agreement to comply with all terms and conditions of this Permit or by the transferee subscribing to this Permit in the space provided below and thereby agreeing to comply with all terms and conditions of this Permit. In addition, if the Permittee transfers the interests authorized herein by conveyance of realty, the deed shall reference this Permit and the terms and conditions specified herein and this Permit shall be recorded along with the deed with the Registrar of Deeds or other appropriate official.

II. SPECIAL CONDITIONS ARE CHECKED BELOW:

(x) Structures For Small Boats: That Permittee hereby recognizes the possibility that the structure permitted herein may be subject to damage by wave wash from passing vessels. The issuance of this Permit does not relieve the permittee from taking all proper steps to insure the integrity of the structure permitted herein and the safety of boats moored thereto from damage by wave wash and Permittee shall not hold the United States liable for any such damage.

( ) Discharge Of Dredged Material Into Ocean Waters: That the Permittee shall place a copy of this Permit in a conspicuous place in the vessel to be used for the transportation and/or dumping of the dredged material as authorized herein.

(x) Erection Of Structure In Or Over Navigable Waters: That the Permittee, upon receipt of a notice of revocation of this Permit of upon its expiration before completion of the authorized structure or work, shall, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the waterway to its former condition. If the Permittee fails to comply with the direction of the Secretary of the Army or his authorized representative, the Secretary or his desigree may restore the waterway to its former condition, by contract or otherwise, and recover the cost thereof from the Permittee.

( ) Maintenance Dredging: (1) That when the work authorized herein includes periodic maintenance dredging, it may be performed under this Permit for years from the date of issuance of this Permit; and (2) That the Permittee will advise the District Engineer in writing at least two weeks before he intends to undertake any maintenance dredging.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

NOTICE OF AUTHORIZATION

22 April 1982

A PERMIT TO Construct a wooden pier, 92' long, in Ensenada Fulladosa

AT Culebra, Puerto Rioc

HAS BEEN ISSUED TO Mark M. Semich **ON** 22 April 1982

ADDRESS OF PERMITTEE General Delivery
Culebra, Puerto Rico 00645

PERMIT NUMBER 82(5)5011

District Engineer

ENG Form 4336
Jul 70

THIS NOTICE MUST BE CONSPICUOUSLY DISPLAYED AT THE SITE OF WORK.

* GPO. 1977 232-984

AUTORIDAD DE CONSERVACION Y DESARROLLO DE CULEBRA

September 25, 1981

Mr. Mark M. Semich
General Delivery
Culebra, Puerto Rico

Re: Petition of April 12, 1981

Dear Mr. Semich:

The Board of Directors of Culebra Conservation and Development Authority in its ordinary meeted dated September 4, 1981, approved your petition for the development of small tourist facilities at Ensenada Fulladosa.

The approval is subject to the following conditions:

1. It will be for the construction of a residence and six (6) tourist cottages. The dimensions of the project are specified in the sketch drawn by you on April 12, 1981.

2. You are authorized to clear all the brush, weeds, trash and scrub trees; and plant some trees and grass in the strip of land in front of Fulladosa Road. However, there will be no structure or buildings of any kind or fences. The place will be open to public access and you must suscribe a legal document recognizing this matter.

3. You are also authorized to construct a dock in the public property as soon as you obtain a permit from the U. S. Corps of Engineers and notify us with copy of the

permit issued. The dock will be dedicated for public use in a legal document that you must suscribe.

Please contact us when you obtain the Corp's permit.

Cordially yours,

Hilda Díaz Soltero
President
Board of Directors

DEPARTAMENTO
DE RECURSOS
NATURALES

18 de diciembre de 1981

Lcdo. Frank Inserni
Córdova, Subirá & Arrillaga
Suite 900 Pan Am Building
Ave. Ponce de León 255
Hato Rey, Puerto Rico 00917

Estimado licenciado Inserni:

Hacemos referencia a la carta que con fecha de 14 de diciembre de 1981, cursada por usted al Lcdo. Carlos Canals, Subsecretario del Departamento de Recursos Naturales, donde nos pide se confirme que la franja de terreno en la zona marítimo terrestre es una dedicada al uso público.

De acuerdo al plano y a la Resolución de la Junta de Planificación que nos sometiera, ciertamente debe dejarse una zona de 20 metros para ser dedicada al uso público.

El licenciado Canals tiene programada una reunión con el señor Muñiz para indicarle la posición de este Departamento, conforme a las leyes que gobiernan dicha zona.

En esta reunión se proyecta llegar a unos acuerdos que puedan poner fin a esta controversia.

Hasta entonces, le saluda

Muy Cordialmente,

Edgar Rosario
Director Ejecutivo

ANEJO 8:

Cartas del “U.S. Fish and Wildlife Service” y del “National Marine Fisheries Service” recomendando la reconstrucción a las dimensiones originales de 112 pies (plataforma de concreto de 24 pies y muelle de madera de 88 pies)

Anejo 8

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
9721 Executive Center Drive N.
St. Petersburg, Florida 33702
(727) 570-5317, FAX 570-5300

September 29, 2003 F/SER4:LC

Mr. Edwin E. Muñiz
Chief, Antilles Regulatory Section
Department of the Army, Corps of Engineers
400 Fernandez Juncos Avenue
San Juan, Puerto Rico 00901-3299

Dear Mr. Muñiz:

The National Marine Fisheries Service (NOAA Fisheries) has reviewed public notice number 198857033, dated September 2, 2003, and public notice number 200308360, dated September 25, 2003. According to the notices, Mr. José Martí of Club Seaborne Hotel proposes to add a 110 foot by 8 foot wide section to an existing pier consisting of a wooden section measuring 88 feet long and a concrete section at the shoreline measuring 24 feet long. The new pier would have a T-end measuring 100 feet long by 8 feet wide. Twelve mooring pilings would be installed along the T-end to create a minimum of 12 boat slips for a small marina. Mr. Martí also requests after-the-fact authorization of a 51 foot long pier composed of two sections, a floating dock measuring 31 feet long by 6 feet wide and a wooden pile supported pier measuring 20 feet long by 3 feet wide. The Club Seaborne Hotel dock is located at the Club Seaborne Hotel property and the unauthorized dock is located at Lot 1 adjacent to the hotel in Fulladosa Cove, Sardinas Ward, Culebra, Puerto Rico.

A NOAA Fisheries biologist visited the site on September 15, 2003. The western portion of Fulladosa Cove where the projects are located is densely colonized by seagrass, dominated by turtle grass, with some macroalgae present. There are some natural blowouts in seagrass beds in the project area. These were depicted in the benthic map of the area prepared for the 1988 permit application for public notice number 198857033. However, these blowouts are smaller than shown in the public notice due to seagrass recolonization since the time the benthic map of the project area was prepared. There is evidence of mechanical damage to seagrass beds in the area of the existing piers due to propeller scarring and propeller wash. The portion of the bay where the piers are located is shallow with depths ranging from 1.5 to 5 feet in the area of the piers. Red mangroves fringe the bay; however, the extent of fringing mangrove forest in Fulladosa Cove has diminished due to shoreline development. In areas where piers and homes have been constructed, the mangroves have been thinned or eliminated. Red mangroves are present on either side of the Club Seaborne Hotel dock but were apparently eliminated from the section of shoreline where the unauthorized pier was constructed. Seagrasses, algal plains,

and mangroves have been identified as essential fish habitat (EFH) by the Caribbean Fishery Management Council pursuant to the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). These habitats provide essential spawning, nursery, forage, and refuge functions for Federally managed species such as juvenile red hind; juvenile and adult white grunt, gray snapper, and mutton snapper; and adult squirrelfish.

Based on observations made during our site visit, the dimensions of the existing dock shown in drawings in public notice number 198857033, which are the same drawings included in a 1988 permit application, are incorrect. The current structure has a total length of approximately 50 feet and is composed of a 24 foot long by 4 foot wide concrete platform, a 22 foot long by 4 foot wide wooden pile supported pier, and a 22 foot long by 3.5 foot wide T-end. There is a metal pole seaward of the dock located where the original 112 foot long dock ended. The footprint of the original structure is evident on the seabed due to the lack of seagrasses. The unauthorized dock in public notice number 200308360 is located southeast of the other Club Seaborne pier in an area of dense seagrass beds. Based on observations made during the site visit, the entire structure is pile supported rather than having a floating section as stated in the public notice.

The dock extension proposed in public notice number 198857033 would affect 1680 square feet of seagrass beds both directly through the installation of pilings and indirectly through shading and an increase in boat traffic and associated mechanical damage to seagrass beds. The purpose of the dock extension stated in the public notice is to create a small marina for yachts. Although the dimension of these yachts is not given in the public notice, the existing depths of 1.5 to 5 feet in the project area make it likely that dredging would be necessary to accommodate large boats or that propeller dredging would occur when large boats attempt to dock in the cove. Seagrass beds would be completely eliminated by dredging activities and mangroves would be affected by resuspension of sediments. The unauthorized dock (public notice number 200308360) resulted in direct and indirect effects to 246 square feet of seagrass beds due to piling installation, shading and boat traffic in shallow areas, and apparently eliminated fringing red mangroves. Therefore, the total project impacts to seagrass beds would be 1926 square feet. Based on the information contained in the public notices, the applicant has not designed the projects to avoid and minimize impacts to EFH and does not propose mitigation for unavoidable impacts to EFH and associated fishery resources.

In view of the preceding, and to ensure conservation of EFH and fishery resources, NOAA Fisheries offers the following recommendations:

EFH Conservation Recommendations

1. The unauthorized pier (public notice number 200308360) shall be removed in its entirety;

2. Reconstruction of the hotel pier (public notice number 198857033) to its original dimensions of 112 feet long by 4 feet wide, including the 24 foot long concrete section at the shoreline shall be permitted. The new dock shall be constructed following Shafer ands Lundin's[1] recommendations.

Specifically, the pier shall be aligned so as to minimize the size of the footprint over seagrass beds; the height of the pier shall be a minimum of five feet above mean high water; the width of the pier shall be limited to a maximum of 4 feet; the spacing of pilings shall be a minimum of ten feet on center; gaps between deckboards shall be a minimum of ½ inch; and the total size of the plank constructed platform shall be 120 square feet; and

3. Prior to initiation of work, the extent of impacts to seagrass beds and mangroves due to the construction of both piers shall be assessed, a restoration plan shall be developed for the area of the unauthorized pier, and a mitigation plan that would offset unavoidable impacts to EFH as a result of the reconstruction of the original hotel pier shall be developed and submitted to the Corps of Engineers and NOAA Fisheries for review and approval.

Section 305(b)(4)(B) of the Magnuson-Stevens Act and NOAA Fisheries' implementing regulation at 50 CFR Section 600.920(k) require your office to provide a written response to this letter within 30 days of its receipt. If it is not possible to provide a substantive response within 30 days, in accordance with our "findings" with your Regulatory Functions Branch an interim response should be provided to NOAA Fisheries. A detailed response then must be provided at least 10 days prior to final approval of the action. Your detailed response must include a description of measures proposed by your agency to avoid, mitigate, or offset the adverse impacts of the activity. If your response is inconsistent with our EFH Conservation Recommendation, you must provide a substantive discussion justifying the reasons for not following that recommendation.

We appreciate the opportunity to provide comments on these public notices. Questions related to the proposed projects and marine fishery resource issues should be directed to Dr. Lisamarie Carrubba in our Puerto Rico Field Office at 787/851-3700.

Sincerely,

Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

Pvt-2407

United States Department of the Interior

FISH & WILDLIFE SERVICE
Boqueron Field Office
Carr. 301, KM 5.1, Bo. Corozo
P.O. Box 491
Boqueron, PR 00622

November 21, 2003

Ms. Carmen Torres Meléndez
Secretary
P.R. Planning Board
P.O. Box 41119
San Juan, P.R. 00940-1119

Re: CZ-2004-0813-015
CZ-2004-0813-014
Sol. Conj. 490, Sol. Conj. 489
Culebra, P.R.

Dear Ms. Torres:

This is in reply to your request for our comments on the above reference Coastal Zone Consistency Certificate application. The applicant, Mr. José Marti of Club Seaborne Hotel, is proposing to add a 110 feet long by 8 feet wide section to an existing pier which measures 88 feet long with a 24 feet long concrete section at the shoreline. The new pier would have a "T" end measuring 100 feet long by 8 feet wide. The project also includes the installation of twelve mooring pilings at the end of the "T"-end to create 12 boat slips for a small marina. In a letter dated October 14, 2003, we provided comments to the Corps of Engineers about this project and another after-the-fact authorization request for a pier from the same applicant. The applicant is also proposing (CZ-2004-0813-014) to legalize the construction of a 51 feet long pier composed of two sections, a floating non-translucent pier section of 31 feet long by 6 feet wide fixed to a 20 feet long by 3 feet wooden pier on pilings. Both piers are located in Fulladosa Cove, Sardinas Ward, Culebra, P.R.

According to a site visit conducted on September 15, 2003 by Service biologist Ana Román and Lisamarie Carrubba from NOAA Fisheries, seagrass beds occur adjacent to the Club Seaborne Hotel original pier (CZ-2004-0813-015), and its original footprint could be noticed due to the lack of seagrass in that specific area. The area where the unauthorized dock (CZ-2004-0813-014) is located is heavily colonized by seagrasses. Seagrass beds serve many important functions. The leaves of turtle grass, shoal grass, manatee grass and sea vines, enhance water quality by helping suspended matter to precipitate, preventing resuspension of anoxic sediments, and by transforming nutrients into usable biomass. Leaves and stems also trap sediment (decreasing turbidity) and provide egg-laying and nursery habitat for many invertebrate species. The roots and rhizomes of seagrasses hold sediment together and prevent coastal erosion. These functions

sustain and enhance fishery resources.

In various letters to the Corps, in response to permit applications, we have expressed our concerns about how cumulative impacts have practically eliminated the mangrove wetland fringe from various areas of Culebra, including Fulladosa Bay. Individual piers have also directly and indirectly impacted shallow algal and seagrass beds. Prop wash and shading have eliminated these systems from around the existing piers. Upland development and the elimination of mangroves and seagrass beds have increased turbidity in the bay and have decreased water quality.

Based on the above, we recommend that to avoid impacts to these important resources, and since both docks are proposed for the same purpose and are located adjacent to one another, the unauthorized dock (CZ-2004-0813-014) be completely removed. Impacts to seagrass and mangroves, due to the construction of this structure, should be analyzed to determine the need for a restoration plan.

Regarding Certificate application CZ-2004-0813-015, the proposed extension for the construction of a marine would eliminate seagrass beds by shading and mechanical damage by increasing boat traffic. In addition, due to the inadequate depths (1-5 feet) in the project area, impacts to seagrass beds and mangroves by propeller wash and resuspension of sediments would be expected. Based on the above, we recommend that this proposed extension be denied.

In reference to the applicant's proposal to reconstruct the hotel pier, we would not object, provided it is rebuilt to its original footprint (112 feet long by 4 feet wide). We recommend the pier be reconstructed following Shafer and Lundin's recommendations in "Design and Construction of Docks to Minimize Seagrass Impacts" (WRP Technical Notes Collection (TN WRP-VN-RS-3.1)).

If you have any questions, please contact Ana Román from our staff at (787) 851-7297, extension 22. Thank you for the opportunity to provide comments on these projects.

Sincerely yours,

Carlos A. Díaz
Assistant Field Supervisor

amr/fhl
cc:
DNER, Culebra
DNER, San Juan
COE, San Juan
CNWR, Culebra
ACDEC, Culebra

2003 DEC -2 A 2:15

COMMONWEALTH OF PUERTO RICO
OFFICE OF THE GOVERNOR
PLANNING BOARD

MINILLAS GOVERNMENT CENTER
DE DIEGO AVE., STOP 22, SANTURCE
PO BOX 41119, SAN JUAN, PUERTO RICO 000940-1119

February 6, 2004

Mr. José A. Martí
Club Seabourne Hotel
PO Box 357
Culebra, Puerto Rico 00775

Federal Consistency Determination
CZ-2004-0813-014 (Joint Permit Application No. 489)
CZ-2004-0813-015 (Joint Permit Application No. 490)
USACE: 200308360 (IP-JR), 198857033 (IP-JR)
Legalization of a private pier and extension
of another existing pier to create a small marina
Culebra, Puerto Rico

Dear Mr. Martí:

This letter is in reference to your application for Certification of Consistency with the Puerto Rico Coastal Management Program (PRCMP) for the legalization of a 20 feet long wooden pier with an attached floating pier of 30 feet long by 6 feet wide and the extension of the Seabourne Club Pier by adding a 110 feet long by 8 feet wide wooden section with a 100 feet long by 8 feet wide "T" end to an existing 112 feet long pier.

The applications at reference were submitted to obtain a permit from the U.S. Army Corps of Engineers. The review process of the certificates began on August 13, 2003.

The applications and accompanying documents were sent to the Fish & Wildlife Service (FWS), the Environmental Quality Board (EQB), the State Historic Preservation Office (SHPO), the Underwater Archaeology Council, the Department of Natural and Environmental Resources (DNER) and the Authority for Conservation and Development of Culebra. A summary of the received comments follows (letters included as enclosure):

- **Authority for Conservation and Development of Culebra**: did not endorse the projects at reference because the existing and proposed structures are located at Maritime Zone which is of public domain land. The project did not comply with section 890e of Law No. 76 of June 6, 2002.

- **EQB**: informed that according to their files no environmental document has been submitted for the proposed projects in order to comply with the article 4c of the Puerto Rico Environmental Policy Law.

- **Underwater Archaeology Council**: stated that the project is located at a highly sensitive archaeological area. Therefore archaeological studies phase level IA-IB shall be submitted.

- **SHPO**: informed that according to their records they believe that no historic properties are located within the project's area of potential effects.

- **NMFS**: this agency stated that the proposed actions could adversely impact seagrass beds, algae plains and mangroves, which are identified as Essential Fish Habitat. According to their site inspection the unauthorized dock described in the Joint Permit Application No. 489 is entirely supported by piles rather than having a floating section. The project area is densely colonized by seagrass, dominated by turtle grass and macroalgae. The extent of fringing mangroves forest in Fulladosa Cove has diminished due to shoreline development. They recommend that the unauthorized pier shall be entirely removed.

  Regarding the extension of the Seabourne Club pier to construct a small marina with 12 boat slips, they informed that the total impacts of this proposal to seagrass beds would be 1926 square feet. Based on provided information the applicant has not designed the projects to avoid and minimize impacts to Essential Fish Habitat (EFH) and does not propose mitigation for unavoidable impacts to EFH and associated fishery resources. Therefore the NMFS recommends that only the reconstruction of the hotel's pier to its original dimensions of 112 feet long by 4 feet wide including the 24 feet long section at the shoreline shall be permitted.

- **FWS**: this agency informed that the area where the unauthorized dock (CZ-2004-0813-014) is located is heavily colonized by sea grasses. Sea grass beds serve many important functions to sustain and enhance fishery resources. In order to avoid impacts to these important resources, and since both docks are proposed for the same purpose and are located adjacent to one another, the unauthorized dock shall be completely removed.

Regarding the certificate application CZ-2004-0813-015, the proposed extension for the construction of a marina would eliminate sea grass beds by shading and mechanical damage by increasing boat traffic. In addition, due to inadequate depths (1-5 feet) in the project area, impacts to sea grass beds and mangroves by propeller wash and resuspension of sediments would be expected. Therefore they recommend that the proposed extension be denied. This agency would not object the reconstruction of the hotel's pier to its original footprint (112 feet long by 4 feet wide) and recommends that the pier shall be reconstructed following Shafer and Ludin's recommendations in "Design and Construction of Docks to Minimize Sea Grass Impacts".

After reviewing the consistency certification, accompanying documents and information provided by pertinent consulted agencies, the PRPB has made the following findings:

1. Although the Department of Natural and Environmental Resources (DNER) did not submit their comments within the granted period, this Board found that this project is located within the maritime-terrestrial zone, territorial waters and submerged lands. These zones have been designated as public domain lands as per Section 5-h of Act Number 23 (Organic Law of the Department of Natural and Environmental Resources) of June 20, 1972. According to said Organic Law, public domain lands are not subject to private appropriation neither to private use by citizens.

   Based on DNER's regulation for Use, Vigilance, Conservation and Administration of the territorial waters, the submerged lands and the maritime terrestrial zone, the land uses in these zones will be for public purposes or will represent a public interest.

2. The proliferation of unauthorized piers in Fulladosa Bay is deteriorating the sea grass beds and the mangrove fringe that are present in the area. The conservation of these natural resources is very important to guarantee the health of the ecosystem for public well being and enjoyment.

3. As it was observed in our site inspection and informed by the consulted agencies, the unauthorized pier is adjacent to the Seabourne Club pier and there are important natural resources that are being impacted. The impacts will increase if the extension of the proposed marina is permitted. The hotel's pier is sufficient to satisfy the need for access to the sea. Therefore, the PRPB recommends that the unauthorized pier shall be removed. The Seabourne Club pier shall be reconstructed or refurbished to its original dimensions and it shall be habilitated for public use. The extension of the pier and small marina shall not be permitted.

Considering the above mentioned facts and the comments received from the consulted agencies, the PRPB determines that the proposed projects are not consistent with the following policies of the PRCMP:

29.00 To protect, preserve and restore natural, environmental and cultural resources.

30.0 To protect natural, environmental and cultural resources from destruction or irreparable damage resulting from misuse, or from lack of foresight to address the adverse impact of other activities.

30.01 Reduce the adverse impact of pollution on natural resources by identifying and controlling the causes and sources of said pollution.

30.03 Avoid activities that may cause deterioration or destruction of natural systems that are critical for the preservation of the environment, such as mangroves, wetlands, forests, reefs, sinkholes, dunes and the ecological niches of endangered species.

30.05 Protect wetlands, allowing only those uses that are compatible with their preservation and conservation in their natural state.

Pursuant to subpart H of the Coastal Zone Management Act Federal Consistency Regulations (15 CFR Part 930) you have the right to appeal the Planning Board Consistency objection by filing a Notice of Appeal with the Secretary of the U.S. Department of Commerce within thirty (30) days of receipt of this letter.

Your appeal must be based on one or all of the following grounds: (1) The activity furthers the national interest as articulated in §302 and §303 of the Coastal Zone Management Act in a significant or substantial manner, (2) The national interest furthered by the activity outweighs the activity's adverse coastal effects, when those effects are considered separately or cumulatively, (3) There is no reasonable alternative available which would permit the activity to be consistent with enforceable policies of the management program.

The appeal notice shall be accompanied by payment of an application fee or a request for a waiver of such fees. An appeal involving a project valued in excess of $1 million shall be considered a major appeal and the application fee is $500 dollars. For all other appeals the fee is $200.00. The notice of appeal shall be send to the Secretary at the following address:

Herbert C. Hoover Building
14th Street and Constitution Avenue N.W.
Washington D.C. 20230

Copy of the notice and supporting information must be sent to the Puerto Rico Planning Board and the Assistant General Counsel for Ocean Services (GCOS):

1305 East Way Highway
Room 6111 SSMC4
Silver Spring, Maryland 20910

Cordially,

Angel D. Rodríguez
Chairman

Enclosure: Site plan and letters

c Charles Ehler, OCRM, Maryland
Edwin Muñiz, USACE, San Juan
Ernesto Díaz, PRCMO, DNER, San Juan
Celso Rossy, DNER, San Juan
Wanda García, EQB, San Juan
Carlos A. Díaz, FWS, Boquerón
Lisamarie Carrubba, NMFS, Boquerón
Mayra G. Díaz, Agent

NAR/MML/RAO/mir

ANEJO 9:

Medidas de Minimización y Mitigación

MUELLE HOTEL CLUB SEABOURNE

Medidas de Minimización, Mitigación y Compensación de Impactos

Los potenciales impactos de la acción propuesta sobre el fondo marino y área de yerbas marinas serán minimizados, mitigados o compensados con las siguientes medidas:

1. La expansión del muelle de 88 pies será construida de acuerdo con las guías para construcción de muelles "Shafer and Lundin's Design and Construction of docks to minimize seagrass impacts":

    - Ancho del muelle: El ancho propuesto es 4 pies, que es el máximo sugerido por la citada guia.
    - Altura: La altura propuesta es 4 pies sobre "mean high water (MHW)". La altura de 5 pies recomendada por la guía no es práctica en Puerto Rico debido a poca variabilidad de las mareas en la isla. La altura propuesta de 4 pies es significativamente más alta que el promedio de altura de 1.6 pies que tienen los muelles en Ensenada Fulladoza, de acuerdo con el estudio: "Evaluation of Regulatory Guidelines to Minimize Impacts to Seagrasses from Single-family Residential Dock Structures in Florida and Puerto Rico, October 2008".
    - Impacto evitado: La expansión de muelle propuesta tendrá las mismas dimensiones del muelle original del Hotel Club Seabourne y será construido sobre la huella del muelle original.
    - Orientación: La orientación del muelle existente es Noreste-Suroeste y solo presenta una desviación menor con relación a la orientación recomendada de Norte-Sur.
    - Pilotes: El espacio entre pilotes será de 10 pies y los mismos serán instalados utilizando el equipo apropiado para minimizar impactos al fondo marino debido a la creación de depósitos de sedimento. El equipo será transportado al lugar de la instalación mediante la utilización de una pequeña barcaza de poco calado.

- Espacios entre trablones ("board spacing"): El uso de tablones sera mínimo en la expansión propuesta (incluyendo la sustitución de la sección de muelle existente). Para la construcción del muelle propuesto se utilizarán plataformas perforadas ("grid platforms", "grate panels"). Los paneles perforados de fibra de vidrio ("fiberglass grate panels") cumplirán con los estándares y especificaciones de las guías de construcción de muelles.
- Plataforma ("Terminal platform"): el muelle propuesto será de 88 pies de largo (anclado a una plataforma existente de concreto de 24 pies), derecho y no tendrá plataforma al final.

2. La utilización de una plataforma existente de concreto de 24 pies en la orilla, minimiza los impactos y actividades necesarias en el área de la orilla ("shoreline").

3. Instalación de dos (2) boyas de anclaje ("mooring buoys") en áreas más profundas dentro de la Ensenada Fulladosa, según se indica en el "Estudio de Profundidad y Localización de Boyas de Anclaje" **(Ver, Anejo 3).** El uso de boyas de anclaje en áreas más profundas tiene el efecto de prevenir impactos a las praderas de yerbas marinas y evitar la utilización de anclas por las embarcaciones de los huéspedes del hotel que no puedan utilizar el muelle por razón del tamaño o calado del muelle.

4. Remoción de una embarcación tipo "casa bote" que se encuentra anclada permanentemente en la Ensenada Fulladoza y utilizando un método de anclaje inadecuado y causando daños a un área de yerbas marinas cerca de la acción propuesta. Esto eliminará una fuente de impactos a las yerbas marinas, y la remoción del mecanismo de anclaje permanente en conjunto con la propuesta de boyas de anclaje, permitirá la restauración natural del fondo marino.

5. Desarrollo e implementación de un protocolo de utilización del muelle y boyas de anclaje para asegurar su utilización apropiada por usuarios y huéspedes del hotel. El protocolo tiene el propósito de informar a los usuarios las reglas de utilización del muelle y las limitaciones de tamaño de embarcación y calado permitidos en el muelle para evitar

daños al fondo marino por embarcaciones con calado mayor a la profundidad del área del muelle (**Ver, Anejo 12**).

6. Desarrollo e implementación de un programa educativo sobre el hábitat, especies y recursos presentes en la Ensenada Fulladoza. El programa educativo se resume de la siguiente manera:

    - Los puntos de demostración y distribución de los materiales educativos que seran preparados por el peticionario serán el "lobby" del hotel Club Seabourne (para educar e informar a huéspedes y visitantes del hotel) y el aeropuerto o el terminal de lanchas de Culebra, dependiendo de las autorizaciones gubernamentales correspondientes (para educar e informar a los visitantes de Culebra en general).

    - Instalación de material educativo en el área del muelle.

    - El material educativo será desarrollado en coordinación con el National Marine Fisheries Service como parte de las medidas de minimización del proceso de Permiso Conjunto requerido para la acción propuesta.

Mitigación y Compensación

1. Instalación de dos (2) boyas ("marker buoys") en dos áreas de la Ensenada Fulladoza **(Ver, Anejo 11)**, las cuales son áreas de yerbas marinas de poca profundidad. En conjunto con el plan educativo a ser desarrollado por el peticionario, estas boyas tendrán el efecto de alertar a los usuarios de embarcaciones para evitar impactos a suelo marino.

2. Restauración de un área de yerbas marinas afectada en el pasado por un muelle que fue removido de un área contigua a un área de acceso a una residencia privada del Peticionario.

    - Se descontinuará la utilización del referido acceso a la Ensenada Fulladoza para permitir que continúe el crecimiento natural del mangle y la restauración natural de las yerbas marinas. Esta es una de las áreas donde se propone la instalación de un "marker buoy" según se indica arriba en el inciso 1.

ANEJO 10:

Carta DRNA y Plano Certificado del 11 de junio de 2014 aprobando deslinde de zona marítimo terrestre en el área de la acción propuesta.

ESTADO LIBRE ASOCIADO DE
PUERTO RICO
Departamento de Recursos Naturales
y Ambientales

11 JUN. 2014

Lic. Raúl Negrón-Casasnovas
PO Box 19539
San Juan, Puerto Rico 00910-1539

Estimado licenciado Negrón:

Deslinde Zona Marítimo-Terrestre, Hotel Club Seabourne
PR-252 Bo. Playa Sardinas II, Culebra
O-AG-CER02-SJ-00465-05122013

El Departamento de Recurso Naturales y Ambientales, a través de la División de Agrimensura, realizó la evaluación correspondiente para el deslinde de la Zona Marítimo Terrestre (ZMT) de un predio de terreno localizado en el Bo. Playa Sardinas II de la isla municipio de Culebra.

De esta evaluación se desprende que, los puntos 20 al 28 en secuencia definen el límite interior tierra adentro de la ZMT, según se ilustra en el plano de mensura presentado a escala 1:500 con fecha del 21 de noviembre de 2013, firmado y sellado por el Agrim. Pedro J. Dávila Colón, Lic. Núm. 9323. Estos puntos fueron debidamente establecidos físicamente sobre el terreno con tubos de PVC rellenados con hormigón.

En el predio objeto de este deslinde existe actualmente un muelle que fue construido en terrenos pertenecientes al dominio público marítimo terrestre. Para que esta obra pueda ser ocupada o aprovechada debe obrar una debida Concesión de este Departamento, por lo que recomendamos se someta al debido proceso según establece el Reglamento Núm. 4860 del 29 de diciembre de 1992, según enmendado, *Reglamento para el Aprovechamiento, Vigilancia, Conservación y Administración de las Aguas Territoriales, Terrenos Sumergidos Bajo Éstas y la Zona Marítimo Terrestre.*

Luego de haber evaluado los documentos sometidos, la División de Agrimensura certifica que el límite de la ZMT según presentada es de nuestra conformidad.

Debemos aclarar, que la acción tomada en este caso no autoriza a realizar movimiento de tierra alguno, ni corte o poda de árboles. Esta conformidad es exclusiva para el límite de la ZMT en este predio.

Cordialmente,

Carmen R. Guerrero Pérez
Secretaria

GRV/NVR/lmv

DRNA

ANEJO 11:

Foto aérea indicando la localización propuesta para 2 boyas tipo “marker buoys”

Google earth

feet 500
meters 100

ANEJO 12:

Plan de Uso de Muelle Club Seabourne

PLAN DE USO
MUELLE HOTEL CLUB SEABOURNE
ENSENADA FULLADOZA
CULEBRA, PUERTO RICO

TRASFONDO

Desde el 1982 el Hotel Club Seabourne ha contado con facilidades de muelle según autorizadas por el Cuerpo de Ingenieros del Ejército de los Estados Unidos ("Cuerpo de Ingenieros"). Originalmente era un muelle de 112 pies (plataforma concreto de 24 pies y muelle de madera de 88 pies). Posteriormente el muelle fue impactado por varios huracanes y sus dimensiones se redujeron a la condición actual que es un 54 pies (plataforma de concreto de 24 pies y muelle de madera de 30 pies). Las dimensiones actuales del muelle dificultan el acceso de embarcaciones de mayor calado y dicha condición contribuye al potencial de impactos al fondo de yerbas marinas. Con el propósito de remediar dicha situación el Cuerpo de Ingenieros autorizó al Hotel Club Seabourne a perseguir la alternativa de expandir el muelle a las dimensiones originales de 112 pies cumpliendo con una serie de medidas con miras a la protección del fondo marino y a minimizar los impactos al ambiente típicamente asociados a este tipo de estructuras.

Tradicionalmente el muelle del Hotel Club Seabourne ha sido utilizado por el hotel como vía de acceso desde la Ensenada Fulladoza hacia el hotel para huéspedes del hotel y proveedores de servicios como excursiones turísticas. El muelle también ha sido utilizado por distintos usuarios en el área de Ensenada Fulladoza como "dinghy dock" para embarcaciones que anclan el la ensenada o para yolas de pescadores y para actividades recreativas tales como pesca y uso de kayaks tanto por huéspedes del hotel como residentes del área y de Culebra.

Mediante cartas del 5 de septiembre de 2012 y 15 de octubre de 2013, la Junta de Directores de la Autoridad de Conservación y Desarrollo de Culebra ("ACDEC") endosó el proyecto para la expansión del muelle existente del Hotel Club Seabourne para llevarlo a las dimensiones originalmente aprobadas por el Cuerpo de Ingenieros.

Como parte de los esfuerzos para la extensión del muelle del Hotel Club Seabourne, la Gerencia del Hotel Club Seabourne, en atención a su interés de proteger el fondo marino de la Ensenada Fulladoza y con el propósito de regular el uso del muelle por parte de sus huéspedes y usuarios, y como medida de minimización de impactos de acuerdo con recomendaciones de agencias estatales y federales con inherencia sobre el lugar donde está localizado el muelle, ha desarrollado el siguiente Plan de Uso:

PLAN DE USO

A continuación se presenta el Plan de Uso del Muelle del Hotel Club Seabourne (en adelante, "Plan de Uso") para sus huéspedes y visitantes para armonizar los usos que se le darán al muelle de manera que se asegure que el mismo está disponible para dichos usos tomando en consideración aspectos de seguridad y protección al ambiente.

Luego de las actividades de expansión del muelle, según autorizado por las autoridades pertinentes, el Hotel Club Seabourne cuenta con las siguientes facilidades en la Ensenada Fulladoza:

- Muelle de 4 pies de ancho con una longitud de 112 pies. Incluye una plataforma de concreto de 24 pies y un muelle de madera y paneles tipo "grate" de 88 pies **(Ver Anejo 1)**.

- Dos (2) boyas de anclaje ("mooring buoys") en un área profunda de la Ensenada Fulladoza **(Ver Anejo 2)**,

El uso de estas facilidades será de la siguiente manera:

1. A todos los huéspedes del Hotel Club Seabourne que vengan en embarcaciones se le solicitará información sobre el tipo y tamaño de la embarcación para poder determinar el curso a seguir para su acceso al muelle o a los moorings.

   Además, se les proveerá copia electrónica de este Plan de Uso para que puedan estudiar y familiarizarse con el mismo.

2. En el **Anejo 1, e**l área del muelle identificada con sombreado color rojo y como Area "A", cuenta con una profundidad de entre 3 y 4 pies y estará disponible para un total aproximado de 2 embarcaciones con motor fuera de borda ("outboard") que no excedan 35 pies de eslora y/o que tengan un calado máximo de 3 pies, ancladas con la proa hacia tierra.

   Además, el Area "A" estará disponible para las siguientes embarcaciones, dependiendo del espacio disponible:

   a. Embarcaciones de clientes y visitantes del Hotel Club Seabourne que cumplan con los requisitos de tamaño y calado.

   b. Embarcaciones de operadores de servicios turísticos, limitado al tiempo necesario para recoger y traer huéspedes del hotel y demás turistas o usuarios que necesiten acceso al área, y que cumplan con los requisitos de tamaño y calado.

c. Embarcaciones del DRNA, Policía y el Municipio en casos de emergencia que lo requiera y durante el tiempo que dure la emergencia, y que cumplan con los requisitos de tamaño y calado.

3. En el **Anejo 1,** el área del muelle identificada con sombreado color azul y como Area "B", comprende la parte del muelle más cercana a la orilla y donde la profundidad es entre 2 y 3 pies. Por razones de protección ambiental y conservación del fondo marino de la Ensenada Fulladoza, esta área será utilizada exclusivamente para embarcaciones pequeñas (yolas), dinghies de motor y de vela, kayaks y otras embarcaciones pequeñas de mínimo calado.

4. Todo huésped del Hotel Club Seabourne que tenga una embarcación que sea mayor de 35 pies de eslora; o que tenga un calado mayor de 3 pies; o que tenga un motor tipo "in-board", independientemente del tamaño y calado; no podrá ganar acceso al muelle y será dirigido hacia uno de los dos (2) moorings del hotel **(Ver, Anejo 2)**.

   El huésped será responsable de llegar al muelle del Hotel Club Seabourne en un "dinghie", el cual utilizará el Area "B" del muelle, según identificada en el **Anejo 1**.

5. Se prohíbe el uso de anclas por las embarcaciones que utilicen el muelle y los moorings de acuerdo con las disposiciones de este Plan de Uso, con el propósito de evitar impactos a las áreas de yerbas marinas en el área del Muelle del Hotel Club Seabourne y la Ensenada Fulladoza.

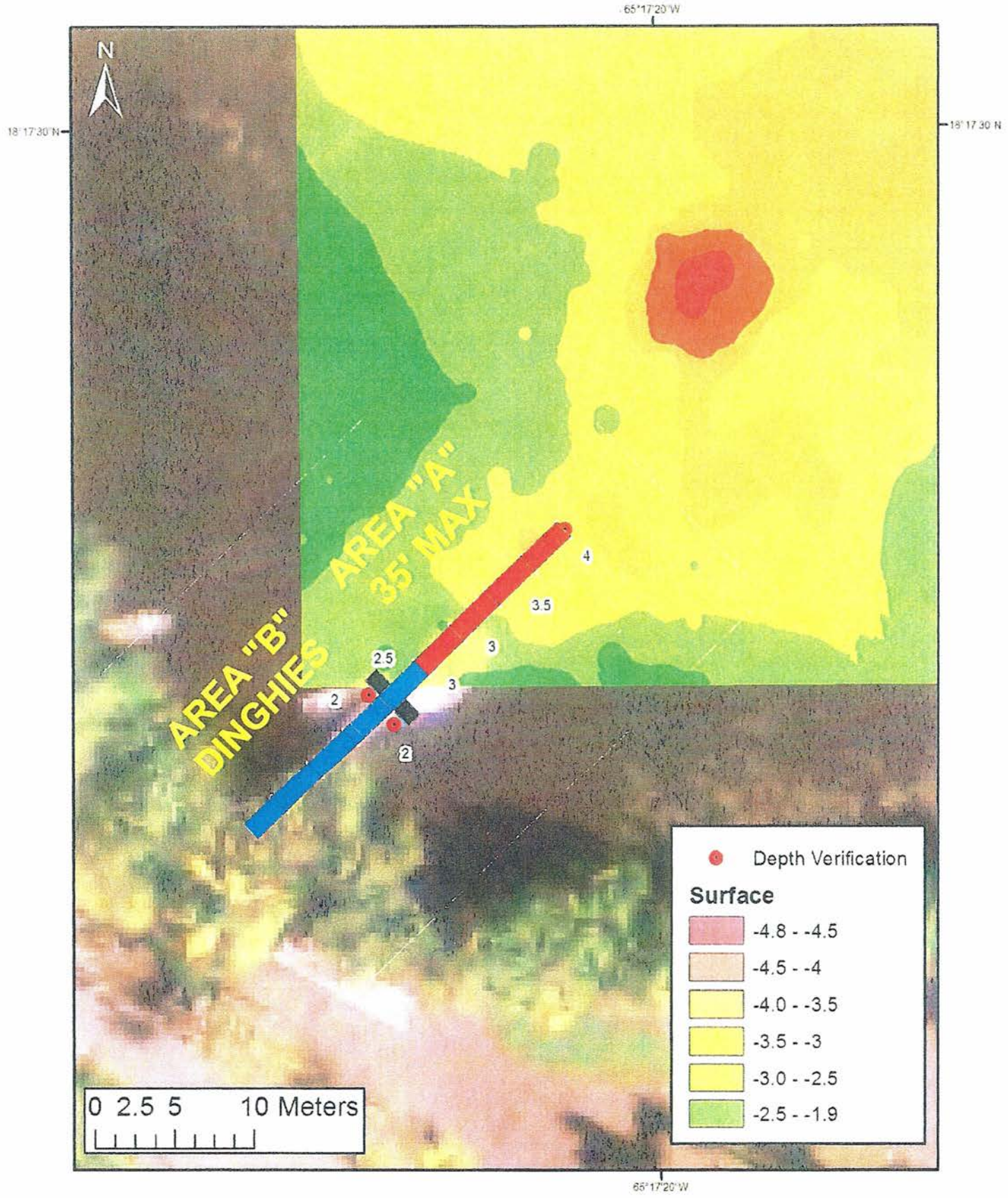
6. Se prohíbe la utilización del Muelle del Hotel Club Seabourne para el amarre permanente de embarcaciones que pueda causar impactos a las yerbas marinas por la creación de sombras por un período prolongado.

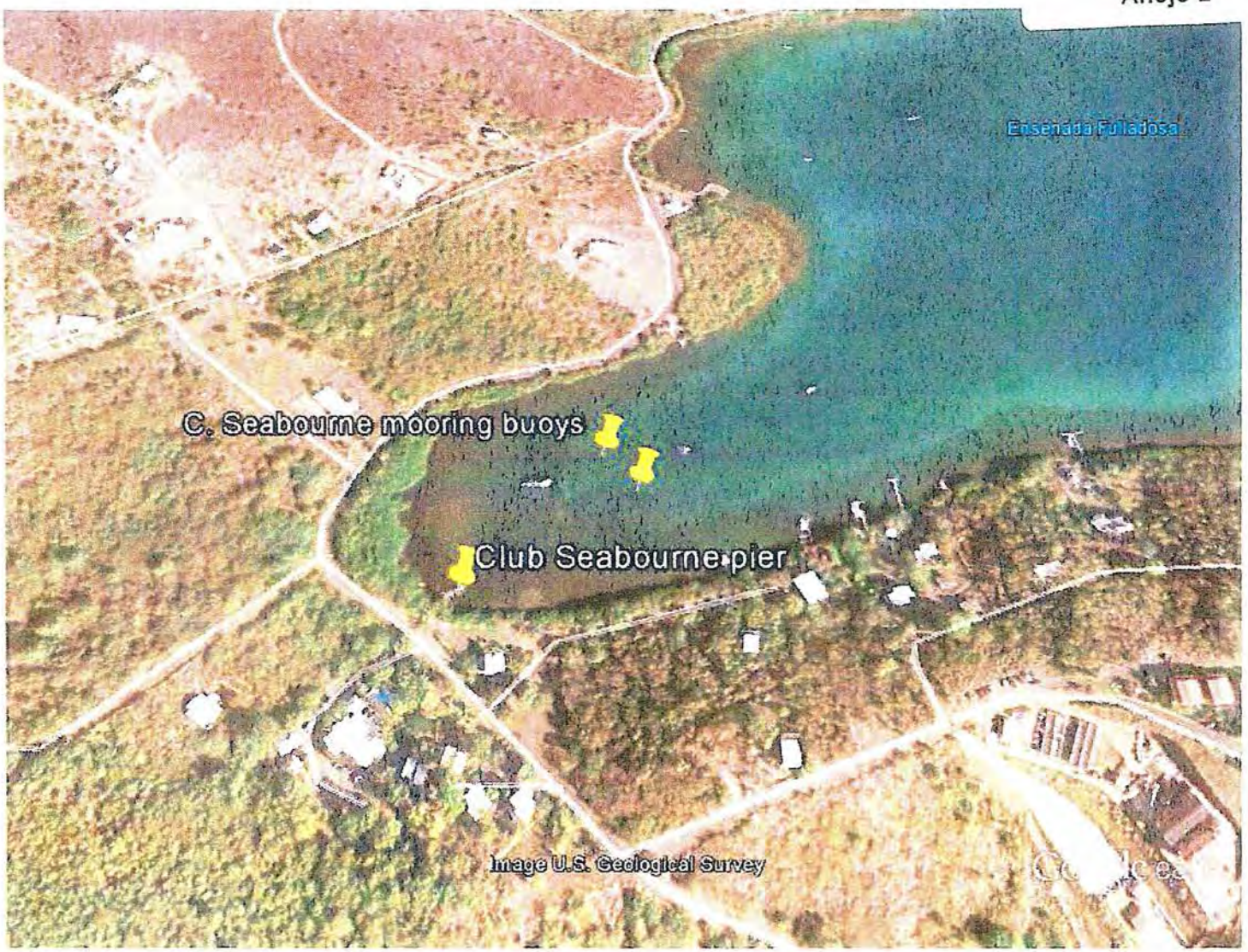
7. Este Plan de Uso estará disponible en el Hotel Club Seabourne y en el caso de huéspedes que vengan al hotel en su embarcación, se le enviará copia electrónica del mismo al momento de hacer sus reservaciones.

ANEJOS

Anejo 1 – Muelle Club Seabourne

Anejo 2 – Moorings Club Seabourne


65°17'20"W
18°17'30"N
N
AREA "A"
35' MAX
AREA "B"
DINGHIES
4
3.5
3
2.5
3
2
2
Depth Verification
Surface
-4.8 - -4.5
-4.5 - -4
-4.0 - -3.5
-3.5 - -3
-3.0 - -2.5
-2.5 - -1.9
0 2.5 5 10 Meters



Google earth

feet 800
meters 200

ANEJO 13:

Análisis de Impactos a Hierbas Marinas

Expansión Muelle Hotel Club Seabourne
Culebra, Puerto Rico
Análisis de Impactos a Hierbas Marinas

Trasfondo:

El proyecto contempla la expansión de un muelle existente propiedad del Hotel Club Seabourne localizado en Ensenada Fulladosa, Culebra por medio de una Solicitud de Permiso Conjunto o "Joint Permit" y la Solicitud de Concesión para Aprovechamiento de Bienes de Dominio Público Marítimo Terrestre a ser emitida por el DRNA. El proyecto contempla la expansión del muelle a sus dimensiones originales de acuerdo con permiso original emitido por el Cuerpo de Ingenieros en el año 1982. Se propone la sustitución del muelle en pilotes de 30 pies de largo por un nuevo muelle en pilotes de 88 pies de largo por 4 pies de ancho a ser añadido a la plataforma de concreto existente de 24 pies para un muelle de 112 pies, de dimensión similar al autorizado originalmente por el Cuerpo de Ingenieros. El nuevo muelle de 88 pies será hecho de una combinación de madera y "fiber glass" en donde los elementos estructurales serán de madera y la pasarela será de paneles de rejilla de "fiber glass" para permitir el paso de la luz solar.

Este análisis contiene una descripción detallada de la magnitud de los impactos directos e indirectos a hierbas marinas en el área del proyecto propuesto. Incluye un estimado, en acres, de la cantidad de hierbas marinas que resultarán impactadas por la sombra de la estructura propuesta, la instalación de pilotes y las embarcaciones que utilizarán el muelle.

Metodología utilizada:

Los cómputos de cobertura se basan en el estudio béntico del área titulado "Biological survey and benthic habitat map in the vicinity of the Seabourne Hotel Pier in Ensenada Fulladosa, Culebra, Puerto Rico" (en adelante "Estudio Béntico") levantado por el Sr. Jorge Sabater. Se incluye la Figura 2 del Estudio Béntico que demuestra la malla de muestreo utilizada para el estudio.

Esta malla, con una resolución de 4x4 metros por celda se compone de 11 transeptos perpendiculares al muelle y 6 paralelos a este. El área total documentada en el estudio equivale a 880 metros cuadrados.

Las determinaciones de cobertura de hierbas marinas se lograron por observación directa y las celdas georreferenciadas mediante la utilización de un receptor/procesador de sistema de navegación global (GPS). Se utilizó una cinta métrica a lo largo de cada transepto y se registró la posición donde se observaron transiciones en composición béntica y/o densidad en las áreas de cobertura. Para más detalles sobre la metodología favor ver el Estudio Béntico que se incluye como "Attachment 5" de la Solicitud de Permiso Conjunto.

Observaciones:

Abajo se incluye la Tabla 1 del Estudio Béntico. Esta resume la naturaleza y cobertura (en metros cuadrados) del sustrato o comunidades bénticas observadas en el estudio. En el área total de estudio, que incluye áreas a ser impactadas y áreas periferales a estas, se distinguen

tres clases de cobertura dominante distribuidas según aparece en la Figura 3 del Estudio Béntico (abajo).

Habitat	Area (m^2)	% Total Area Surveyed
Mud	28.4	3.2
Mud & Macroalgae	91.7	10.4
Turtle Grass/50-70%	261.8	29.8
Turtle Grass/Continuous	497.9	56.6
Total=	879.7	100.0

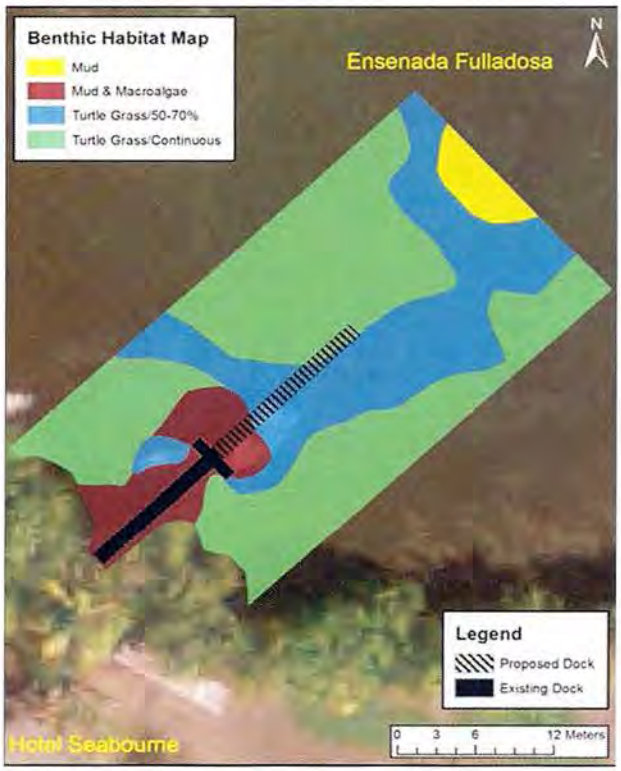
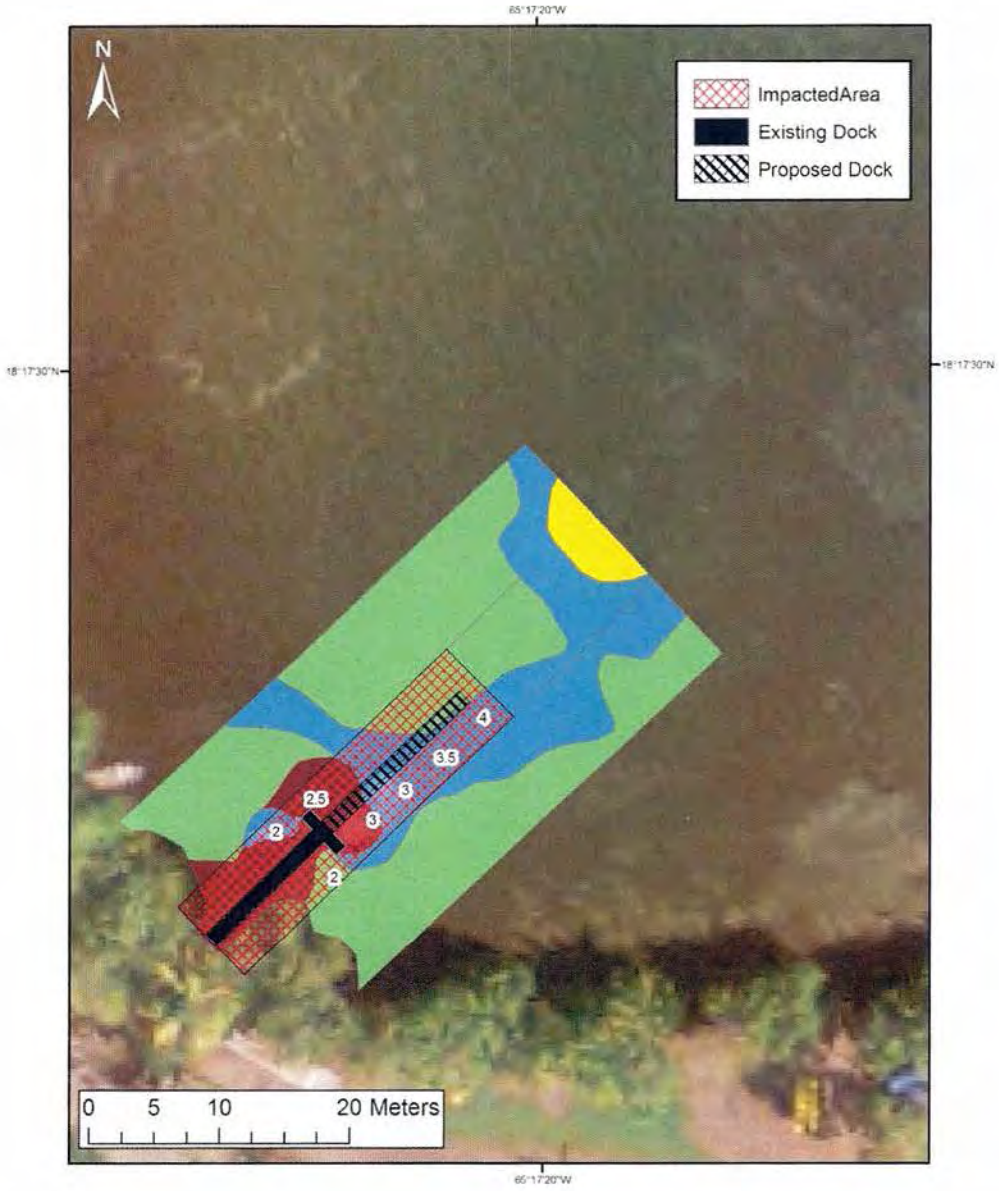


Figura 3

Area de impacto:

En la siguiente figura se delinean las áreas de posible impacto por la actividad propuesta. El área del muelle existente y el área del muelle propuesto

Area of Impact (m2) including docked vessels (3 meters beam)



La tabla a continuación resume los datos de área de impacto, tanto en el componente béntico total como en la hierba marina *Thalassia sp.* (Turtle grass).

Habitat	**Existing Dock**	**Proposed Dock**	**Total**
Mud			
Mud & Macroalgae	55.46	25.91	**81.370**
Turtle Grass 50-70%	7.58	63.59	**71.170**
Turtlr Grass Continuous	8.27	28.74	**37.010**
Total=	**71.31**	**118.24**	

Maximum* area of Impacted Turtle Grass (*Thalassia sp.*) (m2)

Habitat	**Existing Dock**	**Proposed Dock**	**Total**
Turtle Grass area (70%)	5.306	44.513	**49.819**
Turtlr Grass Continuous	8.27	28.74	**37.010**
Total Grass area=	**13.576**	**73.253**	**86.829 (m2)**
			TOTAL
			0.021 ACRES

Resumen:

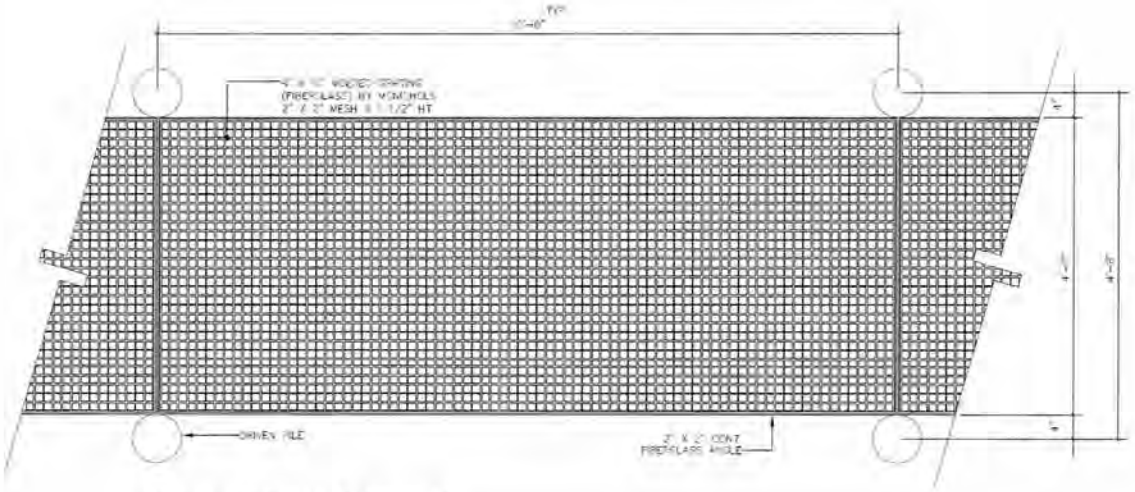
El total de área cubierta con potencial de ser impactado por la actividad propuesta suma 0.021 acres incluyendo áreas de pilotes así como áreas a ser cubiertas por embarcaciones utilizando el muelle.

Este estimado de área representa un máximo por las siguientes razones:

1. La mitad del muelle existente será reemplazado por una estructura nueva que cumple con las recomendaciones del USACE recogidas en el documento "Design and construction of docks to minimize seagrass impacts". Estas recomendaciones se enfocan en minimizar el efecto de sombra u oclusión a la irradiación solar como resultado del muelle. Una de las medidas seguidas en el diseño de este proyecto

recomienda que la superficie del muelle se ubique a una elevación pertinente para maximizar el tiempo que el sustrato bajo el muelle se encuentra expuesto. Para esto se diseñó el muelle con una elevación promedio sobre el nivel del mar de 1.3 metros (4 pies). La segunda medida incorporada en el diseño es la utilización de rejilla en la superficie de este con aperturas de 5x5 centímetros (2x2 pulgadas) según el diagrama incluido abajo.

Las medidas arriba descritas minimizarán el impacto de la sección nueva del muelle propuesto. Además mejorarán las condiciones de irradiación al sustrato bajo el muelle existente dado que su construcción es a menos de un metro de elevación e incluye una superficie de madera que no permite la penetración de luz.



TYPICAL DOCK BAY FLOOR PLAN

2. En el estimado se asume que el impacto por embarcaciones utilizando el muelle es de 3 metros de ancho. Sin embargo, más de la mitad del muelle será utilizado por embarcaciones menores (dinghy) de menos de 2 metros de manga o ancho. Además el muelle no es de uso permanente, sino de uso intermitente. Ambas condiciones están contempladas en el Plan de Uso del Muelle Hotel Club Seabourne, incluido como "Attachment 7" de la Solicitud de Permiso Conjunta.

El estudio titulado "Evaluation of the Use of Grid Platforms to Minimize Shading Impacts to Seagrasses (ERDC TN-WRAP-01-02), publicado en el año 2001 por el Wetlands Regulatory Assistance Program del Cuerpo de Ingenieros **(Ver, Appendix A)** evalúa el beneficio de adoptar las medidas arriba descritas y concluyen que el uso de rejillas de fibra de vidrio para aumentar la transmisión de la luz debe reducir la cantidad de hierbas afectada por la sombra de muelles ("the use of fiberglass grating to increase light transmission should reduce the amount of seagrass loss due to shading by docks and terminal platforms". Más adelante indica que a pesar de que la cobertura total por hierbas se reduce en alguna cantidad, las consecuencias ecológicas de dicha reducción en áreas pequeñas como muelles son probablemente insignificantes ("Although total percent cover and density are reduced somewhat, the ecological consequences of this reduction in the small area beneath the docks are not likely to be significant").