

NMFS Endangered Species Act Section 7 Checklist

A) Project Identification

Lead Action Agency:

.

Agency Contact: (Phone, Email)

Applicant Name/ Contact: (Phone, Email)

The Summer's End Group, LLC., Chaliene Summers, 340-777-9075, chaliesesummers@gmail.com

Project Name & ID #:

St. John Marina, Yacht Club at Summer's End

B) Project Location

1. Address and description of property (public, residential, commercial, industrial, etc.):

The proposed marina project is located in Coral Bay on the eastern end of St. John, U.S. Virgin Islands. The marina consists of a total of 145 slips in two zones, Zone 1 or North Club, with 96 slips of varying dimensions, and Zone 2 or South Club, consisting of 49 slips of varying dimensions, 12 moorings balls and minor revetment repair and red mangrove planting along the shoreline immediately adjacent to the marina. The project also includes the reorganization and management of mooring sin Coral Harbor. The center of The St. John Marina is located at approximately 18°20'36"N, 64°42'50"W. The project also includes the redevelopment of seven parcels of land immediately adjacent to the marina which are currently or have been in commercial use..

2. Latitude & Longitude:

- i. Decimal Degrees and Datum (e.g., 27.71622° N, 80.25174° W [NAD83])
- ii. Online conversion: <http://transition.fcc.gov/mb/audio/bickel/DDDMMSS-decimal.html>

18.343277°N,-64.714555°W

3. Waterbody:

- i. Name of the body of water on which the project is located (St. Johns River, Tampa Bay, Suwannee River, etc.)
- ii. If riverine or estuarine, approximate navigable distance from marine environment (e.g., Atlantic, Gulf of Mexico)

Coral Harbor, St. John, U.S. Virgin Islands

C) Project Site Description

1. Existing Structures: (Describe current structures in project area.)

- i. Marina, seawall, riprap, dock, etc.
- ii. Number of slips, size (area of overwater structures), linear footage, location, orientation, etc.

A portion of the shoreline is revetted with riprap. The riprap was placed by the VI Public Works department to protect the roadway. There are is a bulked culvert which discharges in to the bay in the center of the property and a bulkhead culvert on the southern end of the property. There is a single set of concrete steps over the riprap at the southern end of the property.

2. Existing Conditions: (Describe the project area.)

- i. Substrate type, water quality, depth, current, etc.

Coral Bay is an area of particular concern and is delineated as such by the Virgin Islands government however formal management plans have never been finalized for the area. The area has also been identified by the federal government as an area of interest and significant funding has been invested in improving stormwater runoff quality which impacts the bay. The project is located in Coral Harbor, and Coral Harbor is designated as a mooring area by the Department of Planning and Natural Resources. The area is a heavily used mooring and anchoring area and only a portion of the moorings are legal. The bay is well protected due to the constriction of its opening and its location in the upper bay. This allows for great protection during storms but results in restricted circulation and has led to a decrease in

water quality with the increase in development in the watershed and boating activities in the bay. The water depths in the project areas reach 16ft. offshore. The bay is surrounded by mangroves which provide fish habitat and a nursery ground. The bay contains dense seagrass beds, submerged aquatic vegetation (SAV), and therefore is essential fish habitat. The seagrass beds are also forage habitat for endangered sea turtle species and endangered sea turtles have been noted foraging in the bay. The bay is known as a black tip, lemon and nurse shark nursery and bull sharks are known to enter the bay to prey on the other juvenile shark species. There are endangered coral species in Coral Bay, but not with Coral Harbor proper. Elkhorn (*Acropora palmata*) and staghorn (*Acropora cervicornis*) corals were listed as federally endangered under the Endangered Species Act (ESA) in 2006. Subsequently, the waters surrounding St. John, including Coral Bay, have been proposed to be designated as Critical Habitat for elkhorn coral (50 CFR Parts 223 and 226, Vol. 73, No. 25, February 6, 2008). A single live *Acropora palmata* colony was located offshore of Harbor Point on the far side of Coral Harbor. This coral lies approximately 1,500' from the project area. *Dendrogyra cylindrus*, *Orbicella annularis*, and *Orbicella faveolata*, which were both listed as threatened on September 10, 2014 are present in the nearshore environment on the far side of the harbor and small colonies are present on the hard bottom to the east of the proposed project.

3. Seagrasses & Other Marine Vegetation:

- i. If a benthic survey was conducted, provide date of survey and a copy of the report.
- ii. Species area of coverage estimates and density of species coverage (percentage) estimates.
- iii. Location relative to proposed structures. Provide detailed sketch of action area and location of all marine vegetation.

Benthic surveys were undertaken in the proposed project area in June and July 2009, May and November 2012 and in January and February 2014. The report is attached herewith which includes coverage areas estimates, density of species, and benthic habitat maps with project overlays.

4. Mangroves:

- i. Species (red, black, or white)
- ii. Area (square footage and linear footage). Provide detailed sketch of action area and location of mangroves.

There are mangroves to the north of the project area but not within the project property. The project intends to plant red mangroves (*Rhizophora mangle*) along the shoreline.

5. Corals:

- i. Species area of coverage estimates (percentage) and density of species estimates.
- ii. Location relative to proposed structures. Provide detailed sketch of action area and location of corals.

Immediately seaward of the stormwater culvert there is a large area of sediment deposition which is uncolonized. There are six relatively large coral heads, *Solenastrea bournoni*, found off shore of the discharge point. These corals thrive in low visibility areas and can be found on sandy bottoms. There are several small *Siderastrea radians* colonies found on scattered debris in this area as well. These corals all colonized rocks which were carried downstream from the drainage way. A map is found within the benthic survey showing the locations of these heads and their location in relationship to the proposed project.

D) Project Description and Construction Methods

1. Project: (Please provide detail.)

Dock construction will consist primarily of 15-inch coated-steel piles tied together with pre-cast concrete pile caps supporting a grated decking to allow light penetration to the seabed below. Mooring piles are either 12-inch or 15-inch diameter. Access to the marina will be via a single controlled walkway to the fixed docks. A public dinghy dock will be located midway between the shoreline and the first slip at the marina. The 20-foot by 40-foot dinghy dock will provide a safe docking area and allow ample public access to utilize adjacent businesses in the Coral Bay area. The Zone 1 docks will be a total of about 21,100 square feet (ft²), Zone 2 will be about 40,800 ft² and the main walkway will be a total of about 12,900 ft². The fire suppression and potable water demands for the marina will be met from upland cisterns fed by roof catchments located on the upland areas. Makeup water will be purchased from both the Water and Power Authority (WAPA) and Caneel Bay on an as-needed basis. All water will be stored in existing cisterns, with a distribution piping system installed to serve each slip in the marina. Wastewater generated from the pumpout system, with a publicly accessible pumpout located on the fuel dock and individual connections at the larger boat slips, will be pumped to a 3,000-gallon high-density polyethylene (HDPE) holding tank on the uplands. A local licensed waste hauler will be contracted to empty this tank on an as-needed basis and haul the waste to a permitted wastewater treatment facility for treatment and reuse/disposal. The marina will also include 12 permanent mooring balls associated with the marina, and the development of as an initial step in providing a long-term comprehensive mooring program for Coral Bay. This program will ultimately provide 75 additional mooring balls through a public-private partnership with the Department of Planning and Natural Resources (DPNR).

2. Methods:

- i. Construction methodology (Please provide detail.)
- ii. Demolition/removal of existing structures/debris
- iii. Location of work (barge, upland, or both)

There is no existing marina at this location, therefore, no demolition is proposed. In preparation for construction, existing mooring balls within the marina footprint will be relocated or removed as appropriate. Any mooring balls that will be relocated will be done so with assurances that relocated mooring balls will be permitted and properly designed to have no impacts to seagrass.

The marina will be primarily constructed from the waterside using barge-mounted equipment to drive the dock and mooring piles with a vibratory hammer, where possible, and place manufactured deck sections. Construction is expected to occur during daylight hours Monday through Saturday. Minor repair and replacement of the existing revetment along the shoreline will be conducted from the uplands, and planting of fringing red mangroves in front of the revetment will be done by hand.

3. Overwater Structures:

i. Is the proposed use of this structure for a docking facility or an observation platform?

Yes

ii. If no, is this a fishing pier? (public or private)

(a) If a fishing pier, how many people are expected to fish per day? (Use box below.)

(b) If a fishing pier, how do you plan to address hook and line captures? (Use box below.)

iii. Will Dock Guidelines - in Florida be used?

Dock Guidelines - Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat. U.S. Army Corps of Engineers/National Marine Fisheries Service August, 2001

Yes

iv. If in Johnson's range, will Dock Construction Key regarding Johnson's seagrass be used?

Dock Key - Key for Construction Conditions for Docks or Other Minor Structures Constructed in or Over Johnson's Seagrass (*Halophila johnsonii*). National Marine Fisheries Service/U.S. Army Corps of Engineers, October 2002

(a) Grated (yes/no/NA)

Yes

v. Type of decking

1. 43% open space (yes/no/NA)

Yes

(b) Wooden planks or composite planks

Other

1. Proposed spacing between boards (0.50-inch, 0.75-inch, etc.)

vi. Height above Mean High Water (MHW) elevation

4ft.

vii. Directional orientation of main axis of dock

North-South

viii. Overwater area (calculate square footage)

21,100 square feet (ft2) in Zone 1, 40,800 ft2 in Zone 2, Main walkway 12,900 ft2

ix. Will Sea Turtle and Smalltooth Sawfish Construction Conditions, dated March 23, 2006 be used? (yes/no)

Yes

4. Pilings & Sheetpiles

- i. Construction methodology (pile driving, vibratory hammer, jetting, etc.)
- ii. Provide piling size, material, and number of pilings (mandatory)
- iii. Have potential impacts to species been adequately addressed (noise impacts, marine vegetation impacts, etc.)?

Pilings will be driven with a vibratory hammer. Most piles will be 15-inch coated-steel piles . There will be some 17" and 12" mooring piles. There will be a total of 1,333 piles. The project will be directly impacting approximately 2500 ft² due to the placement of approximately 1,333 piles ranging from 12-17" in diameters. Due to wave turbulence, there will also be some minimal seagrass loss surrounding the piles. Seagrass within pile footprints will be transplanted to seed an area to the north. A vibratory hammer will be used to minimize impacts to marine mammals and seaturtles and monitoring protocol set forth in NOAA's Construction guidelines for Pile Driving will be followed.

5. Boat Slips

- i. Number and size of new slips, change from existing
- ii. High-and-dry boat storage: vessel storage capacity
- iii. Estimated shadow effect of the boat (square footage of shaded area beneath boat)

There are no existing slips.,145 boat slips and 12 permanent moorings are proposed. The purpose of the project is to develop a world-class destination marina facility in Coral Bay, St. John, to accommodate both local and transient boats of all sizes. The slip mix is provided on the attached drawing.

The project will be directly impacting approximately 2500 ft² due to the placement of approximately 1,333 piles ranging from 12-17" in diameters. Due to wave turbulence, there will also be some minimal seagrass loss surrounding the piles. The dock itself occupies 1.42 acres of which 181 ft² will be over areas with seagrass and coral rubble, 1,567 ft² over area of sparse seagrass, 41,546.37 ft² over areas with 30%-100% seagrass coverage, 27,072 ft² over areas with 5-30% seagrass and algae coverage and 4,717 ft² over areas with 5% seagrass/algae coverage. The dock will result in a maximum shading impact of 1.42 acres. With the use of the grated decking it is estimated that there will be an approximately 46% seagrass survival rate based on NMFS studies (Landry, 2008), resulting in maximum of 0.8 acre seagrass loss due to shading from the marina decking. The boats at the dock will shade another 5.7 acres at maximum occupancy. The slips will be occupied on average 47% of the year. As seagrasses are reported to be impacted after approximately two weeks of shading this will result in some loss of seagrass with in the marina due to vessel shading. This will probably manifest itself as a loss of density as well as denuding of some areas, especially around larger permanently moored boats (if any). It is estimated that as much as 2 acres of seagrass may be lost.

The project also has the potential of impacting SAV within the approximate 8 acres project area due to temporary shading by construction vessels and potential direct construction impact. The direct construction impact will be related to barge movements and spuds and will be minimized through monitoring and delineating spudding and anchoring areas. Barge shading will be mitigated through the periodic relocation of barges to prevent shading impacts. The surrounding SAV could also be impacted by construction related turbidity impacts. This will be abated by sediment and siltation control through detailed planning, training and stringent monitoring.

6. Boat Ramp

- i. Number of ramps and size of ramps
- ii. Number of vessels that can be moored (e.g., staging area, shoreline docks for loading/unloading, etc.)
- iii. Trailer parking lot capacity, and if this number changes from what is currently available at the project.

No boat ramp.

7. Shoreline Armoring: Seawalls, jetties, riprap, groins, breakwaters, etc.

- i. Project description, linear footage, square footage, material, etc. Provide detailed sketch of action area and location of structure.

There is existing riprap along the roadway which was placed by VI Public Works Department. Some minor repair of this revettment may be required. No additiona material is proposed to be added. Some rocks may just be repositioned to make them more stable.

8. Dredging

- i. Dredge type (hopper, cutterhead, clamshell, etc.)
- ii. Depth of cut
- iii. Area (square feet) to be dredged
- iv. Volume of material (cubic yards)
- v. Spoil deposition plans: Where is dredged material being disposed of? Location of disposal area (upland/openwater/beneficial use site); sediment type at disposal area; thickness of fill placement; etc.
- vi. Hydrodynamic description (average current speed/direction, etc.)

No dredging proposed. The docks have been extended into the bay to avoid dredging.

9. Blasting

- i. Explosive weights
- ii. Blasting plan

None

10. Artificial Reefs

Please refer to the Section 7 Checklist procedures for directions on how to complete this question.

None

11. Construction Schedule

- i. In-water work
- ii. Number of days/weeks/months; daytime/24-hour; seasonal restriction; etc.

Construction is expected to occur during daylight hours Monday through Saturday.

12. Mitigation/ Protective Measures:

How is mitigation or other protective measures being incorporated in this project, if any?

The project will be directly impacting approximately 2500 ft² due to the placement of approximately 1,333 piles ranging from 12-17" in diameters. Due to wave turbulence, there will also be some minimal seagrass loss surrounding the piles. The dock itself occupies 1.42 acres of which 181 ft² will be over areas with seagrass and coral rubble, 1,567 ft² over area of sparse seagrass, 41,546.37 ft² over areas with 30%-100% seagrass coverage, 27,072 ft² over areas with 5-30% seagrass and algae coverage and 4,717 ft² over areas with 5% seagrass/algae coverage. The dock will result in a maximum shading impact of 1.42 acres. With the use of the grated decking it is estimated that there will be an approximately 46% seagrass survival rate based on NMFS studies (Landry, 2008), resulting in maximum of 0.8 acre seagrass loss due to shading from the marina decking.

To minimize the direct impact of pilings the seagrass within the piling footprints will be transplanted. The transplant plugs will be used to seed the area in the northwest corner of the bay which has been impacted by the deposition of sediment from years of uncontrolled stormwater runoff.

The boats at the dock will shade another 5.7 acres at maximum occupancy. The slips will be occupied on average 47% of the year. As seagrasses are reported to be impacted after approximately two weeks of shading this will result in some loss of seagrass within the marina due to vessel shading. This will probably manifest itself as a loss of density as well as denuding of some areas, especially around larger permanently moored boats (if any). It is estimated that as much as 2 acres of seagrass may be lost.

The project also has the potential of impacting SAV within the approximate 8 acres project area due to temporary shading by construction vessels and potential direct construction impact. The direct construction impact will be related to barge movements and spuds and will be minimized through monitoring and delineating spudding and anchoring areas. Barge shading will be mitigated through the periodic relocation of barges to prevent shading impacts. The surrounding SAV could also be impacted by construction related turbidity impacts. This will be abated by sediment and siltation control through detailed planning, training and stringent monitoring.

Sea turtles may also be impacted by vessels during construction. Therefore, during construction of the project in order to minimize and abate impacts to the listed turtle species, NMFS's construction conditions will be followed.

To avoid and minimize injury or death to marine mammals and sea turtles, the following NMFS measures from the Vessel Strike Avoidance Measures and Reporting for Mariners will be implemented by all vessels associated with the project construction. The

following information and signage will be placed in highly visible locations on the dock:

1. Vessel operators and crews should maintain a vigilant watch for marine mammals and sea turtles to avoid striking sighted protected species.
2. When whales are sighted, maintain a distance of 100 yards or greater between the whale and the vessel.
3. When sea turtles or small cetaceans are sighted, attempt to maintain a distance of 50 yards or greater between the animal and the vessel whenever possible.
4. When small cetaceans are sighted while a vessel is underway (e.g., bow-riding), attempt to remain parallel to the animal's course. Avoid excessive speed or abrupt changes in direction until the cetacean has left the area.
5. Reduce vessel speed to 10 knots or less when mother/calf pairs, groups, or large assemblages of cetaceans are observed near an underway vessel, when safety permits. A single cetacean at the surface may indicate the presence of submerged animals in the vicinity; therefore, prudent precautionary measures should always be exercised. The vessel should attempt to route around the animals, maintaining a minimum distance of 100 yards whenever possible.
6. Whales may surface in unpredictable locations or approach slowly moving vessels. When an animal is sighted in the vessel's path or in close proximity to a moving vessel and when safety permits, reduce speed and shift the engine to neutral. Do not engage the engines until the animals are clear of the area.

Sound in water moves four times faster than in air, and attenuation (sound dissipation) is much lower in water than air. Esonification of the marine environment can have a negative impact on sea turtles, marine mammals and fish. To minimize noise impacts to these species a vibratory hammer will be used to drive piles wherever possible. Vibratory hammers are recommended by NOAA as that they have a lower acoustic impact.

The project will have the potential to impact Acropora and the nominated species through vessel strikes. To minimize this impact the applicant will be placing informational buoys delineating the shallow hard bottom areas within Coral Harbor and will be providing information signage on the dock advising mariners of avoiding shallow reefs while in transit and to avoid anchoring in area of coral and seagrass.

E) Effects of the Project

1. Listed Species and Critical Habitat within the Action Area

- i. Please indicate which listed species and critical habitats are within the Action Area.
- ii. For information on species and critical habitat under NMFS jurisdiction that may be present within the action area, visit "[Species and Critical Habitat Found in the Southeast Region](#)" page. If you are uncertain of which areas contain critical habitat, please visit the [Maps and GIS Data](#) page.

Species	Effect Determination	Critical Habitat	Effect Determination
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Green Sea Turtle	NLAA	Not in Critical Habitat	No Effect
Hawksbill Sea Turtle	NLAA	Not in Critical Habitat	No Effect
Leatherback Sea Turtle	NLAA	Not in Critical Habitat	No Effect
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One
Select One	Select One	Select One	Select One

2. Effects to Species

- i. Explain potential route of effects to each species and critical habitat checked above

The project will impact seagrass beds (SAV) through the installation of the docks. Seagrass is considered a critical foraging habitat for sea turtles. Boats will also be transiting through waters which are known turtle habitat and therefore there is a turtle strike potential for boats transiting the area. During construction protective guidances as noted above will be follow. Educational signage and materials will be provided for boaters who use the facility. SEG is proposing to donate money from each slip rental to research on strike avoidance.

3. Effects to Critical Habitat:

- i. Identify which essential feature(s) are present, if they will be impacted, and how they will be impacted
- ii. Size of area affected (square footage) - Mangroves (linear footage of shoreline)
- iii. How will the habitat be changed/altered as a result of the action

Seagrass beds will be impacted and impact to these beds is detailed above. Seagrass beds are forage habitat for Green Sea Turtles.

Revised on: September 25, 2014