



**FINAL
ENVIRONMENTAL
ASSESSMENT
FOR THE CONSTRUCTION
AND OPERATION OF A
NEW MARINE FACILITY AT
CABO ROJO, PUERTO RICO**

**U.S. Customs and Border Protection
Air and Marine Facilities Program Management Office**



PR National Parks Company
Facilities (Boquerón)

SEPTEMBER 2015

FINDING OF NO SIGNIFICANT IMPACT

U.S. Customs and Border Protection Environmental Assessment for the Construction and Operation of a New Marine Facility at Cabo Rojo, Puerto Rico

PROJECT HISTORY: U.S. Customs and Border Protection (CBP) is one of the largest and most complex components of the Department of Homeland Security (DHS), with a priority mission of securing the borders of the United States. The CBP Office of Air and Marine (OAM) patrols the nation's land and sea borders to protect the American people and critical infrastructure through the coordinated use of integrated air and marine forces.

Since 1997, the CBP OAM Mayaguez Marine Unit has been operating from temporary facilities (mobile trailers) on a parcel of land owned by the Puerto Rico National Parks Company within the Balneario de Boquerón and Vacation Center area. Marine units of other law enforcement agencies, including the Department of Natural and Environmental Resources (DNER) Rangers and the Puerto Rico Joint Forces of Rapid Action (FURA) also use this location as a base of operations. In 2001, the Puerto Rico National Parks Company granted a formal permit to CBP to use and occupy the aforementioned parcel, allowing CBP to construct a permanent pier in Caño Boquerón to replace a deteriorated floating pier at the site.

The Mayaguez Marine Unit currently operates from temporary facilities that are in continuous heavy use, and are in need of replacement. In 2014, the Puerto Rico National Parks Company amended the agreement with CBP to allow the construction of permanent structures within the authorized premises and extended the term of the use permit to September 30, 2046. CBP proposes to construct and operate a new permanent facility at the site that would meet CBP current design standards and security requirements to meet its mission demands.

CBP has prepared an Environmental Assessment (EA), which is incorporated herein by reference, to analyze the potential impacts of the Proposed Action to the human and natural environments in accordance with the National Environmental Policy Act of 1969 (NEPA), Council on Environmental Quality (CEQ) regulations, the Department of Homeland Security (DHS) Instruction Manual 023-01-001-01 (Revision 01, November 6, 2014) – Implementation of the National Environmental Policy Act (NEPA), the Environmental Public Policy Act of Puerto Rico (Act No. 416), the Puerto Rico Environmental Quality Board (EQB) Regulation for Evaluation and Processing of Environmental Documents, and the Puerto Rico Joint Regulation for Evaluation and Issuance of Permits Related to Development and Land Use.

PROJECT LOCATION: The Project will be located on a parcel of land of approximately 0.32 acres located in the Balneario de Boquerón in Cabo Rojo, Puerto Rico [Lambert coordinates (State Plane NAD 83 Meters) are: X: 121964.553, Y: 220078.492]. The proposed project area is managed by the Puerto Rico National Parks Company and is bordered on the north by the DNER Ranger Corps, on the south by FURA, on the east by a protected coastal lagoon, Caño Boquerón, and on the west by facilities of the Balneario de Boquerón (Public Beach) and Vacation Center.

PURPOSE AND NEED: The purpose of the project is to provide a new facility that complies with current CBP security requirements and design standards to support the critical needs of the CBP mission through the Mayaguez Marine Unit operating out of Balneario de Boquerón in Cabo Rojo, Puerto Rico. The project is needed to provide the Mayaguez Marine Unit with a permanent and adequate facility in compliance with current design criteria and sustainability practices to allow an integrated and effective operation to meet its priority mission of protecting the borders and critical infrastructure of the United States.

ALTERNATIVES: The alternatives carried forward for analysis in the EA are the No Action Alternative and the Proposed Action Alternative.

No Action Alternative - The No Action Alternative provides a baseline against which potential impacts of the Proposed Action and other alternatives can be evaluated and represents the existing environmental conditions if the Proposed Action is not

implemented. Under the No Action Alternative, a new and permanent facility will not be constructed, and the Mayaguez Marine Unit will continue its operation from its present temporary facilities. The No Action Alternative does not satisfy the stated purpose and need.

Proposed Action Alternative – The Proposed Action consists of the construction, operation, and maintenance of a new facility for the Mayaguez Marine Unit within a parcel of land located in the Balneario de Boquerón in Cabo Rojo, Puerto Rico. Construction activities associated with the proposed action will be restricted to an area of approximately 0.32 acres (Project area or Project site) where the Mayaguez Marine Unit currently operates from temporary facilities. The area connects to one lighted concrete pier at Caño Boquerón, which was built and is used by CBP for its marine operations. The new facility will consist of one administrative building, a boat maintenance/storage area consisting of a galvanized steel hangar type structure with hurricane tie downs and wash areas, exterior vehicular parking spaces, outdoor lighting, and security fence and gate. The main administrative building will consist of a two-story building for which structural foundations (*e.g.*, structural piles, deep-driven foundations) may be required, depending on the bearing capacity of soils at the site. Pile depths could vary from 40 to 50 feet beneath ground surface.

The facility will be accessed from the main internal road of the Balneario de Boquerón, which is accessed from PR-101 km 18.5. All utilities are available within the PR National Parks Company complex. Existing utilities in the project area will be removed or relocated as needed to meet the design of the proposed facility. The facility will be equipped with an emergency power generator and water cistern. The Proposed Action does not include any improvement or construction on the existing dock or any construction works in U.S. Waters.

The new facility will be designed in compliance with the current CBP OAM Facility Design Standard, as applicable for the site. The proposed new facility is also intended to

comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings.

Construction of the facility is estimated to cost approximately \$1.5 million and the duration of the construction phase is estimated to last approximately 12 months. During the construction phase, the existing facilities at the site will be relocated temporarily so that the Marine Unit can continue its operation from the area.

ENVIRONMENTAL CONSEQUENCES: The Proposed Action would be developed on a 0.32 acres parcel located on public lands managed by the Puerto Rico National Parks Company. The Project area and its surroundings have been affected by previous development to accommodate existing facilities related to the operation of law enforcement agencies within the area and the construction of the operational facilities of the Puerto Rico National Parks Company. The entire area is served by infrastructure, including roads, electrical, sanitary, and water utilities. The proposed land uses are compatible with current land uses, thus no impacts to current or proposed land uses would be expected if the Proposed Action was undertaken. The construction of the Proposed Action would not cause adverse impacts to the existing geologic setting within the Project area limits, considering the reduced footprint of the Project and the previously developed nature of the site. Temporary direct impacts to soils present in the proposed Project area due to soil disturbance associated with grading and construction activities are anticipated to be negligible.

Implementation of the Proposed Action would potentially result in short-term minor direct impacts from air emissions associated with the construction activities. These emissions will be minor and would not adversely affect the area. Noise levels would temporary increase in the Project area and its vicinity as result of the use of heavy equipment and machinery during construction of the Proposed Action. Noise from the construction of the Proposed Action would have minor effects on the Boquerón public beach area and the residential zones outside the Balneario de Boquerón. Regulatory noise limits could be exceeded during construction activities at the beach villas closest to the Project site, thus, coordination will be made with the Puerto

Rico National Parks to keep those villas unoccupied during intensive construction activities. Noise emissions during operation of the facility would be similar to current conditions and would not affect background noise levels in the area.

Potential minor indirect impacts to natural systems adjacent to the Project site, including surface waters of Caño Boquerón, could occur due to erosion and sedimentation from the construction site. Given the temporary nature of the potential environmental disturbances, and the implementation of Best Management Practices (BMPs), the construction and operation of the Proposed Action would not result in adverse impacts on surface waters and groundwater in the area. The Proposed Action would have no impacts to jurisdictional wetlands and U.S. Waters. No direct impacts to federally or locally designated threatened or endangered species or their habitats are anticipated. Wildlife species in adjacent areas may be temporarily displaced during construction activities due to noise disturbances and increased human activity.

The Proposed Action is a small-scale Project with negligible visual impacts on the surrounding viewshed, and as such, it does not have the potential to diminish the surrounding aesthetic value. The Proposed Action would not affect cultural, historical or archaeological resources.

Water and energy in the project area are supplied from available infrastructure. Future water and energy demands for the proposed new facility are anticipated to be similar or less than current conditions. The Proposed Action will meet the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings, and as such will be designed and operated in a sustainable manner with focus in energy efficiency and water conservation. The existing infrastructure in the area has the capacity to service the Proposed Action. The roadways network and road access are also adequate to service the Project.

The area where the Proposed Action would be developed is located within a floodable zone, and therefore, has the potential to affect the floodplain, and is subject to the risk of flood loss. The existing floodplain would be altered to accommodate the new facility above regulatory flood levels. The Proposed Action would be designed and constructed to reduce the risks of flooding, minimize threats to life and property, and minimize adverse impacts on the floodplain. The Proposed Action would not affect areas outside the Project site.

Implementation of the Proposed Action would not result in disproportionately high and/or adverse human or environmental effects on children, minorities, or low-income populations. The construction of the Proposed Action is expected to have a positive economic impact to the regional and local economy due to temporary employment and increase in sales from construction-related services, materials and supplies.

The Proposed Action would result in long-term beneficial impacts to the environment from operating a facility that incorporates sustainable practices, reducing operating costs through energy efficient and water use reductions.

The Proposed Action will occupy a minimal footprint in the area (0.32 acres). The potential environmental disturbances associated with the Proposed Action are expected to be minimal and temporary, limited primarily to the construction phase. The cumulative impacts of the Proposed Action in the area would be negligible.

BEST MANAGEMENT PRACTICES AND PROTECTION MEASURES: The EA describes the BMPs and protection measures that would be implemented to reduce or eliminate potential adverse impacts to the human and natural environments during construction and operation of the Proposed Action. Some of the BMPs that will be implemented during the construction and operation phases of the new marine facility are listed below:

- Development and implementation of a Sediment and Erosion Control Plan (SECP) and stormwater pollution prevention measures to minimize pollutants in stormwater runoff during construction activities. An effective combination of soil erosion and sediment controls will be in place prior to earth moving activities to prevent sediment from leaving the site and/or entering a stormwater drainage or receiving water such as Caño Boquerón.
- Installation of a permanent stormwater control system to manage post-construction site runoff.

- A spill prevention and response plan that describes planning, prevention, and control measures to minimize impacts resulting from a spill of any hazardous materials would be implemented.
- Good housekeeping practices and preventive maintenance during operation of the facility.
- The final design and supporting engineering studies of the Proposed Action would give special consideration to location of the different components of the Project and required flood protection measures in compliance with applicable regulations.
- Implement manatee protection measures, such as posting signs that will warn that manatees use the area (“Manatee Area”), and limiting boat speed (“No Wake Zone”).
- Exterior lighting will be designed and located as to avoid intrusive effects on sensitive natural areas adjacent to the Project site.
- To avoid impacts to migratory birds, CBP will avoid construction activities if active nests are identified within or in the vicinity of the Project site. Construction activities will be avoided until nestlings have fledged or the nest fails. If activity must occur, a buffer zone around the nest will be established and no activities will occur within that zone until nestlings have fledged and left the nest area.
- Proper and routine maintenance of all construction equipment and vehicles to ensure air and noise emissions are within design standards.
- Fugitive dust control measures including applying water before/during earthwork and onto unpaved traffic areas, and imposing construction equipment/vehicle speed limits.
- Hazardous materials associated with construction equipment would be used in accordance with federal, state, and local regulations.
- Safety buffer zones would be designated around the entire construction site to ensure public health and safety.

FINDINGS: Based upon the analyses of the EA and the BMPs to be incorporated as part of the Proposed Action, it has been concluded that the Proposed Action would not result in any significant adverse effects to the environment if implemented, and therefore, preparation of an Environmental Impact Statement (EIS) is not required.

Project Proponent:



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DETERMINACIÓN DE IMPACTO NO SIGNIFICATIVO

Aduana y Protección Fronteriza de EE.UU. Evaluación Ambiental para la Construcción y Operación de una Nueva Instalación Marina en Cabo Rojo, Puerto Rico

HISTORIA DEL PROYECTO: Aduana y Protección Fronteriza de los EE.UU. (CBP, por sus siglas en inglés) es uno de los componentes más grandes y complejos del Departamento de Seguridad Nacional (DHS, por sus siglas en inglés), cuya misión prioritaria es asegurar las fronteras de los Estados Unidos. La Oficina de Aire y Marina (OAM) de CBP patrulla las fronteras terrestres y marítimas de la nación para proteger a los ciudadanos y la infraestructura crítica a través del uso coordinado de sus fuerzas aéreas y marítimas.

Desde el 1997 la Unidad Marítima de Mayagüez adscrita a la OAM opera desde unas instalaciones temporeras (tipo remolques) en una parcela de terreno de la Compañía de Parques Nacionales de Puerto Rico dentro del Balneario de Boquerón y Centro Vacacional. Las unidades marítimas de otras agencias de orden público, incluyendo el Cuerpo de Vigilantes del Departamento de Recursos Naturales y Ambientales y FURA usan el área como base de operaciones. En el 2001 la Compañía de Parques Nacionales otorgó un permiso formal a CBP para ocupar y usar la parcela antes mencionada y autorizarles a construir un muelle permanente en el área de Caño Boquerón para reemplazar un muelle flotante existente que se encontraba deteriorado.

La Unidad Marítima de Mayagüez al presente opera desde instalaciones temporeras que están en continuo uso y requieren ser reemplazadas. En el 2014, la Compañía de Parques Nacionales enmendó el acuerdo de uso con CBP para permitir la construcción de estructuras permanentes dentro de los predios autorizados y extender el término del permiso de uso hasta el 30 de septiembre de 2046. CBP propone construir una nueva instalación permanente en el sitio que

cumpla con los estándares de diseño vigentes y requisitos de seguridad de CBP para cumplir con su misión.

CBP ha preparado esta Evaluación Ambiental (EA) para analizar los impactos potenciales de la Acción Propuesta al ambiente natural y humano. La EA ha sido preparada de acuerdo con las disposiciones de la Ley Nacional de Política Ambiental (NEPA) del 1969, las regulaciones del Consejo de Calidad Ambiental (CEQ), el Manual de Instrucciones 023-01-001-01 para la Implementación de la Ley Nacional de Política Ambiental (NEPA) del Departamento de Seguridad Nacional (DHS) (Revisión 01 del 6 de noviembre de 2014), la Ley de Política Pública Ambiental de Puerto Rico (Ley Núm. 416), el Reglamento de Evaluación y Tramite de Documentos Ambientales de la Junta de Calidad Ambiental (JCA) de Puerto Rico y el Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo y Uso de Terrenos de Puerto Rico.

LOCALIZACIÓN DEL PROYECTO: El Proyecto será localizado en una parcela de terreno de aproximadamente 0.32 acres ubicada en el Balneario de Boquerón en Cabo Rojo, Puerto Rico. [Coordenadas Lambert (State Plane NAD 83 Meters): X: 121964.553, Y: 220078.492]. El área propuesta para el Proyecto es administrada por la Compañía de Parques Nacionales de Puerto Rico y está delimitada por el norte por el Cuerpo de Vigilantes del Departamento de Recursos Naturales y Ambientales (DRNA), por el sur por FURA, en el este por una laguna protegida, Caño Boquerón y en el oeste por las instalaciones del Balneario de Boquerón y Centro Vacacional.

PROPOSITO Y NECESIDAD: El propósito del Proyecto es proveer una nueva instalación para la Unidad Marítima de Mayagüez que opera desde el Balneario de Boquerón en cumplimiento con los requisitos de seguridad y estándares de diseño de CBP en apoyo a las necesidades críticas de la misión de CBP para su operación en el área oeste de Puerto Rico.

El Proyecto es necesario para proveer a la Unidad Marítima adscrita a la OAM de CBP de unas instalaciones permanentes y adecuadas en cumplimiento con los criterios vigentes de diseño y

prácticas de sostenibilidad para permitir una operación integrada y efectiva para cumplir con su misión prioritaria de protección de fronteras e infraestructura crítica de los EE.UU.

ALTERNATIVAS: Las alternativas seleccionadas para discusión en la EA son la Alternativa de No Acción y la Alternativa de la Acción Propuesta.

Alternativa de No Acción - La Alternativa de No Acción proporciona una base sobre la cual los potenciales impactos de la Acción Propuesta y otras alternativas pueden ser evaluados y representa las condiciones ambientales existentes, si no se implementa la Acción Propuesta. Bajo la Alternativa de No Acción, una nueva y permanente instalación marítima no sería construida y la Unidad Marítima de CBP continuaría su operación desde sus instalaciones temporeras existentes. La Alternativa de No Acción no satisface el propósito y necesidad del Proyecto según establecidas.

Alternativa de la Acción Propuesta – La Acción Propuesta consiste en la construcción, operación y mantenimiento de una nueva instalación para la Unidad Marítima de Mayagüez en una parcela de terreno localizada en el Balneario de Boquerón en Cabo Rojo, Puerto Rico. Las actividades de construcción asociadas con las Acción Propuesta se limitarían a un área de aproximadamente 0.32 acres (área o predio del Proyecto) donde la Unidad Marítima de CBP actualmente opera desde instalaciones temporeras. El área conecta a un muelle iluminado en Caño Boquerón el cual fue construido por CBP y es utilizado para sus operaciones marinas. La nueva instalación marina constará de un edificio administrativo de apoyo marítimo, un hangar de mantenimiento de embarcaciones/almacenamiento con amarres anti-huracán, estacionamiento de vehículos, iluminación exterior, una verja de seguridad permanente y equipo de seguridad física e infraestructura. El edificio administrativo consistirá de una estructura de dos niveles para la cual cimentación estructural (ej. pilotes estructurales, cimentaciones profundas hincadas a percusión) pudiera ser requerida dependiendo de la capacidad de carga de los

suelos en el área. La profundidad de los pilotes pudiera variar entre 40 a 50 pies bajo el nivel del terreno.

El acceso a las nuevas instalaciones es a través de la carreta interna principal del Balneario de Boquerón, al cual se llega desde la carretera PR-101 km 18.5. Todos los servicios de utilidades se proveerán de la red de servicios existentes en el complejo vacacional de la Compañía de Parques Nacionales. Las utilidades existentes en el área del Proyecto serán removidas o reubicadas según sea necesario para cumplir con el diseño de la nueva instalación propuesta. La Acción Propuesta no incluye ninguna mejora o construcción en el muelle existente o trabajos de construcción en Aguas de los EE.UU

Las nuevas instalaciones serán diseñadas en cumplimiento con los Estándares de Diseño para Facilidades de la Oficina de Aire y Marina de CBP y los Principios Rectores para el Liderazgo Federal en Alto Rendimiento y Edificios Sostenibles.

La construcción de las nuevas instalaciones se estima a un costo de \$1.5 millones y la fase de construcción tendrá una duración estimada de aproximadamente 12 meses. Las instalaciones existentes en el predio serán relocalizadas temporariamente en el área de manera que la Unidad Marítima pueda continuar su operación desde el área durante 'la construcción del Proyecto.

CONSECUENCIAS AMBIENTALES: La Acción Propuesta será desarrollada en un predio de 0.32 acres localizado en terrenos públicos administrados por la Compañía de Parques Nacionales de Puerto Rico. El área del Proyecto y su vecindad han sido afectados por desarrollos previos para acomodar las instalaciones existentes relacionadas a la operación de agencias de orden público en el área y la construcción de las instalaciones del Centro Vacacional y Balneario de Boquerón, así como infraestructura incluyendo carreteras, sistemas de energía eléctrica, sanitario e infraestructura de agua potable y sanitaria. Los usos de terrenos propuestos son compatibles con los usos actuales en el área., por lo que no se espera impactos a los usos actuales o propuesto si la Acción Propuesta se lleva a cabo. La construcción de la Acción Propuesta no causará

impactos adversos significativos a las condiciones geológicas existentes en el predio cuando se toma en consideración la limitada huella del Proyecto y la condición de desarrollo del predio. Los impactos directos y temporeros a los suelos presentes en el área de estudio debido a las perturbaciones del suelo asociadas con las actividades de nivelación y de construcción como para parte de la Acción Propuesta se anticipa serán mínimos y no significativos.

La implementación de la Acción Propuesta tiene el potencial de causar emisiones menores y temporeras de contaminantes de aire debido a las actividades relacionadas a la construcción y operación futura. Estas emisiones serán menores y no se esperan afecten adversamente la calidad del aire en el área. Los niveles de ruido pudieran aumentar de forma temporera en el área del Proyecto y su vecindad como resultado de la utilización de equipo pesado y maquinaria durante la construcción de la Acción Propuesta. Las emisiones de ruido asociadas a la construcción de la Acción Propuesta tendrán efectos menores en el área de la playa pública de Boquerón y en las zonas residenciales fuera del Balneario de Boquerón. Los límites regulatorios de ruido pudieran excederse durante las actividades de construcción en las villas más cercanas al predio por lo que se deberá coordinar con la Compañía de Parques Nacionales para mantener esas villas desocupadas durante las actividades de construcción de carácter intensivo. Las emisiones de ruido durante la operación de la nueva instalación serán similares a las condiciones existentes y no afectarán los niveles de sonido de trasfondo en el área.

Existe el potencial de impactos indirectos a los sistemas naturales adyacentes al predio del Proyecto, incluyendo las aguas superficiales del Caño Boquerón. Estos impactos estarán principalmente asociados al aumento en la erosión y sedimentación de los suelos durante la construcción. Debido al carácter temporero de estas perturbaciones ambientales potenciales y la implementación de Mejores Prácticas de Manejo (BMPs, por sus siglas en inglés), no se espera que la Acción Propuesta resulte en impactos adversos a las aguas superficiales y subterráneas del área. La Acción Propuesta no tendrá impactos a humedales jurisdiccionales o aguas de los EE.UU. No se anticipan impactos directos a especies designadas a nivel local o federal como amenazadas o en peligro de extinción o a sus hábitats. Especies de vida silvestre en áreas

adyacentes podrían ser desplazadas temporariamente durante las actividades de construcción debido al ruido y aumento en la actividad humana.

La Acción Propuesta es un proyecto a pequeña escala con impactos visuales insignificantes, y como tal, no tiene el potencial de disminuir el valor estético de los alrededores. La acción propuesta no afectaría recursos culturales, históricos o arqueológicos.

Los servicios de agua y energía eléctrica en el área del proyecto son provistos por infraestructura existente. Las demandas de agua y energía eléctrica proyectadas para la nueva instalación se anticipan sean similares o menores a las demandas presentes. La Acción Propuesta cumplirá con los Principios Rectores para el Liderazgo Federal en Alto Rendimiento y Edificios Sostenibles y será diseñada y operada en forma sostenible con énfasis en la eficiencia energética y conservación de agua. La infraestructura existente en el área cuenta con la capacidad para servir la Acción Propuesta. La red vial y carreteras de acceso son también adecuadas para servir al Proyecto.

El predio del Proyecto está ubicado en áreas con riesgos de inundación (Zona AE) por lo que pudieran haber efectos sobre las áreas inundables y riesgo de pérdidas por inundación. La planicie de inundación existente sería alterada para acomodar el desarrollo propuesto sobre los niveles regulatorios de inundación. La Acción Propuesta será diseñada y construida para reducir los riesgos de inundación, minimizar las amenazas a la vida y propiedad y minimizar los impactos adversos sobre la planicie de inundación. La construcción de la Acción Propuesta no tendrá efectos en los niveles de inundación fuera del predio.

La Acción Propuesta no resultará en efectos humanos o ambientales adversos o desproporcionalmente elevados sobre niños, grupos minoritarios o poblaciones de bajos recursos. Se espera que la construcción de la Acción Propuesta tenga un impacto económico positivo para la economía regional y local debido a la creación de empleos temporeros y al aumento en las ventas de servicios, materiales y suministros relacionados a la construcción.

La Acción Propuesta tendrá como resultado impactos beneficiosos a largo plazo como consecuencia de la operación de una instalación que incorporará prácticas sostenibles,

reduciendo los costos de operación a través de la eficiencia energética, la reducción del uso del agua y la reducción de los impactos en el medio ambiente.

La Acción Propuesta ocupará una huella mínima en el área (0.32 acres). Los disturbios ambientales potenciales asociados a la Acción Propuesta se esperan que sean mínimos y de naturaleza temporera, y principalmente limitados a la fase de construcción. Los impactos acumulativos de la Acción Propuesta en el área serían insignificantes.

MEJORES PRÁCTICAS DE MANEJO Y MEDIDAS DE PROTECCIÓN: La EA describe las mejores prácticas de manejo (BMPs, por sus siglas en inglés) y medidas de protección que serán implementadas para reducir o eliminar los impactos potenciales adversos al ambiente natural y humano durante la construcción y operación de la Acción Propuesta. Algunos de los BMPs que se implementarán durante las fases de construcción y operación de las nuevas instalaciones se enumeran a continuación:

- Desarrollo e implementación de un Plan de Control de Erosión y Sedimentación (CES) y medidas de prevención de contaminación de aguas pluviales durante las actividades de construcción. Previo a las actividades de movimiento de tierra se implantará una combinación efectiva de controles de erosión y sedimentación para evitar que los sedimentos sean arrastrados fuera del lugar de construcción y/o ganen acceso a los drenajes de escorrentía pluvial o a cuerpos de agua superficiales como Caño Boquerón.
- Instalación de un sistema de control de aguas pluviales permanente para manejar las escorrentías del lugar posterior a la construcción.
- Desarrollo e implementación de un plan de prevención y respuesta a derrames que incluirá medidas de planificación, prevención y control para minimizar los impactos resultantes de derrames de cualquier sustancia peligrosa.
- Buenas prácticas ambientales y de mantenimiento preventivo durante la operación de la instalación.
- El diseño final de la Acción Propuesta y los estudios de ingeniería en apoyo al diseño le darán especial atención a la ubicación de los diferentes componentes del Proyecto y las

medidas de protección contra inundaciones requeridas en cumplimiento con las regulaciones aplicables.

- Se implementarán medidas de protección para los manatíes como colocar rótulos que adviertan que los manatíes usan la zona ("Manatee Area") y límites de velocidad de las embarcaciones ("No Wake Zone").
- Para evitar impactos a las aves migratorias, se evitarán actividades de construcción de identificarse nidos activos dentro del área del proyecto o en sus inmediaciones. Las actividades de construcción se evitarán hasta que los pichones hayan abandonado el nido o el nido se haya caído. De ser necesario llevar a cabo actividades de construcción, se establecerá una zona de seguridad alrededor del nido y no se realizaran actividades de construcción dentro de dicha zona hasta que los pichones hayan abandonado el nido.
- La iluminación exterior será diseñada y ubicada para evitar efectos adversos en áreas naturales adyacentes al predio del Proyecto.
- Mantenimiento adecuado y rutinario de todos los equipos de construcción y vehículos para asegurar sus emisiones de aire y ruido estén dentro de los estándares de diseño.
- Medidas de control de polvo fugitivo, incluyendo la aplicación de agua antes/durante el movimiento de tierra y en áreas no pavimentadas de tránsito, y establecimiento de límites de velocidad a equipos y vehículos de construcción.
- Los desperdicios y materiales peligrosos serán manejados de acuerdo a las regulaciones aplicables para el almacenamiento, traslado y disposición de dichos materiales.
- Zonas de amortiguamiento (buffer) de seguridad serán establecidas alrededor de la obra de construcción para garantizar la salud y seguridad pública.

HALLAZGOS: Conforme a los análisis de la EA y las mejores prácticas de manejo a ser implementadas como parte de la Acción Propuesta, se concluye que la Acción Propuesta no resultará en efectos adversos significativos al medio ambiente de implementarse, y por lo tanto la preparación de una Declaración de Impacto Ambiental (DIA) no es requerida.

Proponente del Proyecto:



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U.S. Customs and Border Protection



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Karl Calvo
Executive Director for Facilities Management and
Engineering
U.S. Customs and Border Protection

FINAL

U.S. CUSTOMS AND BORDER PROTECTION
ENVIRONMENTAL ASSESSMENT
FOR THE CONSTRUCTION AND OPERATION OF A
NEW MARINE FACILITY AT CABO ROJO, PUERTO RICO

September 2015

Lead Agency: Department of Homeland Security
U.S. Customs and Border Protection

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EXECUTIVE SUMMARY

INTRODUCTION

U.S. Customs and Border Protection (CBP) is one of the largest and most complex components of the Department of Homeland Security (DHS), with a priority mission of securing the borders of the United States. The CBP Office of Air and Marine (OAM) patrols the nation's land and sea borders to protect the American people and critical infrastructure through the coordinated use of integrated air and marine forces.

The Mayaguez Marine Unit has been operating from temporary facilities (mobile trailers) on a parcel of land owned by the Puerto Rico National Parks Company within the Balneario de Boquerón and Vacation Center area since 1997. Marine units of other law enforcement agencies, including the Department of Natural and Environmental Resources (DNER) Rangers and the Puerto Rico Joint Forces of Rapid Action (FURA) also use this location as a base of operations. In 2001, the Puerto Rico National Parks Company granted a formal permit to CBP to use and occupy the aforementioned parcel, allowing CBP to construct a permanent pier in Caño Boquerón to replace a deteriorated floating pier at the site. Presently, the Mayaguez Marine Unit temporary facilities are in continuous heavy use, and are in need of replacement. In 2014, the Puerto Rico National Parks Company amended the agreement with CBP to allow the construction of permanent structures within the authorized premises and extended the term of the use permit to September 30, 2046. CBP proposes to construct and operate a new permanent facility at the site that would meet CBP current design standards and security requirements to meet its mission demands.

CBP has prepared this Environmental Assessment (EA) to analyze the potential impacts of the Proposed Action to the human and natural environments. The EA was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), Council on Environmental Quality (CEQ) regulations, the Department of Homeland Security (DHS) Instruction Manual 023-01-001-01 (Revision 01, November 6, 2014) – Implementation of the National Environmental Policy Act (NEPA), the Environmental Public Policy Act of Puerto Rico (Act No. 416), the

Puerto Rico Environmental Quality Board (EQB) Regulation for Evaluation and Processing of Environmental Documents, and the Puerto Rico Joint Regulation for Evaluation and Issuance of Permits Related to Development and Land Use.

PURPOSE AND NEED

The purpose of the project is to provide a new facility that complies with current CBP security requirements and design standards to support the critical needs of the CBP mission through the Mayaguez Marine Unit operating out of Balneario de Boquerón in Cabo Rojo, Puerto Rico.

The project is needed to provide the CBP OAM with a permanent and adequate facility in compliance with current design criteria and sustainability practices to allow an integrated and effective operation to meet its priority mission of protecting the borders and critical infrastructure of the United States.

DESCRIPTION OF ALTERNATIVES

The alternatives carried forward for analysis in the EA are the No Action Alternative and the Proposed Action Alternative.

No Action Alternative - The No Action Alternative provides a baseline against which potential impacts of the Proposed Action and other alternatives can be evaluated and represents the existing environmental conditions if the Proposed Action is not implemented. Under the No Action Alternative, a new and permanent facility will not be constructed, and the Mayaguez Marine Unit will continue its operation from its present temporary facilities. The No Action Alternative does not satisfy the stated purpose and need.

Proposed Action Alternative – The Proposed Action consists of the construction, operation, and maintenance of a new facility for the Mayaguez Marine Unit within a parcel of land located in the Balneario de Boquerón in Cabo Rojo, Puerto Rico. Construction activities associated with the proposed action would be restricted to an area of approximately 0.32 acres (Project area or Project site) where the Mayaguez Marine Unit currently operates from temporary facilities. The area connects to one lighted concrete pier at Caño Boquerón, which was built and is used by

CBP for its marine operations. The new facility will consist of one administrative building, a boat maintenance/storage area consisting of a galvanized steel hangar type structure with hurricane tie downs and wash areas, exterior vehicular parking spaces, outdoor lighting, and a security fence and gate. The main administrative building will consist of a two-story building for which structural foundations (*e.g.*, structural piles, deep-driven foundations) may be required, depending on the bearing capacity of soils at the site. Pile depths could vary from 40 to 50 feet beneath ground surface.

The facility will be accessed from the main internal road of the Balneario de Boquerón, which is accessed from PR-101 km 18.5. All utilities are available within the Puerto Rico National Parks Company complex. Existing utilities in the project area will be removed or relocated as needed to meet the design of the proposed facility. The facility will be equipped with an emergency power generator and water cistern. The Proposed Action does not include any improvement or construction on the existing dock or any construction work in U.S. Waters.

The new facility will be designed in compliance with the current CBP OAM Facility Design Standard, as applicable for the site. The proposed new facility is also intended to comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings.

Construction of the facility is estimated to cost approximately \$1.5 million and the duration of the construction phase is estimated to last approximately 12 months. During the construction phase, the existing facilities at the site will be relocated temporarily so that the Marine Unit can continue its operation from the area.

AFFECTED ENVIRONMENT AND CONSEQUENCES

The EA evaluates the potential direct, indirect, and cumulative impacts of the Proposed Action to the human and natural environments.

Land Uses - The Proposed Action would be developed on a 0.32 acres parcel located on public lands managed by the Puerto Rico National Parks Company. The proposed land uses are compatible with current land uses, thus no impacts to current or proposed land uses would be expected if the Proposed Action was undertaken.

Geology and Soils - The construction of the Proposed Action would not cause adverse impacts to the existing geologic setting within the Project area limits, considering the reduced footprint of the Project and the previously developed nature of the site. Temporary direct impacts to soils present in the proposed Project area due to soil disturbance associated with grading and construction activities are anticipated to be negligible.

Water Resources - The nearest surface water body to the Project site is Caño Boquerón, a protected coastal lagoon that borders the eastern boundary of the property. A small storm sewer canal (drainage ditch) that discharges into Caño Boquerón is located to the west of the Project site. The Caribbean Sea and the Boquerón Public Beach are found in a radius of 400 meters from the Project site. Potential indirect and temporary impacts to Caño Boquerón during construction would be associated with an increased in soil erosion and sedimentation, introduction of contaminants to surface waters from construction site, and changes in surface runoff patterns. The Proposed Action is not expected to affect the designated uses of Caño Boquerón and its compliance with applicable water quality standards.

Floodplains - The area where the Proposed Action would be developed is located within a floodable zone (Zone AE) and therefore, has the potential to affect the floodplain, and is subject to the risk of flood loss. The existing floodplain would be altered to accommodate the new facility above regulatory flood levels. The Proposed Action would be designed and constructed to reduce the risks of flooding, minimize threats to life and property, and minimize adverse impacts on the floodplain. The Proposed Action would not affect areas outside the Project site.

Ecological and Biological Resources - The Proposed Action will occur on a 0.32-acre area that has previously been disturbed and is developed. Areas outside this designated construction area will remain in their current state, including the mangroves areas associated with Caño Boquerón bordering the east side of the Project area. No direct impacts to federally or locally designated threatened or endangered species or their habitats are anticipated as result of the Proposed Action. The Proposed Action alternative would have no impacts to jurisdictional wetlands and U.S. Waters. Potential indirect impacts to natural systems adjacent to the Project site as result of

the Proposed Action would include short-term indirect impacts due to erosion and sedimentation from the construction site.

Cultural, Historical, and Archaeological Resources - The cultural, historical and archaeological resources within the Project area were assessed through a Phase IA-IB study. The study concluded that there is not an archaeological site in the project area and there are no historic structures or buildings located within the project's areas of direct or visual effects. Therefore, the Proposed Action would not affect cultural, historical or archaeological resources.

Air Quality – The area is classified in “attainment” for air quality standards. Implementation of the Proposed Action would potentially result in temporary and minor air emissions from construction-related activities and future operations. These emissions will be minor and are not expected to adversely affect the air quality of the area nor its designation as an attainment area.

Noise - Noise levels would temporary increase in the Project area and its vicinity as result of the use of heavy equipment and machinery during construction of the Proposed Action. Noise from the construction of the Proposed Action would have minor effects on the Boquerón public beach area and the residential zones outside the Balneario de Boquerón. Regulatory noise limits could be exceeded during construction activities at the beach villas closest to the Project site, thus, coordination will be made with the Puerto Rico National Parks Company to keep those villas unoccupied during intensive construction activities. Noise emissions during operation of the facility would be similar to current conditions and would not affect background noise levels in the area.

Utilities and Infrastructure - The existing infrastructure in the area has the capacity to service the Proposed Action. The roadways network and road access are also adequate to service the Project.

Hazardous Materials - There could be negligible temporary impacts due to increased amounts of hazardous materials during construction-related activities. Hazardous materials such as used oil, oil, oil filters, gas filters and refrigerants might be generated from routine maintenance

activities on site. Hazardous materials and waste would be managed in accordance with applicable storage, transfer, and disposal regulations.

Aesthetic and Visual Resources - The Proposed Action is a small-scale Project with negligible visual impacts on the surrounding viewshed, and as such, it does not have the potential to diminish the surrounding aesthetic value. The construction of the new marine facility would be consistent with the use of the area.

Socioeconomic - The construction of the facility is estimated at a cost of approximately \$1.5 million and approximately 17 direct jobs would be generated during the construction phase. The construction of the Proposed Action is expected to have a positive economic impact to the regional and local economy due to temporary employment and increase in sales from construction-related services, materials and supplies.

Environmental Justice - The Proposed Action would not result in disproportionately high and/or adverse human or environmental effects on children, minorities, or low-income populations.

Sustainability - The Proposed Action would result in long-term beneficial impacts from operating a facility that incorporates sustainable practices, reducing operating costs through energy efficient and water use reductions.

Cumulative Impacts - Based on the evaluation of the potential environmental impacts from the Proposed Action, impacts from past actions and historical uses, and expected impacts from future actions, it is determined that the cumulative impacts of the Proposed Action in the area would be negligible.

BEST MANAGEMENT PRACTICES AND PROTECTION MEASURES

The EA describes the BMPs and protection measures that would be implemented to reduce or eliminate potential adverse impacts to the human and natural environments during construction and operation of the Proposed Action. Some of the BMPs that will be implemented during the construction and operation phases of the new marine facility are listed below:

- Development and implementation of a Sediment and Erosion Control Plan (SECP) and stormwater pollution prevention measures to minimize pollutants in stormwater runoff during construction activities. An effective combination of soil erosion and sediment controls will be in place prior to earth moving activities to prevent sediment from leaving the site and/or entering a stormwater drainage or receiving water such as Caño Boquerón.
- Installation of a permanent stormwater control system to manage post-construction site runoff.
- A spill prevention and response plan that describes planning, prevention, and control measures to minimize impacts resulting from a spill of any hazardous materials would be implemented.
- Good housekeeping practices and preventive maintenance during operation of the facility.
- The final design and supporting engineering studies of the Proposed Action would give special consideration to location of the different components of the Project and required flood protection measures in compliance with applicable regulations.
- Implement manatee protection measures, such as posting signs, which will warn that manatees use the area (“Manatee Area”) and limiting boat speed (“No Wake Zone”).
- To avoid impacts to migratory birds, CBP will avoid construction activities if active nests are identified within or in the vicinity of the Project site. Construction activities will be avoided until nestlings have fledged or the nest fails. If activity must occur, a buffer zone around the nest will be established and no activities will occur within that zone until nestlings have fledged and left the nest area.

- Exterior lighting will be designed and located as to avoid intrusive effects on sensitive natural areas adjacent to the Project site.
- Proper and routine maintenance of all construction equipment and vehicles to ensure air and noise emissions are within design standards.
- Fugitive dust control measures, including applying water before/during earthwork and onto unpaved traffic areas, and imposing construction equipment/vehicle speed limits.
- Hazardous materials associated with construction equipment would be used in accordance with federal, state, and local regulations.
- Safety buffer zones would be designated around the entire construction site to ensure public health and safety.

FINDINGS AND CONCLUSIONS

Based upon the analyses of the EA and the BMPs to be incorporated as part of the Proposed Action, it has been concluded that the Proposed Action would not result in any significant adverse effects to the environment if implemented, and therefore, preparation of an Environmental Impact Statement (EIS) is not required.

RESUMEN EJECUTIVO

INTRODUCCIÓN

La Aduana y Protección Fronteriza de los Estados Unidos (CBP, por sus siglas en inglés) es uno de los componentes más grandes y complejos del Departamento de Seguridad Nacional (DHS, por sus siglas en inglés), cuya misión prioritaria es asegurar las fronteras de los Estados Unidos. La Oficina de Aire y Marina (OAM) de CBP patrulla las fronteras terrestres y marítimas de la nación para proteger a los ciudadanos y la infraestructura crítica a través del uso coordinado de sus fuerzas aéreas y marítimas.

Desde el 1997 la Unidad Marítima de Mayagüez adscrita a la OAM opera desde unas instalaciones temporeras (tipo remolques) en una parcela de terreno de la Compañía de Parques Nacionales de Puerto Rico dentro del Balneario de Boquerón y Centro Vacacional. Las unidades marítimas de otras agencias de orden público, incluyendo el Cuerpo de Vigilantes del Departamento de Recursos Naturales y Ambientales y FURA usan el área como base de operaciones. En el 2001 la Compañía de Parques Nacionales otorgó un permiso formal a CBP para ocupar y usar la parcela antes mencionada y autorizarles a construir un muelle permanente en el área de Caño Boquerón para reemplazar un muelle flotante existente que se encontraba deteriorado.

Al presente, las instalaciones temporeras de la Unidad Marítima de Mayagüez están en continuo uso y requieren ser reemplazadas. En el 2014, la Compañía de Parques Nacionales enmendó el acuerdo de uso con CBP para permitir la construcción de estructuras permanentes dentro de los predios autorizados y extender el término del permiso de uso hasta el 30 de septiembre de 2046. CBP propone construir una nueva instalación permanente en el sitio que cumpla con los estándares de diseño vigentes y requisitos de seguridad de CBP para cumplir con su misión.

CBP ha preparado esta Evaluación Ambiental (EA) para analizar los impactos potenciales de la Acción Propuesta al ambiente natural y humano. La EA ha sido preparada de acuerdo con las disposiciones de la Ley Nacional de Política Ambiental (NEPA) del 1969, las regulaciones del

Consejo de Calidad Ambiental (CEQ), el Manual de Instrucciones 023-01-001-01 para la Implementación de la Ley Nacional de Política Ambiental (NEPA) del Departamento de Seguridad Nacional (DHS) (Revisión 01 del 6 de noviembre de 2014), la Ley de Política Pública Ambiental de Puerto Rico (Ley Núm. 416), el Reglamento de Evaluación y Tramite de Documentos Ambientales de la Junta de Calidad Ambiental (JCA) de Puerto Rico y el Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo y Uso de Terrenos de Puerto Rico.

PROPÓSITO Y NECESIDAD

El propósito del Proyecto es proveer una nueva instalación para la Unidad Marítima de Mayagüez que opera desde el Balneario de Boquerón en cumplimiento con los requisitos de seguridad y estándares de diseño de CBP en apoyo a las necesidades críticas de la misión de CBP para su operación en el área oeste de Puerto Rico.

El Proyecto es necesario para proveer a la Unidad Marítima adscrita a la OAM de CBP de unas instalaciones permanentes y adecuadas en cumplimiento con los criterios vigentes de diseño y prácticas de sostenibilidad para permitir una operación integrada y efectiva para cumplir con su misión prioritaria de protección de fronteras e infraestructura crítica de los Estados Unidos.

DESCRIPCIÓN DE ALTERNATIVAS

Las alternativas seleccionadas para análisis en la EA son la Alternativa de No Acción y la Alternativa de la Acción Propuesta.

Alternativa de No Acción - La Alternativa de No Acción proporciona una base sobre la cual los potenciales impactos de la Acción Propuesta y otras alternativas pueden ser evaluados y representa las condiciones ambientales existentes, si no se implementa la Acción Propuesta. Bajo la Alternativa de No Acción, una nueva y permanente instalación marítima no sería construida y la Unidad Marítima de CBP continuaría su operación desde sus instalaciones temporeras existentes. La Alternativa de No Acción no satisface el propósito y necesidad del Proyecto según establecidas.

Alternativa de la Acción Propuesta – La Acción Propuesta consiste en la construcción, operación y mantenimiento de una nueva instalación para la Unidad Marítima de Mayagüez en una parcela de terreno localizada en el Balneario de Boquerón en Cabo Rojo, Puerto Rico. Las actividades de construcción asociadas con las Acción Propuesta se limitarían a un área de aproximadamente 0.32 acres (área o predio del Proyecto) donde la Unidad Marítima de CBP actualmente opera desde instalaciones temporeras. El área conecta a un muelle iluminado en Caño Boquerón construido y utilizado por CBP para sus operaciones marinas. La nueva instalación marina constará de un edificio administrativo de apoyo marítimo, un hangar de mantenimiento de embarcaciones/almacenamiento con amarres anti-huracán, estacionamiento de vehículos, iluminación exterior, una verja de seguridad permanente y equipo de seguridad física e infraestructura. El edificio administrativo consistirá de una estructura de dos niveles para la cual cimentación estructural (ej. pilotes estructurales, cimentaciones profundas hincadas a percusión) pudiera ser requerida dependiendo de la capacidad de carga de los suelos en el área. La profundidad de los pilotes pudiera variar entre 40 a 50 pies bajo el nivel del terreno.

El acceso a las nuevas instalaciones es a través de la carreta interna principal del Balneario de Boquerón, al cual se llega desde la carretera PR-101 km 18.5. Todos los servicios de utilidades se proveerán de la red de servicios existentes en el complejo vacacional de la Compañía de Parques Nacionales. Las utilidades existentes en el área del Proyecto serán removidas o reubicadas según sea necesario para cumplir con el diseño de la nueva instalación propuesta. La Acción Propuesta no incluye ninguna mejora o construcción en el muelle existente o trabajos de construcción en Aguas de los EE.UU

Las nuevas instalaciones serán diseñadas en cumplimiento con los Estándares de Diseño para Facilidades de la Oficina de Aire y Marina de CBP y los Principios Rectores para el Liderazgo Federal en Alto Rendimiento y Edificios Sostenibles.

La construcción de las nuevas instalaciones se estima a un costo de \$1.5 millones y la fase de construcción tendrá una duración estimada de aproximadamente 12 meses. Las instalaciones existentes en el predio serán relocalizadas temporeraamente en el área de manera que la Unidad Marítima pueda continuar su operación desde el área durante la construcción del Proyecto.

AMBIENTE EXISTENTE Y CONSECUENCIAS

La EA evalúa los impactos potenciales directos, indirectos y acumulativos de la Acción Propuesta sobre el ambiente natural y humano.

Usos de Terrenos – La Acción Propuesta será desarrollada en un predio de 0.32 acres localizado en terrenos públicos administrados por la Compañía de Parques de Puerto Rico. Los usos de terrenos propuestos son compatibles con los usos actuales en el área.

Geología y Suelos – La construcción de la Acción Propuesta no causará impactos adversos significativos a las condiciones geológicas existentes en el predio cuando se toma en consideración la limitada huella del Proyecto y la condición de desarrollo del predio. Los impactos directos y temporeros a los suelos presentes en el área de estudio debido a las perturbaciones del suelo asociadas con las actividades de nivelación y de construcción como para parte de la Acción Propuesta se anticipa serán mínimos y no significativos.

Recursos de Agua – El cuerpo de agua superficial más cercano al predio es la laguna costanera Caño Boquerón, la cual bordea el limite este del predio. Un canal de drenaje pluvial que descarga al Caño Boquerón ubica al oeste del predio. El Mar Caribe y la Playa Pública de Boquerón también se encuentran en un radio de 400 metros del predio del Proyecto. Existe el potencial de impactos indirectos y temporeros al Caño Boquerón durante la construcción. Estos impactos estarán principalmente asociados al aumento en la erosión y sedimentación de los suelos, introducción de contaminantes a las aguas superficiales y cambios en los patrones de escorrentías. No se espera que la Acción Propuesta afecte el uso designado del Caño Boquerón y su cumplimiento con los estándares de calidad de agua aplicables.

Áreas Inundables – El predio del Proyecto está ubicado en áreas con riesgos de inundación (Zona AE) por lo que pudieran haber efectos sobre las áreas inundables y riesgo de pérdidas por inundación. La planicie de inundación existente sería alterada para acomodar el desarrollo propuesto sobre los niveles regulatorios de inundación. La Acción Propuesta será diseñada y construida para reducir los riesgos de inundación, minimizar las amenazas a la vida y propiedad y minimizar los impactos adversos sobre la planicie de inundación. La construcción de la Acción Propuesta no tendrá efectos en los niveles de inundación fuera del predio.

Recursos Ecológicos y Biológicos – La Acción Propuesta será desarrollada en un área de 0.32 acres previamente perturbada y desarrollada. Las áreas fuera del área designada de construcción permanecerán en su estado natural, incluyendo los mangles asociados al Caño Boquerón que bordean el lado este del predio. No se anticipan impactos directos a especies designadas a nivel local o federal como amenazadas o en peligro de extinción o a sus hábitats como resultado de la Acción Propuesta. La Alternativa de la Acción Propuesta no tendrá impactos a humedales jurisdiccionales o Aguas de los EE.UU. Los impactos indirectos potenciales a los sistemas naturales adyacentes al área del Proyecto como resultado de la Acción Propuesta pudieran incluir impactos indirectos a corto plazo debido a la erosión y sedimentación del área de construcción.

Recursos Culturales, Históricos y Arqueológicos – Los recursos culturales, históricos y arqueológicos en el área del Proyecto fueron evaluados mediante un Estudio Fase IA-IB. El estudio concluyó que no existe en el predio del Proyecto un lugar arqueológico, y que no hay estructuras o edificios históricos dentro de las áreas de efectos directos o visuales del Proyecto.

Calidad de Aire – El área está clasificada como “área de logro” para los estándares de calidad de aire. La implementación de la Acción Propuesta tiene el potencial de causar de emisiones menores y temporeras de contaminantes de aire debido a las actividades relacionadas a la construcción y operación futura. Estas emisiones serán menores y no se esperan afecten adversamente la calidad del aire en el área ni su designación como área de logro.

Ruido – Los niveles de ruido pudieran aumentar de forma temporera en el área del Proyecto y su vecindad como resultado de la utilización de equipo pesado y maquinaria durante la construcción de la Acción Propuesta. Las emisiones de ruido asociadas a la construcción de la Acción

Propuesta tendrán efectos menores en el área de la playa pública de Boquerón y en las zonas residenciales fuera del Balneario de Boquerón. Los límites regulatorios de ruido pudieran excederse durante las actividades de construcción en las villas más cercanas al predio por lo que se deberá coordinar con la Compañía de Parques Nacionales para mantener esas villas desocupadas durante las actividades de construcción de carácter intensivo. Las emisiones de ruido durante la operación de la nueva instalación serán similares a las condiciones existentes y no afectarán los niveles de sonido de trasfondo en el área.

Infraestructura y Utilidades – La infraestructura existente en el área cuenta con la capacidad para servir la Acción Propuesta. La red vial y carreteras de acceso son también adecuadas para servir al Proyecto.

Materiales Peligrosos – Podría haber impactos temporales insignificantes debido a una mayor cantidad de materiales peligrosos durante las actividades relacionadas con la construcción. Los materiales peligrosos tales como aceites usados, el aceite, filtros de aceite, filtros de gas y refrigerantes pudieran generarse como parte de las actividades de mantenimiento rutinario en el predio. Los desperdicios y materiales peligrosos se manejarán de acuerdo a los reglamentos aplicables para el almacenamiento, transferencia y disposición de los mismos.

Recursos Visuales y Estéticos – La Acción Propuesta es un proyecto a pequeña escala con impactos visuales insignificantes, y como tal, no tiene el potencial de disminuir el valor estético de los alrededores. La construcción de las nuevas instalaciones marinas sería consistente con el uso actual en el área.

Socioeconómico – La construcción de la nueva instalación se estima tendrá un costo aproximado de \$1.5 millones y generará aproximadamente 17 empleos directos durante la fase de construcción. Se espera que la construcción de la Acción Propuesta tenga un impacto económico positivo para la economía regional y local debido a la creación de empleos temporeros y al aumento en las ventas de servicios, materiales y suministros relacionados a la construcción.

Justicia Ambiental – La Acción Propuesta no resultará en efectos humanos o ambientales adversos o desproporcionalmente elevados sobre niños, grupos minoritarios o poblaciones de bajos recursos.

Sostenibilidad - La Acción Propuesta tendrá como resultado impactos beneficiosos a largo plazo como consecuencia de la operación de una instalación que incorporará prácticas sostenibles, reduciendo los costos de operación a través de la eficiencia energética, la reducción del uso del agua y la reducción de los impactos en el medio ambiente.

Impactos Acumulativos – De acuerdo a la evaluación de los impactos ambientales potenciales de la Acción Propuesta, los impactos de las acciones pasadas y usos históricos, y los impactos esperados de las acciones futuras, se determina que los efectos de Acción Propuesta sobre los impactos acumulativos en el área serían insignificantes.

MEJORES PRÁCTICAS DE MANEJO Y MEDIDAS DE PROTECCIÓN

La EA describe las mejores prácticas de manejo (BMPs, por sus siglas en inglés) y medidas de protección que serán implementadas para reducir o eliminar los impactos potenciales adversos al ambiente natural y humano durante la construcción y operación de la Acción Propuesta. Algunos de los BMPs que se implementarán durante las fases de construcción y operación de las nuevas instalaciones se enumeran a continuación:

- Desarrollo e implementación de un Plan de Control de Erosión y Sedimentación (CES) y medidas de prevención de contaminación de aguas pluviales durante las actividades de construcción. Previo a las actividades de movimiento de tierra se implantará una combinación efectiva de controles de erosión y sedimentación para evitar que los sedimentos sean arrastrados fuera del lugar de construcción y/o ganen acceso a los drenajes de escorrentía pluvial o a cuerpos de agua superficiales como Caño Boquerón.
- Instalación de un sistema de control de aguas pluviales permanente para manejar las escorrentías del lugar posterior a la construcción.

- Desarrollo e implementación de un plan de prevención y respuesta a derrames que incluirá medidas de planificación, prevención y control para minimizar los impactos resultantes de derrames de cualquier sustancia peligrosa.
- Buenas prácticas ambientales y de mantenimiento preventivo durante la operación de la instalación.
- El diseño final de la Acción Propuesta y los estudios de ingeniería en apoyo al diseño le darán especial atención a la ubicación de los diferentes componentes del Proyecto y las medidas de protección contra inundaciones requeridas en cumplimiento con las regulaciones aplicables.
- Se implementarán medidas de protección para los manatíes como colocar rótulos que adviertan que los manatíes usan la zona ("Manatee Area") y límites de velocidad de las embarcaciones ("No Wake Zone").
- Para evitar impactos a las aves migratorias, se evitarán actividades de construcción de identificarse nidos activos dentro del área del proyecto o en sus inmediaciones. Las actividades de construcción se evitarán hasta que los pichones hayan abandonado el nido o el nido se haya caído. De ser necesario llevar a cabo actividades de construcción, se establecerá una zona de seguridad alrededor del nido y no se realizaran actividades de construcción dentro de dicha zona hasta que los pichones hayan abandonado el nido.
- La iluminación exterior será diseñada y ubicada para evitar efectos adversos en áreas naturales adyacentes al predio del Proyecto.
- Mantenimiento adecuado y rutinario de todos los equipos de construcción y vehículos para asegurar sus emisiones de aire y ruido estén dentro de los estándares de diseño.
- Medidas de control de polvo fugitivo, incluyendo la aplicación de agua antes/durante el movimiento de tierra y en áreas no pavimentadas de tránsito, y establecimiento de límites de velocidad a equipos y vehículos de construcción.
- Los desperdicios y materiales peligrosos serán manejados de acuerdo a las regulaciones aplicables para el almacenamiento, traslado y disposición de dichos materiales.
- Zonas de amortiguamiento (buffer) de seguridad serán establecidas alrededor de la obra de construcción para garantizar la salud y seguridad pública.

HALLAZGOS Y CONCLUSIONES

Conforme a los análisis de la EA y las mejores prácticas de manejo a ser implementadas como parte de la Acción Propuesta, se concluye que la Acción Propuesta no resultará en efectos adversos significativos al medio ambiente de implementarse, y por lo tanto la preparación de una Declaración de Impacto Ambiental (DIA) no es requerida.

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APPENDICES

Appendix A: Correspondence

Appendix B: Biological Resources Survey Report

1. INTRODUCTION

U.S. Customs and Border Protection (CBP) proposes to construct and operate a new facility on a parcel of land of approximately 0.32 acres located in the Balneario de Boquerón in Cabo Rojo, Puerto Rico for the CBP Office of Air and Marine (OAM) Mayaguez Marine Unit. The proposed project area is managed by the Puerto Rico National Parks Company and is bordered on the north by the Department of Natural and Environmental Resources (DNER) Ranger Corps, on the south by the Puerto Rico Joint Forces of Rapid Action (FURA), on the east by a protected coastal lagoon, Caño Boquerón, and on the west by facilities of the Balneario de Boquerón (Public Beach) and Vacation Center (**Figure 1 - Location Map**). The Mayaguez Marine Unit has been operating from temporary facilities at the proposed project site since 1997. The area connects to one lighted concrete pier at Caño Boquerón used by CBP for its marine operations. The purpose of the Proposed Action is to support critical needs of the CBP mission by providing the Mayaguez Marine Unit with a new facility that complies with current CBP security requirements and design standards.

CBP has prepared this Environmental Assessment (EA) to analyze the potential impacts of the Proposed Action to the human and natural environments. The EA was prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), Council on Environmental Quality (CEQ) regulations, the Department of Homeland Security (DHS) Instruction Manual 023-01-001-01 (Revision 01, November 6, 2014) – Implementation of the National Environmental Policy Act (NEPA), the Environmental Public Policy Act of Puerto Rico (Act No. 416), the Puerto Rico Environmental Quality Board (EQB) Regulation for Evaluation and Processing of Environmental Documents, and the Puerto Rico Joint Regulation for Evaluation and Issuance of Permits Related to Development and Land Use.

Figure 1. Location Map

**Environmental Assessment for CBP
New Marine Facility, Cabo Rojo, PR**



SALO Engineering, PSC

0 170 340 680 1,020
Meters

1:20,000



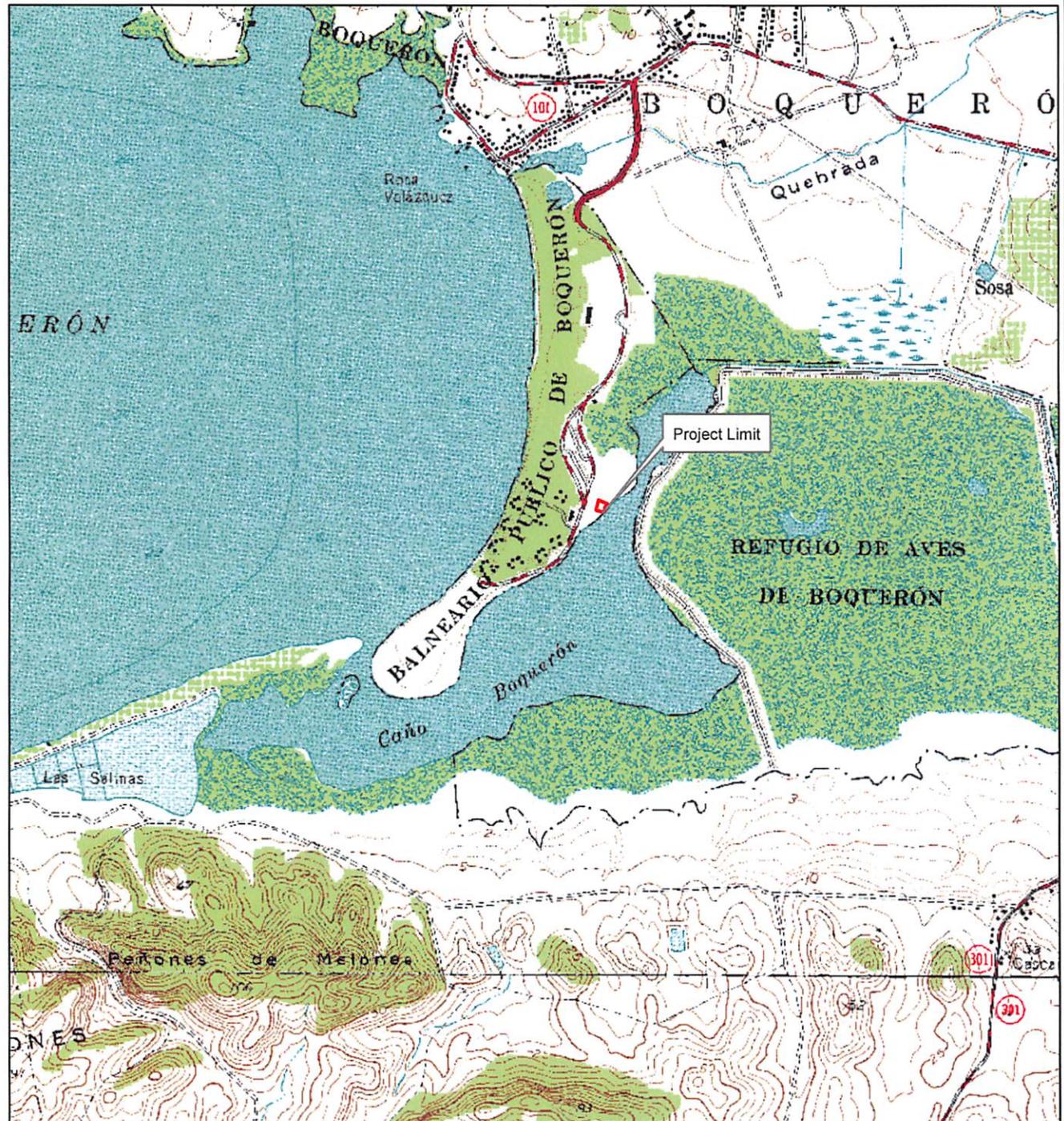
Puerto Rico

Boqueron, Cabo Rojo

Legend

 Project Limit (0.32 acres)

Sources:
U.S. Geological Survey [USGS]. 1966. Puerto Real
Topographic Quadrangle.



1.1. BACKGROUND

CBP is one of the largest and most complex components of the Department of Homeland Security (DHS), with a priority mission of securing the borders of the United States. The CBP OAM patrols the nation's land and sea borders to protect the American people and critical infrastructure through the coordinated use of integrated air and marine forces to detect, interdict, and prevent acts of terrorism and the unlawful movement of people, illegal drugs, and contraband toward or across the borders of the United States.

Law enforcement operations of the Mayaguez Marine Unit generally encompass the contiguous zone (out to 24 nautical miles) in the Caribbean Sea and the Atlantic Ocean to the west, south and north of the island of Puerto Rico. The Mayaguez Marine Unit has been operating from temporary facilities (mobile trailers) on a parcel of land owned by the Puerto Rico National Parks Company within the Balneario de Boquerón and Vacation Center area since 1997. Marine units of other law enforcement agencies, including the DNER Rangers and FURA also use this location as a base of operations. In 2001, the Puerto Rico National Parks Company granted a formal permit to CBP to use and occupy the aforementioned parcel, allowing CBP to construct a permanent pier in Caño Boquerón to replace a deteriorated floating pier at the site. Between 2005 and 2006, CBP completed the construction of one lighted concrete pier for its marine operations in the area.

The Mayaguez Marine Unit currently operates from temporary facilities that are in continuous heavy use, and are in need of replacement. In 2014, the Puerto Rico National Parks Company amended the agreement with CBP to allow the construction of permanent structures within the authorized premises and extended the term of the use permit to September 30, 2046. CBP proposes to construct and operate a new permanent facility at the site that would meet CBP current design standards and security requirements to meet its mission demands.

1.2. PURPOSE AND NEED

The purpose of the project is to provide a new facility that complies with current CBP security requirements and design standards to support the critical needs of the CBP mission through the Mayaguez Marine Unit operating out of Balneario de Boquerón in Cabo Rojo, Puerto Rico. The new facility shall meet the current CBP OAM Facility Design Standard (CBP, 2010) for all air and marine facilities and the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings in accordance with Executive Order (EO) 13423. The CBP OAM Facility Design Standard was issued in 2010 to respond to operational requirements and to establish architectural and engineering criteria for all OAM facilities.

The project is needed to provide the CBP OAM with a permanent and adequate facility in compliance with current design criteria and sustainability practices to allow an integrated and effective operation to meet its priority mission of protecting the borders and critical infrastructure of the United States.

1.3. PUBLIC INVOLVEMENT AND AGENCY COORDINATION

CEQ regulations and DHS policy require public involvement in the environmental impact evaluation process leading to the preparation of an EA. Public participation processes included the following:

- The draft EA and Finding of No Significant Impact (FONSI) was made available for public review for 30 days from May 7 through June 8, 2015.
- A Notice of Availability (NOA) of the draft EA and FONSI was published in a local newspaper (*The San Juan Daily Star*) for two days (May 7 and May 11, 2015) and in the weekly edition of a regional newspaper (*Indice Suroeste*) published on May 7, 2015. The NOA was published in both the Spanish and English languages.
- The draft EA and FONSI was available electronically through internet at CBP's public website (<http://www.cbp.gov/about/environmental-cultural-stewardship/nepa-documents/docs-review>) for a period of 30 calendar days. A hardcopy was also available at the Cabo Rojo Municipal Library Blanca E. Colberg for review.

- As part of the local environmental review process, an Environmental Recommendation Application (REA) with the Draft EA and FONSI was filed to the Puerto Rico Permits Management Office (OGPe, by its Spanish acronym). Through this process, the Draft EA was made available for public and local agencies review during a 30-day period. The review period initiated on June 4, 2015. The Final EA with responses to public and agencies comments will be submitted to OGPe to obtain a Determination for Environmental Compliance (DEA). This process is aimed to fulfill compliance with Article 4(B)(3) of the Puerto Rico Environmental Public Policy Law (Law 416).
- A second NOA is being published in a local and regional newspaper to announce the availability of the Final EA and FONSI that includes CBP's responses to comments received during the public review period.
- The Final EA and FONSI are being distributed to concerned agencies and stakeholders. A hardcopy will also be available at the Cabo Rojo Municipal Library.

1.3.1. AGENCY COORDINATION AND CONSULTATION

Coordination and consultation with Federal and state agencies occurred during preparation of this EA (Copies of those correspondence are provided in **Appendix A**). Formal and informal coordination was conducted with the following agencies or interested parties:

- Puerto Rico National Parks Company
- Municipality of Cabo Rojo
- Department of Natural and Environmental Resources (DNER)
- Puerto Rico Joint Forces of Rapid Action (FURA) – Boquerón Marine Unit
- Permits Management Office (OGPe)
- Environmental Quality Board (EQB)
- Puerto Rico Planning Board (PB)
- Institute of Puerto Rican Culture (ICP)
- U.S. Fish and Wildlife Service (USFWS)
- State Historic Preservation Office (SHPO)

During the initial stage of preparation of the Draft EA, coordination letters with a description of the proposed action were sent to appropriate Federal and state agencies requesting input in identifying any relevant concerns or issues that should be addressed in the EA (**Appendix A-1**). No responses were received from any of the consulted agencies during this initial coordination.

Consultations were made with the USFWS under Section 7 of the Endangered Species Act (ESA) and the Puerto Rico SHPO pursuant to Section 106 of the National Historic Preservation Act (NHPA). Response letters from consultations to USFWS and SHPO were received, both agencies concurred with CBP's no effect determination for the proposed Action (**Appendix A-2 and Appendix A-3**). An Application for Federal Consistency Certification with the Puerto Rico Coastal Management Program was submitted to the Puerto Rico Planning Board. The Planning Board, in coordination with Federal and state agencies, concurred that the Project is not likely to affect coastal resources (**Appendix A-4**). Issuance of the Federal Consistency Certification is pending compliance with the Puerto Rico Environmental Policy Law (Article 4(B)(3)) through OGP_e.

At the end of the review period, no comments were received from the public. A total of eight (8) letters regarding the Draft EA and FONSI were received from agencies (**Appendix A-5**). A summary of these letters and how they were addressed follows:

1. **Autonomous Municipality of Cabo Rojo letter dated May 12, 2015** – The Municipality of Cabo Rojo does not have any comments regarding the environmental impacts of the proposed Project. They provided information regarding applicable construction permit process for the Proposed Action. *Response: During the final design stage of the Project and before initiate construction activities, CBP or its selected contractor will obtain any applicable construction permits from the Municipality of Cabo Rojo. No further response by CBP was determined to be required at this time.*
2. **Puerto Rico Environmental Quality Board (EQB) letters dated May 12, 2015 and June 30, 2015** – The EQB recommends submitting the EA to the Permits Management Office (OGP_e). EQB indicates that the Draft EA complies with the requirements included in the Regulation for the Evaluation and Processing of Environmental

Documents (Regulation Number 7948). The letters also included recommendations for the construction and operational phases of the Project. *Response: The Project will comply with EQB regulations and recommendations during the construction and operational phases of project, as applicable. No further response by CBP was determined to be required at this time.*

3. **Institute of Puerto Rican Culture (ICP) letter dated June 30, 2015** – The ICP reviewed the Cultural Resources Study (Phase 1A-1B) conducted in the Project site. Based on the study presented, the ICP-PAE has determined that there is no evidence that the proposed Project could adversely affect archaeological resources. Therefore, the ICP has no objection to the proposed Project. *Response: No further response by CBP was determined to be required at this time.*
4. **Puerto Rico Aqueduct and Sewer Authority (PRASA) letter dated July 3, 2015** – PRASA require a consultation to the Office of Public and Private Projects (West Region) through OGPe to assess the availability of the services in the area. *Response: CBP submitted to OGPe an Application for Infrastructure Recommendation for water services as requested. As indicated in Section 3.10, all utilities at existing facilities are provided from existing service mains located within the Puerto Rico National Parks Complex in Boquerón. Water demand will be similar or less that current conditions, considering the implementation of water conservation measures into the design of the new proposed facility.*
5. **Department of Natural and Environmental Resources (DNER) letter dated July 2, 2015** – DNER indicates that the proposed site appears to be located within the maritime-terrestrial zone and requested the submittal of an Application for Delimitation of the Maritime-Terrestrial Zone to DNER’s Surveying Division. *Response: CBP will conduct the field survey and data gathering required to file the requested application.*

6. **Department of Natural and Environmental Resources (DNER) letter dated July 28, 2015** – The letter indicated that because the proposed site is mostly covered by artificial fill or pavement they have no objection to the Project. The letter provides reference to various environmental regulations that the Project should comply with. In addition, DNER provided recommendations on outdoor lighting and tree species recommended for the site. *Response: During the construction and operational phases, the Project will comply with applicable Federal and local regulations. DNER recommendations have been incorporated in sections 3.6 and 5.4 of this Final EA.*
7. **Permits Management Office (OGPe) Environmental Recommendation dated August 13, 2015** – The Environmental Recommendation (REA) summarizes the comments and recommendations received from local agencies as part of the Commonwealth of Puerto Rico environmental review process (**Appendix A-5**). In addition to the comment letters previously discussed, the REA includes comments and recommendations from the following agencies:
 - a. **Highway and Transportation Authority** – The Program for Construction of Permanent Improvements of this agency does not include any project that could be affected by the Proposed Action. The agency does not have any comment regarding the environmental aspect of the Proposed Action. *Response: No further response by CBP was determined to be required at this time.*
 - b. **Puerto Rico Electric Power and Authority (PREPA)** – PREPA indicated that they do not have any objection to the Proposed Action from an environmental standpoint, but is requesting CBP to submit an Infrastructure Recommendation Application to OGPe for evaluation of electric infrastructure. *Response: CBP submitted to OGPe an Application for Infrastructure Recommendation for electric services. As indicated in Section 3.10, all utilities at CBP existing facilities are provided from existing service mains located within the Puerto Rico National Parks Complex in Boquerón. Energy demand will be similar or less than current conditions, considering the implementation of energy efficient measures into the design of the new proposed facility.*

- c. **Telecommunications Regulatory Board (JRTPR)** – The JRTPR provides information regarding applicable forms and inspection processes required during the final design and construction stages of the proposed Project. *Response: CBP or its contractor will comply with these requirements in the design and construction stages, as applicable. No further response by CBP was determined to be required at this time.*
- d. **Solid Waste Management Authority (ADS)** – The proponent should comply with the recommendations provided and regulations related to the management and disposal of solid wastes and recyclable materials. *Response: The Project will comply with applicable regulations related to the management and disposal of solid wastes and recyclable materials. No further response by CBP was determined to be required at this time.*
- e. **OGPe Environmental Compliance Division** - The Final EA to be presented for a Determination of Environmental Compliance (DEA) should incorporate the comments and requirements provided by the commenting agencies. *Response: The Final EA and FONSI incorporate the comments and recommendations received during the Draft EA review process.*

2. PROPOSED ACTION AND ALTERNATIVES

The alternatives selected for further discussion in the EA are the No Action Alternative and the Proposed Action Alternative. No other site alternatives were considered as the parcel of land currently used by CBP Mayaguez Marine Unit is strategically located to meet its operational needs.

2.1. NO ACTION ALTERNATIVE

The No Action Alternative provides a baseline against which potential impacts of the proposed action and other alternatives can be evaluated, and represents the existing environmental conditions if the proposed action is not implemented. Under the No Action Alternative, a new and permanent facility will not be constructed, and the CBP Mayaguez Marine Unit will continue its operation from its present temporary facilities. If the No Action Alternative is chosen, CBP requirement for an updated facility in compliance with current design standards, including security requirements and sustainable practices, will not be met. Under this alternative, the CBP goal of increasing operation effectiveness to meet its priority mission of protecting the borders and critical infrastructure of the United States. will not be attained.

2.2. PROPOSED ACTION ALTERNATIVE

The Proposed Action consists of the construction, operation, and maintenance of a new facility for the Mayaguez Marine Unit within a parcel of land located in the Balneario de Boquerón in Cabo Rojo, Puerto Rico. Construction activities associated with the proposed action will be restricted to an area of approximately 0.32 acres (Project area or Project site) where the Mayaguez Marine Unit currently operates from temporary facilities (**Figure 1 – Location Map**). The area connects to one lighted concrete pier at Caño Boquerón, which was built and is used by CBP for its marine operations. Marine units of other law enforcement agencies, including the DNER Rangers and FURA also use this location as a base of operations.

The proposed Project area is managed by the Puerto Rico National Parks Program and is bordered on the north by the DNER Ranger Corps, on the south by FURA, on the east by a protected coastal lagoon, Caño Boquerón, and on the west by facilities of the Balneario de Boquerón (Public Beach) and Vacation Center. Lambert coordinates (State Plane NAD 83 Meters) are: X: 121964.553, Y: 220078.492 (Lat: 18.013322°N, Long: 67.170229°W).

The Project area and its surroundings have been affected by previous development to accommodate existing facilities related to the operation of law enforcement agencies within the area and the construction of the operational facilities of the Puerto Rico National Parks Company. The entire area is served by infrastructure including, roads, electrical, sanitary, and water utilities. The Project area is flat and mostly covered by pavement. Mangroves trees bordering Caño Boquerón are outside the Project boundaries. Sediment and erosion control measures will be used to prevent adverse impacts to the Caño Boquerón and adjacent mangroves.

The new facility will consist of one administrative building, a boat maintenance/storage area consisting of a galvanized steel hangar type structure with hurricane tie downs and wash areas, exterior vehicular parking spaces, outdoor lighting, and security fence and gate. The main administrative building will consist of a two-story building for which structural foundations (e.g., structural piles, deep-driven foundations) may be required, depending on the bearing capacity of soils at the site. Pile depths could vary from 40 to 50 feet beneath ground surface. A conceptual site layout is shown in **Figure 3**.

The Proposed Action includes the demolition of a deteriorated small concrete structure (400 square feet) located within the 0.32-acre area and that is used by the DNER as a storage area. As agreed with the DNER, CBP will rebuild a new structure in a previously developed area on the DNER Rangers' parcel in the Balneario de Boquerón. DNER Rangers premises are located north of the Mayaguez Marine Unit.

The Project area is located within a flood hazard area (Zone AE)¹ and placing of fill will be required to elevate the proposed administrative building location above the regulatory flood level. The estimated amount of fill required to increase site elevation above the regulatory flood level is approximately 1,500 cubic meters.

The facility will be accessed from the main internal road of the Balneario de Boquerón, which is accessed from PR-101 km 18.5. All utilities are available within the PR National Parks Company complex. Existing utilities in the project area will be removed or relocated as needed to meet the design of the proposed facility. The facility will be equipped with an emergency power generator and water cistern. The Proposed Action does not include any improvement or construction on the existing dock or any construction works in U.S. Waters.

The new facility will be designed in compliance with the current CBP OAM Facility Design Standard, as applicable for the site. The proposed new facility is also intended to comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings.

Construction of the facility is estimated to cost approximately \$1.5 million and the duration of the construction phase is estimated to last approximately 12 months. During the construction phase, the existing facilities at the site will be relocated temporarily so that the Marine Unit can continue its operation from the area. Once the new building is completed, the temporary office trailers could be donated to local government for other uses or they will be dismantled and its components segregated for reuse, recycle, or disposal in an authorized facility.

¹ FEMA Map Number 72000C1545J dated November 18, 2009. Zone AE - Special flood hazard areas subject to inundation by the 1% annual flood (100-year).

Figure 2. Aerial Photo

**Environmental Assessment for CBP
New Marine Facility, Cabo Rojo, PR**



0 10 20 40 60
Meters

1:1,000



Legend

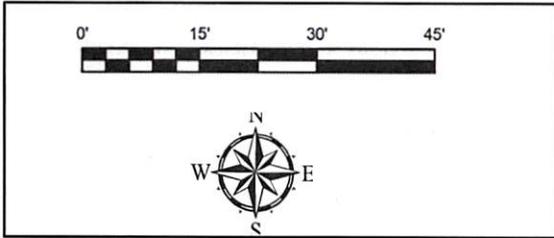
 Project Limit (0.32 acres)

Sources:
Aerial Images 2009-2010 from UPR-Graduate School of
Planning, PR Planning Board, VITO Belgium,
FugroEarth Data Inc.

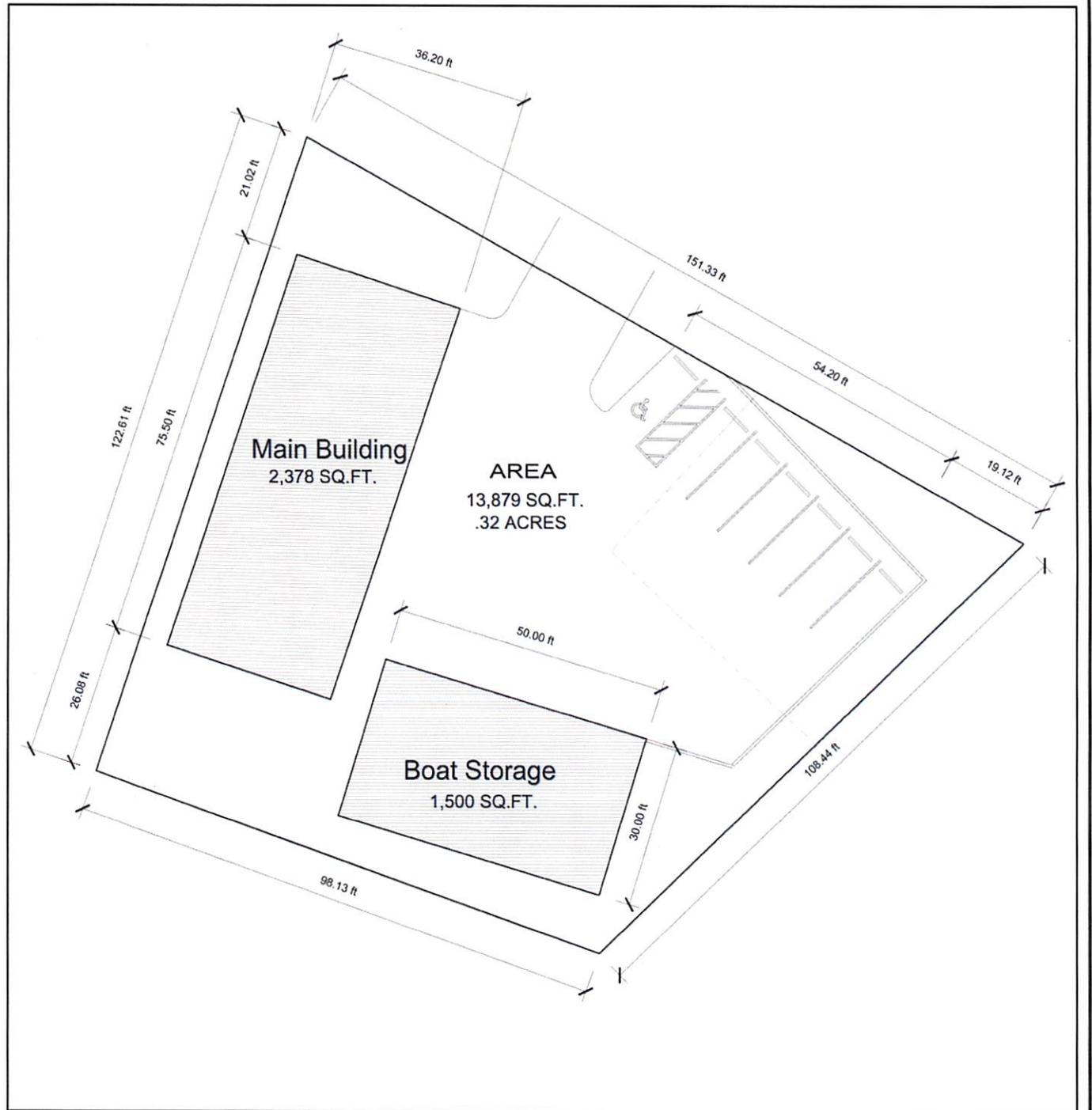


Figure 3. Conceptual Site Layout

**Environmental Assessment for CBP
New Marine Facility, Cabo Rojo, PR**



Total Area - 13,879 SQ. FT (0.32 acres)
Main Building – 2,378 SQ. FT.
Boat Storage – 1,500 SQ. FT.



2.3. SUMMARY

A summary of the impacts associated with the Proposed Action and the No Action Alternatives on the resources evaluated in the EA are presented in Table 1.

TABLE 1. IMPACT COMPARISON MATRIX

Affected Environment	No Action Alternative	Proposed Action Alternative
Land Use	Land uses at the Project area will remain the same.	The Proposed Action would be developed on public lands managed by the Puerto Rico National Parks Company. The proposed land uses are compatible with current land uses, thus no impacts to current or proposed land uses would be expected if the Proposed Action was undertaken.
Geology	The geologic setting at the Project area would remain undisturbed.	The construction of the Proposed Action will not cause adverse impacts to the existing geologic setting within the Project area limits, considering the reduced footprint of the Project and the previously developed nature of the site. The Proposed Action Alternative would have negligible effects on the existing geology.
Soils	No direct impacts on soils would occur.	Temporary direct impacts to soils present in the proposed Project area due to soil disturbance associated with grading and construction activities are anticipated to be negligible. There would be no long-term adverse impacts to these soils due to their previously disturbed nature caused by construction activities associated with the existing development at the site.

TABLE 1. IMPACT COMPARISON MATRIX

Affected Environment	No Action Alternative	Proposed Action Alternative
Water Resources	No direct or indirect impacts to surface waters or groundwater associated to construction activities would occur. Potential impacts to Caño Boquerón from current uses the 0.32 acre parcel will remain the same, those impacts includes, transport of sediments due to erosion of exposed soils and potential introduction of contaminants from accidental oil/fuel spills from boats and vehicles.	The Proposed Action would not result in direct impacts to surface waters or groundwater. Surface waters of Caño Boquerón may experience temporary indirect impacts during construction of the Proposed Action. Given the limited size of the proposed Project site, the temporary nature of the potential environmental disturbances, and the implementation of BMPs, the construction and operation of the Proposed Action would not result in adverse impacts on surface waters and groundwater in the area. The Proposed Action would have negligible effects on surface waters and groundwater.
Floodplains	No additional direct impacts to floodplains or increase risk of flood loss would occur. CBP facilities at the Project site would continue to be subject to flood hazards.	The area where the Proposed Action would be developed is located within a floodable zone, and therefore, has the potential to affect the floodplain, and is subject to the risk of flood loss. The existing floodplain would be altered to accommodate the new facility above regulatory flood levels. The Proposed Action would be designed and constructed to reduce the risks of flooding, minimize threats to life and property, and minimize adverse impacts on the floodplain. The Proposed Action will not affect areas outside the Project site. Impacts to the floodplain are anticipated to be minor, considering the reduced footprint of the Project and the implementation of protection and control measures.

TABLE 1. IMPACT COMPARISON MATRIX

Affected Environment	No Action Alternative	Proposed Action Alternative
Ecological and Biological Resources	No impacts to vegetation and wildlife communities will occur. Ongoing impacts would be similar to those resulting from current operations.	<p>The Proposed Action will occur on a 0.32-acre area that has previously been disturbed and is developed. Potential indirect impacts to natural systems adjacent to the Project site as result of the Proposed Action would include temporary indirect impacts due to erosion and sedimentation from the construction site. Implementation of a SECP and appropriate BMPs concerning sediment control would avoid and minimize potential impacts from sediments and contaminated runoff entering adjacent natural systems. Wildlife species present in adjacent areas may be temporarily displaced during construction activities due to noise disturbances and increased human activity. However, once construction is completed, wildlife distribution in the vicinity of proposed Project area will be similar to pre-construction conditions.</p> <p>No direct impacts to federally or locally designated threatened or endangered species or their habitats are anticipated as result of the Proposed Action. Boat traffic as part of the operation of the Mayaguez Marine Unit in the area could increase the potential for marine mammal and sea turtles collisions in Caño Boquerón and nearby marine habitats. Vessel speed limits through established no-wake zones will be enforced by CBP to avoid such impacts.</p> <p>The Proposed Action alternative would have no impacts to jurisdictional wetlands and Waters of the United States.</p>

TABLE 1. IMPACT COMPARISON MATRIX

Affected Environment	No Action Alternative	Proposed Action Alternative
Cultural, Historical, and Archaeological Resources	No potential historic property will be affected.	The Phase IA-IB Cultural Resources study concluded that there is not an archaeological site in the project area and there are no historic structures or buildings located within the project's areas of direct or visual effects. Therefore, the Proposed Action would not affect cultural, historical or archaeological resources
Air Quality	Indirect and direct impacts on air quality associated with construction activities would not result. In addition, the type and intensity of operations, and associated minor emissions from the use of vehicles and boats, would be similar to those resulting from current operations.	Temporary and minor increases in vehicle exhaust emissions and fugitive dust would result from the operation of vehicles and equipment during the construction phase of the Proposed Action. During operation of the new marine facility, minor emissions would be associated with the use of employee vehicles, the operation of boats for patrol duties, and the occasional operation of a backup electrical generator during power outages or emergencies. These emissions will be minor and would not adversely affect the air quality of the area or its designation as an attainment area. Zero CFC-based refrigerants would be used for the cooling and refrigeration systems in the new facility. Implementation of BMPs to control and minimize air emissions would include proper and routine maintenance of all construction equipment and vehicles to ensure emissions are within design standards, and fugitive dust control measures, including applying water before/during earthwork and onto unpaved traffic areas, and imposing construction equipment/vehicle speed limits.

TABLE 1. IMPACT COMPARISON MATRIX

Affected Environment	No Action Alternative	Proposed Action Alternative
Noise	Impacts associated to noise from construction activities and operation of the new marine facility would not occur. Noise levels would be similar to current conditions since the type and intensity of CBP operations, and associated noise from the use of vehicles and boats, would continue in the area.	Noise levels would temporary increase in the Project area and its vicinity as result of the use of heavy equipment and machinery during construction of the Proposed Action. Although regulatory noise limits could be exceeded during construction activities, noise emissions would be temporary and intermittently produced. Noise from the construction of the Proposed Action would have minor effects on the public beach area and residential zones outside the Balneario de Boquerón. Coordination should be made with the Puerto Rico National Parks Company to keep the villas closest to the Project site unoccupied during installation of the deep-driven piles as part of the construction activities. Noise emissions during operation of the facility would be similar to current conditions and would not affect background noise levels in the area.
Utilities and Infrastructure	There would be no impacts to local utilities because no additional power and water demands associated with a new facility would occur.	Potable water, sanitary sewer, and energy service connections would be required for operation of the new marine facility. The existing infrastructure in the area has the capacity to service the Proposed Action. The Proposed Action will meet the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings, and as such will be designed and operated in a sustainable manner with focus in energy efficiency and water conservation.

TABLE 1. IMPACT COMPARISON MATRIX

Affected Environment	No Action Alternative	Proposed Action Alternative
Roadways and Traffic	No changes in traffic patterns or volume from construction activities and operation of a new marine facility would occur. Roadways and traffic conditions will continue to be influenced by current uses in the Project area.	Construction-related activities would cause an increase in local traffic. Traffic increases would be temporary and are not expected to cause an adverse impact on existing road conditions and traffic of the area. Traffic from employee's vehicles during operation of the proposed facility will be similar to current conditions. The roadways network and road access are adequate to service the Project area, thus no adverse impacts from the Proposed Action are expected.
Hazardous Materials	Under the No Action Alternative, no new hazardous materials or wastes would be generated.	There could be negligible temporary impacts due to increased amounts of hazardous materials during construction-related activities. Hazardous materials such as used oil, oil, oil filters, gas filters and refrigerants might be generated from routine maintenance activities on site. Hazardous materials and waste would be managed in accordance with applicable storage, transfer, and disposal regulations. .
Aesthetic and Visual Resources	Effects to aesthetic and visual resources would remain unchanged for the No Action Alternative.	The Proposed Action is a small-scale Project with negligible visual impacts on the surrounding viewshed, and as such, it does not have the potential to diminish the surrounding aesthetic value. The construction of the new marine facility would be consistent with the use of the area.

TABLE 1. IMPACT COMPARISON MATRIX

Affected Environment	No Action Alternative	Proposed Action Alternative
Socioeconomics	No socioeconomic impacts in the region would be expected.	The construction of the facility is estimated at a cost of approximately \$1.5 million and would generate approximately 17 direct jobs during the construction phase. The construction of the Proposed Action is expected to have a positive economic impact to the regional and local economy due to temporary employment and increase in sales from construction-related services, materials and supplies.
Environmental Justice and Protection of Child	Under the No Action Alternative, no impacts to minority and low income populations would occur.	Implementation of the Proposed Action would not result in disproportionately high and/or adverse human or environmental effects on children, minorities, or low-income populations. The Proposed Action is expected to have a positive impact to local economy due to creation of jobs and increase in sales during the construction period.
Sustainability	The use of sustainable design would not be implemented.	The Proposed Action would result in long-term beneficial impacts to the environment from operating a facility that incorporates sustainable practices, reducing operating costs through energy efficient and water use reductions.

TABLE 1. IMPACT COMPARISON MATRIX

Affected Environment	No Action Alternative	Proposed Action Alternative
Climate Change	No direct impacts would occur. Ongoing impacts would be similar to those resulting from current operations.	Negligible impacts to greenhouse gas emissions are anticipated from the construction and operation of the proposed Project
Human Health and Safety	Under the No Action Alternative, impacts, either beneficial or adverse, on human health and safety due to construction activities would not occur. Health and safety risks associated with current operations at the site would continue.	Construction activities would involve the use of heavy machinery and associated risks. The proposed action would comply with all applicable safety regulations. Impacts to the human health and safety from implementation of the Proposed Action alternative are anticipated to be negligible.
Cumulative Impacts	No cumulative impacts would occur.	The Proposed Action will continue to occupy the existing minimal footprint of 0.32 acres. The potential environmental impacts associated with the Proposed Action are expected to be minimal and temporary, primarily limited to the construction phase. The Proposed Action is expected to have negligible cumulative impacts.

3. AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1. PRELIMINARY IMPACT ANALYSIS

This section describes the potential impacts of the Proposed Action to the human and natural environments. The environmental analysis is directed at determining how environment disturbances would affect receptors/environmental resources. The impact analysis is presented on a resource-by-resource basis and is based upon existing regulatory standards, scientific and environmental knowledge, and best professional opinions.

Impacts (consequences or effects) can be either beneficial or adverse, and can be either directly related to the action or indirectly caused by the action. Direct impacts are those effects that are caused by the action and occur at the same time and place (40 CFR 1508.8[a]). Indirect impacts are those effects that are caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable (40 CFR 1508.8[b]). Impacts may also be classified as temporary (lasting the duration of construction), short-term (up to 3 years), long-term (greater than 3 years), or permanent impacts or effects.

Impacts on each resource can vary in degree or magnitude, from a slightly noticeable change to a total change in the environment. For the purpose of this analysis, the intensity of impacts will be classified as negligible, minor, moderate, or major. The intensity thresholds are defined as follows:

- **Negligible:** A resource would not be affected or the effects would be at or below the level of detection, and changes would not result in any measurable or perceptible consequences.
- **Minor:** Effects on a resource would be detectable, although the effects would be localized, small, and of little consequence to the sustainability of the resource. Mitigation measures, if needed to offset adverse effects, would be simple and achievable.

- Moderate: Effects on a resource would be readily detectable, long-term, localized, and measurable. Mitigation measures, if needed to offset adverse effects, would be extensive and likely achievable.
- Major: Effects on a resource would be obvious, long-term, and would have substantial consequences on a regional scale. Extensive mitigation measures to offset the adverse effects would be required, and success of the mitigation measures would not be guaranteed.

3.2. LAND USE

3.2.1. AFFECTED ENVIRONMENT

The Project area is located within the premises of the Balneario de Boquerón (Public Beach) and Vacation Center. The area is managed by the Puerto Rico National Parks Company and consists of a sandy beach of approximately 4,000 meters, recreational facilities, and beach villas. The area is one of the main attractions in the southwestern part of the island. Historical land uses within this area include recreational uses and agricultural uses (coconut plantation). A mangrove forest used to occupy the eastern-central side of the peninsula where the current Project is proposed. In the 1960s, the recreational facilities at Balneario de Boquerón were constructed and the mangrove areas were filled. Current land uses includes recreational and public uses. Also, marine units of law enforcement agencies, including CBP, DNER, and FURA use the area as a base of operations.

According to the zoning maps of the Territorial Plan of the Municipality of Cabo Rojo (JP, 2010), the proposed Project area is classified as PP or “Playa Pública” (Public Beach). This zoning district is established to designate coastal areas of Puerto Rico, suitable for bathing and passive recreational activities. **Figure 4** shows the zoning map for the proposed Project area and immediate vicinity.

3.2.2. ENVIRONMENTAL CONSEQUENCES

3.2.2.1. No Action Alternative

Land uses at the Project area will remain the same, and CBP will continue operating from temporary facilities for patrol duties within the area.

3.2.2.2. Proposed Action

The Proposed Action would be developed on public lands managed by the Puerto Rico National Parks Company. In 2001, the Puerto Rico National Parks Company granted a formal permit to CBP to use and occupy the proposed Project area. In 2014, the Puerto Rico National Parks Company amended the agreement with CBP to allow the construction of permanent structures within the authorized premises and extended the term of the use permit to September 30, 2046. The Proposed Action will allow the Mayaguez Marine Unit to operate from a permanent and adequate facility to meet its priority mission of protecting the borders and critical infrastructure of the United States. The proposed land uses are compatible with current land uses, thus no impacts to current or proposed land uses would be expected if the Proposed Action was undertaken. The Proposed Action will comply with the conditions set forth by the Puerto Rico National Parks Company and the Commonwealth of Puerto Rico agencies.

Figure 4. Zoning Map

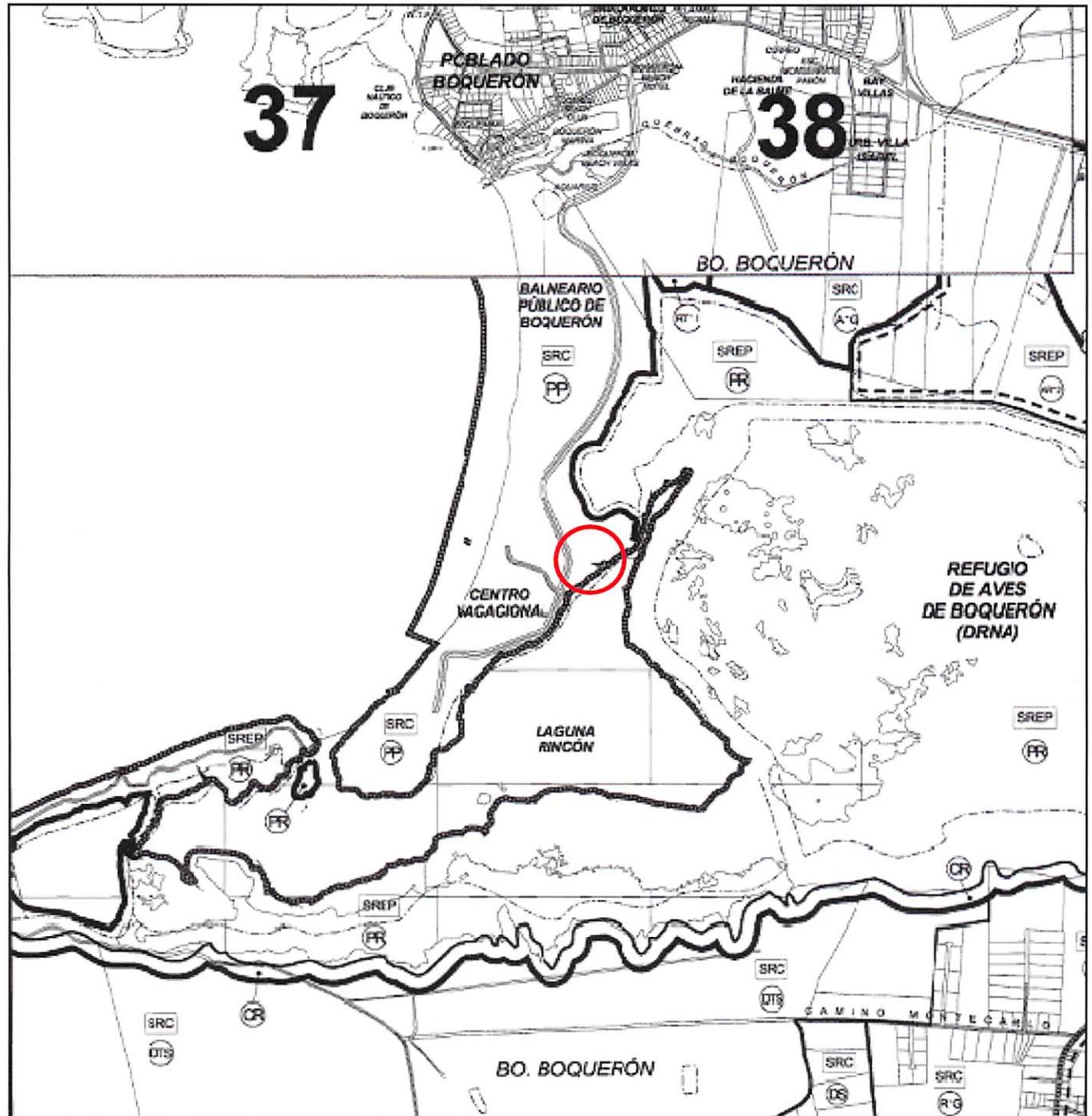
Environmental Assessment for CBP
New Marine Facility, Cabo Rojo, PR



Legend

-  Project Area
- PP - Public Beach (Playa Pública)
- PR - Resource Preservation
- CR - Resource Conservation
- AR-2 - Reserve Area 2
- A-G - General Agricultural

Source: Plano de Calificación de Suelo.
Plan de Ordenación Territorial, Municipio
Autónomo de Cabo Rojo. Planning Board,
2010.



3.3. GEOLOGY AND SOILS

3.3.1. AFFECTED ENVIRONMENT

The United States Geological Survey (USGS) Geologic Map of the Puerto Real Quadrangle, Western Puerto Rico (USGS, 1984), indicates that geologic conditions at the site consist of two distinct Quaternary geologic units denoted as Beach Deposits (Qb) and Mangrove Swamps (Qm), which date back to the Holocene Epoch. See **Figure 5 – Geologic Map**. The surrounding environment has greatly influenced the stratigraphic depositional sequencing and defined the properties of these geologic units, which are described below.

- Beach Deposits (Qb) - sand and minor gravel consisting of rounded shell fragments and shell debris, volcanic rock, chert, and locally quartz.
- Mangrove Swamps (Qm) - coastal areas containing thick groves of mangroves. Underlain by fine sand and silt trapped by mangrove roots.

According to the Natural Resources Conservation Service (NRCS) Soil Survey Geographic database (SSURGO), the study site has one type of soil. This is the Bahía Salinas sand (BhB), 0 to 5% slopes, rarely flooded (**Figure 6 - Soils Map**). BhB is found on coastal beaches of the semiarid coastal plains and consists of excessively drained soils, with very rapid permeability and very low available water capacity. Its soil profile consists of a surface layer of brown sand that contains shell and coral fragments from 0 to 6 inches. The underlying material layer has the same composition extending to 80 inches in depth.

Manglillo, Boquerón and Serrano (MDA) soils are present north and south of the Project's boundaries. These soils are very frequently flooded soils found on coastal plains forming salt marshes, and tidal flats.

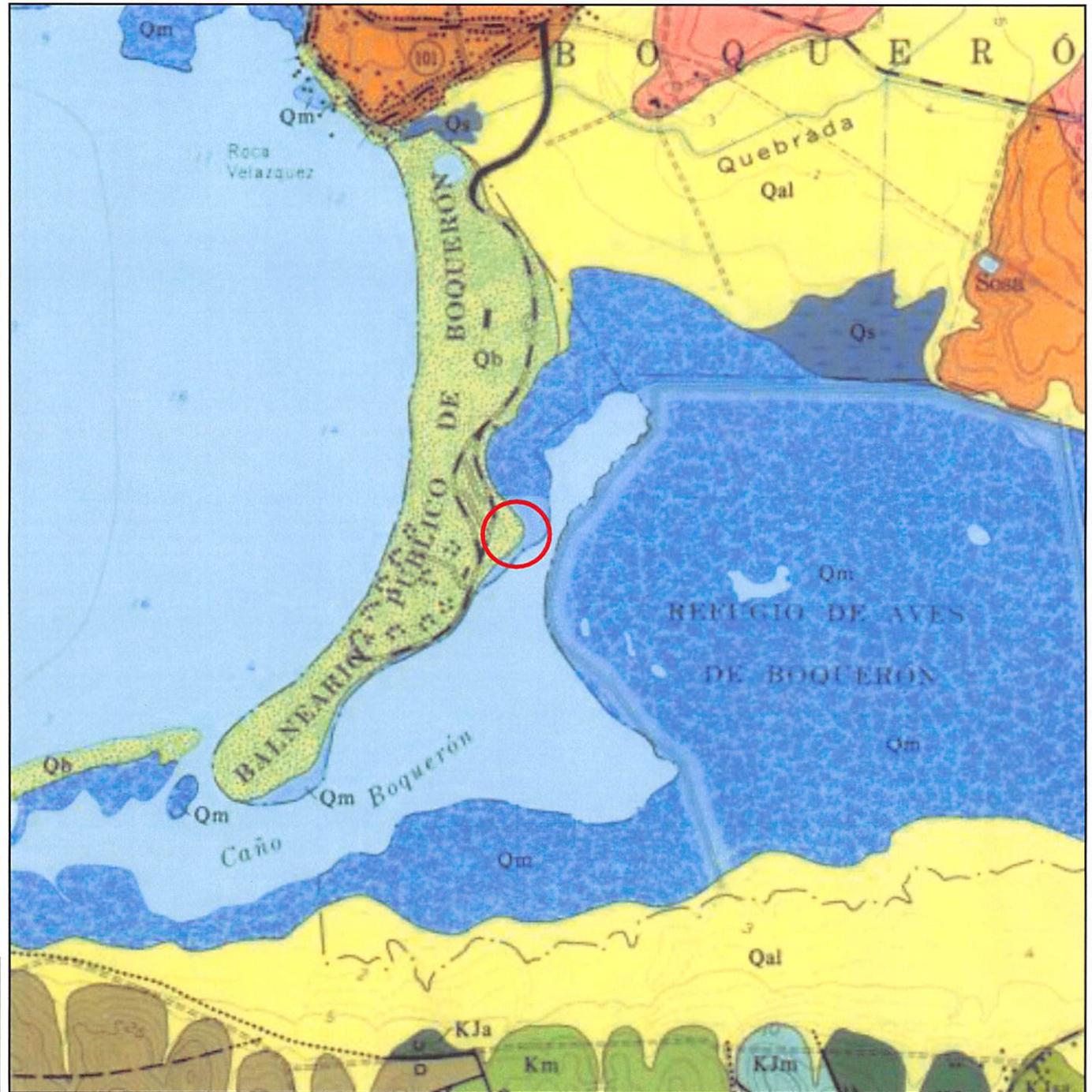
Figure 5. Geologic Map

Environmental Assessment for CBP
New Marine Facility, Cabo Rojo, PR



Legend

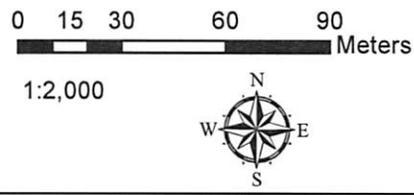
-  Project Area
- Qb - Beach Deposits
- Qm - Mangrove Swamps



Source: USGS, 1984. Geologic Map of the Puerto Real Quadrangle, Western Puerto Rico. USGS Miscellaneous Investigation Series Map I-1559.

Figure 6. Soils Map

**Environmental Assessment for CBP
New Marine Facility, Cabo Rojo, PR**



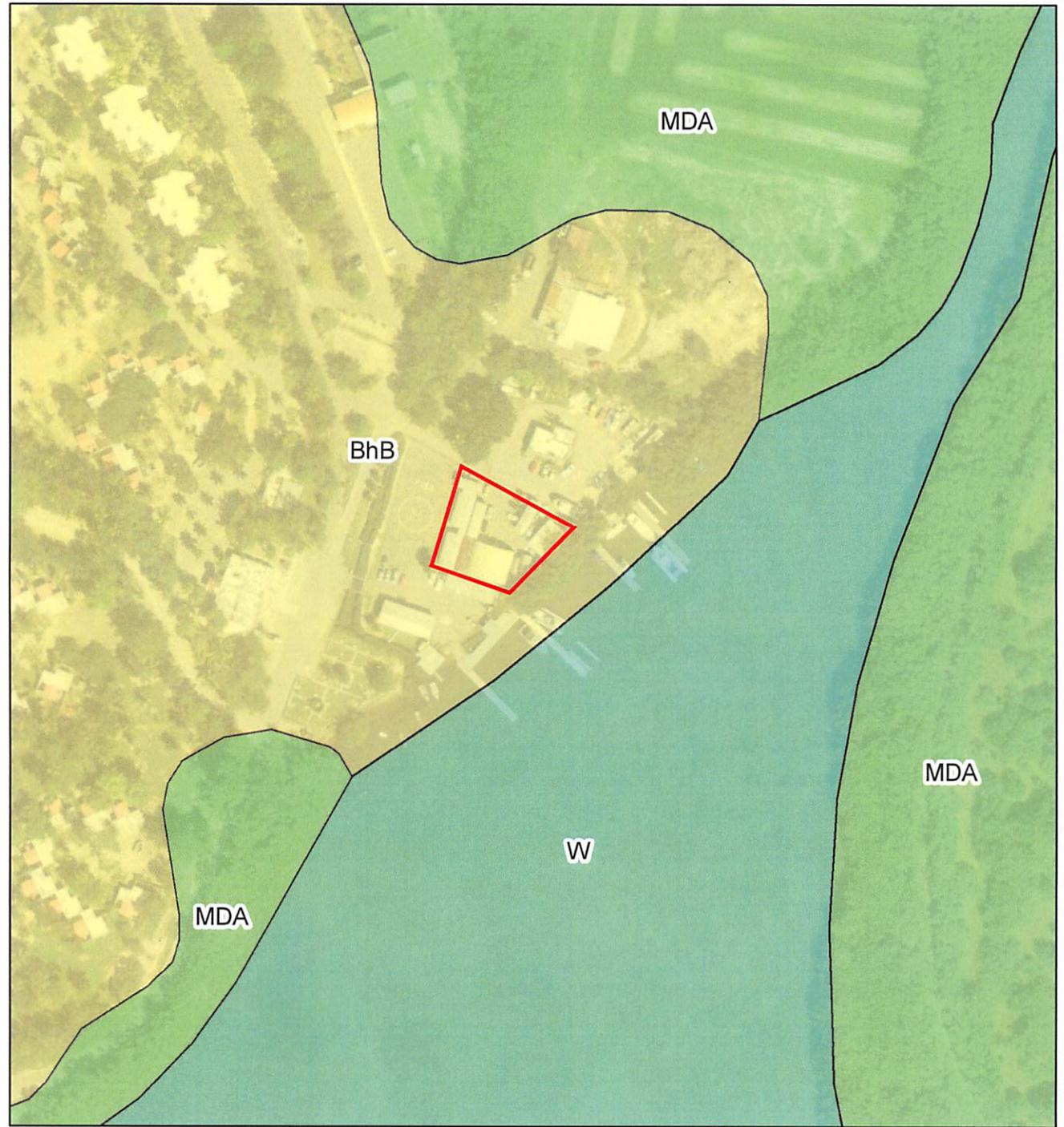
Legend

Project Limit (0.32 acres)

Soils

- BhB - Bahia Salinas sand
- MDA - Manglillo, Boqueron and Serrano soils
- W - Water

Sources:
Aerial Images 2009-2010 from UPR-Graduate School of Planning, PR Planning Board, VITO Belgium, FugroEarth Data Inc.
Soils from USDA-NRCS Soil Survey



3.3.2. ENVIRONMENTAL CONSEQUENCES

Significance of potential geology and soil impacts are based on the degree of geology and soil sensitivity in areas affected by the Proposed Action. Geology and soil impacts could be deemed significant if they:

- Cause direct impacts to geology and soils due to a proposed action's large scale foot print; and
- Occur permanently.

3.3.2.1. No Action Alternative

Under the no action alternative, the geologic setting at the Project site would remain undisturbed as existing conditions.

3.3.2.2. Proposed Action

The construction of the Proposed Action would not cause adverse impacts to the existing geologic setting within the Project area limits, considering the reduced footprint of the Project and the previously developed nature of the site. The low load-bearing capacity of the shallow soils at the site may require structural piles (deep-driven foundations) to adequately support the proposed 2-story main administrative building on the site. Pile lengths could vary from 40 to 50 feet below existing ground surface.

The selection of deep pile foundations for structural support of the Project would have negligible effects on the existing geology because driven piles minimize soil cutting effects. As a result, direct impacts to the subsurface geology at the site would be negligible, since this type of foundation is characteristically discontinuous and localized. Geological deposits are only displaced as the piles are driven "*in-situ*" into the ground, and the excavation and removal of geological components is not required to install the piles.

Temporary direct impacts to BhB soils are considered negligible as a result of the Proposed Action. These temporary impacts could occur due to soil disturbance associated with grading and construction activities for the proposed Project. The estimated volume of soil movement during the construction phase of the Project (based on the project conceptual design) is approximately 100 cubic meters of cut and 1,500 cubic meters of fill².

There would be no long-term adverse impacts to these soils due to their previously disturbed nature caused by construction activities (*e.g.* grading activities, natural settlement over time, erosion and vehicular traffic) associated with the existing development at the site and surrounding areas. A Sediment and Erosion Control Plan (SECP) would be implemented, and appropriate Best Management Practices (BMPs) for sediment control would be effectively applied to reduce the potential impacts of soil disturbance and compaction.

3.4. WATER RESOURCES

3.4.1. AFFECTED ENVIRONMENT

3.4.1.1. Surface Waters

Surficial water bodies, such as rivers or creeks, are not located within the proposed Project area limits. The nearest surface water body to the Project site is Caño Boquerón, a protected coastal lagoon that borders the eastern boundary of the property. A small storm sewer canal (drainage ditch) that discharges into Caño Boquerón is located to the west of the Project site. The Boquerón Public Beach consisting of a sandy beach of approximately 4,000 meters, the Boquerón Bay, and the Caribbean Sea are found in a radius of 400 meters from the property at approximately 300 meters to the west. The Boquerón Wildlife Refuge is an extensive wetland and water impoundment found on the east shore of Caño Boquerón at approximately 150 meters east of the Project site. Water runoff and minor drainages including the subject site, drain to Caño Boquerón.

² Final volumes of cut and fill will be estimated once the final design has been completed.

The Puerto Rico Environmental Quality Board (EQB), through the Puerto Rico Water Quality Standards Regulation (EQB, 2014), designates the uses for which the quality of the water bodies of Puerto Rico shall be maintained and protected by establishing the water quality standards required to sustain the designated uses. Based on the PR Water Quality Standards Regulation (EQB, 2014), Caño Boquerón is classified as Class SB. Class SB waters are coastal and estuarine waters intended for use in primary and secondary contact recreation, and for propagation and preservation of desirable species, including threatened or endangered species (EQB, 2014).

Rule 1303 of the PR Water Quality Standards Regulation lists the standards promulgated for the protection of the uses assigned to coastal, surface, estuarine, wetlands and ground waters of the Commonwealth of Puerto Rico.

3.4.1.2. Groundwater

The principal aquifers in the Municipality of Cabo Rojo are the Guánica alluvial aquifer and the “Valle de Lajas” aquifer, which is composed of an unconfined alluvial aquifer unit and a confined alluvial aquifer unit and extend from Guánica to Hormigueros-Cabo Rojo. These small aquifers are part of the Great Southern Aquifer of Puerto Rico. The Guánica aquifer has an areal extent of 6.69 square mile and is composed of alluvial deposits of clay, sand, and gravel. However, no aquifers underlie the Project area. No potable water wells are present within 400 meters of the proposed Project area.

Groundwater at the Project area is designated SG (Rule 1302.3(A) by the Puerto Rico Water Quality Standards Regulation 2014). Class SG water usage is defined in the rule as groundwater intended for use as a source of drinking water supply and agricultural uses, including irrigation. Also included under this class are those ground waters that flow into coastal, surface, and estuarine waters and wetlands.

3.4.2. ENVIRONMENTAL CONSEQUENCES

3.4.2.1. No Action Alternative

No direct or indirect impacts to surface waters or groundwater associated to construction activities are expected under the No Action Alternative. Under the No Action Alternative, CBP will continue using the property as a temporary office facility, boat storage area and using its dock for their patrol duties in the area. Potential impacts to Caño Boquerón from current uses at the 0.32 acre parcel will remain the same. Those impacts include transport of sediments due to erosion of exposed soils and potential introduction of contaminants from accidental oil/fuel spills from boats and vehicles.

3.4.2.2. Proposed Action

The Proposed Action would not result in direct impacts to surface waters. Surface waters of Caño Boquerón may experience temporary indirect impacts during construction of the Proposed Action. Clearing, grading, and earthwork at the Project site could affect the water quality of adjacent surface waters, such as Caño Boquerón. Potential impacts to Caño Boquerón during construction would be associated with an increased potential in soil erosion and sedimentation, introduction of contaminants to surface waters from the construction site, and changes in surface runoff patterns. Potential impacts on surface water would be minimized using BMPs, and through the development and implementation of a Soil Erosion and Sedimentation Control Plan and stormwater pollution prevention measures to minimize pollutants in stormwater runoff. Section 438 of the Energy Independence and Security Act (EISA) of 2007 would be adhered to as reasonably possible such that pre-and post-development hydrology would remain equal.

Impacts to surface waters could occur during the operation of the new marine facility and would primarily be associated to potential introduction of contaminants from boat washing activities, accidental oil/fuel spills, and use of pesticides and herbicides via stormwater runoff. The application of effective chemical management and spill prevention BMPs during the operation of the new facility will help to minimize potential pollutant discharges. Permanent stormwater control structures will also be installed to manage site runoff prior to discharge into Caño Boquerón.

The Proposed Action is not expected to affect the designated uses of Caño Boquerón and its compliance with applicable water quality standards. Given the limited size of the proposed Project site, the temporary nature of the potential environmental disturbances, and the implementation of the above mentioned measures, the construction and operation of the Proposed Action would not result in adverse impacts on surface waters and groundwater in the area. The Proposed Action would have negligible effects on surface waters and groundwater.

3.5. FLOODPLAINS

3.5.1. AFFECTED ENVIRONMENT

Executive Order (EO) 11988, Floodplain Management (May 24, 1977), directs all Federal agencies to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by floodplains. EO 11988 requires that agencies evaluate the potential effects of actions within a floodplain and to avoid floodplains unless the agency determines there is no practicable alternative. Where the only practicable alternative is to construct in a floodplain, a planning process is followed to ensure compliance with EO 11988. The floodplain compliance process includes the following steps:

1. Determine if a proposed action is in the base floodplain;
2. Provide for public review;
3. Identify and evaluate practicable alternatives, if any;
4. Identify impacts of the proposed action;
5. Minimize threats to life and property and to natural and beneficial floodplain values;
6. Reevaluate alternatives;
7. Present the findings and a public explanation; and
8. Implement the action.

The NEPA process shall incorporate the floodplain management process through analysis and public coordination. Additionally, floodplains are managed at the local level with the assistance and oversight of the Federal Emergency Management Agency (FEMA). Therefore, any action within these areas would require appropriate coordination and evaluation of the potential effects.

The Puerto Rico Planning Board (PRPB) is the agency responsible for identifying areas susceptible to flooding in Puerto Rico. The PRPB Special Flood Hazard Areas Regulation (Planning Regulation No. 13) categorizes flood hazard areas, taking into consideration the Flood Insurance Rate Maps (FIRM) prepared by FEMA, and regulates construction in such areas, including the enforcement of security measures.

The area of the Balneario de Boquerón is located within a coastal floodplain. Based on the Flood Insurance Rate Map for the Project area (Map Number 72000C1545J (2009)), the Project site is located in a flood hazard area subject to inundation by the 1% annual chance flood or the 100-year flood (Zone AE). Zone AE base flood elevation for the site have been determined at 3.0 meters above mean sea level (msl). The Project site is also located within a coastal barrier resource system categorized as Otherwise Protected Area³ (PR-67P). **Figure 7** shows the flood zones map for the area.

³ Coastal barriers designated as Otherwise Protected Areas (OPAs) are generally comprised of lands held by a qualified organization primarily for wildlife refuge, sanctuary, recreational, or natural resource conservation purposes. Flood insurance is not available for structures newly built or substantially improved on or after November 16, 1991, in designated OPAs within the Coastal Barrier Resource System (CBRS).

Figure 7. Flood Zones

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0 12.5 25 50 75
Meters

1:2,000



Legend

 Project Limit (0.32 acres)

FEMA Flood Zones

 AE

 VE

Sources:
Aerial Images 2009-2010 from UPR-Graduate School of
Planning, PR Planning Board, VITO Belgium,
FugroEarth Data Inc.
FEMA Flood Insurance Rate Map. Map Number
72000C1545J, November 18, 2009.



3.5.2. ENVIRONMENTAL CONSEQUENCES

3.5.2.1. No Action Alternative

The No Action Alternative would not result in additional direct impacts to floodplains or increase the risk of flood loss, as no new construction would occur. CBP will continue operating from temporary facilities in the area. Under the No Action Alternative, CBP facilities at the Project site would continue to be subject to flood hazards.

3.5.2.2. Proposed Action

The area where the Proposed Action would be developed is located within a floodable zone, and therefore, has the potential to affect the floodplain, and is subject to the risk of flood loss. The Proposed Action consists of the construction of a new marine facility for the Mayaguez Marine Unit, which requires direct access to boat piers and boat launching areas (ramps) in coastal waters for its operations. Location of this type of facility is restricted to coastal areas, most of which are prone to flood hazards.

Most of the coastline and coastal lands of Boquerón are located within flood prone areas, which limit the practicable alternatives for locating the Proposed Action outside of coastal floodplains. Furthermore, the Project site is located in a previously developed area that has been used by marine units of law enforcement agencies as a base of operations for many years. The area is strategically located and situated in a secure area with access to a protected lagoon. Based on these requirements and conditions, there are no other practicable alternatives for locating the Proposed Action.

The existing floodplain would be altered to accommodate the new facility above regulatory flood levels. Potential impacts to the floodplain from the construction of the Proposed Action would result from earth moving activities, such as, clearing, grading, and permanent deposits of fill to elevate the ground level of the proposed administrative building location above the regulatory flood level. Impacts to the floodplain are anticipated to be minor, considering the reduced footprint of the Project and the implementation of protection and control measures.

The construction of the Proposed Action would cause an increase in surface water runoff and temporary sedimentation in the area if no control measures were implemented. Permanent stormwater control measures to manage post-construction site runoff shall be designed and installed to avoid any effects on neighboring properties. The Proposed Action would not affect areas outside the Project site.

The Proposed Action would be designed and constructed to reduce the risks of flooding, minimize threats to life and property, and minimize adverse impacts on the floodplain. Some of the protection measures that will be implemented as part of the Proposed Action include:

- The proposed administrative building final floor elevation will be at least 0.3 meters (1.0 ft.) above the established base flood elevation. The potential for sea level rise caused by the effects of climate change will be considered in the Project final design for determining the main building first floor elevation.
- Implementation of a Sediment and Erosion Control Plan and stormwater pollution prevention measures to manage stormwater runoff during construction activities.
- Permanent stormwater control system would be installed to manage post-construction site runoff. The stormwater system will include oil and sediment separators.
- Construction methods and practices must minimize flood-related damages.
- The final design and supporting engineering studies of the Proposed Action would give special consideration to location of the different components of the Project and required flood protection measures in compliance with PRPB Regulation No. 13.
- The sanitary sewer will be designed to prevent floodwater discharges into the sanitary system.
- Solid waste disposal systems will be located in places where floodwaters may not affect them.

Compliance with public notification and public involvement as required by the flood management compliance process (EO 11988) would be accomplished and documented by following the NEPA process. The PRPB and the public would have the opportunity to comment on the Proposed Action and its potential impacts.

3.6. ECOLOGICAL AND BIOLOGICAL RESOURCES

3.6.1. AFFECTED ENVIRONMENT

3.6.1.1. Natural Systems

Natural systems and ecological characteristics of the proposed Project area and its vicinity were assessed by consulting relevant records from recognized sources, such as: the Office of Natural Heritage of the Department of Natural and Environmental Resources (DNER), the Environmental Sensitivity Index (ESI) Maps (NOAA, 2000), and the National Wetland Inventory (NWI) of the U.S. Fish and Wildlife Service (USFWS). Maps and other sources of information available for the study area were also reviewed. In addition, a Biological Resources Survey (**Appendix B**) was conducted at the proposed Project area to characterize biological communities, including wetlands.

Most of the Project area have been paved and developed. Therefore, natural features within the area are limited mostly to planted trees and herbaceous species common in areas subject to anthropogenic uses. However, the proposed Project site is located in a coastal area designated as a coastal barrier for conservation purposes and adjacent to important natural systems. The natural systems located within 400 meters of the proposed Project area are shown in **Figure 8**. Natural systems identified within 400 meter of the proposed Project area include:

- Caño Boquerón coastal lagoon and associated mangroves bordering the eastern limit of the Project area.
- Extensive wetlands areas, consisting of estuarine and marine wetlands and deep-waters. Although the USFWS National Wetland Inventory (NWI) map shows wetlands within the Balneario de Boquerón, including the Project site, analysis of historical aerial photos suggests that fill material was deposited over the area in the 1960s.
- The Boquerón Wildlife Refuge is located approximately 150 meters east of the Project site. This wildlife refuge is classified as a primary Critical Wildlife Area (CWA) by the DNER and is recognized as an important recreational fishing area and waterfowl hunting ground.

- Coastal waters of the Caribbean Sea, Boquerón Bay, and a sandy beach (Boquerón) located west from the Project area.

3.6.1.2. *Flora and Fauna*

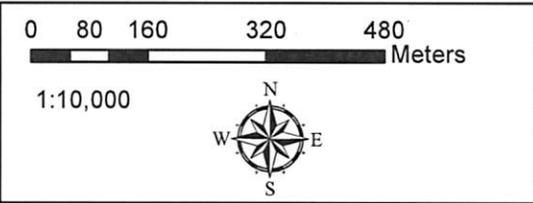
A Biological Resource Survey of the project area was conducted during October 2014. This study was carried out according to the procedures recommended by the DNER and the USFWS. Due to the relatively small size, the area was surveyed in its entirety. A complete list of species observed is included in the Biological Resource Survey Report in **Appendix B**.

Life zones are broad bioclimatic units, each of which may encompass a variety of soils, vegetation, microclimates, and land use patterns. Six life zones are found in Puerto Rico and the Virgin Islands, ranging from dry through rain forest (Ewel and Whitmore, 1973). The life zone on which the proposed Project is located is known as the Subtropical Dry Forest (Ewel and Whitmore, 1973). This life zone is the driest of the six life zones found in Puerto Rico. The Subtropical Dry Forest covers the southwest area of Puerto Rico, part of Vieques Island and the islands of Culebra, Mona, and Desecheo. Annual rainfall within this life zone varies from 600mm to 1100mm. Vegetation on this life zone tends to cover the soil surface completely and it is almost completely composed of deciduous species. Trees are rarely over 15 meters high and their crowns tend to be wider and less dense. Due to the dry conditions, plants have less moisture and their wood is stronger and long lasting. In Puerto Rico, this life zone supports more bird species than any other.

The Project area and its surroundings have been affected by previous development to accommodate existing facilities related to the operation of law enforcement agencies within the area, and the construction of the operational facilities of the Puerto Rico National Parks Company and related utilities. Most of the Project area has been paved and developed. Therefore, biodiversity in the study area is relatively low. The most significant ecological associations near the study site are the upper section of a drainage ditch (stormwater canal) located to the west of the site and the mangroves associated with Caño Boquerón on the east side of the study area (both features are outside of the Project site).

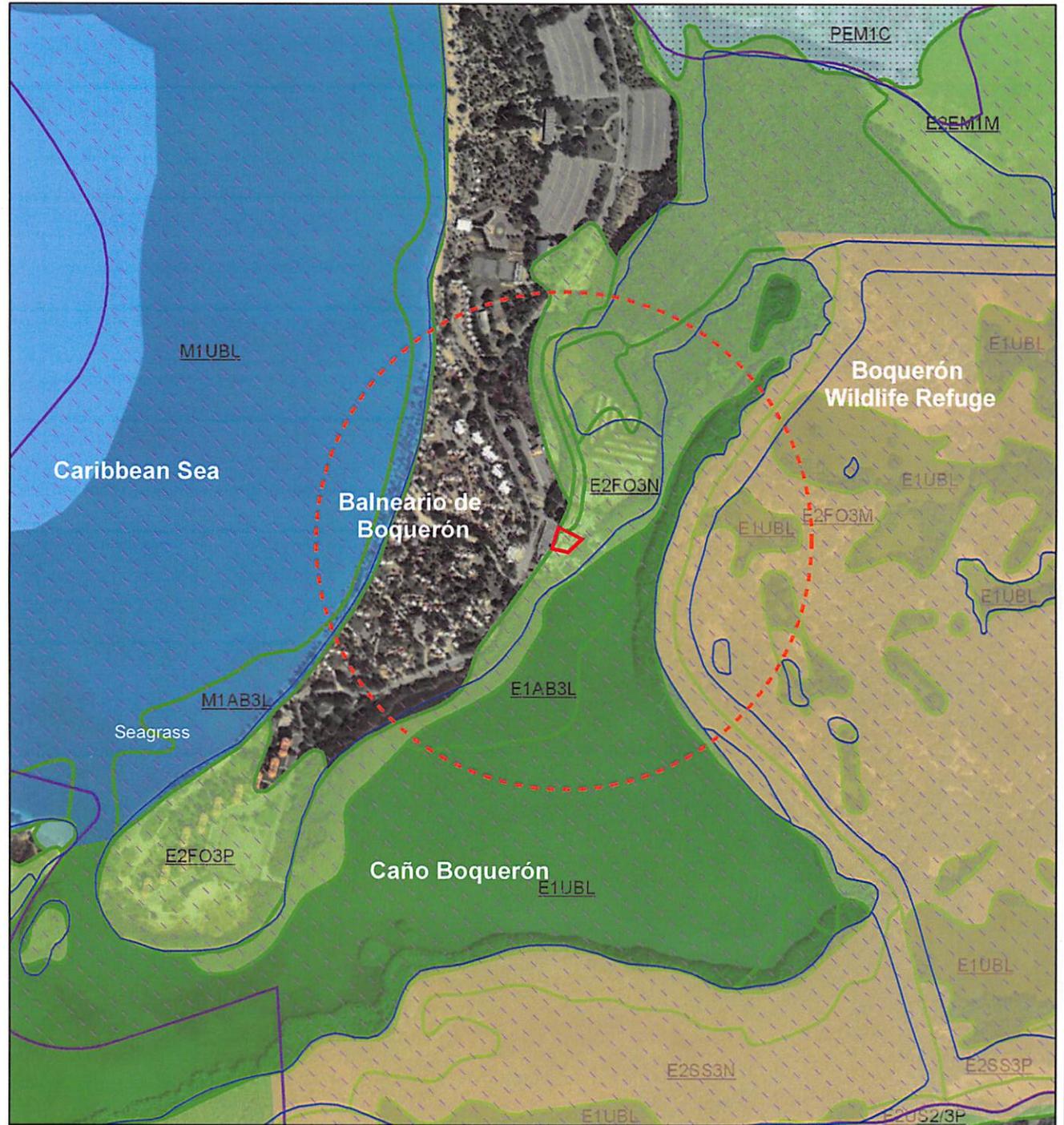
Figure 8. Natural Systems

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- Legend**
- Project Limit (0.32 acres)
 - Hydrography
 - Coastal Barrier
 - Wetlands (USFWS-NWI)
 - Wildlife Refuge (DNER)
 - 400 Meters Perimeter

Sources:
 Aerial Images 2009-2010 from UPR-Graduate School of Planning, PR Planning Board, VITO Belgium, FugroEarth Data Inc.
 U. S. Fish and Wildlife Service. 2010. National Wetlands Inventory website. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C.
 Protected Natural Areas. DNER 2010.
 Hydrography. Plan de Agua. DNER.



Dominant vegetation within the Project area consists of herbaceous species. The most frequent were bermuda grass (*Cynodon dactylon*), windmill grass (*Chloris barbata*), egyptian crowfoot grass (*Dactyloctenium aegyptium*), and some sedges (*Cyperus spp.*). Trees were mostly associated with the mangrove fringe to the east of the Project area (associated with Caño Boquerón), which is dominated by white mangrove (*Laguncularia racemosa*) and red mangrove (*Rhizophora mangle*) trees. The drainage ditch to the west of the study area (outside the Project site) is also dominated by mangrove trees, which are kept pruned to less than five feet high. The upper section of this drainage ditch is dominated by Indian almond tree (*Terminalia catappa*), spanish cork (*Thespesia populnea*), and red mangrove. The total amount of plant species within the study site was 44, divided in 22 families. Of the flora species observed, 54% are herbaceous. Tree species represent 46% of the species. Native herbaceous species accounts for 67% of the herbaceous species observed, while 33% are introduced species. Native tree species represent 39% of the tree species observed, while 61% are introduced or exotic species. This is because many of them were planted as part of the landscaping treatment of the property. No flora species designated as threatened or endangered were found.

Twenty-nine (29) species of fauna (21 families) were observed in the Project area. The dominant species were grey kingbird (*Tyrannus dominicensis*), the fiddler crab (*Uca sp.*), and the land crab (*Cardisoma guanhumii*). The following endemic, critical, or migratory species were observed:

- Birds:
 - Puerto Rican woodpecker (*Melanerpes portoricensis*, endemic).
 - Osprey (*Pandion haliaetus*, migratory).
 - White-crowned pigeon (*Patagioenas leucocephala*, critical element).
- Amphibians:
 - “Coquí churi” (*Eleutherodactylus antillensis*, endemic).
 - “Coquí común” (*Eleutherodactylus coqui*, endemic).
- Crustaceans:
 - Land crab (*Cardisoma guanhumii*, critical element).

One of the species designated as “critical element” by the DNER was the white-crowned pigeon, which was observed flying over the study site from west to east toward the mangrove area of the Boquerón Wildlife Refuge. The white-crowned pigeon is a locally common breeding resident. It is also found in the Bahamas, Cuba, Jamaica, Antigua, Hispaniola, San Andrés, Providencia, and the Virgin Islands. In Puerto Rico, it is common in the north, the east, and also in Vieques, Culebra, and Isla de Mona. This species is mostly found in the northern and eastern coastal plains, moist forests, and mangroves forests. The DNER has designated this species as a “critical element” given that its population has declined, and is now threatened due to habitat loss, severe over-hunting, harvesting of nestlings for food, and introduction of predators. This species is fairly common within the mangrove and forests of the Boquerón Wildlife Refuge.

The other critical element is the land crab. The DNER designated this species as a critical element due to habitat loss and overfishing. It is under the “Lower Risk” category, and its population status will depend on the implementation of conservation measures. A “Lower Risk” category means that the current status did not satisfy higher categories, such as critically endangered, endangered, or vulnerable, and it is not due to deficiency of data. The land crab inhabits mangrove forests, grasslands, and coastal forests in cavities near the water table (to a maximum depth of 8 feet). Its distribution is greatly limited by depth of the water table.

The osprey (*Pandion haliaetus*) was the only migratory bird observed during field work. It is a fairly common non-breeding visitor (Raffaele, 1998) from August to April. Nests are large, bulky, and consist of twigs typically constructed in a tree or on a rocky promontory. No nesting has been recorded in Puerto Rico.

According to the NOAA ESI maps, the Project area is located within the designated Critical Habitat (CH) for the yellow-shouldered blackbird (*Agelaius xanthomus*).

3.6.1.3. Threatened and Endangered Species

No federally or locally designated threatened or endangered species were observed during the biological survey at the Project site. The threatened or endangered species documented to occur in the Municipality of Cabo Rojo are presented in **Table 2**. Although the endemic tree *Stahlia monosperma* may be found in forested areas associated or near to mangrove forests, this species was not found in the study area. Suitable habitat for the Antillean manatee (*Trichechus manatus manatus*) exists in Caño Boquerón. There are many other species listed in **Table 2** that may be present in the Caño Boquerón waters and mangroves; however, these areas are outside the study site. None of the 29 species included in **Table 2** were observed within the study site.

3.6.1.4. Jurisdictional Wetlands and U.S. Waters

The NWI map indicates the presence of forested wetlands within the Balneario de Boquerón including the Project area. However, the Jurisdictional Wetlands and U.S. Waters Determination Study performed as part of the Biological Resources Survey at the Project site concluded that this area is not wetland. Analysis of historical aerial photos suggest that fill material was deposited over the area in the 1960s.

The Jurisdictional Wetlands and U.S. Waters Determination Study found hydric soil indicators, as well as wetland hydrology and herbaceous wetland plants along a fringe bordering the west side of the study site (approximately 125 m²). However, this fringe is isolated from any hydrology source (it is surrounded by paved area) and only collects rain water and water from the air conditioners of the office trailers. Therefore, this fringe is not considered jurisdictional wetland.

The closest jurisdictional wetlands to the Project site are the drainage ditch (west) and the mangrove fringe adjacent to the eastern limit of the site (see **Appendix B: Figure 11**).

TABLE 2. LISTED THREATENED OR ENDANGERED SPECIES IN THE MUNICIPALITY OF CABO ROJO

Common Name	Scientific Name	Federal Status	DNER Status	Habitat Requirements
Mammals				
Antillean manatee	<i>Trichecus manatus manatus</i>	E	E	Marine, estuarine, and freshwater habitats. Calm coastal waters with seagrass beds
Reptiles				
Green sea turtle	<i>Chelonia mydas</i>	T	T	Coastal zones, marine areas
Leatherback sea turtle	<i>Dermochelys coriácea</i>	E	E	Coastal zones, marine areas
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	E	E	Coastal zones, marine areas
Puerto Rican Boa	<i>Epicrates inornatus</i>	E	E	Forested volcanic and limestone hills
Birds				
Yellow-shouldered blackbird	<i>Agelaius xanthomus</i>	E, CH	E	Mangrove forests, coastal forests and tickets
Puerto Rican nightjar	<i>Caprimulgus noctitherus</i>	E	E	Coastal forests
Piping plover	<i>Charadrius melodus</i>	T	T	Coastal zones, sandy beaches, harbors, lagoons, no nesting
Puerto Rican plain pigeon	<i>Patagioenas inornata wetmorei</i>	E	E	Lower montane forests and riparian habitats
Least tern	<i>Sterna antillarum</i>	-	T	Harbors, calm waters, lagoons, flats
Caribbean coot	<i>Fulica Americana</i>	-	T	Open water (prefers freshwater) areas with emergent vegetation
Least grebe	<i>Tachybaptus dominicus</i>	-	T	Mangrove swamps, freshwater ponds
Peregrin falcon	<i>Falco peregrinus</i>	-	E	Offshore cays and rocks, lagoons
Ruddy duck	<i>Oxyura jamaicensis</i>	-	T	Lagoons, ponds (prefers freshwater)
Yellow-breasted crake	<i>Porzana flaviventer</i>	-	T	Swamps (prefers freshwater)
Invertebrates				
Elkhorn coral	<i>Acropora palmata</i>	T, CH	T	Mean Low Water to 30 meter deep
Staghorn coral	<i>Acropora cervicornis</i>	T, CH	T	Mean Low Water to 30 meter deep
Plants				
No common name	<i>Aristida chaseae</i>	E	E	Grasslands, rocky outcrops. Cabo Rojo National Wildlife Refuge, Sierra Bermeja, Punta (Peñones de melones)

TABLE 2. LISTED THREATENED OR ENDANGERED SPECIES IN THE MUNICIPALITY OF CABO ROJO

Common Name	Scientific Name	Federal Status	DNER Status	Habitat Requirements
No common name	<i>Aristida portoricensis</i>	E	EC	Serpentine slopes and red clay soils. Sierra Bermeja
No common name	<i>Catesbaea melanocarpa</i>	E	E	Subtropical Dry Forest. Peñones de Melones
No common name	<i>Eugenia woodburyana</i>	E	EC	Subtropical Dry Forest. Cabo Rojo National Wildlife Refuge, Sierra Bermeja, Punta (Peñones de melones)
Beautiful goetzea	<i>Goetzea elegans</i>	E	E	Semi-evergreen seasonal forests. Guaniquilla (Conservation Trust of Puerto Rico)
No common name	<i>Harrisia portoricensis</i>	E	E	Subtropical Dry Forest. Cabo Rojo National Wildlife Refuge
No common name	<i>Lyonia truncata</i> var. <i>Proctori</i>	E	EC	Subtropical Dry Forest. Sierra Bermeja (Cerro Mariquita)
No common name	<i>Ottoschulzia rhodoxylon</i>	E	EC	Serpentine and limestone-derived soils. Sierra Bermeja, Punta Guaniquilla
No common name	<i>Stahlia monosperma</i>	T	T	Coastal plains associated to mangroves and immediately landward side of mangroves. Boquerón Ward, Sierra Bermeja, Miradero Ward, Punta Guaniquilla
No common name	<i>Trichilia triacantha</i>	E	EC	Woodlands and tickets of low elevation. Punta Guaniquilla
No common name	<i>Vernonia proctori</i>	E	EC	Subtropical Dry Forest. Sierra Bermeja (Cerro Mariquita)

Key: E: endangered; EC: critically endangered; T: threatened; V: vulnerable; CH: designated critical habitat.

3.6.2. ENVIRONMENTAL CONSEQUENCES

3.6.2.1. No Action Alternative

Under the no action alternative, no direct or indirect impacts to vegetation and wildlife communities associated with new construction will occur. The type and intensity of operations at the Project site will remain the same and ongoing impacts would be similar to those resulting from current operations.

3.6.2.2. Proposed Action

The Proposed Action would occur on a 0.32-acre area that has previously been disturbed and is developed. Areas outside this designated construction area will remain in their current state, including the mangroves areas associated with Caño Boquerón bordering the east side of the Project area. Although the level of activities would increase during the construction phase of the project, no adverse impacts to the local natural environment (*e.g.*, mangroves, drainage ditch, coastal/marine ecosystem) are expected.

Potential indirect impacts to natural systems adjacent to the Project site as result of the Proposed Action would include temporary indirect impacts due to erosion and sedimentation from the construction site. Implementation of a SECP and appropriate BMPs concerning sediment control would avoid and minimize potential impacts from sediments and contaminated runoff entering adjacent natural systems. Wildlife species present in adjacent areas may be temporarily displaced during construction activities due to noise disturbances and increased human activity. However, once construction is completed, wildlife distribution in the vicinity of proposed Project area will be similar to pre-construction conditions. Exterior lighting will be designed and located as to avoid intrusive effects on sensitive natural areas adjacent to the Project site. Permanent exterior lighting may include low-level lights and shielded luminaries to minimize glare impacts and light pollution onto surrounding natural areas. The lighting will be designed to include controls that will allow personnel to increase the light levels during docking and other law enforcement activities to maintain a safe environment.

To avoid impacts to migratory birds, CBP will avoid construction activities if active nests are identified within or in the vicinity of the Project site. Construction activities will be avoided until nestlings have fledged or the nest fails. If activity must occur, a buffer zone around the nest will be established and no activities will occur within that zone until nestlings have fledged and left the nest area. To the extent possible, the Project landscape design will incorporate plant species typical of the coastal zone of the region and tree species that could provide food, nesting and resting areas for the endangered Yellow-shouldered blackbird.

No direct impacts to federally or locally designated threatened or endangered species or their habitats are anticipated as result of the Proposed Action. Boat traffic as part of the operation of the Mayaguez Marine Unit in the area could increase the potential for marine mammal and sea turtles collisions in Caño Boquerón and nearby marine habitats. Vessel speed limits through established no-wake zones will be enforced by CBP to avoid such impacts.

The Proposed Action alternative would have no impacts to jurisdictional wetlands and U.S. Waters. As previously described, implementation of erosion and sedimentation controls during construction activities would avoid or minimize potential indirect impacts from sediments and contaminated runoff to these areas. Any impacts to wetlands and U.S. Waters would require a Section 404 permit from the USACE.

3.7. CULTURAL, HISTORICAL, AND ARCHAEOLOGICAL RESOURCES

3.7.1. AFFECTED ENVIRONMENT

The cultural, historical and archaeological resources within the Project area were assessed through a Phase IA-IB study. The overall objective of the assessment was to determine the presence or absence of historical properties in the Project's area. Phase IA research strategy consisted of an archival research and inspection of sensitivity, and involved two main aspects: an investigation of all existing documentary sources and a visual inspection of the surface of the study area in order to establish its archaeological potential. Two different areas of potential effects were considered in the research: one for direct effects and one for visual effects. The area for direct effects included all the extent where the project will or might cause ground disturbance, while the area for visual effects included all locations from which the project may be visible. Phase IB research strategy consisted in the controlled excavation of three (3) 30 by 30 cm test units.

Inventories of archaeological sites and archaeological surveys deposited in the archives of the Council for the Protection of the Terrestrial Archaeological Heritage of Puerto Rico and the State Historic Preservation Office (SHPO) were consulted as part of the Phase I assessment. Nineteen (19) archaeological sites have been recorded in the periphery of the project. The cultural affiliation of four (4) of these sites is unknown. Thirteen (13) have been classified as pre-Columbian: eight (8) preceramic or archaic, one (1) Saladoid and Ostionan Ostionoid and one (1) Chican Ostionoid. Two (2) sites are multicomponent: CR-31 or Hacienda La Baumé has a preceramic occupation and a colonial occupation dating from ca. 1842; and CR-34 or *Cementerio de los colerientos* also has a preceramic and a colonial occupation. Seven (7) of the pre-Columbian sites have been described as shell middens, two as residuaries and one as a lithic workshop. There is no data regarding the eligibility of these sites to the National Register of Historic Places. The Project will not affect any of these sites directly or indirectly.

Historical sources indicate that the project area was part of Hacienda Baumé, main producer of sugarcane in the region during the late 19th century and first half of the 20th century. In the 1930s, the vicinity of the project area was planted in coconut palms, but the parcel under study

was covered with mangroves. Sometime in the 1960s, the mangroves were removed and the project area was apparently filled. The parcel was vacant until the 1990s. The only structures that have existed in the project parcel are prefabricated containers used as office and storage space, a boat hangar and a modern pier. There are no historic structures or buildings located within the project's areas of direct or visual effects.

The environmental characteristics of the area under study made it favorable for exploitation in Pre-Columbian periods. Activity areas of extraction and processing of food, such as shell middens, may be expected. In the Boquerón ward, and particularly in the region surrounding the study area, there are several such sites reported, characterized by the presence of shell, sometimes lithic artifacts, and by the absence of ceramics. South of the Caño Boquerón, but right on the outside of the boundary of the mangrove swamps, several large shell middens have been reported.

During the surface reconnaissance, a high density of shell and some lithic artifacts were observed in the parcel, suggesting that there is a potentially Pre-Columbian shell deposit. Specimens showed that the shell species are typical of shallow water and mangrove swamps. The fact that this area was claimed to mangroves by deposition of fill material during the twentieth century raised the question of whether or not the aforementioned shell midden is *in-situ*.

The subsurface sampling and analyses indicated that the shells observed in the surface are not *in-situ*, but are within the matrix of a fill layer that was deposited over a limestone fill, which, in turn, was placed over the natural soil. The Phase IA-IB study concluded that there is not an archaeological site in the project area.

3.7.2. ENVIRONMENTAL CONSEQUENCES

Significance of potential impacts on cultural, historical, and archaeological resources is based on the sensitivity of the area to the presence of historic properties and the Project's development activities to affect them adversely. To be considered a "historic property", a cultural, historical, or archaeological resource must be determined eligible to the National Register of Historic Places. In other words, it must have three essential attributes: sufficient age (50 years or more),

integrity, and significance. An effect on a historic property is considered adverse if it alters its integrity or any of the attributes that make it significant.

3.7.2.1. No Action Alternative

Under the No Action Alternative, no potential historic property will be affected as existing conditions and CBP operations at the site will remain as it is.

3.7.2.2. Proposed Action

The cultural, historical and archaeological resources within the Project area were assessed through a Phase IA-IB study. The study concluded that there is not an archaeological site in the project area and there are no historic structures or buildings located within the project's areas of direct or visual effects. Therefore, the Proposed Action would not affect cultural, historical or archaeological resources. If any historic property or archaeological resource is found during project implementation, pertinent regulatory agencies will be immediately notified.

3.8. AIR QUALITY

3.8.1. AFFECTED ENVIRONMENT

The occurrence and concentration of air pollutants in Puerto Rico is influenced by its geographical location, topography, and weather, among other factors. Air quality in Puerto Rico is mainly affected by anthropogenic sources, such as, industrial activities, energy production, traffic, fires, and earth crust extraction processes. Also, air quality is affected by pollutants from natural sources such as Saharan dust and volcanic ash (Mayol Bracero, 2006).

The Clean Air Act (CAA) is the main federal statute governing the control of air pollution. At a local level, air quality is regulated by the Puerto Rico Environmental Public Policy Act and the Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board (EQB). Pursuant to the CAA, the Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants, including: particulate matter (PM_{2.5} and PM₁₀), ozone (O₃), carbon monoxide (CO), sulfur oxides (SO_x), nitrogen dioxide

(NO₂) and lead (Pb). The NAAQS have been established to protect the public health and welfare. The primary NAAQS are intended to protect public health, while the secondary NAAQS are intended to protect the environment. The NAAQS are included in **Table 3**.

Air quality is determined within regional boundaries and by pollutant concentrations. Areas are classified as “attainment” or “non-attainment” for each criteria pollutant according to their compliance with the NAAQS. Currently in Puerto Rico, there is only one non-attainment area for the parameter of lead and it consists of a small area delimited by a 400-meter perimeter from the location of a facility known as the Battery Recycling Company located in the Municipality of Arecibo in the North Region of Puerto Rico. All other areas in Puerto Rico are classified as “attainment” for air quality standards.

The EQB monitors some of the criteria pollutants through a network of 20 air-sampling stations throughout Puerto Rico. There are no air quality monitoring stations in the Municipality of Cabo Rojo. The closest air quality station to the Project area is located at approximately 21 km to the north in the Municipality of Mayaguez (Station ID 72-097-0006). This station monitors particulate matter (PM_{2.5}). The PM_{2.5} annual arithmetic mean at this station for the years 2011 to 2013 ranged from 5.4 to 6.2 µg/m³ (24-hour period) (data retrieved December 15, 2014 from <http://www.epa.gov/airquality/airdata/index.html>).

The General Conformity Rule, established under Section 176 of the CAA, is intended to ensure that the actions taken by federal agencies in non-attainment and maintenance areas do not interfere with the attainment and maintenance of regional air quality goals to meet NAAQS. Under the General Conformity Rule, federal agencies shall evaluate the nature of a proposed action and associated air pollutant emissions to ensure the proposed action conform to the air quality plans established in the applicable state or tribal implementation plan. If the emissions exceed established limits, known as *de minimis* thresholds, the proponent is required to implement appropriate mitigation measures. Based on the attainment status in the proposed Project area, a general air conformity analysis is not required for this Project.

TABLE 3. NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

Pollutant [final rule cite]	Primary/ Secondary	Averaging Time	Level	Form	
<u>Carbon Monoxide</u> [76 FR 54294, Aug 31, 2011]	primary	8-hour	9 ppm	Not to be exceeded more than once per year	
		1-hour	35 ppm		
<u>Lead</u> [73 FR 66964, Nov 12, 2008]	primary and secondary	Rolling 3 month average	0.15 µg/m ³ (1)	Not to be exceeded	
<u>Nitrogen Dioxide</u> [75 FR 6474, Feb 9, 2010] [61 FR 52852, Oct 8, 1996]	primary	1-hour	100 ppb	98th percentile, averaged over 3 years	
	primary and secondary	Annual	53 ppb (2)	Annual Mean	
<u>Ozone</u> [73 FR 16436, Mar 27, 2008]	primary and secondary	8-hour	0.075 ppm (3)	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years	
<u>Particle Pollution</u> Dec 14, 2012	PM _{2.5}	primary	Annual	12 µg/m ³	annual mean, averaged over 3 years
		secondary	Annual	15 µg/m ³	annual mean, averaged over 3 years
	PM ₁₀	primary and secondary	24-hour	35 µg/m ³	98th percentile, averaged over 3 years
		primary and secondary	24-hour	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
<u>Sulfur Dioxide</u> [75 FR 35520, Jun 22, 2010] [38 FR 25678, Sept 14, 1973]	primary	1-hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year	

Source: <http://www.epa.gov/air/criteria.html> as of October 2011

(1) Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

(2) The official level of the annual NO₂ standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.

(3) Final rule signed March 12, 2008. The 1997 ozone standard (0.08 ppm, annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years) and related implementation rules remain in place. In 1997, EPA revoked the 1-hour ozone standard (0.12 ppm, not to be exceeded more than once per year) in all areas, although some areas have continued obligations under that standard (“anti-backsliding”). The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is less than or equal to 1.

(4) Final rule signed June 2, 2010. The 1971 annual and 24-hour SO₂ standards were revoked in that same rulemaking. However, these standards remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

3.8.2. ENVIRONMENTAL CONSEQUENCES

3.8.2.1. No Action Alternative

Under the No Action Alternative, indirect and direct impacts on air quality associated with construction activities would not result. In addition, the type and intensity of operations, and associated minor emissions from the use of vehicles and boats, would be similar to those resulting from current operations.

3.8.2.2. Proposed Action

Temporary and minor increases in vehicle exhaust emissions and fugitive dust would result from the operation of vehicles and equipment during the construction phase of the Proposed Action. During operation of the new marine facility, minor emissions would be associated with the use of employee vehicles, the operation of boats for patrol duties, and the occasional operation of a backup electrical generator during power outages or emergencies. These emissions will be minor and are not expected to adversely affect the air quality of the area nor its designation as an attainment area.

Implementation of BMPs to control and minimize air emissions would include proper and routine maintenance of all construction equipment and vehicles to ensure emissions are within design standards, and fugitive dust control measures including applying water before/during earthwork and onto unpaved traffic areas, and construction equipment/vehicle speed limits.

3.9. NOISE

3.9.1. AFFECTED ENVIRONMENT

The EQB, through the Regulation for the Control of Noise Pollution (EQB, 2011), establishes standards and requirements for the control, reduction, or elimination of noise that could affect public health and welfare. The regulation defines noise as an unwanted sound that can affect humans psychologically or physiologically, or that exceed the established regulatory limits. It further states that emission sources shall comply with regulatory limits as measured beyond its property limits in receptors zones as defined by the regulation. The regulatory noise limits for each receptor zone and type of emission source as defined by EQB regulation are presented in **Table 4**.

Sound is usually represented on a logarithmic scale with a unit called the decibel (dB), and various weighted dB scales (A, B, C) are used to approximate how people perceive different types of sounds (FTA, 2006). The A-weighted decibel (dBA) is a measurement of sound pressure adjusted to conform to the frequency response of the human ear. One of the noise metrics that considers durations as well as sound power level is the L₁₀, which represents the sound level in dB(A) units that is exceeded 10% of the time over a specific period.

TABLE 4. NOISE LEVELS LIMITS (L₁₀, dB(A))

Emission Source	Receptors Zones							
	Zone I (Residential)		Zone II (commercial)		Zone III (Industrial)		Zone IV (Quiet Zone)	
	D	N	D	N	D	N	D	N
Zone I (Residential)	60	50	65	55	70	60	55	50
Zone II (Commercial)	65	50	70	60	75	65	55	50
Zone III (Industrial)	65	50	70	65	75	75	55	50
Zone IV (Quiet Zone)	65	50	70	65	75	75	55	50

Notes: D = Diurnal period from 7:00 am to 10:00 pm N = Nocturnal period from 10:01 pm to 6:59 am
Source: EQB Regulation for the Control of Noise Pollution (EQB, 2011)

Current noise levels at the Project site are mostly influenced by vehicular traffic in the area, CBP operations at the site, and the operation of adjacent facilities, including FURA, DNER, and PR National Parks Company. The closest beach villa to the Project site is located approximately 100 meters to the west. The public beach area is located approximately 275 meters west from the Project site. The closest residential zone outside the boundaries of the Balneario de Boquerón and Vacation Center complex is located approximately 1.1 km to the north just by the main entrance of the Balneario at road PR-101. The high schools Carmen Vignalis Rosario and Monserrate Leon Irizarry are the closest schools (Quiet Zone) and are located approximately 1.7 km north of the Project site.

3.9.2. ENVIRONMENTAL CONSEQUENCES

3.9.2.1. No Action Alternative

Under the No Action Alternative, impacts associated to noise from construction activities would not result. Noise levels would be similar to current conditions since the type and intensity of CBP operations, and associated noise from the use of vehicles and boats, would continue in the area.

3.9.2.2. Proposed Action

Construction - Noise levels would temporary increase in the Project area and its vicinity as result of the use of heavy equipment and machinery during construction of the Proposed Action. Several factors may influence the noise levels during construction activities, including the number and type of equipment used, equipment location, and duration of use. Typical noise emission levels for common construction equipment that may be used at the site during the proposed construction activities are presented in **Table 5**. Typical construction equipment could produce noise emissions up to 91 dBA. If structural deep-driven foundations are required, noise emissions levels during pile installation could increase up to 94 dBA.

The Project area (emission source) can be classified as Zone II (Commercial), the immediately adjacent receptors at the beach and recreational areas as Zone II (Commercial), and the beach villas as Zone I (Residential). The applicable noise regulatory limits (diurnal) per EQB's

regulation are 65 dBA and 70 dBA for Zone I and Zone II receptors, respectively. During construction activities, the noise level (diurnal) would be anticipated to reach up to 78 dBA at the closest beach villa receptor located west (100 m) and up to 69 dBA at the closest public beach area located west (275 m) from the proposed Project site. Noise levels (diurnal) associated to the construction activities at the Project site would be anticipated to reach 57 dB(A) at the closest residential receptors located outside the Balneario de Boquerón.

TABLE 5. NOISE EMISSION LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	L_{max} @ 50 feet dB(A)
Backhoe	80
Concrete Mixer Truck	85
Concrete Pump Truck	82
Dump Truck	84
Grader	85
Roller	85
Soil Mix Drill Rig	80
Paver	85
Impact Pile Driver	95
Vibratory Pile Driver	95

Source: FHWA Highway Construction Noise Handbook (2006)

It should be noted that the predicted noise levels are conservative and represent the worst-case scenario in terms of noise emission. Expected noise levels during construction of the Proposed Action would be lower during most of the time.

Although regulatory noise limits could be exceeded during construction activities at the closest beach villa receptor, noise emissions would be temporary and intermittently produced. Noise from the construction of the Proposed Action would have minor effects on the public beach area and residential zones outside the Balneario de Boquerón. Coordination should be made with the Puerto Rico National Parks Company to keep the villas closest to the Project site unoccupied during installation of the deep-driven piles as part of the construction activities. In addition, construction activities could be coordinated to occur during low season.

Operation - During operation of the New Marine Facility, noise emissions would result from the use of vehicles and boats, and the occasional operation of equipment such as backup electrical generator. Noise emissions during operation of the facility would be similar to current conditions and would not affect background noise levels in the area.

3.10. UTILITIES AND INFRASTRUCTURE

3.10.1. AFFECTED ENVIRONMENT

As previously mentioned, the Puerto Rico National Parks Company granted permission to CBP Mayaguez Marine Unit to operate from a 0.32-acre parcel located within Balneario de Boquerón in Cabo Rojo. Presently, all utilities are provided from existing service mains located within the Puerto Rico National Parks Company complex. According to the permit of use for the premises, CBP will be responsible for all utilities used for its facilities and the Puerto Rico National Parks Company will provide and install separate meters for the utilities on the premises.

3.10.1.1. Water System

The water system in the Project area connects to the Puerto Rico Aqueduct Sewer Authority's (PRASA) Betances Filtration Plant. The plant has a 1.0 million gallon per day (MGD) capacity and is located in the Betances Ward in the Poblado de Boquerón. The transmission system near the area of the Project consists of 16-inch diameter transmission pipes that are located at the intersection of PR-300 and PR-303.

3.10.1.2. Wastewater System

The wastewater system in the Municipality of Cabo Rojo is limited and only serves the urban zone and most of the Puerto Real, Boquerón, and Joyuda sectors. The rest of the municipality depends on private septic tanks. The wastewater system is connected to PRASA's Mayagüez Regional Wastewater Plant that has a capacity of 22.5 MGD. The plant serves the municipalities of Cabo Rojo, Hormigueros, Añasco y Mayagüez.

3.10.1.3. Electrical Distribution Systems

The Cabo Rojo electrical system is part of the Yauco-San German distribution system, consisting of 38 kV lines along the Southwestern Region of Puerto Rico. The closest electrical distribution substation to the Project area is located in PR-103 in the Boquerón Ward.

3.10.1.4. Solid Wastes

It is estimated that approximately 17 direct jobs would be generated during the construction phase of the Project, which is estimated to last approximately 12 months. The construction workers will generate approximately 661 pounds per week (2.9 cubic yards) of solid waste. Construction activities have the potential to generate approximately 54,000 pounds of construction-related wastes for the duration of the construction. During operation of the proposed facility, solid waste generation is estimated to be 389 pounds per week (1.7 cubic yards). Solid waste containers will be located in the construction area. Solid wastes will be transported in covered trucks/vehicles to a recycling facility or to an authorized solid waste facility for final disposal. The solid waste management facility (landfill) closest to the Project area is located in the Municipality of Cabo Rojo.

Once the new building is completed, the temporary office trailers could be donated to local government for other uses or they will be dismantled and its components segregated for reuse, recycle, or disposal in an authorized facility.

3.10.2. ENVIRONMENTAL CONSEQUENCES

3.10.2.1. No Action Alternative

Under the No Action Alternative, there would be no impacts to local utilities because no additional energy and water demands associated with a new facility would occur.

3.10.2.2. Proposed Action

Potable water, sanitary sewer, and electrical service connections would be required for operation of the new marine facility. The Proposed Action would have a potable water demand and sanitary discharge estimated in approximately 1,100 gallons per day (gpd), and an energy demand of approximately 150 KVA.

The Proposed Action will meet the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings, and as such, will be designed and operated in a sustainable manner with focus on energy efficiency and water conservation.

The existing infrastructure in the area has the capacity to service the Proposed Action. Water and energy in the project area are supplied from available infrastructure. At present time, there are no separate utilities meters for the CBP facility, thus, no data are available for current water and energy demands. It can reasonable be assumed that water and energy demands will be similar or less than current conditions, considering the implementation of energy efficient and water conservation measures into the design of the new proposed facility. Coordination with Puerto Rico National Parks Company and local infrastructure agencies will be required during the final design and construction stages for connection point locations and compliance with local codes and specifications.

Management and disposal of solid wastes and recyclables materials during the construction and operational phases of the Proposed Action will be performed in accordance with the following state regulations (as applicable):

- Law for the Reduction and Recycling of Solid Wastes (Law Num. 70 of 1992)
- Regulation for the Reduction, Reuse, and Recycling of Solid Wastes (Regulation Num. 6825, 2004)
- Joint Regulation for Evaluation and Issuance of Permits Related to Development and Land Use (March 2015)

3.11. ROADWAYS AND TRAFFIC

3.11.1. AFFECTED ENVIRONMENT

The Municipality of Cabo Rojo connects to the municipalities of the South and North regions of Puerto Rico mainly through state road PR-2. The main roads of the Municipality of Cabo Rojo are PR-100, PR-101, and PR-102. Access to the proposed Project area is from the main internal road of the Balneario de Boquerón that is accessed from PR-101 km 18.5.

3.11.2. ENVIRONMENTAL CONSEQUENCES

3.11.2.1. No Action Alternative

Under the No Action Alternative, no changes in traffic patterns or volume from construction activities and operation of a new marine facility would occur. Roadways and traffic conditions will continue to be influenced by current uses in the Project area.

3.11.2.2. Proposed Action

Construction-related activities would cause an increase in local traffic from construction equipment, trucks, and construction personnel vehicles. The increase in traffic would be temporary, caused by construction equipment, and is not expected to cause an adverse impact on existing road conditions and traffic of the area. An increase in traffic is not foreseen in the area from employee vehicles during operation of the proposed facility since they already use the local roads to access the existing Mayaguez Marine Unit at the Project site. The roadways network and road access are adequate to service the Project area, thus no adverse impacts from the Proposed Action are foreseen.

3.12. HAZARDOUS MATERIALS

3.12.1. AFFECTED ENVIRONMENT

Specific environmental statutes and regulations govern hazardous material and hazardous waste management activities at federal operations. For the purpose of this analysis, the terms hazardous waste, hazardous materials, and toxic substances include those substances defined as hazardous by the Comprehensive Environmental, Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), the Spill Prevention, Control, and Countermeasures Rule, Department of Transportation Hazardous Materials 181 Regulation, and the TSCA. In general, they include substances that, because of their quantity, concentration, or physical, chemical, or toxic characteristics, may present moderate danger to public health or welfare or the environment when released into the environment.

3.12.2. ENVIRONMENTAL CONSEQUENCES

3.12.2.1. No Action Alternative

Under the No Action Alternative, no new hazardous materials or wastes would be generated.

3.12.2.2. Proposed Action

The Project does not include the installation of underground or above ground fuel storage tanks as part of its operation. However, minor amounts of hazardous materials such as rags, cleaning solvents, and a limited amount of petroleum products would need to be stored. In addition, the Project's operational phase would generate hazardous materials during maintenance activities that may include used oil, oil filters, gas filters, and refrigerant. There could be negligible temporary impacts due to increased amounts of hazardous materials being onsite during construction. These could be, but are not limited to, diesel fuel, gasoline, paint, adhesives, and solvents. The impact would be an increased spill potential. Hazardous materials associated with construction equipment would be used in accordance with federal, state, and local regulations. Any spills from construction activities would be immediately contained and disposed of properly.

Reasonable containment and control of solid waste generated from, and hazardous substances used in construction activities would be employed. All spills or releases of hazardous materials, pollutants, or contaminants would be handled in accordance with measures outlined in a spill prevention and response plan.

3.13. AESTHETIC AND VISUAL RESOURCES

3.13.1. AFFECTED ENVIRONMENT

Viewshed is defined as the natural environment that is visible from one or more viewing points. Aesthetic resources consist of the natural and man-made landscape features that appear indigenous to the area and give a particular environment its visual characteristics.

The visual setting in the immediate vicinity of the Project area consists of mangrove trees, palm trees, recreational one- and two-story buildings, with two neighboring law enforcement agency facilities that include several piers and a heliport. The viewshed starting from the Project area includes vegetation and Balneario de Boquerón's developed recreational one- and two-story facilities (beach villas) on the west. Security agency (DNER and FURA) structures and parking areas are also part of the viewshed on the south, as well as the National Parks Company facilities on the north end. East and southeast of the Project area the visual landscape consists of the waters of Caño Boquerón as well as several piers and aquatic uses.

3.13.2. ENVIRONMENTAL CONSEQUENCES

3.13.2.1. No Action Alternative

Under the No Action Alternative, effects to aesthetic and visual resources would remain unchanged.

3.13.2.2. *Proposed Action*

Actions that cause the permanent loss of the characteristics that make an area visually unique or sensitive would be considered to cause a major adverse impact. The construction of the new marine facility would not directly affect the existing visual setting from the periphery towards the site or from the Project area toward the surrounding viewshed. Furthermore, the proposed action does not interfere with, or change the existing uses and visual setting. The Proposed Action is a small-scale Project with negligible visual impacts on the surrounding viewshed, and as such, it does not have the potential to diminish the surrounding aesthetic value. Therefore, implementation of the Proposed Action would result in negligible impacts on the viewshed and aesthetic qualities of the Project area.

3.14. SOCIOECONOMIC

3.14.1. *AFFECTED ENVIRONMENT*

This section describes relevant social and economic characteristics of the Municipality of Cabo Rojo and Puerto Rico. The Municipality of Cabo Rojo is part of the Western Region of Puerto Rico. The Region has an area of 1,433.8 km², approximately 16.2% of the total area of Puerto Rico. The Municipality of Cabo Rojo is delimited in the north by the municipalities of Mayaguez and Hormigueros, in the northeast with San Germán, in the east with Lajas, and in the west, the Caribbean Sea. Cabo Rojo has an area of 187.1 km², the largest territorial area among the municipalities of the Western Region of Puerto Rico. Its territory is divided into 9 wards: Guanajibo, Miradero, Bajura, Monte Grande, Pedernales, Llanos Tuna, Llanos Costa, and Boquerón. The socioeconomic characteristics of Cabo Rojo and Puerto Rico are summarized in **Table 6**.

TABLE 6. SOCIOECONOMIC PROFILE: CABO ROJO AND PUERTO RICO

Variables	Cabo Rojo	Puerto Rico
Population		
Population (2010)	50,917	3,725,789
Population (2000)	46,911	3,808,610
Percent change	9%	-2%
Ethnicity		
Hispanic or Latino	50,376	3,688,455
Non Hispanic or Latino	541	37,334
Race		
White	42,815	2,825,100
African American	2,758	461,498
American Indian and Alaska Native	143	19,839
Others	5,201	419,352
Educational Attainment (2013)		
High school graduate or higher (percent)	67%	71%
Employment Status (2013)		
(Population over 16 years)		
In Labor Force	14,327	1,348,444
Employed	12,575	1,100,620
Unemployed	1,752	247,824
Not in Labor Force	26,444	1,576,936
Income (2013)		
Mean Household Income (dollars)	26,177	30,510
Per capita Income (dollars)	9,257	11,068
Population below poverty level (past 12 months) (percent)	49%	45%
Housing (2010)		
Total Housing Units	30,206	1,636,946
Occupied (percent)	66%	84%
Vacant (percent)	34%	16%

Sources: U.S. Census, 2000, 2010, and the 2009-2013 American Community Survey – 5yr Estimates (U.S. Census Bureau).

3.14.1.1. Population

During the last decade, the Municipality of Cabo Rojo experienced a population increase of 9% while the general population of Puerto Rico declined by 2%. In 2010, the Municipality of Cabo Rojo population was 50,917. According to the 2010 U.S. Census, 99% of the population is of Hispanic or Latino origin (ethnicity). In terms of race, 84% reports being Caucasian, 5% African American, and 10% of other races. As shown in **Table 6**, the percent of persons age 25 or above with a high school degree or higher is 67% for the Municipality of Cabo Rojo and 71% for Puerto Rico.

3.14.1.2. Employment, Income and Poverty Levels

The total estimated labor force in the Municipality of Cabo Rojo in 2013 was 14,327, of which 12,575 were employed. As of October 2014, data from the Department of Labor and Human Resources reported that the unemployment rate of Cabo Rojo was 13.1% while the Puerto Rico unemployment rate was 14.0%.

The mean household income (2013) for the Municipality of Cabo Rojo was \$26,177 and for Puerto Rico was \$30,510. Per capita income is \$9,257 for Cabo Rojo and \$11,068 for Puerto Rico. According to the American Community Survey Data, poverty levels in Cabo Rojo (49%) are higher in comparison with the levels observed in Puerto Rico (45%). Data on housing units shows a significantly higher percent of vacant units in Cabo Rojo (34%) than the rates observed for Puerto Rico (16%). This could be related to a higher number of second home and vacation rental properties within the Municipality of Cabo Rojo.

3.14.2. ENVIRONMENTAL CONSEQUENCES

3.14.2.1. No Action Alternative

No socioeconomic impacts in the region would be expected under the No Action Alternative.

3.14.2.2. Proposed Action

The construction of the Proposed Action is expected to have a beneficial economic impact to the regional and local economy due to temporary employment and increase in sales from construction-related services, materials, and supplies. The construction of the facility is estimated at a cost of approximately \$1.5 million and the duration of the construction phase is estimated to last approximately 12 months. It is estimated that approximately 17 direct jobs would be generated during the construction phase. Employment generated by construction activities would result in additional indirect wages paid and indirect expenditures.

3.15. ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN

This section includes an environmental justice analysis in compliance with the following Executive Orders (EO):

- **Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations (February 1994).** EO 12898 requires that each federal agency make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its program, policies, and activities on minority and low-income populations.
- **Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks (April 1997).** EO 13045 requires each Federal agency to identify and assess environmental health risks and safety risks that may disproportionately affect children and “ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

3.15.1. AFFECTED ENVIRONMENT

The environmental justice analysis process requires the identification of minority and low income populations that might be disproportionately affected by implementation of the Proposed Action in comparison with the general population. Previously in **Section 3.14**, the socioeconomic characteristics of the Municipality of Cabo Rojo (where the Project is being proposed) were described and compared to conditions in Puerto Rico. It is worth mentioning that in the case of Puerto Rico, all Puerto Ricans are considered a minority group, therefore it is not necessary to assess differences by racial or ethnic factors due to the homogeneity of the population in this aspect.

The Municipality of Cabo Rojo appears to have some disadvantages in socioeconomic terms in comparison with the general population of Puerto Rico. Some of the variables that reflect some economic disadvantages are educational attainment, low household and per capita income,

poverty levels, and high rates of vacant housing units. However, the unemployment rate in Cabo Rojo (13.1%) is slightly lower than the rate reported for Puerto Rico (14%).

3.15.2. *ENVIRONMENTAL CONSEQUENCES*

3.15.2.1. *No Action Alternative*

Land uses at the Project area will remain the same and CBP will continue operating from temporary facilities to conduct their patrol duties within the area.

3.15.2.2. *Proposed Action*

Implementation of the Proposed Action would not result in significant adverse environmental impacts that could affect local populations or the environment. The Proposed Action will be located on previously developed lands and at considerable distance from communities and schools areas. The Proposed Action would not result in disproportionately high and/or adverse human or environmental effects on children, minorities, or low-income populations. Furthermore, the construction of the Proposed Action is expected to have a positive impact to local economy due to creation of jobs and increase in sales (direct and indirect) during the construction period. Also, continued operation of the Mayaguez Marine Unit from the area would have a positive social effect in terms of security and law enforcement in the Western Region of Puerto Rico.

3.16. SUSTAINABILITY

3.16.1. AFFECTED ENVIRONMENT

CBP is committed to apply sustainable development concepts to the planning, design, and construction of new facilities and major alterations, as well as maintaining and operating its facilities in a sustainable manner. In 2006, the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (MOU) was signed by numerous federal agencies, including DHS. Consistent with and in addition to Federal policy, statutes, executive orders, and supplemental agency policies and guidance, the Parties to this MOU collaboratively seek to establish and follow a common set of sustainable Guiding Principles for integrated design, energy performance, water conservation, indoor environmental quality, and materials aimed at helping Federal agencies and organizations (<http://www.wbdg.org/references/mou.php>):

- Reduce the total ownership cost of facilities
- Improve energy efficiency and water conservation
- Provide safe, healthy, and productive built environments
- Promote sustainable environmental stewardship

Furthermore, Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management (January 24, 2007), proposes that federal agencies conduct their environmental, transportation, and energy-related activities in an environmentally, economically, and fiscally sound and sustainable manner. EO 13423 requires all Federal agencies to ensure new construction and major renovation comply with the sustainable Guiding Principles developed under the MOU, among other sustainable practices.

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System of the U.S. Green Building Council (USGBC) is a self-assessment tool to help apply the principles of sustainable development. LEED is designed for rating new and existing buildings and awards points based on the number of credits earned. The LEED rating system credits are organized into six categories: sustainable sites; water efficiency; energy and atmosphere; materials and resources; indoor environmental quality; and innovation and design. The LEED credits in these six categories encompass the intent of all five areas of the Sustainable Building Guiding

Principles and additionally, consider factors that impact the land and surrounding environment upon which the facility is sited (CBP, 2010).

The new facility will be designed to comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable. Some of the project features that would be considered during the final design stage and construction include:

- Implementation of a Sediment and Erosion Control Plan for all construction activities.
- Stormwater system with devices to remove suspended solids from runoff prior to discharge to the sea.
- Maximize open space.
- Light-colored roofing materials or vegetation will be used on the main administrative building roof area and 50% of the hardscape will be either permeable pavement or light-colored to reduce the heat island effect. .
- Interior and exterior lighting systems will be designed to reduce light pollution.
- Water use reduction through the use of water efficient fixtures, a rainwater collection system for water reuse, planting of native and adaptive species with reduced irrigation needs, among others.
- Energy efficient design, including installation of a photovoltaic system to provide at least 15% of the facility's energy.
- Recycling storage area.
- Indoor air quality considerations, including the use of low emitting materials.
- Zero CFC-based refrigerants in HVAC&R systems.

3.16.2. ENVIRONMENTAL CONSEQUENCES

3.16.2.1. No Action Alternative

Under the No Action Alternative, the use of sustainable design would not be implemented.

3.16.2.2. Proposed Action

The Proposed Action will be designed and constructed in compliance with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings. The Proposed Action would result in long-term beneficial impacts to the environment from operating a facility that incorporates sustainable practices, reducing operating costs through energy efficient and water use reductions.

3.17. CLIMATE CHANGE

3.17.1. AFFECTED ENVIRONMENT

Global climate change refers to a change in the average weather on the earth. Greenhouse gases (GHG) are those that trap heat in the atmosphere. They include water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), fluorinated gases including chlorofluorocarbons (CFC) and hydrochlorofluorocarbons (HFC), and halons, as well as ground-level O₃ (California Energy Commission, 2007). The major GHG-producing sectors in society include transportation, utilities (*e.g.*, coal and gas power plants), industry/manufacturing, agriculture, and residential.

The Interagency Climate Change Adaptation Task Force issued the Executive Order 13514-Federal Leadership in Environmental, Energy, and Economic Performance, signed on October 5, 2009. EO 13514 directs Federal agencies to reduce GHG emissions and address climate change in NEPA analysis.

Executive Order 13652 of September 30, 2013 mandates modernizing Federal Programs to Support Climate Resilient Investment and to support the efforts of regions, States, local communities, and tribes, all agencies, consistent with their missions and in coordination with the

Council on Climate Preparedness and Resilience (<http://www.whitehouse.gov/the-press-office/2013/11/01/executive-order-preparing-united-states-impacts-climate-change>).

To that effect, the Puerto Rico Coastal Zone Management Program from the DNER serves as Executive Secretariat of the Puerto Rico Climate Change Council (PRCCC). The PRCCC was convened in November 2010 to assess Puerto Rico's vulnerabilities and recommend strategies to respond to changes. Based on the results of PRCCC's working groups, the PRCCC concluded that Puerto Rico's climate is changing and coastal communities of Puerto Rico, critical infrastructure, wildlife and ecosystems are all vulnerable to various impacts associated with changes in global, regional, and island weather and oceanographic conditions. Some of PRCCC relevant conclusions follow:

Temperature - Over the 20th century, average annual air temperatures in the Caribbean islands have increased by more than 0.6°C or 1.0°F. In Puerto Rico, station analyses show significant increases in annual and monthly average temperatures and a rise of 0.012 °C/yr. to 0.014 °C/yr. (0.022 to 0.025 °F/yr.) was observed from 1900 to present.

Sea Level - Because of the already observed sea level rise as well as weak shoreline management practices, coastal erosion is causing a retreat of the coastline of up to one meter per year (1.0 m/yr.) in some sectors of Puerto Rico. If the observed Puerto Rico sea level rise trend continues linearly, with no acceleration in rate, by 2100 the sea level around Puerto Rico will have risen by at least 0.4 meters. Based on this information and future projections for sea level rise the PRCCC recommends planning for a rise of 0.5-1.0 meters by 2100 (PRCCC, 2013).

The U.S. Army Corps of Engineers (USACE) conducted an analysis for the PRCCC to project possible future sea level rise for the North and South coasts to 2165 (PRCCC, 2013). The USACE sea level rise estimates ranges from 0.07 to 0.57 m above current mean sea level (msl) by the year 2060 and between 0.14 and 1.70 m above current msl by the year 2110 (PRCCC, 2013).

3.17.2. ENVIRONMENTAL CONSEQUENCES

3.17.2.1. No Action Alternative

Under the No Action Alternative, the Project would not be developed, so no direct impacts would occur. Nevertheless, with this alternative CBP will continue operating from temporary facilities for patrol duties within the area.

3.17.2.2. Proposed Action

The Proposed Action will require the use of heavy equipment during its construction. The construction equipment used will generate a temporary negligible amount of emissions of greenhouse gases into the atmosphere since the equipment to be used will have efficient emission control equipment. Furthermore, these point sources will operate only during the daytime hours and in an intermittent manner. In addition, the Proposed Action will be designed and constructed in compliance with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings thus incorporating sustainable practices to reduce impacts to the environment.

Based on the expressed measures above, the proposed marine facility would cause negligible long-term impacts on greenhouse gas emissions considering the impacts from the construction and operation of the proposed Project. The potential for sea level rise caused by the effects of climate change will be considered in the Project final design.

3.18. HUMAN HEALTH AND SAFETY

3.18.1. AFFECTED ENVIRONMENT

Generally, human health effects can occur from accidents and exposure to contaminants and environmental conditions. For the purpose of NEPA, an accident can be viewed as an unplanned event or sequence of events that results in undesirable consequences. Accidents can occur due to equipment malfunction, human error, or natural phenomena (Eccleston, 2012).

The Project is located in previously improved land with no known contamination issues. Immediate surrounding areas are used as a base of operations for law enforcement agencies, and public and recreational uses.

3.18.2. ENVIRONMENTAL CONSEQUENCES

3.18.2.1. No Action Alternative

Under the No Action Alternative, impacts, either beneficial or adverse, on human health and safety due to construction activities would not occur. Health and safety risks associated with current operations at the site would continue.

3.18.2.2. Proposed Action Alternative

The construction of the proposed marine facility has the potential to create human health hazards. Safety buffer zones would be designated around the entire construction site to ensure public health and safety. Construction would occur during daylight hours.

In compliance with Occupational, Safety and Health Administration (OSHA) regulations, there would be a Right-to-Know station located in a high-visibility area, where chemical data are accessible by construction and CBP personnel. As mentioned previously, a spill response plan would also be implemented that describes planning, prevention, and control measures to minimize impacts resulting from a spill of any hazardous materials. Furthermore, an on-site emergency plan would be prepared to protect the public health, safety, and environment on and off the proposed site in the case of a dangerous natural phenomenon or industrial accident relating to or affecting the project. The construction contractor shall prepare the plan and be

responsible for implementing the plan with its operations team and emergency response support team. The plan would describe the emergency response procedures to be implemented during various situations that might affect the surrounding environment and construction personnel during construction as well as CBP personnel during the operation phase of the Project. The emergency plan should cover a number of events that may occur at or near the project site by natural causes, equipment failure, or by human error. Such as personnel injury, construction emergencies, project evacuation, fire or explosion, and extreme weather conditions.

The project contractors and operations personnel would receive regular emergency response and safety training to assure that effective and safe action would be taken to reduce and limit impact during an emergency at the Project site. CBP's Occupational Safety and Health Program will be implemented, as applicable, to the operations of the new marine facility to protect the safety and health of its workers.

Considering previously stated measures, there is little potential for CBP Marine Unit personnel or private contractors to be at risk from a human health and safety aspect in this setting. Impacts to the human health and safety from implementation of the Proposed Action are anticipated to be negligible.

4. CUMULATIVE IMPACTS

A cumulative impact is defined as the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of which agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time (40 CFR §1508.7).

Components of a cumulative impact analysis include definition of a specific area in which effects of the proposed project would occur, expected impacts from the Proposed Action, other past, proposed, and reasonably foreseeable future actions that have affected or could be expected to affect the same area, and expected impacts from these other actions.

As previously discussed in this EA, the Proposed Action would be located on public lands within the Balneario de Boquerón and Vacation Center in the Boquerón Ward of the Municipality of Cabo Rojo. This area has been affected by previous development to accommodate existing facilities managed by the Puerto Rico National Parks Company as well as infrastructure including roads and utilities. In 2010, a revised Territorial (Land Use) Plan for the Municipality of Cabo Rojo was approved by the Puerto Rico Planning Board to establish zoning parameters and guide future developments in the municipality. Although the Territorial Plan is conceptual and focuses on proposed land uses not on specific projects, it serves as a guide for proposed and reasonably foreseeable future actions in the area. The Balneario de Boquerón and the project area are classified as public beach, while most of the lands near the Project area are classified as areas for preservation and conservation of resources. Since the area have been reserved for public recreational uses and natural resources protection and conservation, no major projects with potential significant environmental impacts that can contribute to adverse cumulative impacts would be expected in the study area. Nevertheless, cumulative impacts could result from minor projects compatible with the present land uses, particularly if no mitigation and protection measures are implemented.

The Proposed Action will occupy a minimal footprint in the area (0.32 acres) and no significant adverse impacts resulting from implementation of the Proposed Action have been identified through the analysis in this EA. The potential environmental disturbances associated with the Proposed Action are expected to be minimal and temporary, limited primarily to the construction phase. The mitigation measures and best management practices that would be implemented will reduce or eliminate any potential impacts to the environment. Based on the evaluation of the potential environmental impacts from the Proposed Action, impacts from past actions and historical uses, and expected impacts from future actions, it is determined that the cumulative impacts of the Proposed Action in the area would be negligible.

5. BEST MANAGEMENT PRACTICES AND PROTECTION MEASURES

No significant adverse impacts resulting from the implementation of the Proposed Action have been identified through the analysis in this EA. Mitigation measures would not be required to reduce impacts to below significance thresholds or compensation by replacing or providing substitute resources or environments as a result of implementing the Proposed Action. This chapter describes the measures that would be implemented to reduce or eliminate potential adverse impacts to the human and natural environments during construction and operation of the Proposed Action. Many of these measures have been incorporated as standard operating procedures by CBP on past projects. BMPs and protection measures are presented for each resource category potentially affected.

5.1. SOILS

Development and implementation of a Sediment and Erosion Control Plan (SECP) with the following measures:

- An effective combination of soil erosion and sediment controls will be in place prior to earth moving activities to prevent sediment from leaving the site and/or entering a stormwater drainage or receiving water such as Caño Boquerón.
- Establishment of a single stabilized entry/exit point to the site.
- During earth moving activities, disturbed soil areas will be stabilized with covers or binders. By using these controls, the exposed soils will be less likely to erode from the effects of wind or rain. Imported fill and stockpiled fill/soil are considered exposed soils and will be stabilized also with covers or binders to minimize sediment generation and transport from precipitation events.
- Installation of silt fences to form a temporary linear barrier to capture sediment by ponding and filtering stormwater runoff to allow sediment to settle out of the runoff water.

- Storm gutters and other storm drainage improvements would be installed in conjunction with construction of the new facility.
- In addition, catch basins, diversion ditches, and pipe conveyances may be necessary to handle any additional stormwater runoff. Design elements such as grass swales and landscaped features designed to help minimize runoff and soil erosion could be used.
- Implementing an inspection and maintenance program. Inspections before and after rain events, every 24 hours during extended rain events, and weekly throughout the rainy season. When necessary, corrective measures will follow inspections as part of implementing the maintenance program, such as:
 - Removing sediment trapped in sediment fences, catch drains or other areas.
 - Repairing any erosion of drainage channels; and
 - Repairing damage to sediment fences
- If necessary, a sediment trap (basin) will be developed to trap sediments temporarily.
- Re-seeding and re-establishment of vegetation on bare soil as soon as possible following construction.
- To offset potential impacts from soil compaction, highly compacted areas left after construction would be scarified and aerated.

5.2. WATER RESOURCES

Potential impacts to surface water would be minimized through the use of BMPs, and through development and implementation of Soil Erosion and Sedimentation Control Plan as described in the previous section. In addition, the following BMPs will be implemented to minimize pollutants in stormwater runoff:

- All work will cease during heavy rains and would not resume until conditions are suitable for the movement of equipment and material.
- Good housekeeping - keeping areas clean, conducting inspections regularly.
- Preventive maintenance - using drip pans under automobile and boat motors, changing automotive fluids only in designated areas. No refueling or storage will take place within 100 feet of drainages or receiving waters.

- Spill prevention, control, and countermeasures - keeping accurate inventory of potential polluting materials, protecting materials from stormwater, and making spill kits available.
- Permanent stormwater control structures would be installed to manage site runoff prior to discharge into Caño Boquerón.

5.3. FLOODPLAINS

The Proposed Action would be designed and constructed to reduce the risks of flooding, minimize threats to life and property, and minimize adverse impacts on the floodplain. Protection and mitigation measures to be implemented as part of the Proposed Action include:

- The proposed administrative building finish floor level will be elevated at least 0.3 meters (1.0 ft) above the base flood elevation.
- Implementation of Soil Erosion and Sedimentation Control Plan and stormwater pollution prevention measures to manage stormwater runoff during construction activities.
- Permanent stormwater control system would be installed to manage post-construction site runoff.
- Construction methods and practices must minimize flood-related damages.
- The final design and supporting engineering studies of the Proposed Action would give special consideration to location of the different components of the Project and required flood protection measures in compliance with PRPB Regulation No. 13.
- The sanitary sewer will be designed to prevent flood water discharges into the sanitary system.
- Solid waste disposal systems will be located in places where flood waters may not affect them.

5.4. ECOLOGICAL AND BIOLOGICAL RESOURCES

Implementation of a SECP and appropriate BMPs concerning sediment control and stormwater runoff, as described in the previous sections, would avoid and minimize potential impacts from sediments and contaminated runoff entering adjacent natural systems.

Exterior lighting will be designed and located as to avoid intrusive effects on sensitive natural areas adjacent to the Project site. Permanent exterior lighting may include low-level lights and shielded luminaries to minimize glare impacts and light pollution onto surrounding natural areas. The lighting will be designed to include controls that will allow personnel to increase the light levels during docking and other law enforcement activities to maintain a safe environment.

To avoid impacts to migratory birds, CBP will avoid construction activities if active nests are identified within or in the vicinity of the Project site. Construction activities will be avoided until nestlings have fledged or the nest fails. If activity must occur, a buffer zone around the nest will be established and no activities will occur within that zone until nestlings have fledged and left the nest area. To the extent possible, the Project landscape design will incorporate plant species typical of the coastal zone of the region and tree species that could provide food, nesting and resting areas for the endangered Yellow-shouldered blackbird.

Manatee protection measures will be implemented, such as posting signs that will warn that manatees use the area (“Manatee Area”) and limiting boat speed (“No Wake Zone”).

No dredging, placing of fill or any other material, or equipment shall occur in jurisdictional areas (Wetlands or Waters of the U.S.).

5.5. AIR QUALITY

Implementation of BMPs to control and minimize air emissions would include proper and routine maintenance of all construction equipment and vehicles to ensure air and noise emissions are within design standards, fugitive dust control measures, including applying water before/during earthwork and onto unpaved traffic areas, retention of vegetative cover on the site to the extent practical, reestablishment of new vegetative cover in disturbed areas, and imposing construction equipment/vehicle speed limits.

5.6. NOISE

Noise levels would temporarily increase in the Project area and its vicinity as result of the use of heavy equipment and machinery during construction of the Proposed Action. Construction equipment will be equipped with properly working mufflers and operating in good condition. Construction activities would be limited to the diurnal period, to the extent practicable. Coordination with the Puerto Rico National Parks Company to keep the villas closest to the Project site (closest noise receptors) unoccupied during installation of the deep-driven piles as part of the construction activities. Applicable Occupational Safety and Health Administration regulations and requirements related to noise exposure will be followed by the contractor.

5.7. HAZARDOUS MATERIALS AND CONSTRUCTION-RELATED WASTE

The following BMPs would be implemented for management of construction-related waste and hazardous waste to prevent its introduction into stormwater:

- Hazardous materials associated with construction equipment would be used in accordance with federal, state, and local regulations.
- Any spills from construction activities would be immediately contained and disposed of properly.
- Reasonable containment and control of solid waste generated from and hazardous substances used in construction activities would be employed.

- All spills or releases of hazardous materials, pollutants, or contaminants would be handled in accordance with measures outlined in a spill prevention and response plan.

5.8. HUMAN HEALTH AND SAFETY

The construction of the proposed marine unit has the potential to create human health hazards. The following measures would be implemented to minimize human health and safety hazards:

- Safety buffer zones would be designated around the entire construction site to ensure public health and safety.
- Compliance with Occupational, Safety and Health Administration (OSHA) regulations.
- A spill response plan that describes planning, prevention, and control measures to minimize impacts resulting from a spill of any hazardous materials would be implemented.
- An on-site emergency plan would be prepared to protect the public health, safety, and environment on and off the proposed site in the case of a dangerous natural phenomenon or industrial accident relating to or affecting the project.

The project contractors and operations personnel would receive regular emergency response and safety training to assure that effective and safe action would be taken to reduce and limit impact during an emergency at the Project site.

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7. ACRONYMS AND ABBREVIATIONS

APE	Area of Potential Effect
BMPs	Best Management Practices
CAA	Clean Air Act
CBP	U.S. Customs and Border Protection
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental, Response, Compensation, and Liability Act
CFC	chlorofluorocarbons
CH ₄	Methane
CO	Carbon monoxide
CO ₂	Carbon dioxide
CWA	Critical Wildlife Area
dB	decibel
dBA	A-weighted decibel
DHS	Department of Homeland Security
DNER	Department of Natural and Environmental Resources
EA	Environmental Assessment
EISA	Energy Independence and Security Act
EPA	U.S. Environmental Protection Agency
EQB	Puerto Rico Environmental Quality Board
ESI	Environmental Sensitivity Index

EO	Executive Order
FONSI	Finding of No Significant Impact
ft	feet
FURA	Puerto Rico Joint Forces of Rapid Action
GHG	Greenhouse Gases
gpd	gallons per day
HFC	hydrochlorofluorocarbons
ICP	Institute of Puerto Rican Culture
JP	Puerto Rico Planning Board (Spanish acronym)
km	Kilometers
kV	Kilovolts
LEED	Leadership in Energy and Environmental Design
msl	mean sea level
m	meters
N ₂ O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO ₂	Nitrogen dioxide
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
O ₃	Ozone

OAM	Office of Air and Marine
OGPe	Office of Permits Management
OSHA	Occupational, Safety and Health Administration
OSTP	Office of Science and Technology Policy
Pb	Lead
PM ₁₀	Particulate matter 10 microns
PM _{2.5}	Particulate matter 2.5 microns
PRASA	Puerto Rico Aqueduct and Sewer Authority
PRCCC	Puerto Rico Climate Change Council
PRCZMP	Puerto Rico Coastal Zone Management Program
PREPA	Puerto Rico Electric Power Authority
PRPB	Puerto Rico Planning Board
RCRA	Resource Conservation and Recovery Act
SECP	Sediment and Erosion Control Plan
SHPO	State Historic Preservation Office
SO _x	Sulfur oxides
SSURGO	Soil Survey Geographic Database
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGBC	U.S. Green Building Council
USGS	U.S. Geological Service
µg/m ³	Micrograms per cubic meter

8. LIST OF PREPARERS

This Environmental Assessment was prepared by SALO Engineering, PSC under the direction of CBP and GSA. The following people were primarily responsible for preparing the document:

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