Attachment 1

USACE request for initiation of expedited informal consultation

Date: August 11, 2025

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
4400 PGA BOULEVARD, SUITE 500
PALM BEACH GARDENS, FLORIDA 33410

August 11, 2025

Regulatory Division
South Branch
Palm Beach Gardens Permitting Section
SAJ-2004-12518 (SP-AAZ)

Mr. David Bernhart
Assistant Regional Administrator for Protected Resources
Southeast Regional Office
National Marine Fisheries Service
263 13th Avenue South
St. Petersburg, Florida 33701
Via email: nmfs.ser.esa.consultations@noaa.gov

Re: Request for Initiation of expedited informal consultation under Section 7(a)(2) of the Endangered Species Act for Summers End (Coral Bay) SAJ-2004-12518.

Dear Mr. Bernhart,

Reference is made to Department of the Army (DA) permit application number SAJ-2004-12518 (SP-AAZ) submitted by The Summer's End Group, LLC for the proposed construction of a private commercial marina referred to as Coral Bay. The proposed project would require a permit from the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act (33 U.S.C. §1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403).

The marina is proposed to be located within Coral Harbor, Estate Carolina, Coral Bay, St. John, U.S. Virgin Islands. Specifically, the proposed project would be located at coordinates 18.343277° North, -64.714555° West. The application has been assigned the file number SAJ-2004-12518 (SP-AAZ). We have determined that the proposed activity may affect but is not likely to adversely affect the federally-listed species and critical habitat included in the table below. Therefore, the Corps requests initiation of informal consultation under Section 7(a)(2) of the Endangered Species Act (ESA) for the Summer's End Group, LLC. Our supporting analysis is also provided below.

Pursuant to our request for expedited informal consultation, the Corps is providing, enclosing, or otherwise identifying the following information:

- A description of the action to be considered;
- A description of the action area;

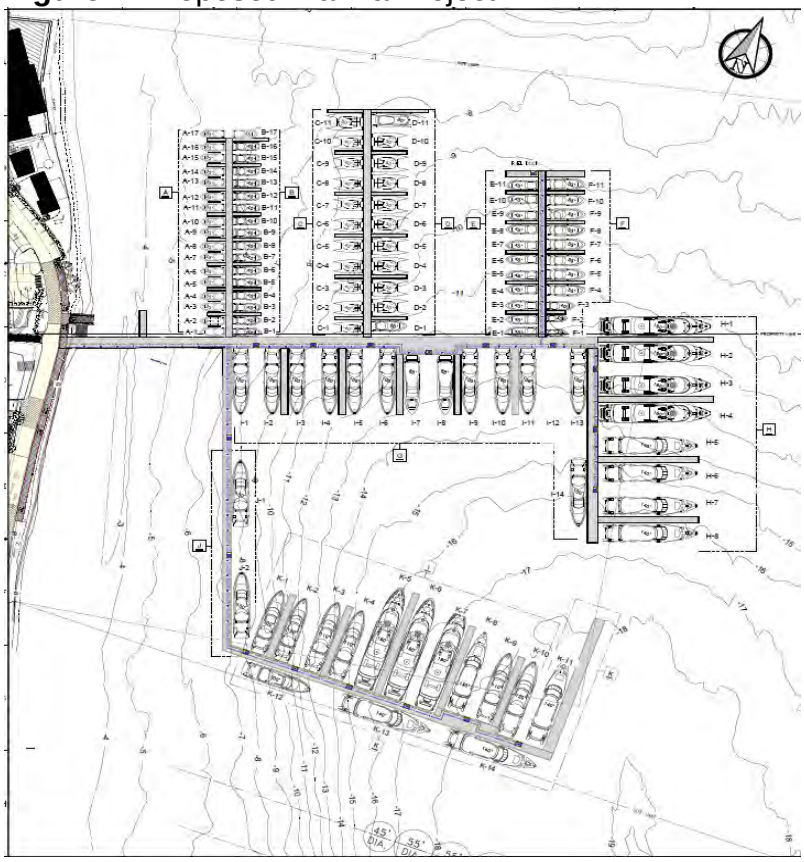
- A description of any listed species or designated critical habitat (DCH) that may be affected by the action; and
- An analysis of the potential routes of effect on any listed species or DCH.

1. PROPOSED ACTION

a. Project Description

The proposed project would construct a private commercial marina with 127 boat slips within Coral Harbor at Estate Carolina, Coral Bay, St. John, U.S. Virgin Islands. The proposed marina would support 115 vessels while there would be 12 single moorings southeast of the marina for a total of 127 vessels associated with the marina. The project includes the installation of 10 recreational buoys and the installation of 7 informational signs. The project also includes the construction of mangrove islands in three separate areas within Coral Bay, debris clean-up in Coral Bay, the relocation of four (4) corals near the proposed dock, as well as the outplanting of 3,000 coral ESA species. Project plans of the marina are provided below in Figure 1 (Attachment 1).

Figure 1. Proposed Marina Project.



In evaluating the project components under the Jacksonville District Biological Opinion (JAXBO), the proposed project includes the installation of a new pile supported

structure to construct the marina (Activity A2), including pile supported signs (Activity A2), the repair of outfall structures within the uplands (Activity A4), aquatic habitat enhancement, establishment and restoration (Activity A7), and marine debris removal (Activity A9). The proposed action does not fall under JAXBO because the total number of proposed vessels exceeds 50 boat slips.

The following section describes the components of the proposed project and the associated construction methods and details:

Construction of the Marina:
The applicant proposes to construct a 67,832.63 square-foot (1.557 acres) fixed-dock marina consisting of 127-slips for vessels of varying lengths estimated from 30 feet to over 160 feet in length. Approximately 867 steel pilings would be installed, of which 470 pilings would be 14-inch steel pipes filled with concrete; and 397 pilings would be 18-inch steel pipes filled with concrete. The project includes the installation of twenty-two (22) boat lifts along the west side of the lateral north pier closest to the shore to accommodate vessels up to 35 feet in length.

The docks, finger piers, and walkways of the marina would have grated decking with a minimum of 43% open space. The docks are proposed to be 10 to 16 feet in length while the finger piers on the north side of the central dock would be 5-feet, 1 inch in width. The proposed height of the structures is proposed at 4' above the mean high water line (MHWL) for the north club and 5' above MHWL for the south club. Average water depths within the marina footprint would be approximately 12 feet. The larger vessels with deeper drafts are all in waters no shallower than 7 to 8 feet and will have between 3 to 4 feet of clearance from the seafloor. Mooring piles would not be installed to operate this marina because each slip includes a full-length dock finger to support each vessel. Construction of the marina would not require dredging of any areas within Coral Harbor. The existing navigation channel will be utilized for the ingress/egress to the marina. There is an existing rip-rap revetment along the southern shoreline of Coral Harbor, which would not be modified or affected as part of the proposed project.

The marina would provide facilities for fueling, solid waste disposal, potable water and electrical power supply and sewage pump-out services. The uplands on Parcels 10-17, 10-18, 10-19, 10-41 would be developed. Many of the existing buildings would be renovated while some new buildings would be constructed. The upland redevelopment would provide needed services for the marina and community including off-street parking; a restaurant; customs and border protection office; a marina office; a marina engineering office; a marina security office; crew shower and locker facilities; apartments to support marina management; a fish and farmers market; additional commercial space; facilities for the fueling; solid waste disposal; hazardous waste disposal; potable water; shore power supply; and waste water pump-out services. No boat maintenance facilities will be associated with this upland redevelopment. The

proposed upland redevelopment components would not require impacts to waters of the United States (U.S.).

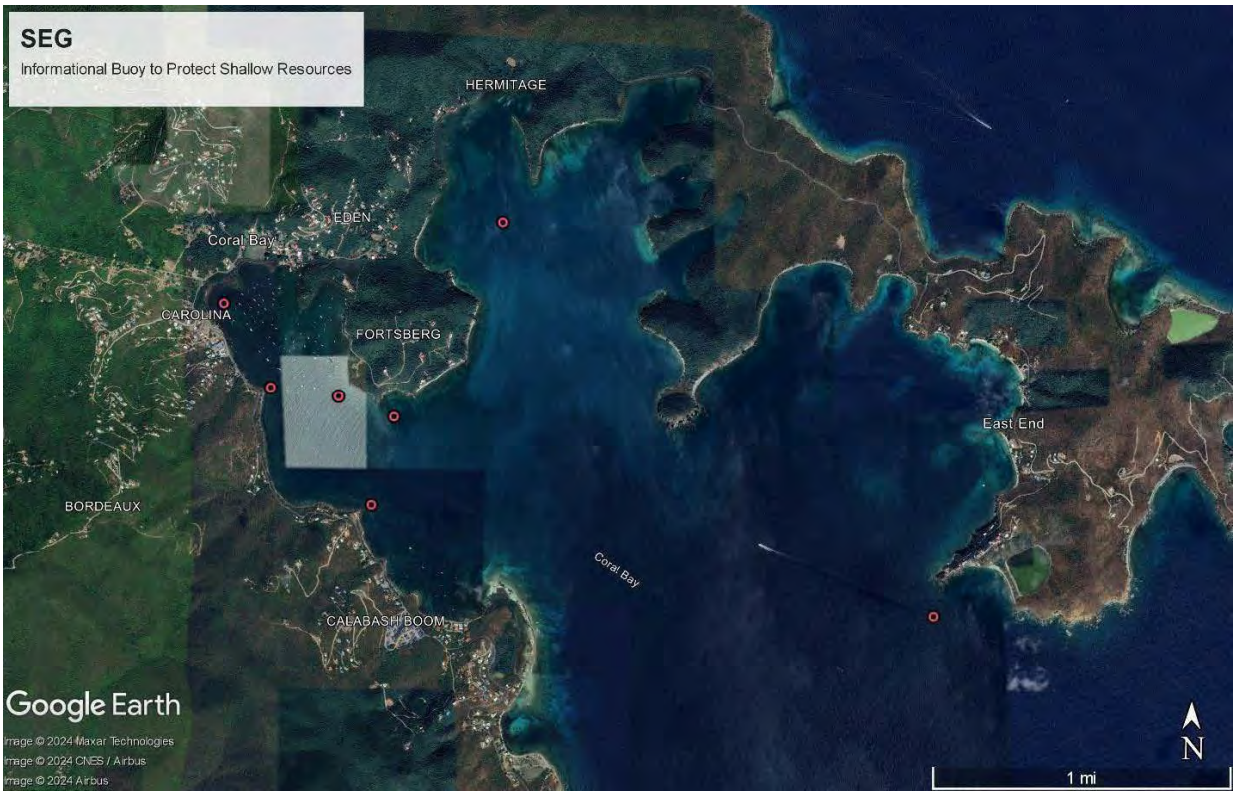
The applicant has agreed to inspect and maintain fifty (50) stormwater features in the uplands adjacent to the marina (Attachment 2). The stormwater features would be inspected for trash and debris monthly while the marina is in operation. Maintenance activities include actions such as removal of accumulated sediment, repair structural damages, repair any blocked conveyances, stabilize eroded areas, remove accumulated vegetation, etc. Each of the 50 stormwater features are in uplands. No in-water work would be conducted.

In addition, a boardwalk (4,356 square feet) would be constructed in the uplands along the shoreline, which would provide access from land to the docks and walkways of the marina. The boardwalk would be constructed above the mean sea level, without impacting waters of the U.S. The boardwalk would connect to the main docking structure of the marina through a 45-foot 10-inch long and 16-foot-wide aluminum ramp. A 10-foot by 40-foot dinghy dock would be located midway between the shoreline and the first lateral pier of the marina.

Installation of Ten Recreational Mooring Buoys:
The project includes the installation of ten (10) 12-15” recreational mooring buoys to moor larger vessels in the 150-foot range. Each mooring buoy would be secured to the marine bottom using three (3) helmken embedment auger type anchors with 10-foot embedment depth and properly floated lines. The applicant is coordinating with the Virgin Islands Department of Planning and Natural Resources, specifically through the Division of Fish and Wildlife (DFW) to determine the appropriate location of the buoys. The buoys would be installed at locations that would minimize impacts to aquatic resources.

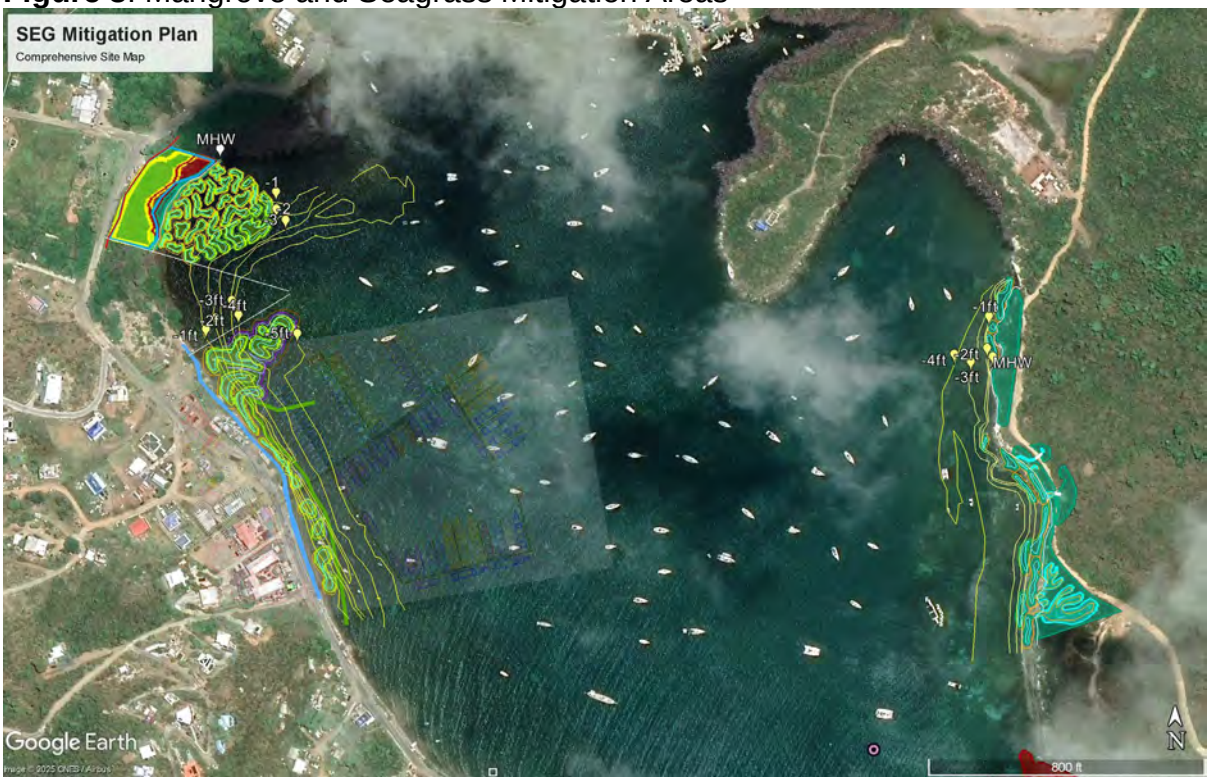
Informational signs:
The applicant is proposing seven (7) informational buoys to advise mariners to avoid shallow reefs while in transit and to avoid anchoring in areas of corals and seagrass. The Summers End Group will be placing buoys on the locations shown below (Figure 2). These informational buoys will warn boaters of the presence of resources and shallow areas, which will also protect the outplanting and recipient areas. The buoys will be located at 18° 20.703'N64° 42.897'W, 18° 20.460'N 64° 42.750'W, 18° 20.437'N 64° 42.542'W, 18° 20.122'N 64° 42.437'W, 18° 19.949'N 64° 42.046'W, 18° 20.397'N 64° 41.371'W and 18° 19.819'N 64° 40.709'W. The 7 buoys be placed in the bottom with screw anchors and loaded lines so they will have no impact on the seafloor. Some of the buoys will be placed in sand and several will be in seagrass. Due to the use of the anchoring system, they should have no impact on seagrass resources. The signage will be inspected annually and after major weather events. Any needed repairs or maintenance to signage will occur immediately.

Figure 2. Seven Informational Buoys



Mangrove and Seagrass Enhancement and Creation:
The applicant has agreed to construct mangrove and seagrass mitigation areas consisting of a Northern Mitigation Area, a Southern Mitigation Area, and an Eastern Mitigation Area (Figure 3). The Northern Mitigation Area would restore and enhance 0.67 acre of mangroves along the shoreline, create 0.96 acre of mangrove islands, and create 0.30 acre of seagrass sloughs. The Southern Mitigation Area consists of the creation of 0.056 acre of mangrove and 0.275 acre of seagrass fringe, and the creation of 0.76 acre of mangrove and 0.40 acre of seagrass areas offshore. The Eastern Mitigation Area consists of the creation of 1.4 acres of wetlands (uplands to mangroves) and 0.75 acre of mangroves (waters to mangroves). The applicant will complete the mangrove and seagrass mitigation areas in accordance with the Summers End Mangrove Mitigation plan dated May 12, 2025 (Attachment 12).

Figure 3. Mangrove and Seagrass Mitigation Areas



Debris Cleanup

The applicant has agreed to remove debris on the seafloor within Coral Bay Harbor. A minimum of 1,000 square feet of debris would be removed from the seagrass beds and in areas within the harbor. Marine debris within the harbor consists of tires, tree limbs, clothing, sail pieces, boards, trash cans, etc. The applicant would conduct annual clean up events for throughout the life of the marina and submit an annual report/survey describing the items collected.

To monitor the removal, the applicant would conduct an inventory of the debris collected during each event and providing a summary of the marine debris removal in the annual report to the National Marine Fisheries Service (NMFS) Protected Resources Division (PRD) and the Corps. Most of the debris will be collected by hand but lift bags will be used to collect large items such as small engines. All debris will be disposed of at the Bovoni Landfill. The applicant will be required to monitor the debris clean-up for 5 years, but a survey and cleanup of Coral Bay will continue throughout the life of the marina.

Coral Relocation

The site contains four (4) smooth star corals (*Solenastrea bournoni)* located closer to the shoreline and would be near the proposed location of the dock (Figure 4). To minimize impacts from the construction, all *Solenastrea bournoni* and any other coral

that are found in the construction area will be relocated and transplanted south of Penn Point prior to any in-water construction activity (Figure 5). The site provides similar habitat and also follows the *Department of Planning and Natural Resources (DPNR) Coral Relocation Site Selection recommendations*[1] (Attachment 3)

Figure 4. Location of Lone Star Corals

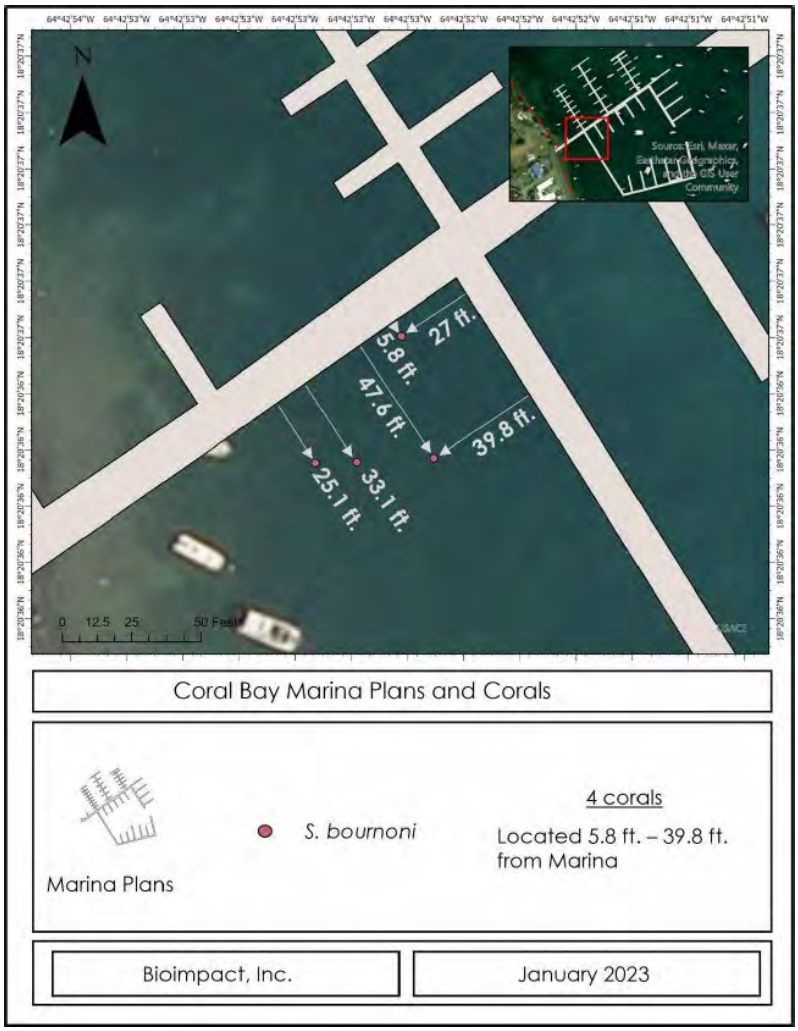
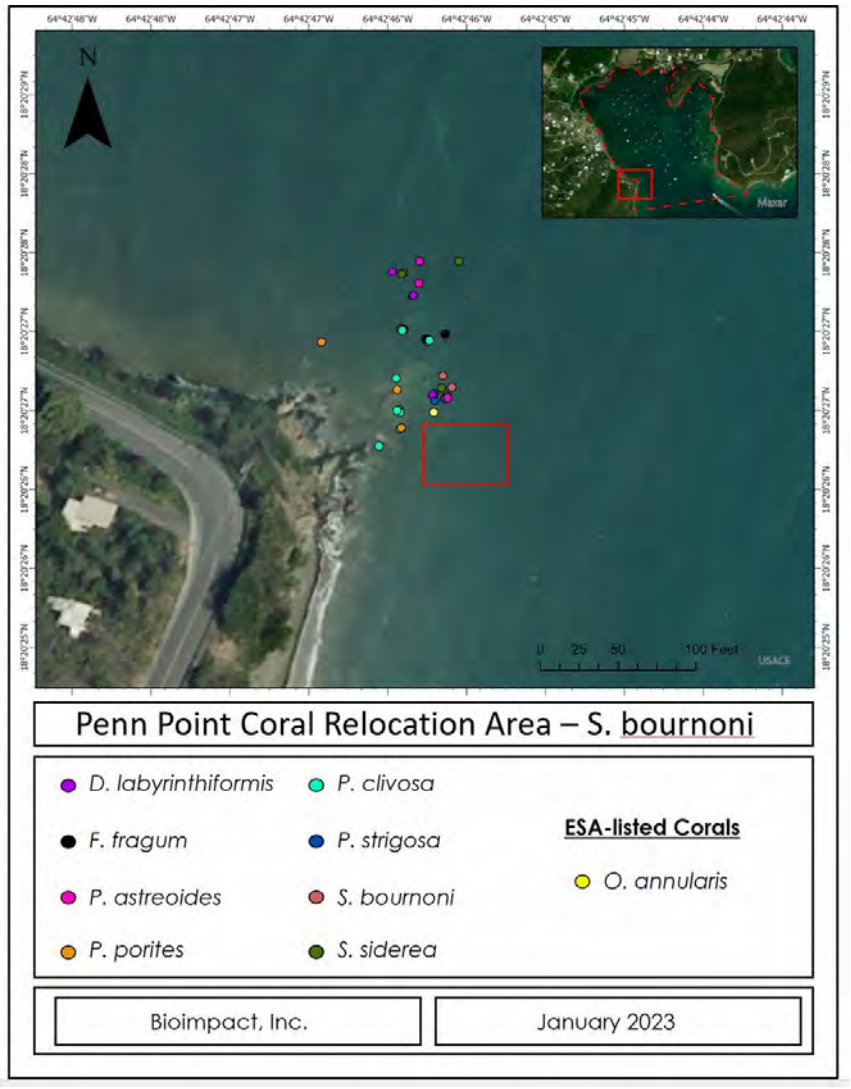


Figure 5. Relocation of Lone Star Corals at Penn Point



Coral Out-planting

The applicant has proposed to outplant 3,000 ESA corals into 1.84 acres of hardbottom habitat near Harbor Point (Figure 6). The applicant has agreed to work with Coral World Ocean and Reef Initiative to obtain genetically diverse ESA species for outplanting. *Acropora palmata, Orbicella* spp. will be the preferred species to outplant since these corals occur or did occur within the area. The *Orbicella* fragments will be attached with two-part underwater epoxy. The *Acropora palmata* fragments will be either attached with underwater epoxy or may be attached to concrete nails with tie-wraps depending on size. All corals will be placed in recipient sites as outlined in the DPNR's Coral Mitigation Recommendation in areas with sufficient room for growth and

so they will not impact nearby coral colonies. Outplanted corals will be placed in an area of consolidated hardbottom, scatter emergent hardbottom in the seagrass beds and bedrock near Harbor Point. The applicant has submitted a Coral Commitment letter from Coral World Ocean and Reef Initiative dated August 29, 2024 (Attachment 16).

Figure 6. Coral Outplant Area South of Harbor Point

2. Description of the Action Area

The *action area* is all areas to be affected by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02). *Effects of the action* are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. The action area is distinct from and can be larger than the project footprint because some elements of the project may affect listed species or critical habitat some distance from the project footprint. The action area, therefore, extends out to a point where no effects from the project are expected to occur.

For this project, the action area includes the waters of Coral Bay Harbor including Harbor Point and Pen Point (Please refer to the red dashed line in Figure 7). This area includes the footprint of the proposed marina, the area surrounding the proposed marina where the turbidity and potential sediment deposits have the possibility to occur, the areas where the work vessels would be located, the areas affected by the noise from the installation of the pilings, the route of the vessels within Coral Harbor to travel to the marina, the mangrove and seagrass enhancement and creation areas, the locations where the corals would be relocated and out-planted near Harbor Point and

Pen Point, the areas of the debris clean-up, the locations of the 10 recreational mooring buoys, and the locations of the informational signage on buoys. All of these components are within Coral Bay.

Figure 7. Location of the Action Area (in red dashed lines) within Coral Bay and Harbor

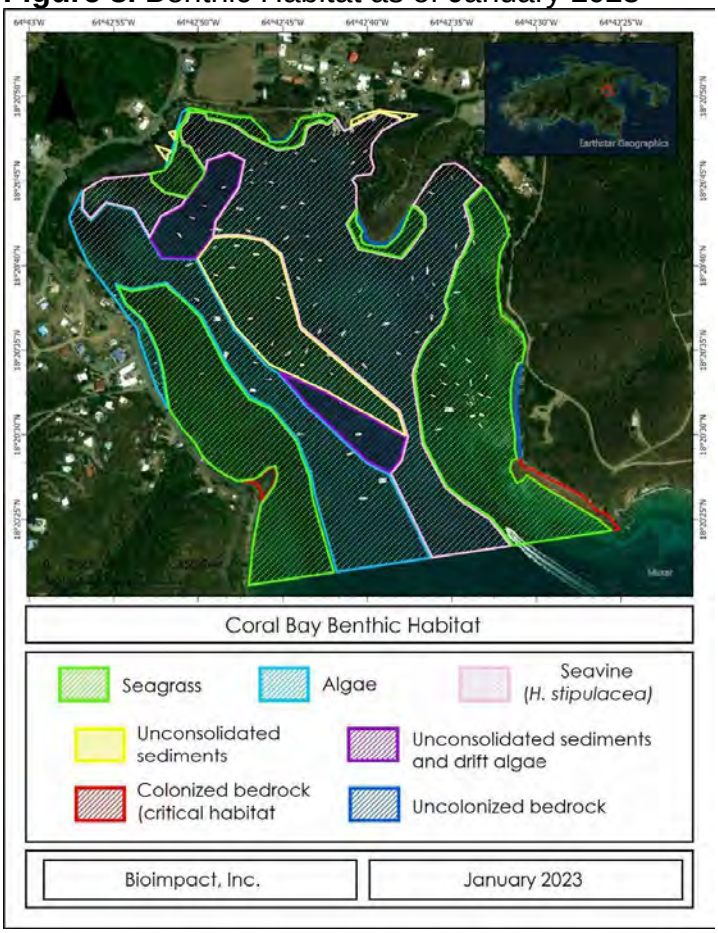
a. Site Conditions:

The area within Coral Bay was surveyed for aquatic resources in June/July 2009, May and November 2012, February 2014, 2015, 2016, May and June of 2017, February 2018, and in November 2022 through January 2023. The 2018 survey also indicated that some of the dominant species of seagrasses changed in areas, as well as a narrow muddy bank of uncolonized sand formed along the shoreline. However, the surveys consistently showed that the area supports seagrasses, while four (4) smooth star corals (*Solenastrea bournoni)* are located closer to the shoreline.

The most recent survey was undertaken in November 2022 through January 2023 following the NMFS/Corps approved survey methods (Figure 8). The survey shows shifts in habitat boundaries from the previous 2018 survey with increases in macroalgae and *Halophila stipulacea* and a decrease of dense seagrass colonization. Many of these

shifts were outside the proposed development footprint. The seagrass loss may be partially related to Sargassum inundations in the harbor since many of these occurred in the shallowest areas where dense seagrass was most abundant. The areas of *H. stipulacea* colonization and the *H. stipulacea* density have both notably increased in the overall harbor, while this is primarily outside the project footprint it has contributed to the loss of native seagrass within the marina footprint. There was also an increase in drift algae over the uncolonized unconsolidated sediment, which is also beyond the marina footprint. At least 1 *Acropora palmata*, and a *Dendrogyra cylindrus* was lost between the 2022-2023 surveys and the previous survey 4.5 years before. Over the 4.5-year period between the 2018 survey and the 2022-2023 survey, there has been a notable loss of native seagrass in the harbor and areas have since become colonized by macroalgae and *H. stipulacea*. Further description of onsite resources and resources located within the secondary impact boundary can be found in the attached *Minimization Mitigation and Compensatory Mitigation Plan dated May 25, 2025* (Attachment 4)

Figure 8. Benthic Habitat as of January 2023



b. Direct and Indirect impacts:

The Corps assessed direct and indirect impacts to aquatic resources as a result of this project. As stated above, the action areas include the footprint of the proposed marina, the area surrounding the proposed marina where the turbidity and potential sediment deposits have the possibility to occur, the areas where the work vessels would be located, the areas affected by the noise from the installation of the pilings, the route within Coral Bay that the vessels would travel to the marina, the mangrove and seagrass creation areas, the locations where the corals would be relocated and out-planted near Harbor Point and Pen Point, the areas of the debris clean-up, the locations of the 10 recreational mooring buoys, and the locations of the seven (7) informational signage on buoys.

The direct and indirect effects of the following actions are considered a benefit to the aquatic environment. The proposed mangrove enhancement along the shoreline would improve existing mangrove habitat, while the creation of the proposed mangrove and seagrass islands would create additional aquatic habitat. These actions would be conducted in areas that are devoid of seagrasses or coral species and is not considered a negative impact. The four exiting corals located near the proposed docks would be relocated to areas that support coral species but in a suitable barren place near Harbor Point and Pen Point. This action is considered a minimization effort as the corals would be relocated to an area where they would not be adversely affected as a result of the proposed marina. The coral out-plantings would also occur in areas that support coral species but in a suitable barren place within the reefs near Harbor Point and Pen Point. This activity is not considered an impact to aquatic resources as it results in an increase in the coral species in the area. The proposed debris cleanup would also result in an improvement to aquatic resources as the debris would be removed from the seafloor and the aquatic resources would result in an improvement to the habitat. The installation of the ten recreational mooring buoys would provide a safe mooring mechanism for vessels in Coral Bay, thus minimizing the potential future adverse effects from individual vessels choosing various locations to drop their anchor and impacting the bottom resources. Similarly, the installation of the informational signs on buoys would delineate shallow hardbottom areas at the entrance of Coral Harbor and will advise mariners of avoiding the shallow reefs wile in transit and to avoid anchoring in areas of coral and seagrass. This effort will notify boaters of the shallow areas to discourage boaters from dropping their anchors and/or navigating in the shallow areas. This would also minimize the potential future adverse effects to the resources in the shallow areas.

Dredging would not be needed as the route within Coral Bay that the vessels would travel to the marina is already existing. The marina management plan includes provisions for escort tenders that will guide vessels into and out of the marina through the deepest part of the channel. The marina would close at dark so vessels will not be

coming in the marina at night. Additionally, the marina management plan will require that vessels radio in prior to approach to ensure that they have the channel coordinates for safe navigation into and out of the marina (Attachment 8 Harbor Management Vessel Docking and Mooring Plan updated August 2025. These actional would minimize any impacts to seagrasses and corals within Coral Bay.

The following actions were considered for direct and indirect effects to seagrasses and corals: the footprint of the proposed marina, the area surrounding the proposed marina where the turbidity and potential sediment deposits have the possibility to occur, the areas where the work vessels would be located, and the areas affected by the noise from the installation of the pilings. The impacts to aquatic resources are outlined below and also in the accompanying table (Table 1).

Direct impacts include:

- the areas below the dock footprint
- the areas below the vessels moored at the docks
- the areas where the mooring buoys would be located
- the areas where the informational buoys would be located

Indirect impacts include:

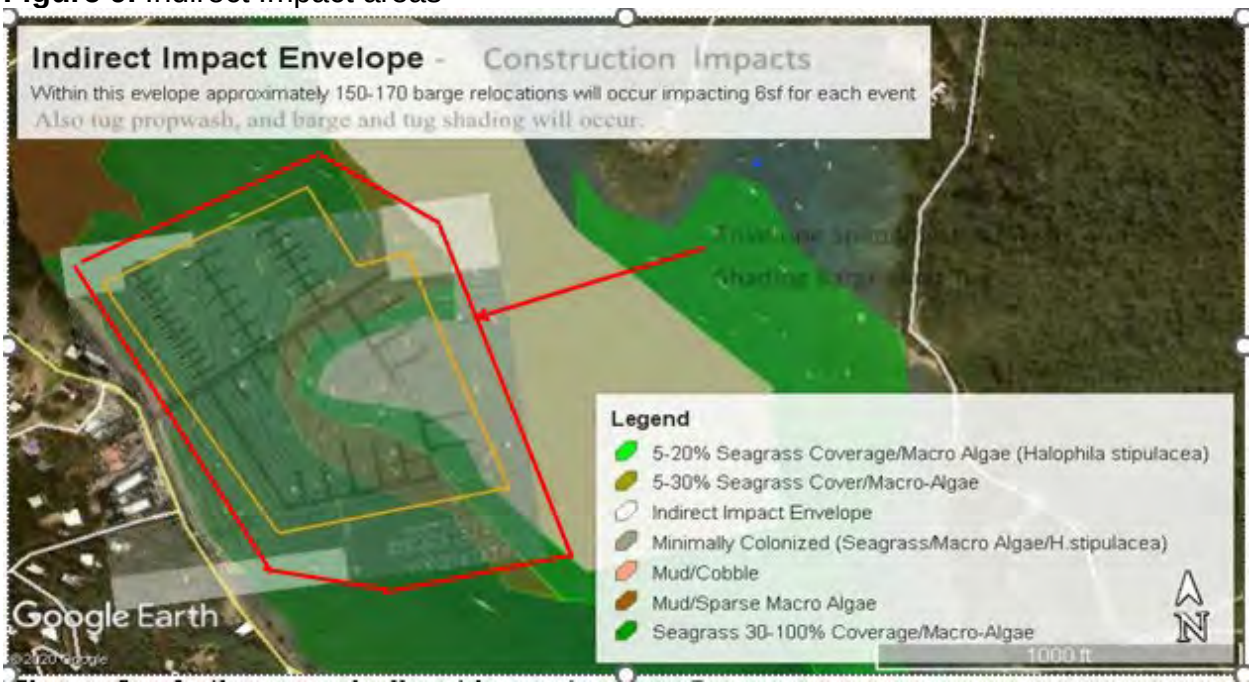
- the areas where the construction vessels spud and/or work*
- areas that experience a measurable increase in turbidity during construction and operation of the marina

Table 1. Summarizing seagrass impacts broken down by project components.

Docks footprint + shade	0.70 acre or 30,483 square feet
Vessels + shade (assuming maximum capacity of marina-Direct Impact)	1.219 acres or 53,080 square feet
Spudding (Direct Impact)	0.022 acre or 984 square feet
Other construction impacts (Direct Impact)	0.134 acre or 5922.2 square feet
Operation of the marina (propwash) (Indirect Impact)	0.34 acre or 15,000 square feet
Total impacts	2.39 acres or 104,108.4 square feet

The Action Area of the proposed marina, as shown in Figure 9, describes the percent coverage of seagrasses within the action area, the installation of the pilings for the proposed marina and turbidity barriers, and the 500-foot radius around each piling for noise impacts. The two-color envelopes are based on potential impacts during construction. The inner yellow box is the area of spudding, where the barge will need to locate to drive the piles. This assumes the use of a large barge(s) 80-100 foot. This is the area where the seafloor would be repeated subject to the dropping of spuds which will physically impact approximately 8 square foot for each of the spud relocations. If a pile template is utilized for pile driving this would also encompass the area of the template footprints. The yellow box is the area where the benthic environment will be physically disturbed by the construction process. This is also the area where there is the greatest potential for the buildup of settling sediment on benthic colonizers. Heavier sediments fall out quickly and could potentially build up in this area and could smother or bury benthic colonizers.

Figure 9. Indirect Impact areas



The larger red envelope is that area which may be disturbed by propwash or shading of barges or vessels associated with the construction project. This area would be subject to the greatest turbidity during construction and the area most likely where repeated indirect impacts would occur. (Shading and turbidity indirect impacts since they are byproducts of the activity construction activity not direct physical disturbance). These areas were determined based on monitoring of previous dredging and pile installation projects over the last 35 years.

The applicant indicated that at no time would construction or monitoring vessels anchor in the bay. Additionally, there is no dredging associated with this project. The bottom disturbance will be limited to pile driving which typically creates minimal highly localized turbidity. This site will have a greater potential for the creation of turbidity than other "sandier" locations since the sediment in this area has a high silt content. As proposed all pile driving must be surrounded by proper length turbidity barriers, and monitoring is required to minimize the potential impacts to these areas. The other causes of turbidity during construction will include propwash from tugs and vessels and spud placement and spud shifting during waves and swells. Again, these are periodic highly localized impacts. Repeated turbidity in this area could result in limited light transmission and could impact benthic colonizers. The red box is that area where these periodic repeated impacts could result in impact to habitat impact during construction.

The Corps anticipates that additional turbidity and potential sediment deposits would occur approximately 120 meters from the in-water construction work for the dock (Figure 10).

Figure 10. Action Area-Potential turbidity impacts.

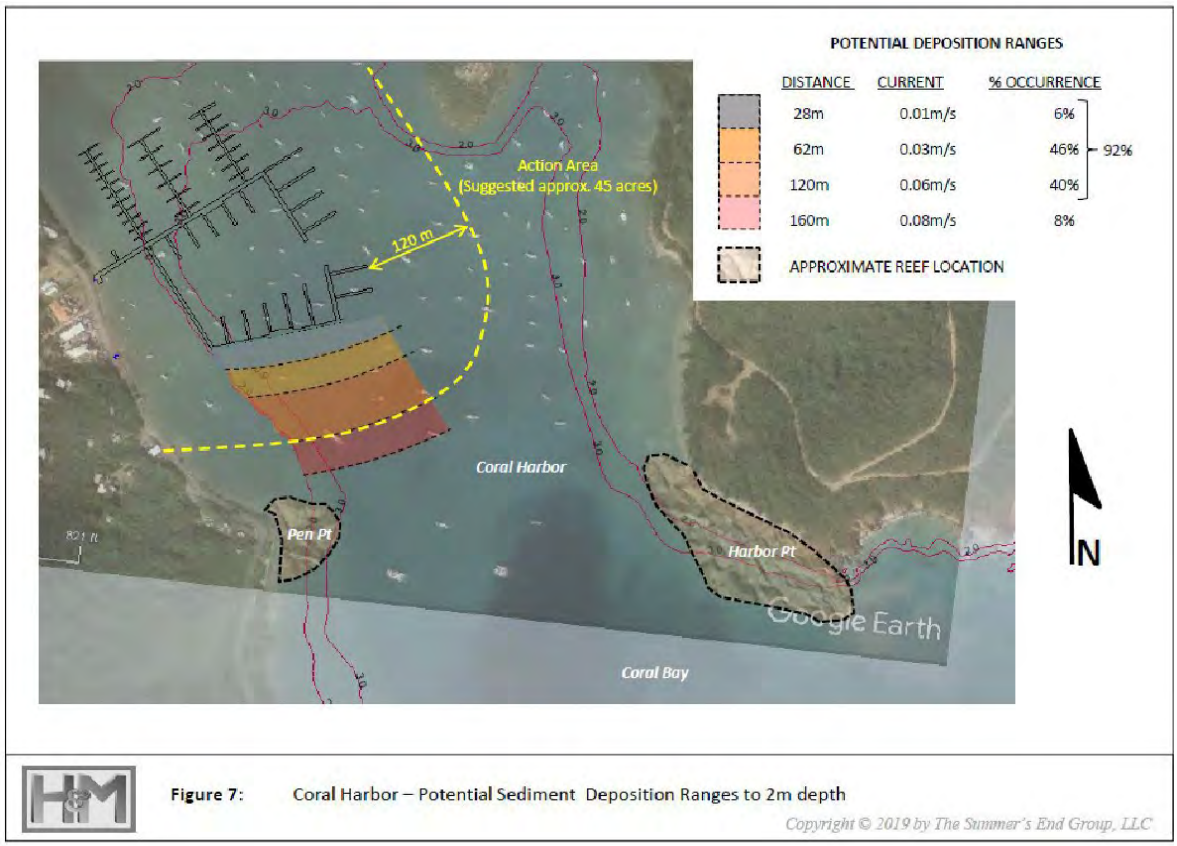
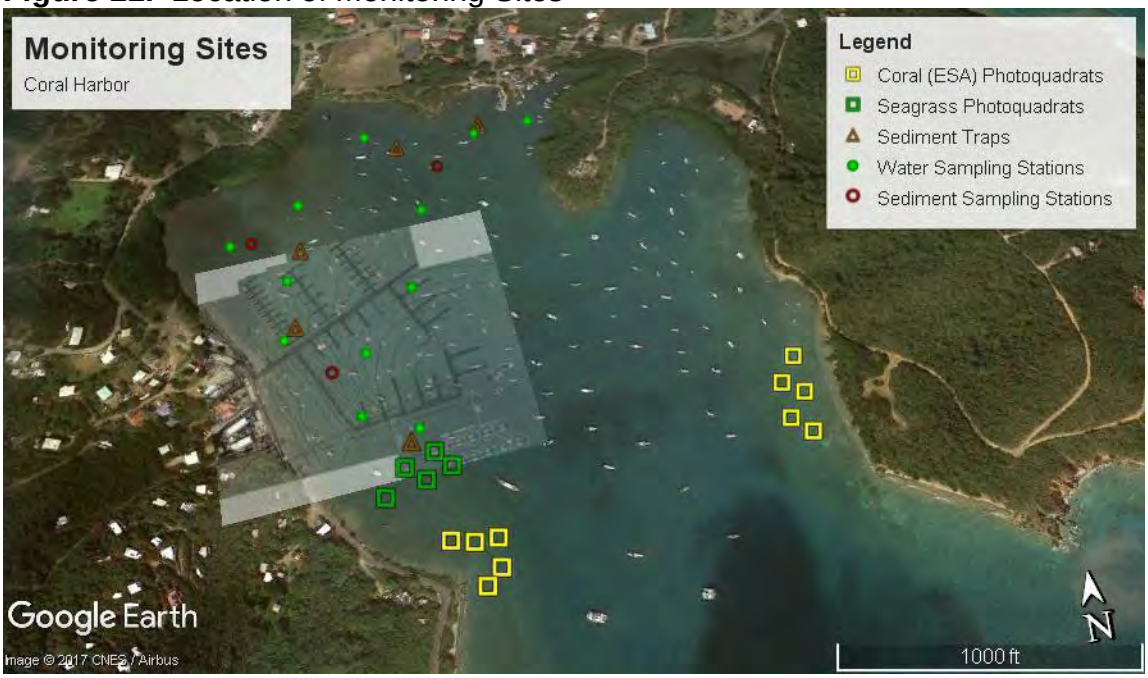


Figure 7: Coral Harbor – Potential Sediment Deposition Ranges to 2m depth

The Corps will require the use of best management practices (BMPs), monitoring and stoppage of work if turbidity exceedances occur. In-water work would be immediately ceased when exceedances occur. The applicant would be required to adhere to the *Water Quality Monitoring Plan – Updated with Turtle Monitoring and Acoustic Monitoring (undated)* (Attachment 5) Additionally, the applicant shall submit their water quality monitoring reports to the Corps, NMFS, USFWS and the Coastal Zone Management Department (CZM) on a monthly basis. Figure 11 depicts the locations of the monitoring sites for corals, seagrasses, sediment traps, water sampling and sediment sampling.

Figure 11. Location of Monitoring Sites



The construction of the marina would be completed from the land and from the water using barges. An impact hammer from a barge would be used to install the proposed dock supporting piles and the auger anchors for the mooring buoys. No more than five (5) piles would be installed each day. The installation of each pile would require an average of 300 blows with the impact hammer. The installation of the 867 proposed piles would be completed in approximately 174 days (Table 2). (Please see analysis below.) The installation of the 36 auger anchors for the 12 mooring buoys would require six (6) additional days for a total of 180 days.

Table 2. Pile Installation

Pile Type and Material	*Steel, concrete*
Pile Diameter or Sheet Pile width (inches)	14 and 18-inch
Number of Piles or Sheet Piles Total	867
Installation Method	Impact hammer
Number of Strikes per Pile/Sheet Pile (if using impact hammer) or Number of Seconds of Vibration per Pile/Sheet Pile (if using vibratory hammer)	*300 strikes*
Number of Piles/Sheet Piles Installed per Day (if using impact or vibratory hammer)	*No more than 5*
Duration of pile driving activity (days)	*174*
Substrate and water depth in pile installation area	*Sandy*
Confined Space or Open Water?	*Open*
Noise abatement used	*None*

d. Project Specific Parameters:

Project vessels will be present:

- A barge and/or work boat would be used.
- All supporting equipment (barges and tow boats) will be shallow draft and will maintain a minimum of 2.5-foot of clearance above the existing bottom at mean low water.
- Speeds will vary and are dependent on contractor selection and type of vessel being used. Vessel speeds will be reduced while maintaining sufficient maneuverability and navigation.
- The exact travel routes to and from the proposed Project will be determined based on contractor selection. However, travel routes will be restricted to areas that maintain the 2.5 feet clearance from the seafloor.
- All construction personnel will be responsible for observing water-related activities to detect the presence of Threatened and/or Endangered Species as described in the Protected Species Construction Conditions.

e. Conservation Measures and BMPs (Construction and Post Construction):

- **Monitoring Plan:** The project will be operated in compliance with the attached Water Quality Monitoring Plan with Turtle Monitoring and Acoustic Monitoring (undated) and the Minimization Mitigation and Compensatory Mitigation Plan dated May 2025 (Attachment 5, and 4, respectively). The applicant shall submit their water quality monitoring reports to the Corps, NMFS, USFWS and CZM ona monthly basis.

- **Protected Species Construction Conditions:** The Permittee shall comply with National Marine Fisheries Service's "Protected Species Construction Conditions, NOAA Fisheries Southeast Regional Office" dated May 2021 (Attachment 6).

- **Vessel Strike Avoidance Measures:** The Permittee shall comply with the "Vessel Strike Avoidance Measures and Reporting for Mariners", revised May 2021, for marine turtles and marine mammals (Attachment 7).

- **Daylight Hours**: All work will occur during daylight hours.

- **Noise Abatement Measures**: No more than 5 piles per day shall be installed.

- Instruct all personnel associated with the project of the potential presence of protected species in the area and the need to prevent entrapment or entanglement of wildlife.

- Right-size vessels and equipment to be used, considering water depths, the presence of seagrass and hard-bottom, vessel draft, and expected propeller wash.

- Designate access corridors for operations and mark these with buoys or stakes; use existing channels and deeper water routes where possible; avoid shallow seagrass and hard-bottom habitats.

- Brief vessel operators about water depths, access corridors, and sensitive areas to be avoided.

- Conduct operations at high tide when feasible.

- No in-water construction will occur during times of year with peak thermal stress and spawning, which would be June, July and August.

- All vessels shall operate at "Idle Speed/No Wake" at all times while operating in water depths where the draft of the vessel provides less than a 4-foot clearance from the bottom, and after a protected species has been observed in and has departed the area.

- All vessels will follow marked channels and/or routes using the maximum water depth whenever possible.

- All equipment operators must watch for and avoid collision with species protected under the ESA and the Marine Mammal Protection Act (MMPA). Equipment operators must avoid potential interactions with protected species.

- Stop operating mechanical construction equipment, including vessels, immediately if a protected or ESA-listed species is observed within a 50-ft. radius of construction equipment and resume after the species has departed the area of its own volition.

- If the detection of species is not possible during certain weather conditions (e.g., fog, rain, wind), then in-water operations will cease until weather conditions improve and detection is again feasible.

- Anchor in unconsolidated sediment (sand or mud bottoms) only and avoid all coral, hard-bottom, and seagrass beds.

- Operate boat motors in a manner that will not create sediment plumes or prop scarring of the bottom. When working on the dock structure above the water a floating platform will be used below the area of work which would catch anything that falls while also providing a work platform. Catch nets can also be hung below the deck to catch anything that inadvertently falls or is dropped into the water is a working platform is not feasible. During construction if floating materials fall into the water, they will be contained by the turbidity barriers and they will be immediately retrieved.

- The contractor will use a “ramp up” or “slow start” technique at the start of each day’s impact pile driving, using low force blows initially and gradually increasing to full force hammer blows. The “ramp up/slow start” technique will be reinitiated after any break in impact pile driving of over an hour.

- Adherence to the Harbor Management Vessel Docking and Mooring Plan updated August 2025 (Attachment 8)

f. Recommended mitigation measures:

- The mangrove mitigation sites will have hydrological conditions and elevations found at nearby similar healthy mangrove wetlands. Any necessary groundwork or re-grading will occur to achieve appropriate site elevations and hydrological conditions prior to planting seedlings.

- No construction can begin until the applicant provides documentation that Parcel 11 Remainder Estate Coral Bay (property belonging to the U.S. Virgin Islands) can be used by the applicant for mangrove mitigation.

- The mangrove mitigation shall be completed by experienced contractors who have successfully completed mangrove restoration.

- Mangrove mitigation success criteria: 85% survival of the planted mangroves occurs after five years with annual increases in plant height and diameter.

- Coral outplating success criteria: The outplanting of corals will also follow the US Virgin Islands DPNR Coral Mitigation Relocation Recommendations and obtain a minimum of 85% survival of the outplanted corals, with secure substrate attachment at the end of five years. Overall survival of corals shall be defined as no net loss in pooled (by species) Live Tissue Area Index or an increase in pooled (by species) Live Tissue Area Index.

- The applicant will survey the harbor bottom and remove marine debris annually for a period of 5 years. The applicant will include a summary of the marine debris removal in the annual mitigation report to the Corps and NMFS, which will include an inventory of the debris collected each event to incorporate into educational messaging for business owners and patrons. The applicant would install an educational kiosk informing the customers of the aquatic resources in the bay and to encourage recycling and clean-up of debris found in the water.

- The status of the mitigation and associated monitoring will be conveyed to NMFS and Corps via one annual report submitted in January. The report shall not exceed 25 pages including appendices or attachments, and should follow the reporting, adaptive management, and monitoring reporting tables frameworks developed by NMFS. The annual report summarizes the status of each mitigation activity, the number and date of monitoring events completed for each mitigation activity with summary statistics demonstrating compliance with success criteria, and corrective actions performed in the case success criteria are not met. If mitigation sites are not trending towards success after two years, the year three report shall include a contingency mitigation plan.

- The applicant shall operate the marina in perpetuity accordance with the Blue Flag or Clean Marina certification requirements.

- The applicant will secure a performance bond or some other type of financial guarantee that is accessible to the Corps in the amount necessary to complete the transplant, compensatory mitigation, required monitoring, long- term maintenance of the informational buoys as well as covering any contingencies that may occur. The bond will be prepared following the guidance set forth in the Corps' Regulatory Guidance Letter No. 05-1 dated 14 February 2005 SUBJECT: Guidance on the Use of Financial Assurances, and Suggested Language for Special Conditions for Department of the Army Permits Requiring Performance Bonds. The applicant has agreed to place $3,759,000 in a performance bond to complete the mitigation components and monitoring requirements. (Attachment 14 Mitigation Cost)

g. Recommended permit conditions for construction:

- Dredging is not authorized by this permit.

- All decking should be composed of grated decking with no less than 43% light transmittance

- Any cables, lines, or conduits located under the dock shall be co-located to minimize shading impacts

- Vessel spudding shall be limited to areas devoid of seagrass. Areas with seagrass should be delineated and no bottom disturbance in these areas is authorized.

- The applicant shall implement the biological monitoring plan that 1) gauges actual impacts relative to those predicted in the impact assessment and 2) triggers additional compensatory mitigation when unauthorized impacts are documented or mitigation success criteria are not met. The plan shall include pre-construction, during construction, and post-construction water quality monitoring. In addition, the plan should include examination of long-term on-site stormwater management measures to reduce runoff created by the impervious surface constructed for the parking area.

- The applicant shall implement the spill contingency plan that includes precautionary measures in a tiered approach for minor versus major spills, emergency actions should a spill occur, and spill reporting criteria (Attachment 10 Spill Response Plan dated March 18, 2-21).

- The applicant shall adhere to the Water Quality Monitoring Plan with Turtle Monitoring and Acoustic Monitoring (undated). Additionally, the applicant will be required to use erosion and sediment control measures during upland construction and floating silt curtains during in-water work. These measures will help to ensure the proposed project will not cause excessive or polluted runoff to adversely affect ESA-listed species.

- The applicant shall post the appropriate NMFS-approved educational signage in visible locations throughout the marina, alerting users of listed species in the area. Examples can be located here: https://www.fisheries.noaa.gov/southeast/consultations/protected-species-educational-signs

- Any injury to any ESA-listed species occurring during the construction phase of the project shall be reported immediately to NMFS Southeast Regional Office (SERO) PRD via the NMFS SERO Endangered Species Take Report Form

(https://forms.gle/85fP2da4Ds9jEL829) (Attachment 9 NMFS Take Report Form for ESA-listed Species dated November 14, 2023). Ensure that injury or take of any marine mammal during the construction phase will also be reported to 1-877-WHALE HELP (1-877-942-5343). Please direct the applicant to include the SERO ECO tracking number in all correspondence.

- Trash cans with lids will be installed and maintained at regular intervals around the marina to keep trash and debris out of the water. Any fish cleaning stations must be clearly marked, have nearby trash receptacles with lids, and be emptied regularly. The applicant will post signage that will ask anglers not to dispose of fish carcasses or debris in the water.

3. Potentially Affected NMFS ESA-Listed Species and Critical Habitat

We have assessed the listed species that may be present in the action area and our determination of the project's potential effects to them as shown in Table 3 below.

Table 3. ESA-listed Species in the Action Area and Effect Determinations

Species	ESA Listing Status	Listing Rule/Date	Most Recent recovery plan date	Corps Effect Determination (Species)
Green sea turtle[1]	T	81 FR 20057/ April 6, 2016	October 1991	NLAA
Leatherback sea turtle	E	35 FR 8491/ June 2, 1970	April 1992	NLAA
Loggerhead sea turtle[2]	T	76 FR 58868/ September 22, 2011	January 2009	NLAA
Hawksbill sea turtle	E	35 FR 8491/ June 2, 1970	December 1993	NLAA
Nassau grouper	T	81 FR 42268/ June 29, 2016	N/A	NLAA
Scalloped hammerhead shark[3]	T	79 FR 38213/ July 3, 2014	N/A	NLAA
Oceanic white tip shark	T	83 FR 4153/ January 1, 2018	N/A	NLAA
Giant manta ray	T	83 FR 2916/ January 22, 2018	N/A	NLAA

[1] North Atlantic and South Atlantic DPS
[2] Northwest Atlantic Ocean D found PS
[3] Central and southwest Atlantic DPS

Species	ESA Listing Status	Listing Rule/Date	Most Recent recovery plan date	Corps Effect Determination (Species)
Blue whale	E	35 FR 18319/ December 2, 1970	July 1998	NE
Fin whale	E	35 FR 18319/ December 2, 1970	August 2010	NE
Sei whale	E	35 FR 18319/ December 2, 1970	December 2011	NE
Sperm whale	E	35 FR 18319/ December 2, 1970	December 2010	NE
Staghorn coral	T	71 FR 26852 May 9, 2006	March 2015	NLAA
Elkhorn coral	T	71 FR 26852/ May 9, 2006	March 2015	NLAA
Boulder star coral	T	79 FR 53851 September 10, 2014	N/A	NLAA
Mountainous star coral	T	79 FR 53852/ September 10, 2014	N/A	NLAA
Lobed star coral	T	79 FR 53852/ September 10, 2014	N/A	NLAA
Rough Cactus Coral	T	79 FR 53851 September 10, 2014	N/A	NLAA
Pillar coral	T	79 FR 53852/ September 10, 2014	N/A	NLAA
Queen Conch	T	87 FR 55200/ September 8, 2022	N/A	NLAA

E = endangered; T = threatened; NLAA = may affect, not likely to adversely affect; NE = no effect; LAA = Likely to Adversely Affect, N/A = not applicable

The project is located within designated critical habitat for the Nassau Grouper, the Green sea turtle, Nassau grouper, and the seven (7) federally-listed corals. We have assessed the critical habitats that overlap with the action area and our determination of

the project's potential effects to them as shown in Table 4 below:

Table 4. Critical Habitat(s) in the Action Area and Effect Determinations

Species	Critical Habitat in the Action Area	Critical Habitat Rule/Date	Effect Determination (Critical Habitat)
Nassau Grouper		February 1, 2024	NLAA
Green sea turtle		Proposed Rule Publish Date: July 19, 2024	NLAA
Staghorn Coral		73 FR 72210 November 26, 2008	NLAA
Elkhorn Coral		73 FR 72210 November 26, 2008	NLAA
Boulder Star Coral		88 FR 54026 August 9, 2023	NLAA
Lobed Star Coral		88 FR 54026 August 9, 2023	NLAA
Mountainous Star Coral		88 FR 54026 August 9, 2023	NLAA
Pillar Coral		88 FR 54026 August 9, 2023	NLAA
Rough Cactus		88 FR 54026 August 9, 2023	NLAA

The project as proposed has the potential to limit use of the area by the species during construction however the project components are not likely to adversely modify these species' designated critical habitat. All relevant primary constituent elements (PCEs) for designated critical habitat for the listed species will not be adversely modified as a result of the project. Furthermore, the applicant agrees to comply with NMFS's Protected Species Construction Conditions (NMFS 2021) (Attachment 6).

4. EFFECTS OF THE ACTION

a. Route(s) of Effect to ESA-Listed Species:

Whale Species:
The Corps does not have survey data for ESA-listed whale species in the area of the U.S. Virgin Islands. Based on data from Puerto Rico, including reports of strandings, humpbacks are likely common during their winter migration to the Caribbean. In 2017, there was a stranding of a baby sperm whale on Vieques Island, Puerto Rico, which is part of the Spanish Virgin Islands and not far from St. Thomas and St. John. Blue, fin,

and sei whales may also be present in offshore from the Action Area during winter migration. The Corps is aware of anecdotal reports of sightings of whales in waters around St. John and just outside of Coral Bay. However, because of its location in relatively shallow and narrow bay, it is unlikely that whales would be present within the Action Area. The Corps is not aware of any reports of whales within Coral Harbor or the Action Area. ESA-listed whale species could be struck by work vessels transiting to and from Coral Harbor during project construction, in particular if work takes place during winter migration. The Corps would require compliance with NMFS "Vessel Strike Avoidance Measures and Reporting for Mariners", revised May 2021, for marine turtles and marine mammals. Work vessels would operate at low speeds and have sea turtle and marine mammal observers. This would provide protection to ESA-listed whales during the transit of work vessels by requiring vessels maintain set distances from whales for their transit. In addition to the required implementation of NMFS's vessel strike guidance, the marina construction contractors would implement a sea turtle and marine mammal monitor or observer training program for vessel crew members and construction personnel. Because whales are not likely to be present in the Action Area year-round, and given the survey programs and permit conditions the Corps would require, we believe the risk of injury from collision with work vessels during the construction of the proposed marina or the implementation of the compensatory mitigation components would be discountable.

ESA-listed whales could also be struck by vessels transiting to or from the proposed marina, particularly considering a potential increase in vessel traffic as a result of the addition of 127 new boat slips in the area. The Corps has no information documenting any vessel-whale collisions around St. John or the U.S Virgin Islands. Notwithstanding, the Corps would require the implementation of an education program, including the installation of signs and placards alerting all marina users about the potential presence of ESA listed whales around St. John and providing information about safe navigation practices to protect marine mammals and prevent vessel strikes. We expect vessel operators to be able to see whales at a distance and steer a course away from them. Also, because of their mobility, we expect whales to move away from in-transit vessels. Smaller vessels are less likely to strike whales, are typically only used in good conditions when whales are more visible and can be more easily and quickly maneuvered to avoid whales. Therefore, we believe the likelihood of whales being struck by vessels as a result of increasing the number of slips by 127 will be discountable.

Sea turtle species:
Effects to Green, Leatherback, Loggerhead and Hawksbill sea turtles include the potential risk of injury from being struck by in-water construction machinery (barges, cranes, spuds, anchors, etc.) during the proposed construction work. Sea turtles could be struck also by work and support vessels transiting to and from the proposed work areas. Green and Hawksbill sea turtles were observed during surveys conducted within

the Action Area for this project. The Action Area is located in an open bay, so access to open water is not impeded in any way for sea turtles that might be in the area during operation of in-water construction machinery and vessels. All in-water construction work would be limited to daylight hours only. Construction barges would be spudded in place while conducting in-water work. In addition, the barges and all other support vessels would move at very low speeds. As a result, sea turtles would be able to hear and see in water construction machinery and vessels. The Corps expects any animals that approach the in-water work areas to swim away. Sea turtles have been reported to flee approximately 60% of the time from slow moving vessels (2.5 miles per hour [mph]) (Hazel et al. 2007). Also, according to NMFS 2015, unpublished sea turtle stranding data from the U.S. Virgin Islands DPNR indicate that from 1982 to 2006 there were 22 strandings in St. Thomas with only four caused by boats. In St. Croix, there were 74 strandings with only five caused by boats. The Corps was unable to find data for St. John, so the data from St. Thomas and St. Croix are being used to demonstrate similar conditions in St. John. It is understood that the green sea turtles are more likely to be found in the Coral Bay area.

In addition, the Corps would require compliance with “Vessel Strike Avoidance Measures and Reporting for Mariners”, revised May 2021, for marine turtles and marine mammals. The implementation of the construction conditions would provide protection to sea turtles by requiring temporary work stoppages to protect any sea turtles that approach the in-water work area. All work vessels involved in the construction of the marina would operate at low speeds and have sea turtle and marine mammal observers. This would provide protection to sea turtles during the transit of work vessels by requiring that vessels maintain set distances from sea turtles for their transit.

Additionally, the proper use of turbidity curtains would prevent these species from coming into close proximity to active in water work areas. Marina construction contractors would also implement a sea turtle monitoring program (previously provided in July 10, 2018 Consultation as Enclosure 6F) during the proposed work, which would include training of personnel involved in in-water work as observers. Observers would visually monitor a 500-meter safety zone around any active construction. If at any time sea turtles are observed within the 500-meter safety zone, all construction work would be shut down until the animals leave the safety zone of own volition. Records would be maintained of all sea turtle sightings in the area, including date and time, weather conditions, species identification, approximate distance from the project area, direction and heading in relation to the project area, and behavioral observations. Reports would be provided to the Corps, NMFS, and DPNR on a monthly basis. Based on the above, the Corps believes the risk of injury to sea turtles from being struck by in-water construction machinery or collisions with in-transit work vessels would be discountable.

In addition, sea turtles could be struck by vessels transiting to or from the marina during the operation of the project. An increase in vessel traffic, as a result of the construction

and operation of the marina, may also increase the potential for vessel strikes to sea turtles. The project would provide new docking space for 127 vessels within Coral Harbor. However, even if 127 new vessels are introduced to this area, according to NMFS' analysis it would take the introduction of at least 300 vessels to an area to result in the take of one sea turtle in a single year (NMFS, 2013). Based on these findings, we believe sea turtles are unlikely to be struck as a result of increasing the number of vessels in the area by 127, which is the number of new slips to be created by the marina. In addition, the marina would implement an education program for the users of the marina, which would include the placement of signs or placards informing boaters about sea turtle awareness and vessel strike prevention. Therefore, we find the likelihood of sea turtles being struck as a result of increased vessel traffic associated with the construction and operation of the marina to be discountable.

Sea turtles might be adversely affected by their inability to access the project area for foraging, refuge, and/or nursery habitat, due to their avoidance of construction activities, and physical exclusion from the project area due to blockage by turbidity curtains. However, since pile installation activities would be limited to daylight hours, a maximum of five piles, and 300 impact hammer strikes per pile per day, sea turtles would be able to resume normal activities during quiet periods between pile installations, immediately after completion of the noise producing activities each day, and at night. In addition, there are similar natural habitats outside of the Action Area, which would remain available to sea turtles during the temporary project construction. Therefore, any potential limitations in the ability of sea turtles to use habitats within the Action Area as a result of the construction of the proposed project are expected to be very minor, temporary, and insignificant.

Sea turtles could also be impacted by the temporary or permanent degradation or loss of foraging or refuge habitat associated with the construction of the proposed marina. As described above, applicant estimates indicate that the construction of the proposed project would result in impacts to 2.39 acres of seagrasses due to the installation of the pilings, spudding of working barges, shading from the docking structures and the vessels at the marina, operation of the marina (for example, propwash), and other construction related impacts. It is relevant to indicate that estimates made by others (previously provided in July 10, 2018 Consultation as Enclosure 16C) suggest that shading from docking structures and vessels at the proposed marina would result in the loss of 7.8 acres of seagrasses. The Corps understands that additional practical alternative designs, which could further reduce the potential effects of the project on seagrasses, are available but were not considered or evaluated by the applicant at that time. Such alternatives could involve using mooring piles instead of full boat length finger piers; and reducing the size and width of some of the piers and docks. This would reduce the shading footprint of the marina, the number of proposed piles, and their associated impacts to seagrasses. Additionally it is important to note that the seagrass coverage has changed over the years at the project site. This would also

affect the acreage of seagrasses. The use of silt curtains and the implementation of the proposed Water Quality Monitoring Plan with Turtle Monitoring and Acoustic Monitoring (undated) would effectively minimize sediment transport and impacts, including degradation and/or loss, to seagrasses adjoining the project footprint during in-water construction work. Also, shading impacts to seagrasses within the footprint of the marina would be minimized through the use of grated decking. To compensate for project impacts to seagrasses, the applicant proposes to complete the compensatory mitigation elements as described in detail in the attached Minimization Mitigation and Compensatory Mitigation Plan dated May 25, 2025. Furthermore, the applicant proposes to assume the long-term maintenance of storm water runoff management structures located throughout the Coral Bay Watershed. The applicant asserts that maintenance of those structures would result in improved water quality within Coral Harbor, which would in turn benefit the seagrass beds and the aquatic environment, enhancing sea turtle foraging and refuge habitat.

As previously described, sea turtles, particularly hawksbill and green sea turtles, have been documented using the resources and habitats within Coral Harbor. There are extensive seagrass beds in other portions of Coral Bay, which would continue to provide high quality foraging and refuge habitat for sea turtles. However, the Corps believes that the potential loss of 2.39 acres of seagrasses (direct and indirect) within the Action Area would not be detrimental for, and would not affect the recovery of, sea turtles, which regularly utilize those seagrasses as foraging and refuge habitat. Based on the above, the Corps has determined that the temporary or permanent loss of use of foraging or refuge habitat due to the installation of the pilings, spudding of working barges, and shading from the docking structures and vessels at the marina is insignificant and not likely to adversely affect the above referenced ESA listed sea turtles.

Benthic resources under the marina could experience impacts during storm events. During a storm event, wind and waves could cause vessels to move up and down (heave) and potentially hit the bottom if not on a boatlift. It is anticipated that these resources would already be impacted as a result of shading by the vessels and docking structures. It is also possible that there could be impacts to seagrasses and other marine resources due to poor boating practices. Unexperienced boat captains could run aground while traveling inside the harbor. However, the applicant will install navigational signs warning boaters of shallow areas to help prevent groundings. With the number of vessels that may utilize the marina, it is anticipated that debris from the vessels and use of the marina may enter the water. Plastic bottles, clothing, and other debris could enter into the water if not disposed of in a proper receptacle. The applicant will conduct an annual marine clean-up which would remove debris from the bottom, which would help improve seagrasses. Additionally, the applicant will install educational signs at the restaurant informing their customers and patrons of the importance of properly discarding debris before it enters in the water. All restaurant employees would

be required to take an annual training for marine trash and debris awareness.

In addition to the above, the applicant estimates that the operation of the marina would result in the indirect loss of approximately 0.34 acre of seagrasses due to prop wash and sediment stir-up and resuspension from vessels while docked, docking at, or departing from the marina. Average water depth within the marina footprint would be approximately 12 feet. The proposed marina would provide docking space for 127 vessels up to 160 feet in length. Thirty-nine (39) of the 127 proposed slips would be for vessels 100 feet long or longer. Vessels of that size commonly have drafts between five to nine feet. Some of the docks for 100 feet long vessels would be located in water depths of eight to nine feet. With such a limited clearance from the marine bottom such large vessels could damage the seagrasses located within the footprint of slips by burying or breaking them with prop wash, or by continuously stirring up and re-suspending sediments. This increased sedimentation and turbidity could extend throughout the Action Area impacting seagrass beds and other benthic habitats located therein. To assess the water mixing and flushing capacity of Coral Harbor, as well as the potential effects of the operation of the marina on the sedimentation, turbidity and water quality levels therein, the applicant collected water current measurements within the project footprint for a two-year period, and then analyzed those observations in accordance with methods. According to the applicant's measurements and analysis, water movement in Coral Bay, particularly in Coral Harbor, is sluggish with circulation and currents being both tidally and wind influenced. Only limited exchange or flushing occurs which is clear by the difference in turbidity in and out of the bay. Rarely is turbidity low within the harbor. The applicant's analysis acknowledges that under those conditions, resuspended fine sediments would remain in the water column of Coral Harbor for an extended period of time potentially resulting long-term increases in turbidity and associated detrimental effects to the benthic community. Therefore, the Corps believes that it could be reasonably expected that the operation of the marina would generate and maintain chronic high turbidity, worsening the already compromised water quality of Coral Harbor, and potentially result in extensive deterioration and loss of the seagrasses located therein. This would reduce the foraging and refuge habitat available for sea turtles within the Action Area and could affect the recovery of the species. However, the project would have beneficial effects due to the proposed debris removal and maintenance of storm water runoff on the condition and extent of seagrasses within Coral Harbor. Furthermore, there are similar natural habitats outside of the Action Area, which would remain available to these species during the temporary project construction. Therefore, the Corps has determined that the temporary or permanent loss of foraging or refuge habitat associated with sediment stir-up and resuspension from vessel prop wash is likely to occur as part of the operation of the marina. The benefits associated with the mangrove and seagrass habitat would improve seagrasses within the mitigation areas leading to a determination that the project as proposed is not likely to adversely affect the above referenced ESA listed sea turtles.

Sea turtles could be adversely impacted by potential spills of fuels during the operation of the proposed project, particularly since the operation of the marina would include vessel fueling facilities. The applicant has indicated that all components of the fueling system would be constructed in compliance with U.S. Environmental Protection Agency (USEPA) and DPNR requirements. As part of its operations, the marina would obtain a Terminal Facility License in order to be able to provide fuel. In addition, the marina would have a DPNR approved Spill Prevention Countermeasure and Control Plan, prior to commence operations. This plan would address measures to prevent, address and minimize the effects of any potential minor or major fuel spills. Based on this information, the Corps understands that it would be unlikely that any fuel spill would be severe enough to produce adverse effects to sea turtles or other listed species. Therefore, the Corps believes that the potential for adverse effects to sea turtles from potential fuel spills during the operation of the proposed marina would be extremely unlikely to occur.

During the construction of the mangrove islands and seagrass slough areas, fill will be placed within waters of the U.S. to construct the islands. To prevent any impacts to sea turtles, the applicant will be required to have a dedicated observer to watch for the presence of sea turtles before the placement of fill. The creation of mangrove and seagrass habitats would provide foraging areas for the turtles once the islands are established and the seagrasses recruit into the areas. Green sea turtles are mostly herbivores so the creation of seagrass habitat would provide additional foraging areas for the species. Similarly, hawksbill turtles feed on marine algae and corals, so the coral outplanting will provide additional foraging opportunities for the turtles. Loggerhead sea turtles feed on a wide variety of floating items. Unfortunately, small fragments of plastic and other debris are often mistaken for food and eaten by these turtles. The debris clean-up in the harbor would help towards lessening the adverse effects to these species that currently exists. Leatherback sea turtles are adapted for a diet of soft-bodies open ocean prey such as jellyfish and salps. The construction of the mangrove and seagrass islands, coral relocation and outplanting, and debris clean-up is not expected to have a negative effect on loggerhead sea turtles.

As stated in the project description, the proposed project includes the installation of 12 mooring buoys, which would be secured to the marine floor using auger anchors and floated lines. Also, seven informational buoys would be installed using screw anchors and floated lines. In addition, floating turbidity curtains would be installed around the pile driving work areas. The mooring tackle or lines of those buoys could pose an entanglement risk for sea turtles if the lines become slack or are capable of forming loops. However, we expect that the anchoring lines would be given only enough slack to enable the buoys to move up and down with the wind and waves and tides and are not expected to form loops. The Corps could not locate any information documenting entanglements with similar mooring tackle in the U.S. Virgin Islands. Based on a review

of the entanglement risks to larger marine animals posed by moorings used for offshore energy systems, it was found that moorings pose a relatively modest risk in terms of entanglement (Benjamins et al., 2014). The buoys and their mooring tackle would be inspected annually and after major weather events to ensure they remain in good condition and do not pose any risk of entanglement, as required in the Minimization, Mitigation, and Compensatory Mitigation Plan dated May 2025 (Attachment 4). Similarly, the floating turbidity curtains would be inspected three times a day including weekends during in-water construction to ensure the turbidity curtains are taut and are not presenting a risk of entanglement to marine fauna. Based on this information, we believe the threat of entanglement of sea turtles in the mooring tackle and turbidity curtains is extremely unlikely to occur.

Nassau grouper, sharks, and Giant manta ray:
Effects to Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray from this project include the potential risk of injury from being struck by in-water construction machinery and vessels (barges, anchors, spuds, crane, etc.) within the in-water work footprint. Sightings data for the project area indicate that only Nassau groupers have been observed within the proposed work areas. However, the colonized reef, hard bottom areas, macroalgae and seagrass areas within the Action Area could also provide suitable foraging habitats for the Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray. Notwithstanding, the construction of the proposed marina would be completed using work vessels operating at slow speeds. Due to their mobility and ability to avoid construction activities, we expect Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray individuals to move away from any operating in-water equipment. Additionally, the proper use of turbidity curtains would prevent these species from coming into close proximity to active in water work areas. Based on the above, we believe injury from in-water construction machinery is extremely unlikely to occur.

Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray individuals might be adversely affected by their inability to access the project area for foraging, refuge, and/or nursery habitat, due to their avoidance of construction activities, and physical exclusion from the project area due to blockage by turbidity curtains. However, since piling installation activities would be limited to daylight hours, a maximum of 5 piles, and a maximum of 1,500 impact hammer strikes per day, ESA listed fish species would be able to resume normal activities during quiet periods between pile installations, immediately after completion of the noise producing activities each day, and at night. In addition, there are similar natural habitats outside of the Action Area, which would remain available to these species during the temporary project construction. Therefore, any potential limitations in the ability of Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray individuals to use habitats within the Action Area as a result of the construction of the proposed project are expected to be very minor, temporary, and insignificant.

Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray individuals could also be impacted by the temporary or permanent degradation or loss of nursery, foraging and/or refuge habitat associated with the construction of the proposed marina. As described above, applicant estimates suggest that the construction of the proposed project would result in impacts to 2.39 acres of seagrasses due to the installation of the pilings, spudding of working barges, marina operations such as propwash, and shading from the docking structures and the vessels at the marina. The use of turbidity curtains will effectively minimize sediment transport and would prevent impacts to adjoining seagrasses during project construction. The Corps will require that the applicant monitor water quality consistent with the Virgin Islands Water Quality Standards found in Title 12, Chapter 7, Section 186 of the Virgin Islands Rules and Regulations consistent with the water quality certificate dated October 16, 2014. An updated water quality certification is currently in review by the Department of Planning and Natural Resources, as issued by the Government of the Virgin Islands of the United States. To offset unavoidable impacts the applicant proposes to provide compensatory mitigation as described and outlined in the attached Minimization Mitigation and Compensatory Mitigation Plan dated May 2025. The mitigation plan includes debris removal within Coral Bay Harbor, out planting of listed corals, mangrove planting along the shoreline, mangrove enhancement and mangrove island creation. In addition to these measures, added actions that will result in decrease in impacts as a result of marina operations includes information signage, informational buoys, and pump-out and waste facilities. Furthermore, the applicant proposes to assume the long-term maintenance of storm water runoff management structures located throughout the Coral Bay Watershed. The applicant asserts that maintenance of those structures would result in improved water quality within Coral Harbor, which would in turn benefit the seagrass beds and the aquatic environment, enhancing ESA listed fish species nursery, foraging and/or refuge habitat. Based on the available information and studies, the Corps cannot fully assess or quantify the beneficial effects of the proposed debris removal and maintenance of storm water runoff on the condition and extent of seagrasses within Coral Harbor. As previously described, ESA listed fish species, particularly Nassau grouper, have been documented using the resources and habitats within Coral Harbor. In addition, Coral Harbor has been documented to serve as a shark nursery habitat. There are extensive seagrass beds in other portions of Coral Bay, which would continue to provide high quality nursery, foraging and/or refuge habitat for ESA listed fish species. However, the Corps believes that the potential loss of 2.39 acres of seagrasses within the Action Area would not be detrimental for, nor affect the recovery of, ESA listed fish species, particularly Nassau grouper, which regularly utilize those seagrasses as nursery, foraging and/or refuge habitat. The project site is situated in and adjacent to neighboring habitat communities that provide support to these species. Based on the above, the Corps has determined that the temporary or permanent loss of use of nursery, foraging and/or refuge habitat due to the installation of the pilings, spudding of working barges, and shading from the docking structures and vessels at the marina is insignificant to the above referenced ESA listed

fish species.

Average water depth within the marina footprint would be approximately 12 feet. The proposed marina would provide docking space for 127 vessels up to 160 feet in length. Thirty-nine (39) of the 127 proposed slips would be for vessels 100 feet long or longer. Vessels of that size commonly have drafts between five to nine feet. Some of the docks for 100 feet long vessels would be located in water depths of eight to nine feet. However, the applicant has modified the layout of the marina to ensure that each vessel has a minimum clearance of 2.5 feet above the substrate in order to reduce the suspension of sediment into the water column during the operation of the marina. The applicant collected water current measurements within the project footprint for a two-year period, and then analyzed those observations. According to the applicant's measurements and analysis, water movement in Coral Bay, particularly in Coral Harbor, is sluggish with circulation and currents being both tidally and wind influenced. Only limited exchange or flushing occurs which is clear by the difference in turbidity in and out of the bay. Rarely is turbidity low within the harbor. The applicant's analysis acknowledges that under those conditions, resuspended fine sediments would remain in the water column of Coral Harbor for an extended period of time potentially resulting in long-term increases in turbidity and associated detrimental effects to the benthic community. Based on this information, the Corps has determined that the temporary or permanent loss of nursery, foraging or refuge habitat associated with sediment stir-up and resuspension from vessel prop wash as part of the operation of the marina the affect is insignificant to the Nassau grouper, scalloped hammerhead shark, oceanic white tip shark, and giant manta ray.

Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray individuals may be impacted by potential spills of fuels during the operation of the proposed project. The applicant has indicated that all components of the fueling system would be constructed in compliance with USEPA and DPNR requirements. As part of its operations, the marina would obtain a Terminal Facility License in order to be able to provide fuel. In addition, the marina would have a DPNR approved Spill Prevention Countermeasure and Control Plan dated March 18, 2021, prior to commence operations. This plan would address measures to prevent, address and minimize the effects of any potential minor or major fuel spills. Based on this information, the Corps understands that it would be unlikely that any fuel spill would be severe enough to produce adverse effects to fish species. Therefore, the Corps believes that the potential for adverse effects to Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray individuals from potential fuel spills during the operation of the proposed marina would be discountable.

As stated in the project description, the project includes the enhancement and construction of mangrove and seagrass habitats within the bay. Clean beach sand would be placed in the waters to create the islands, which would support the

development of mangrove islands with seagrass sloughs. To prevent any impacts to the Nassau grouper, scalloped hammerhead shark, oceanic white tip shark, and the giant manta ray, the applicant will be required to have a dedicated observer to watch for the presence of sea turtles before the placement of fill. The islands would be constructed in either barren bottoms or in areas with algal colonization. As the water depths increase on the site, the density of *Calerpa* and *Halophila stipulacea* also increases, so the shallower waters typically contain *Calerpa* and *Halophila stipulacea* with less density. The noise associated with the deposition of fill within the waters to create the islands is expected to cause the Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray individuals to vacate the areas while the in-water work is occurring, if they are present. For the Nassau grouper, the juveniles are found in nearshore shallow waters in microalgae and seagrass habitats. As they grow, they shift to deeper reef habitats. The construction of the mangrove and seagrass islands would provide some aquatic habitat for juvenile Nassau groupers, which would replace any habitat with macroalgae. Thus, the construction of the mangrove and seagrass islands is expected to have a discountable effect on the Nassau grouper. The Oceanic whitetip shark is generally found offshore in the open ocean and around oceanic islands in deep water areas, typically ranging from the surface to about 200 meters (656 feet) deep. Additionally, the locations of the nursery grounds are not well known but they are thought to be in oceanic waters. Therefore, these sharks are not expected to be commonly found in the shallow waters of Coral Bay, and therefore, the construction of the islands would have a discountable effect. Additionally, the giant manta ray has been observed in estuarine waters, oceanic inlets, and within bays and intercoastal waterways. However, giant manta rays are typically found in cool waters. During feeding, giant manta rays may be found aggregating in shallow waters at depths less than 10 meters. The construction of the mangrove and seagrass islands is expected to have a discountable effect on the giant manta ray.

Additionally, the proposed project includes the installation of 12 mooring buoys, which would be secured to the marine floor using auger anchors and floated lines. Also, seven informational buoys would be installed using screw anchors and floated lines. In addition, during construction, temporary floating turbidity curtains would be installed around the pile driving work areas. The mooring tackle or lines of the buoys could pose an entanglement risk for Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray individuals if the buoy lines become slack or is capable of forming loops. However, we expect that would be given only enough slack to enable the buoys to move up and down with the wind and waves and tides and are not expected to form loops. The Corps could not locate any information documenting entanglements with similar mooring chains in U.S. Virgin Islands. Based on a review of the entanglement risks to larger marine animals posed by moorings used for offshore energy systems, it was found that moorings pose a relatively modest risk in terms of entanglement (Benjamins et al., 2014). Abandoned fishing gear was found to pose a far greater risk of entanglement. The buoys and their mooring tackle would be inspected

annually and after a major storm event to ensure they remain in good condition and do not pose any risk of entanglement. Similarly, the floating turbidity curtains would be inspected constantly to ensure they are taut and are not presenting a risk of entanglement to marine fauna. Based on this information, we believe the threat of entanglement of Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray in the mooring tackle or silt curtains would be extremely unlikely to occur.

Queen conch:
Queen conch may occur within the project footprint and could be impacted as a result of the project. The applicant would be required to adhere to the Queen Conch Survey Construction Conditions, Relocation and Reporting Guidelines dated January 2025, to incorporate the following survey protocols and measures to ensure that the project as proposed would not adversely impact the species.

Guidance for Queen Conch During-Construction Surveys, Construction Conditions can be found at:
https://www.fisheries.noaa.gov/s3/2024-09/Queen-Conch-Survey-Construction-Conditions-and-Relocation-Guidelines.pdf

The applicant will be required to adhere to the Queen Conch Survey Methods by using radial or belt transects providing 100% coverage of survey areas. During the preconstruction survey, if no queen conch are found, the project may continue for 90 days from the date of the survey. The project may continue under the existing consultation and the survey will remain valid for all in-water work below MHWL for 90 days from the start date of the survey. If the project extends beyond the 90 day timeframe, then another survey will be required to provide consultation coverage for an additional 90 days. If queen conch (adults and/or juveniles) are found to be present in the survey area during the pre-construction survey, the applicant must either relocate the queen conch in accordance with the Relocation Guidelines or allow them to move out of the survey area on their own volition prior to beginning work.

If no pre-construction survey has been conducted or >90 days have elapsed since the most recent pre-construction survey, a new pre-construction survey will be required. If queen conch were reported within the survey area during the most recent preconstruction survey, then during-construction surveys are required.

If queen conch are located during a survey, turbidity is anticipated, and the benthos contains silt, clay, very fine, and fine sands (< 0.25 millimeter grain size), the applicant will be required to use turbidity curtains. For projects with no turbidity curtain or floating turbidity curtains, the applicant shall conduct surveys following the Queen Conch Survey Methods with the following survey area, depending on the frequency of the surveys:

i. Initial Survey: Must be conducted prior to the start of in-water work and cover the project footprint plus a buffer of 12 meters (39 feet) around the entire project footprint.

ii. Repeated Surveys:

- Daily surveys: Must cover the buffer area [i.e., from the project footprint perimeter plus 12 meters (39 feet)]; or

- Every other day: Must cover 12 meters (39 feet) in each direction around the project footprint perimeter [i.e., a total of 24 meters (78 feet), or 12 meters (39 feet) outside the project footprint perimeter and 12 meters (39 feet) inside the perimeter]; or
- Every third day: Must cover 24 meters (78 feet) in each direction around the project footprint perimeter [i.e., a total of 48 meters (156 feet), or 24 meters (78 feet) outside the project footprint perimeter and 24 meters (78 feet) inside the perimeter].

- Surveys may not be conducted less frequently than every third work day, but may be discontinued during breaks in in-water work. If surveys are discontinued, a new Initial Survey must be conducted, followed by Repeated Surveys according to the schedule above.

iii. Repeated surveys (option 2):

- Repeated surveys can be limited to the buffer area around the project footprint perimeter, but only if the initial survey buffer around the project footprint perimeter is equivalent to 12 meters (39 feet) x frequency of surveys (in days). That is, daily surveys would require an initial survey with a buffer of 12 meters (39 feet), every other day surveys require a buffer of 24 meters (78 feet), and every third day surveys require a buffer of 36 meters (118 feet).

During construction survey results and construction conditions:

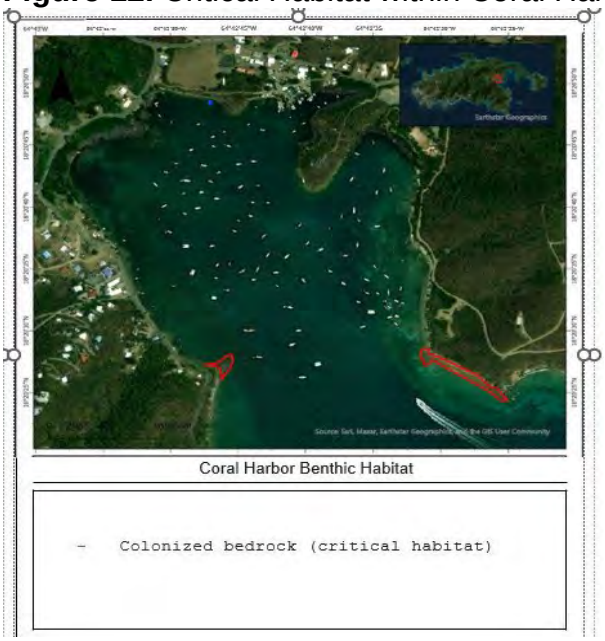
If no queen conch are found in the Initial Survey, the applicant would proceed with in-water work, and continue during-construction Repeated Surveys. If greater than 10 juvenile or greater than 10 adult queen conch are found, in-water work below MHWL may not begin and the applicant must contact the Corps and NMFS PRD for further guidance on how to initiate formal consultation. If 10 or fewer juvenile and adult queen conch are found within the survey area, respectively, all in-water work below MHWL may not begin until either of the following conditions is met:

i. Allow all queen conch found in the survey area to move, of their own volition, beyond the project footprint perimeter, as buffered by the number of days until the next during-construction survey. If and when this condition is satisfied, construction may begin or resume, with ongoing during-construction surveys. The applicant may relocate individuals away from the routes of effect from in-water activities, following the Relocation Guideline procedures. If and when this condition is satisfied, construction may begin or resume, with ongoing during-construction surveys.

With the added protection measures, the impacts to the conch, if present at the site, would be minimized and is considered discountable.

Listed coral species:
There are three small areas of uncolonized bedrock occurring in Coral Harbor. The uncolonized bedrock occurs on the small points just east and west of Coral Bay Marina and on an area of shoreline extending north from the critical habitat adjacent to Harbor Point (Figure 12). The total area of uncolonized bedrock in Coral Harbor is approximately 0.62 acres. There is seagrass colonization around each uncolonized bedrock habitat in the harbor. The uncolonized bedrock north of Harbor Point consists of a shallow bedrock low relief (< 1 foot) shelf and an adjacent small area of boulders with minimal (<10%) colonization of small (< 10 centimeters) *S. siderea* corals. The uncolonized bedrock habitats in the northern portion of Coral Harbor have bedrock outcrops of slightly higher relief (~2 foot) that have partial algal colonization (~15%).

Figure 12. Critical Habitat within Coral Harbor



As stated above in Table 3, Elkhorn, Staghorn, Boulder star, Mountainous star, Lobed star, Rough Cactus, and Pillar corals have the potential to be present within the Action

Area, but not in the project footprint for the construction of the marina, the placement of fill for the mangrove and seagrass islands, or in the proposed location for the 10 recreational buoys and the seven (7) information buoys. According to the 2018 benthic assessment conducted for this project, five colonies of Elkhorn coral, four colonies of Mountainous star coral, 12 colonies of Lobed star, and one colony of Pillar coral are found on the shallow reef and hard bottom areas located on both sides of the mouth of Coral Harbor, between 1,100 feet and 2,100 feet from the project site. Per the 2022-2023 benthic survey at least one elkhorn coral (*Acropora palmata*) and the one Pillar coral (*Dendrogyra cylindrus*) was lost between the 2018 and the 2022-2023 surveys. See Figure 13 for the location of corals within Coral Bay, Figure 14 for the coals located within Harbor Point and Figure 15 for the corals located within Penn Point.

Figure 13. Corals within Coral Bay

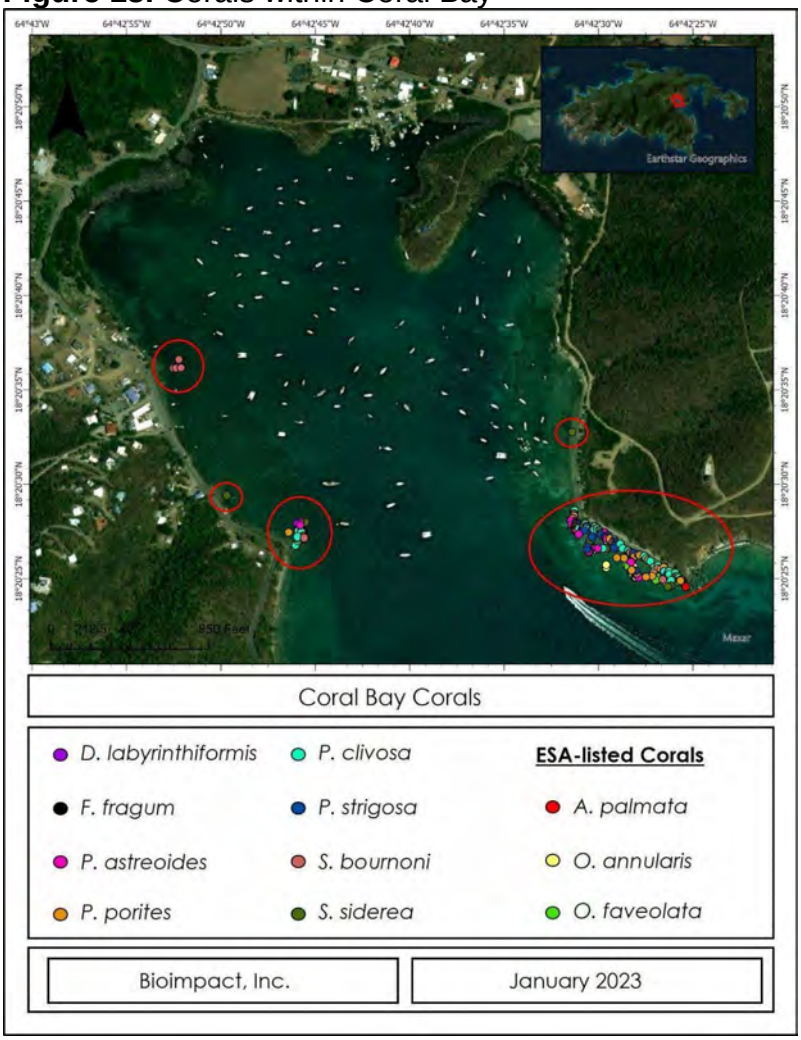


Figure 14. Corals at Harbor Point

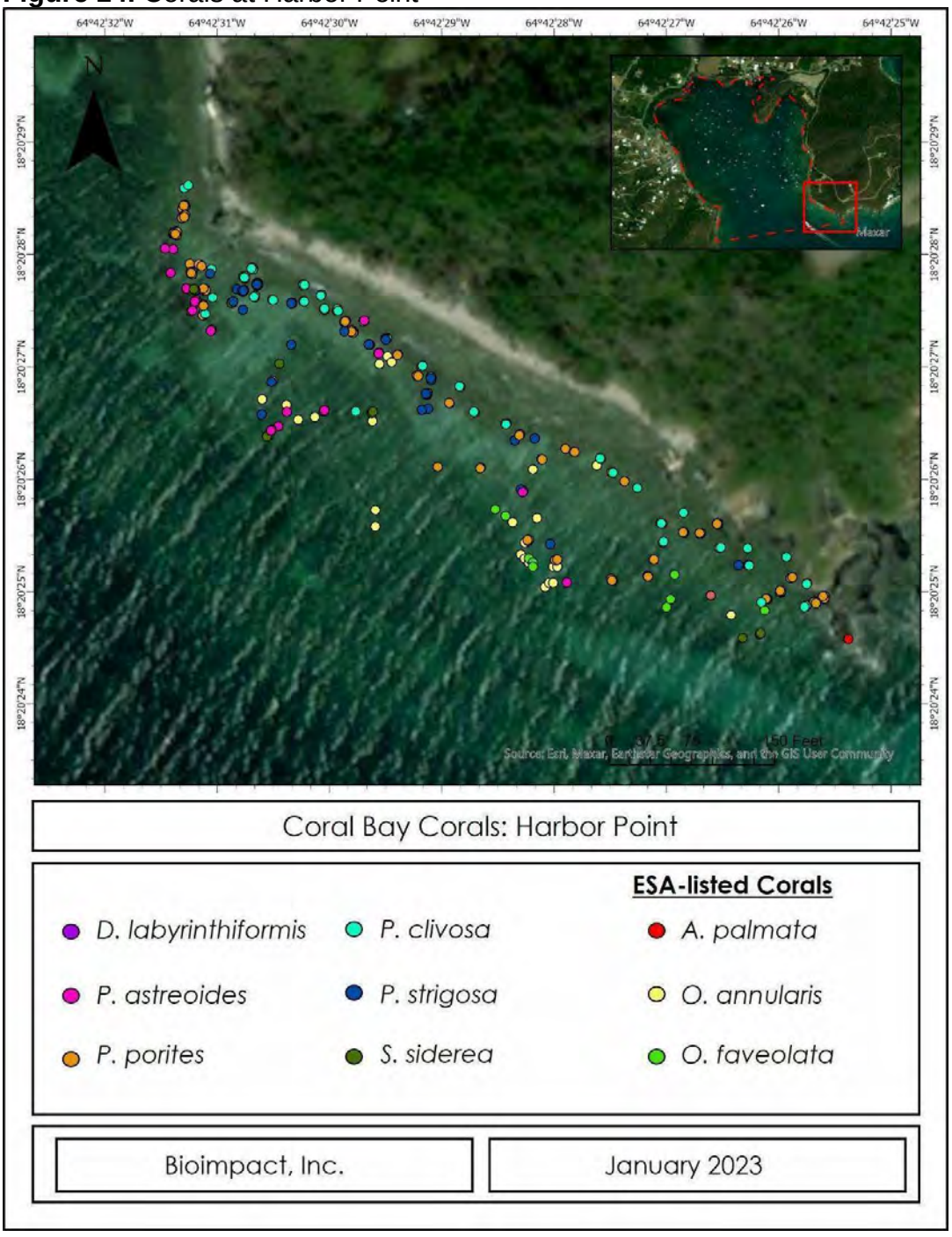
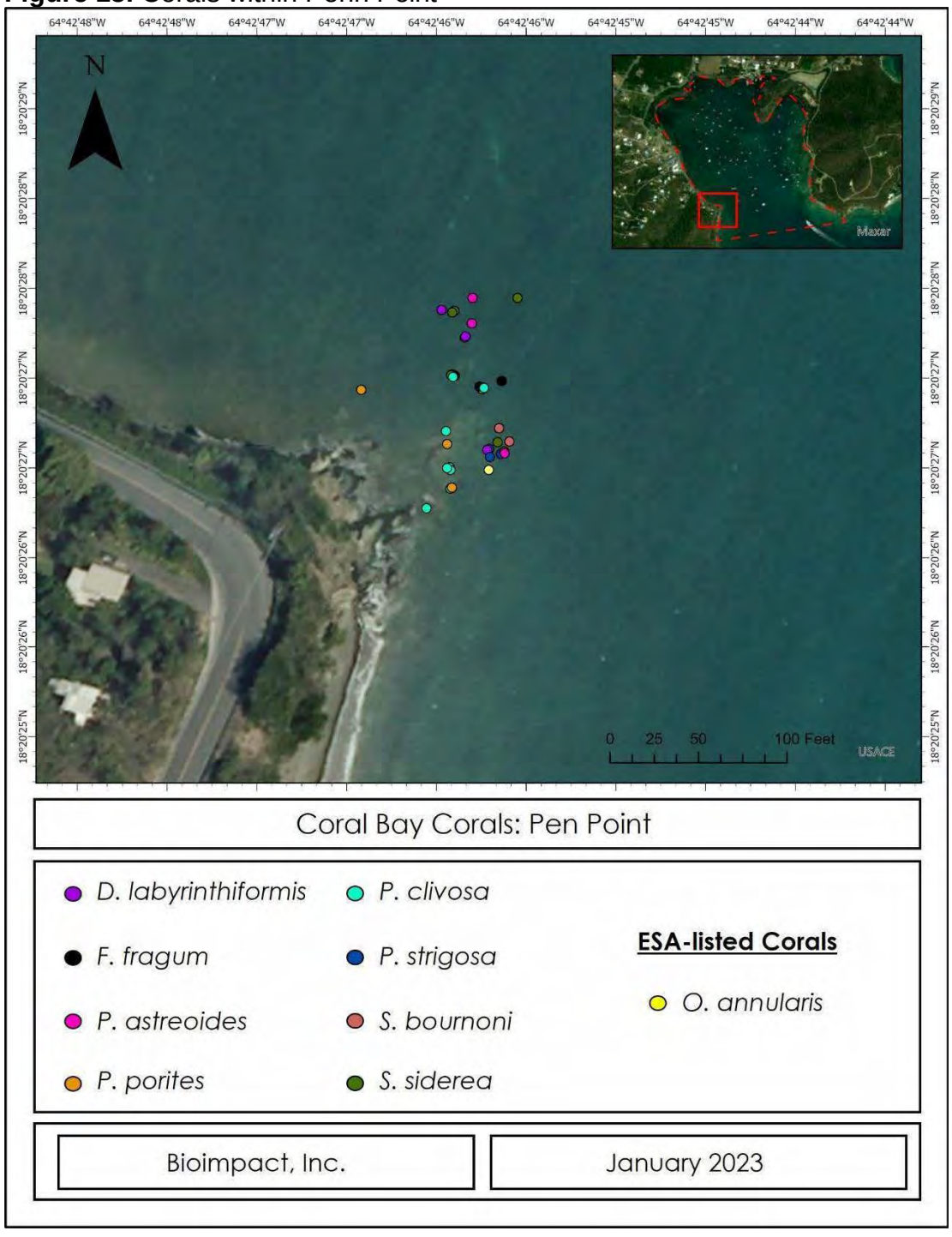


Figure 15. Corals within Penn Point



The project could result in indirect impacts to these ESA listed coral colonies due to the discharge, resuspension, and transport of sediments during the proposed construction and pile-driving work. ESA listed coral colonies could also be affected by transport of

sediments discharged into the harbor from the upland construction areas of the project. However, erosion and sediment control measures including silt fences would be installed between upland construction areas and the shoreline of Coral Harbor to prevent sediment discharges from the project areas into aquatic habitats. In addition, temporary, floating turbidity curtains would be installed around all in-water pile driving work, to minimize transport of resuspended sediments outside of the in-water work areas into adjacent aquatic habitats. Furthermore, Water Quality Monitoring Plan with Turtle Monitoring and Acoustic Monitoring (undated as Attachment 5) would be implemented during the construction of the marina to assess associated potential sedimentation effects. The applicant would be required to install and maintain turbidity curtains during all in-water activities and adhere to the Water Quality Monitoring Plan as indicated in the water quality certificate dated October 16, 2014. If elevated turbidity above background levels is detected outside of the immediate work areas, the construction work would stop and any potential deficiencies in the deployed turbidity control would be corrected. Therefore, we believe that the risk of impacts to ESA listed corals associated with the potential discharge, resuspension, and transport of sediments from the proposed marina construction and pile-driving work would be extremely unlikely to occur.

The project could also result in indirect impacts to the above referenced colonies of ESA listed corals if as part of its operation sediments are resuspended due to prop wash from vessels at the marina, and those sediments are transported to the mouth of Coral Harbor. Average water depth within the marina footprint would be approximately 12 feet. The proposed marina would provide docking space for 127 vessels up to 160 feet in length. Thirty-nine (39) of the 127 proposed slips would be for vessels 100 feet long or longer. Vessels of that size commonly have drafts between five to nine feet. Some of the docks for 100 feet long vessels would be located in water depths of eight to nine feet. With such a limited clearance from the marine bottom such large vessels could generate prop wash, continuously stirring up and re-suspending sediments. This increased sedimentation and turbidity could extend throughout the Action Area reaching the mouth of the harbor and impacting the ESA listed corals located therein. According to the applicant's measurements and analysis, water movement in Coral Bay, particularly in Coral Harbor, is sluggish with circulation and currents being both tidally and wind influenced. Only limited exchange or flushing occurs which is clear by the difference in turbidity in and out of the bay. Rarely is turbidity low within the harbor. The applicant's analysis acknowledges that under those conditions, resuspended fine sediments would remain in the water column of Coral Harbor for an extended period of time potentially resulting long-term increases in turbidity and associated detrimental effects to the benthic community. Based on the above information in addition to the supplemental information provided, the Corps has determined that the sediment stir-up, resuspension and transport from vessel prop wash as part of the operation of the marina effect is insignificant to the above referenced ESA listed coral colonies.

In addition, ESA listed coral colonies could be affected by the transit of work vessels to

and from the in-water construction areas of the proposed marina if a work vessel was to ground on the shallow reef and colonized hard bottom located at both sides of the mouth of Coral Harbor. In order to minimize the potential for accidental groundings associated with the project, the Corps would require that no work takes place at night. Also, prior to begin project construction seven informational buoys or aids to navigation would be deployed in shallow areas on the approach to the marina location, including the reefs and hard bottom areas at both sides of the mouth of Coral Harbor. These aids to navigation would alert all boaters, including the operators of work vessels associated with the construction of the marina, about the presence of those shallow areas and the sensitive resources located therein, so they can maneuver the boats to avoid those areas. For these reasons, we believe the potential for impacts to ESA listed coral colonies from accidental groundings of work vessels associated with the construction of the proposed marina is extremely unlikely to occur.

Furthermore, ESA listed coral colonies occur outside of the project footprint adjacent to the mouth of Coral Bay and could be at risk from vessel groundings as vessels transit in and out of the marina. The marina will implement an education program for the users of the marina, which will include the placement of signs or placards informing boaters about the presence of ESA listed corals in shallow reef and hard bottom areas of Coral Harbor, as well as safe navigation practices to prevent groundings and impacts to those sensitive resources. Also, prior to project construction, seven informational buoys or aids to navigation would be deployed in shallow areas on the approach to the marina location, including the reefs and hard bottom areas at both sides of the mouth of Coral Harbor, to alert all boaters and users of the marina about the presence of those shallow areas and the sensitive resources located therein, so they can maneuver the boats to avoid those areas. For these reasons, the Corps believes that the potential for impacts to ESA listed coral colonies from accidental groundings associated with increased vessel traffic to and from Coral Harbor as a result of the operation of the marina would be extremely unlikely to occur.

ESA listed corals could be adversely impacted by potential spills of fuels during the operation of the proposed project. The applicant has indicated that all components of the fueling system would be constructed in compliance with USEPA and DPNR requirements. As part of its operations, the marina would obtain a Terminal Facility License in order to be able to provide fuel. In addition, the marina will have a DPNR approved Spill Prevention Countermeasure and Control Plan, prior to commencing operations. This plan would address measures to prevent, address and minimize the effects of any potential minor or major fuel spills. Based on this information, the Corps understands that it would be unlikely that any fuel spill would be severe enough to produce adverse effects to the above reference ESA listed coral colonies. Therefore, the Corps believes that the potential for adverse effects to Elkhorn, Mountainous star, Lobed star, and Pillar corals from potential fuel spills during the operation of the proposed marina would be discountable.

The applicant is proposing to outplant 3,000 ESA listed corals. The Corps determined that the project may affect but is not likely to adversely impact designated critical habitat within the project area from the slight potential for indirect impacts due to turbidity.

The project is located within the boundary of *Acropora* and non-*Acropora* coral critical habitat. The following essential feature may be present within *Acropora* critical habitat: "Substrate of suitable quality and availability in water depths from the mean high water line to 30 meters in order to support successful larval settlement, recruitment, and reattachment of fragments." The following proposed essential feature may be present within the proposed non-*Acropora* critical habitat: "Sites that support the normal function of all life stages of threatened corals are natural, consolidated hard substrate or dead coral skeleton, which is free of algae or sediment at the appropriate scale at the point of larval settlement or fragment reattachment, and the associated water column." However, none of the physical or biological features essential for the conservation of the species ("essential features") are going to be disturbed in the areas of coral restoration; on the contrary, they will be avoided by divers, anchoring activities, and other activities associated with the proposed action. While these species are known to spawn, disperse and exhibit all life functions in August and September each year, BMPs listed in the National Oceanic and Atmospheric Administration (NOAA) Coral Reef Conservation Program (CRCP) Programmatic Environmental Impact Statement (PEIS) and BMPs that have been developed for implementation by the project team will mitigate any likelihood of negative effects. Moreover, a key component of this project is to build and enhance restoration of coral habitat and therefore should result in a net benefit.

b. Noise Effects

Noise created by pile driving activities can physically injure animals or change animal behavior in the affected areas. Animals can be physically injured in 2 ways. First, immediate adverse effects can occur if a single noise event exceeds the threshold for direct physical injury. Second, adverse physical effects can result from prolonged exposure to noise levels that exceed the daily cumulative sound exposure level for the animals. Noise can also interfere with an animal's behavior, such as migrating, feeding, resting, or reproducing and such disturbances could constitute adverse behavioral effects.

When an impact hammer strikes a pile, a pulse is created that propagates through the pile and radiates sound into the water, the ground substrate, and the air. Pulsed sounds underwater are typically high-volume events that have the potential to cause hearing injury. Vibratory pile driving produces continuous, non-pulsed sounds that can be tonal or broadband. In terms of acoustics, the sound pressure wave is described by the peak sound pressure level (PK, which is the greatest value of the sound signal), the root-mean-square pressure level (RMS, which is the average intensity of the sound signal over time), and the sound exposure level (SEL, which is a measure of the energy that

takes into account both received level and duration of exposure). Further, the cumulative sound exposure level (SELcum) is the measure of energy that takes into account the received sound pressure level over a 24-hour period. For underwater sounds, a reference pressure of 1 micropascal (µPa) is commonly used to describe sounds in terms of decibels (dB). Thus, 0 dB on the decibel scale would be a measure of sound pressure of 1 µPA. NMFS has determined that there are no PK potential effects to ESA-listed sea turtles, fishes, and marine mammals resulting from continuous, non-pulsed sounds associated with vibratory pile-driving. Further, NMFS has determined that there are no SELcum potential effects to ESA-listed fishes resulting from continuous, non-pulsed sounds associated with vibratory pile-driving.

NMFS uses the U.S. Navy Phase III criteria for all noise thresholds (U.S. Department of the Navy, 2017). As of May 2022, potential effects to ESA-listed species may occur when impact or vibratory pile driving produces sounds that exceed the following thresholds in Table 3. Below, PK and RMS are referenced to dB re: 1 µPA, the relative unit used to specify the intensity of sound underwater. Further, SEL and SELcum are referenced to dB re: 1 μPA^2-second. (Please see Table 5 for sound thresholds for ESA listed species).

Table 5. Pile Driving Sound Measurement Thresholds for ESA-listed Species in the Southeast Region

Type of Sound Pressure Effect	**Type of Pile Driving**	**Threshold By ESA-Listed Species**
Peak Pressure Injury (PK)	Vibratory	● None for all species
	Impact	● 206 dB for all fish species, regardless of size ● 232 dB for sea turtles ● 219 dB for low-frequency cetaceans (i.e., Rice's, North Atlantic Right, Sei, and Fin whales) ● 230 dB for mid-frequency cetaceans (i.e., Sperm whales)
Cumulative Exposure Injury (SELcum)	Vibratory	● None for all fish species ● 220 dB for sea turtles ● 199 dB for low-frequency cetaceans (i.e., Rice's, North Atlantic Right, Sei, and Fin whales) ● 198 dB for mid-frequency cetaceans (i.e., Sperm whale)

Type of Sound Pressure Effect	Type of Pile Driving	Threshold By ESA-Listed Species
	Impact	● 183 dB for fish species less than 2 grams ● 187 dB for fish species greater than 2 grams ● 204 dB for sea turtles ● 183 dB for low-frequency cetaceans (i.e., Rice's, North Atlantic Right, Sei, and Fin whales) ● 185 dB for mid-frequency cetaceans (i.e., Sperm whale)
Behavioral Disturbances (RMS)	Vibratory	● 150 dB RMS for all fish species ● 175 dB RMS for sea turtles ● 120 dB RMS for all cetaceans
	Impact	● 150 dB RMS for all fish species, regardless of size ● 175 dB RMS for all sea turtles ● 160 dB RMS for all cetaceans

We use the NMFS Multi-species Pile Driving Tool (dated August 2022) to calculate the radii of physical injury and behavioral effects on ESA-listed species that may be located in the action area based on the above measurements of underwater sound.

Our underwater noise or acoustic effects analysis considered the specific details of the proposed steel pipe pile driving activities, as summarized above in the Description of the Proposed Action and Table 1. Construction of the proposed marina would require installing 867 piles to support the docking structures. 470 piles would be 14-inch steel pipe piles filled with concrete; and 397 would be 18-inch steel pipe piles filled with concrete. Pile installation work would be limited to daylight hours only. An impact hammer would be used to install all piles. A maximum of 5 piles would be installed each day. The installation of each pile would require an average of 300 blows with the impact hammer. The installation of the 867 proposed piles would be completed in approximately 174 days. Even though three different types of piles would be installed, following a conservative approach, the noise analysis was completed using the largest pile with the largest potential for noise generation, which was the 18-inch in diameter steel pipe piles. Since the NMFS Pile Driving Noise Calculator Tool does not provide information for Steel Pipe Piles with 18" diameter, we used the data for Steel Pipe Piles with 20" in diameter installed with an impact hammer at a water depth of 5 meters.

According to our results, the proposed installation of steel pipe piles by impact hammer would cause peak-pressure injury to sea turtles at a radius of up to 0.1 meters (0.4 feet). In addition, the cumulative sound exposure level (SELcum) of multiple pile strikes over the course of a day may cause injury to sea turtles at a radius of up to 0.4 meters (1.3 feet). To minimize potential impacts to federally protected sea turtles, the applicant is proposing, and the Corps would require establishing a 500-meter safety/monitoring zone around the project area during project construction. Trained observers would visually monitor the safety zone for at least 30 minutes prior to beginning all in-water construction activities. If at any time, a sea turtle is observed in this safety zone, which is well before the sea turtle's threshold for injurious effects, the operation would be shut down until the animal leaves the safety zone of its own volition. This would effectively protect sea turtles from potential noise impact related injury if they were to approach the pile installation area. Additionally, the proper use of turbidity curtains would prevent these species from coming into close proximity to active in water work areas. Also, due to the mobility sea turtles, we expect them to move away from noise disturbances during the ramp up phase. Because we anticipate the animal would move away, we believe that the possibility of a sea turtle suffering physical injury from noise would be extremely unlikely. Therefore, the likelihood of any injurious peak-pressure or SELcum effects to sea turtles would be discountable. An animal's movement away from the injurious impact zone is a behavioral response, with the same effects discussed below.

Based on our noise calculations, impact hammer pile installation could also cause behavioral effects to sea turtles at a radius of up to 1.2 meters (3.8 feet). Due to the mobility of sea turtles, we expect them to move away from noise disturbances. Because there are similar habitats nearby, we believe behavioral effects would be insignificant. If a sea turtle chooses to remain within the behavioral response zone, it could be exposed to behavioral noise impacts during pile installation. Since piling installation activities would be limited to daylight hours, a maximum of 5 piles, and 300 impact hammer strikes per pile per day, sea turtles would be able to resume normal activities during quiet periods between pile installations, and at night. Therefore, we anticipate that any project related behavioral effects to sea turtles would be insignificant.

Notwithstanding the above, it is important to note that our noise analysis above relied on the pile driving information provided by the applicant. This information estimated that an average of 300 strikes would be required to install each pile, 5 piles would be installed per day, and all pile driving would be completed in 174 days. These estimates were based on the assumption that sediments within the proposed marina footprint are composed of a mix of fine, silty sand and clay throughout the 25 feet embedment depth necessary to adequately install the piles. If rocky layers, bedrock or harder substrate are found within the needed embedment depth, additional strikes could be needed to install each pile, and/or the pile installation work duration could be extended. This could

affect the noise analysis results and determinations provided above. Any deviations from the metrics used to analyze noise impacts to protected species should be coordinated with NMFS prior to commencement. Refer to the calculated distances for noise effects in Table 6.

Table 6. Calculated Distances

	Calculated Distances					
	Onset of Physical Injury				Behavioral Disturbance	
	Peak		Cumulative SEL dB**			
	Sea Turtles	Fish	Sea Turtles	Fish >2 g	Sea Turtles	Fish
Threshold value	232	206	204	187	175	150
Distance to threshold (m)	**0.1**	**7.4**	**0.4**	**5.2**	**1.2**	**54.1**
Distance to threshold (ft)	**0.4**	**24.1**	**1.3**	**17.1**	**3.8**	**177.5**
		** This calculation assumes that single strike SELs < 150 dB do not accumulate to cause injury (Effective Quiet)				

Figure 16. Impact Pile Driving report, generated from NMFS Multi-species Pile Driving Tool (NMFS, 2022)

IMPACT PILE DRIVING REPORT

VERSION 1.2-Multi-Species: 2022

Summers End Group, Coral Bay, St John, USVI

PRINT IN LANDSCAPE TO CAPTURE ENTIRE SCREEN

(if OTHER INFO or NOTES get cut-off, please include information elsewhere)

PROJECT INFORMATION	**PEAK**	**SELss**	**RMS**
Single strike level (dB)	204	151	161
Distance associated with single strike level (meters)	10	10	10
Transmission loss constant	15		

OTHER INFO Line 22 on proxy levels

Number of piles per day	5
Number of strikes per pile	300
Number of strikes per day	1500
Cumulative SEL at measured distance	183

NOTES: 14 and 18 in steel piles; proxy is a 20 in steel pile

Attenuation: 0

RESULTANT ISOPLETHS

FISHES

(Range to Effects)	ONSET OF PHYSICAL INJURY			BEHAVIOR	
	Peak Isopleth	SEL_{cum} Isopleth		RMS Isopleth	
		Fish ≥ 2 g	Fish < 2 g		
ISOPLETHS (meters)	7.4	5.2	9.6	54.1	Fishes present
Isopleth (feet)	24.1	17.1	31.6	177.5	

SEA TURTLES

	PTS ONSET		BEHAVIOR	
	Peak Isopleth	SEL_{cum} Isopleth	RMS Isopleth	
ISOPLETHS (meters)	0.1	0.4	1.2	Sea Turtles present
Isopleth (feet)	0.4	1.3	3.8	

MARINE MAMMALS

	LF Cetacean	MF Cetaceans	HF Cetaceans	PW Pinniped	OW Pinnipeds
PTS ONSET (Peak isopleth, meters)	1.0	0.2	13.6	1.2	0.1
PTS ONSET (Peak isopleth, feet)	3.3	0.6	44.6	3.8	0.4
PTS ONSET (SEL_{cum} isopleth, meters)	9.6	0.3	11.5	5.2	0.4
PTS ONSET (SEL_{cum} isopleth, feet)	31.6	1.1	37.6	16.9	1.2
	ALL MM	NO MF CET. NO LF CET.	HF Cet. present	Phocids present	Otariids present
Behavior (RMS isopleth, meters)	11.7				
Behavior (RMS isopleth, feet)	38.3				

Noise generated during the proposed installation of anchor pilings has the potential to physically injure or change the behavior of ESA listed fish species, including Nassau grouper, Scalloped hammerhead shark, Oceanic white tip shark, and Giant manta ray individuals, which could be present in the vicinity of the project area. Injurious effects to these species can occur in two ways. First, immediate adverse effects can occur to listed species if a single noise event exceeds the threshold for direct physical injury.

Second, effects can result from prolonged exposure to noise levels that exceed the daily cumulative exposure threshold for the animals, and these can constitute adverse effects, if animals are exposed to the noise levels for sufficient periods. Behavioral effects can be adverse if such effects prevent animals from migrating, feeding, resting, or reproducing, for example. To evaluate potential effects to ESA listed fish species as a result of noise created by the proposed dock supporting piles installation, we utilized the Practical Spreading Loss Model of Pile Driving Noise Calculator Tool, dated October 2024 from the NMFS Southeast Region.

Our underwater noise or acoustic effects analysis considered the specific details of the proposed steel pipe pile driving activities, as summarized above in the Description of the Proposed Action and Table 2. Construction of the proposed marina would require installing 867 piles to support the docking structures. 470 pilings would be 14-inch steel pipe piles filled with concrete; and 397 would be 18-inch steel pipe piles filled with concrete. Pile installation work would be limited to daylight hours only. An impact hammer would be used to install all piles. A maximum of 5 piles would be installed each day. The installation of each pile would require an average of 300 blows with the impact hammer. The installation of the 867 proposed piles would be completed in approximately 174 days. Even though three different types of piles would be installed, following a conservative approach, the noise analysis was completed using the largest pile with the largest potential for noise generation, which was the 18-inch in diameter steel pipe piles. Since the NMFS Pile Driving Noise Calculator Tool does not provide information for Steel Pipe Piles with 18-inch diameter, we used the data for Steel Pipe Piles with 20-inch in diameter installed with impact hammer at a water depth of 10 meters, with attenuation of 0 dB. Since there would be open water portions of the bay without solid objects within 260 feet of any proposed pile driving activity, the project area was considered an open water environment. The results of our noise analysis are summarized in Figure 16 above.

According to our results, the installation of the dock supporting piles by impact hammer would cause peak-pressure injury to ESA-listed fish (Nassau grouper, Scalloped hammerhead sharks, Oceanic white tip sharks, and Giant manta rays) at a radius of up to 7.4 meters (24.1 feet). The cumulative sound exposure level (SELcum) of multiple pile strikes over the course of a day may cause injury to those ESA listed fish species at a radius of up to 5.2 meters (17.1 feet). However, the proper use of turbidity curtains would prevent these species from coming into close proximity to active in water work areas. Also, due to the mobility of ESA-listed fish species, we expect them to move away from noise disturbances during the ramp up phase. Because we anticipate fish to move away, we believe that an animal suffering physical injury from noise would be extremely unlikely to occur and the likelihood of any injurious peak-pressure or SELcum effects would be discountable. An animal's movement away from the injurious impact zone is a behavioral response, with the same effects discussed below.

Based on our noise calculations, impact hammer pile installation could also cause behavioral effects to ESA-listed fish species at radius of up to 54.1 meters (177.5 feet). Due to the mobility of ESA-listed fish species, we expect them to move away from noise disturbances. Because there are similar habitats nearby, we believe behavioral effects would be insignificant. If a listed fish chooses to remain within the behavioral response zone, it could be exposed to behavioral noise impacts during pile installation. Since pipe installation activities would be limited to daylight hours, a maximum of five piles, and 300 impact hammer strikes per pile per day, fish species would be able to resume normal activities during quiet periods between pile installations, and at night. Therefore, we anticipate that any project related behavioral effects to ESA-listed fish species would be insignificant.

Notwithstanding the above, it is important to note that our noise analysis above relied on the pile driving information provided by the applicant. This information estimated that an average of 300 strikes would be required to install each pile, five piles would be installed per day, and all pile driving would be completed in 174 days. These estimates assumed that sediments within the proposed marina footprint are composed of a mix of fine, silty sand and clay throughout the 25 feet embedment depth necessary to adequately install the piles. If rocky layers, bedrock or harder substrate are found within the needed embedment depth, additional strikes could be needed to install each pile, and/or the pile installation work duration could be extended. This could affect the noise analysis results and determinations provided above. Any deviations from the metrics used to analyze noise impacts to protected species should be coordinated with NMFS prior to commencement.

5. CONCLUSION:

The Corps has reviewed the proposed project for its effects to ESA-listed species and their critical habitat. Based on the analysis above, we have determined that the proposed project is not likely to adversely affect any listed species or critical habitat under NMFS's jurisdiction. We have used the best scientific and commercial data available to complete this analysis. We request your concurrence with this determination. Should you require further information regarding this project, please contact Alisa Zarbo at 561-472-3517 or via e-mail at Alisa.A.Zarbo@usace.army.mil. Please refer to identification number SAJ-2004-12518 (SP-AAZ) in any correspondence concerning this project. Thank you for your assistance and attention to this matter.

Sincerely

Alisa Zarbo

Alisa Zarbo
Chief, Palm Beach Gardens Permitting Section

Literature Cited

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NMFS. 2021. Protected species construction conditions, NOAA Fisheries Southeast Regional Office. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, revised May 2021, Saint Petersburg, FL.

NMFS. 2022. Multi-Species Pile Driving Calculator, Version 1.2-Multi Species, https://www.fisheries.noaa.gov/s3/2023-05/BLANK-Multi-Species.xlsx (as of May 25, 2023)

U.S. Department of the Navy. 2017. Technical Report: Criteria and Thresholds for U.S. Navy Acoustic and Explosive Effects Analysis (Phase III). San Diego, California: SSC Pacific.

Information on species biology was utilized from the NOAA Fisheries website: https://www.fisheries.noaa.gov/find-species

Attachments
1. Project drawings, dated June 27, 2024
2. 2020 Watershed Management Plan for stormwater structures.
3. USVI DPNR Coral Mitigation Relocation Recommendations dated April 2020
4. Minimization, Mitigation and Compensatory Mitigation Plan dated May 25, 2025
5. Water Quality Monitoring Plan with Turtle Monitoring and Acoustic Monitoring (undated)
6. NMFS Protected Species Construction Conditions dated May 2021
7. NMFS Vessel Strike Avoidance Measures dated May 2021
8. Harbor Management Vessel Docking and Mooring Plan updated August 2025
9. NMFS Take Report Form for ESA-listed Species dated November 14, 2023
10. Spill Response Plan dated March 18, 2021
11. ~~Environmental and Water Quality Monitoring Plan dated Report~~ DUPLICATE of Attachment 5
12. Mangrove Mitigation Plan dated May 12, 2025
13. Coral Bay UMAM Summary
14. Mitigation Cost Estimates dated July 4, 2025
15. Corps' Noise Calculator analysis UPDATED July 31, 2025
16. Coral Commitment