



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

September 13, 2021

REPLY TO  
ATTENTION OF

Regulatory Division  
South Permits Branch  
Palm Beach Gardens Permits Section  
SAJ-2004-12518(SP-CF)

The Summer's End Group, LLC  
c/o Chaliese N. Summers, Managing Member  
5000 Estate Enighed, Suite 63  
St. John, Virgin Islands 00830

Dear Ms. Summers:

This correspondence is in reference to the information received on December 13, 2019, requesting to re-activate the Department of the Army (DA) project proposing to impact waters of the United States in the Caribbean Sea in association with the construction of a commercial marina referred to as Summer's End. The project site is located at 10-17, 10-18, 10-91, 10-41 (Rem), in Estate Carolina, within Coral Bay, St. John, U.S. Virgin Islands. This project has been assigned permit application number SAJ-2004-12518, which should be referenced on all future correspondence.

The U.S. Army Corps of Engineers (Corps) reviewed the information provided on May 27, 2020 and the information in our administrative file, and determined that we are unable to complete the required regulatory processing and evaluation of your project. Additional information needed is pursuant to the procedures required by the National Environmental Policy Act (NEPA) and in order to make a final decision regarding your permit application. The additional information and/or modifications to the proposed project are necessary to document and ensure that the project would not be contrary to the public interest pursuant to 33 CFR Part 320.4. Additionally, the Corps does not have enough information to resolve the U.S. Environmental Protection Agency (EPA) objections presented pursuant to both Part IV 3(a) and 3 (b) of the Section 404(q) in accordance with the *Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army* (EPA MOA) dated August 11, 1992, nor do we have enough information to resolve the National Marine Fisheries Service, Habitat Conservation Divisions (NMFS, HCD's) objections pursuant to both Part IV 3(a) and 3(b) of the Section 404(q) in accordance with the *Memorandum of Agreement between the Department of Commerce and the Department of the Army* (NMFS MOA) dated August 11, 1992. Moreover, additional information is necessary to complete the interagency consultation procedures required by Section 7 of the Endangered Species Act (ESA), the Magnuson-Stevens Act, and the National Historic Preservation Act.

Please provide the requested information for the Corps to continue processing the application. Please notify the Corps if you will need additional time to provide the information. If the Corps does not receive a response, we will assume you have no further interest in obtaining a Department of the Army permit and the Corps will either withdraw your permit application or proceed with a permit decision which may not be favorable. Such action will constitute final action by the Department of the Army.

You are cautioned that work performed below the mean high waterline or ordinary high waterline in waters of the United States, or the discharge of dredged or fill material into adjacent wetlands, without a Department of the Army permit could subject you to enforcement action. Receipt of a State permit does not obviate the requirement for obtaining a DA permit for the work described above prior to commencing work.

Should you have any questions or comments regarding this request for additional information, please contact me at the letterhead address, by phone at 561-472-3527, or by electronic mail at [Carolyn.h.farmer@usace.army.mil](mailto:Carolyn.h.farmer@usace.army.mil).

Sincerely,



Alisa Zarbo  
Palm Beach Gardens Section Chief

Enclosures  
Completeness Summary

Copy Furnished:  
JH Sprague Consulting, LLC, [spragueconsulting@me.com](mailto:spragueconsulting@me.com)

## **COMPLETENESS SUMMARY**

### **DESCRIPTION AND NARRATIVES:**

#### **Project details**

1. Square footage: The Corps calculated the square footage of the proposed structures to total 73,662.05 square feet, as specified in Attachment 1. However, the drawings indicate that the structure is 73,591 square feet (1.69 acres). Please clarify the discrepancies in the numbers and confirm or provide an accurate detailed description of the docking structures, fixed walkway and dingy dock.

#### **Modeling Analysis:**

2. The Corps determined that the results of the modeling analysis, as submitted, cannot be verified and should not be used as an accurate measure of the limits of turbidity (further elaboration is discussed below). Either the modeling analysis should be calibrated and validated as specified below, or the Corps will assume worst case scenario that the seagrasses, corals and other benthic resources within Coral Bay may be impacted as a result of the construction and operation of the marina. This area includes the reefs located at the mouth of the bay. Further explanation is described below:

A Numerical Modeling Analysis was submitted by the applicant on December 3, 2019, and coordinated with the Corps Engineer Research and Development Center (ERDC), Coastal & Hydraulics Laboratory (CHL) for calibration, validation and interpretation of results. ERDC-CHL stated that the modeling effort followed standard practices for the field of 2D numerical modeling of waves and currents, albeit with limited calibration and validation with their measured data. ERDC-CHL also indicated that they did some spot checks of their simulations results, and had an appropriate field data collection effort, but not a rigorous calibration and validation of their modeled results to the measurements. It may be that this is or is not relative to the reasoning for conducting the analysis (e.g. turbidity monitoring, wave/current impacts from marina design), but without further information they could not say whether or not this numerical analysis needed to be taken any further than what they have produced. ERDC-CHL could only say that the input was adequate, but could not verify the output.

In the March 26, 2020 Request for Additional Information (RAI), the Corps stated that the calibration and validation of the model study was not provided. In addition, noted that the model did not take into account the design of a navigational channel nor did it account for the distance vessels would need to remain away from existing resources in order to not impact those resources with sedimentation. Finally, to provide an overlay of the resources and the in-situ measurements from the study. The applicant provided a response on May 27, 2020. This was forwarded to ERDC-CHL on October 2, 2020 for their review. On October 14, 2020, CHL clarified model

validation and stated that all of the modeling conducted follows the assumption that the Marina operations will occur under fair weather conditions. The ADCP water level data appeared to have lacked processing to remove waves and is not clarified in the report. Also, the Model validation to the ADCP and tidal gauge data should provide the RMSE for the full tidal cycle water level comparison and some comparison of depth-averaged velocities for the two ADCPs for their four-day deployment. Finally, that the hypothesizing that turbidity may impact adjacent sea grass beds is not delved into in their turbidity analysis and a more comprehensive model may be necessary to make that conclusion.

On March 3, 2021, Corps Regulatory, after discussions with NMFS PRD and HCD, requested if the model analysis provided by the applicant is accurate to conclude that resources (specifically federally-listed corals) at Pen Point and Harbor Point would not be affected by the Marina Operation as they concluded. Also, the Corps questioned if this is the appropriate model to demonstrate if the proposed project would have an effect on water quality due to sedimentation. On March 8, 2021, Corps Regulatory and ERDC-CHL conducted a teleconference to discuss further. On March 10, 2021, ERDC-CHL submitted comments that further described their review of the modeling, which were forwarded to the applicant to respond. On April 21, 2021, the applicant provided a response which was forwarded to ERDC-CHL. On April 23, 2021, ERDC-CHL stated that the response only continued to claim that the modeling was adequate and disagreed with ERDC-CHL suggested approach and not new information or data to validate or calibrate the modeling.

### **QUANTIFYING IMPACTS:**

3. The Corps previously requested that the applicant provide all permanent, temporary, and/or secondary impacts with the quantities of the impact and type.

The information provided in Exhibit 1 (2020 RAI Response Table) and Exhibit 9 (Potential Impacts Graphic) indicates the impacts to seagrass associated with the proposed project as 0.48 acres for the construction of the dock, walkway and dingy dock and 0.03 acre for the installation of 896 pilings. In addition, 0.34 acre and 0.02 acre of temporary impacts to seagrass would occur due to prop wash and construction spudding, respectively. Finally, 2.82 acre of secondary impacts to seagrass would occur due to slip shading.

As discussed, the Corps will assess the impacts as direct (pilings and over-water structures), indirect (shading from mooring in slips, mooring buoys, informational bouys, and shadow extensions) and indirect/temporary (spudding, propwash and shading of construction barge) as 100% over seagrass/seagrass habitat. Please quantify the impacts as indicated by the Corps and revise all appropriate plans. As an example, Exhibit 1 and Exhibit 9 indicate that the construction of the dock would impact 0.48 acres of seagrasses; however, if the dock is proposed to be 73,591 square feet, that equates to 1.69 acres.

## Direct Impacts

- **DOCK:** The footprint of the docks, finger piers, walkways and dingy dock of the marina would extend over approximately 73,591 square feet (1.69 acres) of seagrass/seagrass habitat. The cumulative footprint of the 896 piles would occupy approximately 1,350 square feet (0.03 acre) of seagrass/seagrass habitat.

## Indirect impacts

- **VESSELS:** At maximum capacity with the maximum sized vessels in each slip, the vessels would shade approximately 246,114 square feet (5.65 acres) of seagrasses within the marina.
- **MOORING BUOYS:** Twelve (12) mooring buoys would be installed south of the proposed marina dock. These buoys would use helix-type anchors and floated lines to minimize any impact to the seafloor and its benthic community. With an average vessel length of 30-foot wide and an 8-foot beam, the moored vessels would shade approximately 240 square feet of seagrasses per vessel, totaling 2,880 square feet (0.06 acre). This shading effect shifts as the vessels pivot around the mooring buoys.
- **INFORMATIONAL BUOYS:** Seven (7) informational buoys would be installed near the reefs to the mouth of the bay. The informational buoys are proposed to warn boaters about the presence of the sensitive marine resources and shallow areas on the approach to the marina. The buoys, which are 3-foot tall and 8-inches to 12 inches in diameter, would be micro-sited and installed in areas devoid of corals. The buoys would be secured with screw anchors and floated lines to prevent impact on the marine bottom. The buoys would be installed in areas dominated by sandy bottom and seagrass beds.

## Temporary Impacts:

- **SPUDDING AND CONSTRUCTION IMPACTS FROM WORK VESSELS:** The applicant estimated that the construction barges would need to spud and relocate approximately 170 times, impacting 6 square feet of seagrasses for each event (**Figure 5**). In total, the indirect effects to seagrasses are estimated to be 1,020 square feet.
- **TURBIDITY FROM WORK VESSELS:** The Corps anticipates that turbidity would result from the construction vessels at the project site during in-water work. The Corps will require that the applicant utilize turbidity curtains and monitor water quality during in-water construction.

- **TURBIDITY FROM OPERATION OF THE MARINA:** The applicant conducted a model analysis that indicates turbidity is expected approximately 120 meters from the edge of the in-water work to construct the marina, which is estimated to be approximately 45 acres (**Figure 6**). This effect occurs only when vessels are traveling in and out of the marina. However, as stated above, the Corps determined that the results of the modeling analysis, as submitted, cannot be verified and should not be used as an accurate measure of the limits of turbidity. Therefore, the Corps will assume worst case scenario that the seagrasses, corals and other benthic resources within the Coral Bay (114 acres) may be impacted as a result of the construction and operation of the marina.

## **ALTERNATIVES**

### **Onsite alternatives**

4. The on-site Alternative Analysis is not adequate for the Corps to determine that the proposed project has minimized impacts to the maximum extent practicable. Based on the Corps' review of public comments received in response to the public notices and the administrative record, the Corps determined that there is not sufficient information in the record to determine that the proposed project is the environmentally preferred alternative. The Corps believes that additional avoidance and minimization measures can be achieved:

In order to determine that your proposed alternative to construct the marina at Coral Bay has avoided impacts to aquatic resources to the maximum extent practicable, the applicant must clearly demonstrate that it is not feasible to implement alternatives that have less adverse impacts on the aquatic ecosystem than the proposed project. Minimization includes alternate site plans and other steps that would reduce impacts to waters of the United States. This includes minimizing on-site impacts. The Corps has identified several features of the proposed project that could be minimized in order to reduce impacts to aquatic resources. Please clearly demonstrate why it is not practicable to minimize the following site features.

- **Reduce the width of the walkways**  
Although the finger piers are approximately 5 feet wide, the remaining walkways on the dock are approximately 8, 10, 12, 15, 16, and 19-foot wide. The docking structure is proposed over seagrasses, so a reduction in the width of the walkways would reduce the shading impacts to the seagrasses.
- **Eliminate the southern dock**  
Specifically, the southern portion of the proposed marina could be eliminated to avoid impacts to historic properties, seagrasses and corals. As shown in Exhibit 16, page 2 of 16, this would eliminate dock F (slip section I and J) and dock G (slip section K). This would reduce the number of slips by 26 vessels, and reduce the shading impacts by an additional 24,135.30 square feet (0.5 acre)

solely from the dock (not including the shading reduction from the proposed vessels). This drawing also indicates that docks F and G are anticipated to have an annual occupancy rate of 29%, 38% and 30%, so the need is not demonstrated for these additional slips.

- Construct the dock in phases  
The southern portion of the proposed marina (Piers I, J, and F) could be constructed at a later date if the need is justified, concerns over historic properties have been resolved, and if it is demonstrated that impacts to seagrasses and corals are minimal. Monitoring would be required.
- Reduce the number of boat slips  
The Annual Occupancy indicates that much of the marina will not be at full capacity, so there may not be a need at this time to construct a marina of this size and with the number of slips. The Annual Occupancy of Dock B is 80-85% (46 vessels), Dock C has a 60% rate (24 vessels), Dock D has a 53-59% rate (28 vessels), Dock A has a 32% rate (10 vessels), Dock E has a 39% rate (10 vessels), Dock F has a 29-38% rate (21 vessels), and Dock G has a 30% rate (5 vessels).

### **Avoidance and Minimization**

5. Avoidance and minimization efforts: The Corps acknowledges that the applicant has proposed avoidance and minimization measures in the project; however, we believe that additional avoidance and minimization measures should be provided, including but not limited to downsizing the footprint of the marina and/or the number of slips. To date, the applicant has only reduced the number of slips by one (1). Additional measures can include but should not be limited to elimination of Piers F & G. These piers are projected to have an annual occupancy of only 29%, 30% and 38%. In addition, it is recommended that the proposed width of the piers be reduced to the minimal necessary. The Corps could consider the width of the walkways be at a width that is consistent with ADA requirements.
6. To avoid and minimize impacts to corals, please move the gangway to the north at a minimum 20-feet in order to avoid sedimentation to the corals from the boats slips and shading from the gangway. An alternative to moving the gangway would be to move the corals. If this is the desired option, the applicant must submit a plan for the transplantation of the corals, to include details on methods (including turbidity controls) and monitoring for 5 years.
7. Grated decking for docks allows light transmission to submerged aquatic vegetation and other resources below. NMFS dock construction guidance requires a minimum of 43% light transmission, along with height requirements of 5 ft above MHW and size restrictions to give the resources a better chance of survival. It is unclear, from

the drawings submitted, whether the dock specifications meet the 43% light transmission and height and size requirements. Please clarify. Please also specify the type of material that will be used for dock construction and decking.

8. The Corps is concerned that additional impacts could occur from the resuspension of sediments due to thrusters of large vessels entering and existing the marina. Please demonstrate that there are adequate water depths for the size vessels to be moored at each slip given the existing water depths. Please provide a corresponding plan illustrating the existing resources, bathymetry, slips with proposed vessels to be moored, and the draft limit. Please include the anticipated size and draft limit of vessels to be moored at the mooring buoys. Please include a table on the dock plans (Exhibit 16) with this information. This information will also assist in demonstrating how impacts would be minimized from sedimentation, and turbidity within the vicinity of the marina.

### **Mitigation**

9. Corals, both ESA-listed and non-listed, are extremely sensitive to turbidity and can only withstand a small increase of turbidity without stressing out the animals. A 3 NTU threshold (USVI mandate) for construction and operation is required in order to avoid additional turbidity and stress to these corals that exist at the mouth of port. Please provide a detailed turbidity/water quality plan that utilizes this threshold for both construction and operation of the marina in order to maintain the health of these corals.
  - Please describe the locations and types of turbidity curtains that will be used during construction, including Penn reef. This can also be a drawing indicating the locations.
  - How will Summer's End determine if their pollution reduction plans and relocation of vessels will decrease pollution or just displace it to another part of the bay or St. John? Does the management plan cover the entire Bay or just the marina facility?
  - Will the applicant implement upland construction BMPS to prevent erosion/sedimentation into the bay?

### **Compensatory Mitigation**

10. The applicant must first demonstrate that project impacts have been avoided and minimized to the maximum extent practicable prior to considering the compensatory mitigation plan. Even though sufficient avoidance and minimization



measures have not been demonstrated at this time, the Corps is providing comments on the submitted Compensatory Mitigation Plan.

- The following are potential mitigation options; however, further details are needed to quantify lift.
  - Mangrove planting possible compensatory mitigation (out of kind) but the plantings need to be located below MHWL (living shoreline type concept).
  - Removal of derelict vessels possible compensatory mitigation, however, may already being completed by NOAA/FEMA as hurricane recovery efforts. Need more information.
  - WQ Improvement projects maintenance may provide mitigation, however, need more information to determine if any mitigation lift can be quantified.
  - Relocation and tackle upgrade of up to 70 mooring buoys needs additional information/status update from DPNR and applicant.
  - Discussed possible opportunities/needs for coral rehabilitation projects in St. Thomas with the National Parks Service. Applicant can coordinate with NPS Superintendent to discuss possibilities.
  - Debris clean-up in the bay. Need more information.

11. The impacts and appropriate compensatory mitigation projects do not have a quantified function and value. Please provide a functional assessment analysis of the proposed seagrass impacts utilizing the Unified Mitigation Assessment Method (UMAM) to determine the functional loss. The functional assessment should separate each of the types of impacts (direct, indirect and temporary) and each activity (pilings, over-water structure, shading-mooring, spudding, propwash and shading during construction).

12. The applicant's 2020 Compensatory Mitigation Plan does not provide in kind mitigation for direct or indirect impacts to seagrass. It has been discussed that debris removal is proposed, however a detailed survey pre and post removal, UMAM analysis and associated 5-year monitoring plan is needed at a minimum to evaluate this type of mitigation proposal. Please provide a compensatory in-kind mitigation plan to offset the unavoidable impacts to seagrass. Please provide the plan utilizing the Corps 12 components of a mitigation plan outline. In addition, please provide a UMAM functional assessment of the mitigation plan to determine if the proposed plan provides adequate compensatory mitigation for the proposed impacts.

- The Corps and NMFS have been made aware that several components of the plan are already completed or are being completed by other entities (such as derelict vessel removal and watershed stormwater management). Please re-evaluate the submitted plan with what is currently being completed or recently completed within the Bay.
- The proposed planting of 300 red mangrove propagules along 850 linear feet of shoreline to restore the shoreline is proposed above the MHWL. This does not effectively provide habitat for species and protection of the

shoreline being constructed above MHWL. Please revise the proposed plan to construct the restoration to provide habitat.

The Corps recommends that additional discussions occur with the agencies and the Corps to develop an acceptable compensatory mitigation plan that fully offsets the loss of function and value.

### **Public Interest factors**

13. The Corps evaluates the probable direct and cumulative impact of the proposed activity on the public interest by weighing relevant factors. This is a general balancing of the reasonably foreseeable benefits and detriments. General criteria included in the evaluation are:

33 C.F.R. 230.4(a)(2). "A permit will be granted *unless the district engineer determines that it would be contrary to the public interest.*" 33 C.F.R. 230.4(a)(1).

The weight of each factor varies with its importance and relevance to the particular proposed project. Please provide any additional information on the public interest factors listed below in order for the Corps to determine whether the proposed project is contrary to the public interest.

- **Conservation:** Potential impacts to the park and monument soundscapes, lights capes, cultural and archeological resources and visitor use of the Virgin Islands National Park and Coral Reef National Monument, in particular Hurricane Hole have not been provided to demonstrate the conservation of this National Park located near the proposed marina.
- **Aesthetics:** The existing aesthetics based on social, cultural and historic values will be altered. The proposed project would modify the upland facilities to attract visitors and accommodate boaters who would utilize the marina and/or mooring areas. The proposed project would construct a large marina supporting 144 vessels and relocate currently moored vessels to a 12-slip mooring area. In addition, the proposed project includes a boardwalk along the shoreline. This would change the existing aesthetics of the existing natural shoreline to an active use. The Corps does understand that several boats are currently in the bay. Google Earth aerials taken on 2 June 2020, indicated that there are approximately 100 vessels moored in Coral Bay.
- **General Environmental Concerns:** Acoustics on the aquatic and human environment from the piling driving have not been fully assessed. The geotechnical information does not conclusive demonstrate the substrate and a full acoustic analysis from the proposed project has not been provided. There will be changes in light, sound, and air quality as a result of the proposed marina

that may affect the aquatic and human environment from the existing condition. Concern with the continue resuspension of sediments due to the size of the proposed vessels to utilize the marina and existing water depths and currents within the bay are not addressed. The water circulation study is not adequate to provide the needed information to understand the proposed effects of the marina on the aquatic environment.

- **Historic Properties:** An 18<sup>th</sup> to 20<sup>th</sup> century shipwreck has been documented within the footprint of the proposed project. It has not been determined if SHPO/VISHPO have concurred if the proposed marina will affect the cultural resource.
- **Fish and Wildlife Values:** This bay is a known pupping ground for Black Tip, Lemon, and nurse sharks. In addition, a fuel dock is to be located directly upstream of mangroves. Also, the size of the marina and number of pilings may substantially reduce the flushing to the existing mangroves. The water circulation study is not adequate to provide the needed information to understand the proposed effects of the marina on the aquatic environment. The interaction of the proposed marina and the wind and wave action, tidal transport, currents and weather events need to be evaluated to determine effects on fish and wildlife values.

## **Consultations**

### **14. National Marine Fisheries Service, Protective Resources Division (NMFS, PRD)**

a. On January 16, 2015 and July 18, 2015 NMFS, PRD responded to the Public Notice with a request for additional information to fully evaluate the proposed project. In response to the Corps' latest request to initiate consultation, NMFS PRD stated that they continue to be unable to determine the potential extent of project impacts to ESA resources. Specifically, NMFS, PRD requested information in order to proceed with the ESA Section 7 consultation for the project (Attachment 2). Please provide a response to NMFS' comments, with the exception of Comment #1 and #2. The Corps has clarified the response with NMFS PRD for these two items.

b. **Benthic Resource Survey:** To complete consultations with the NMFS, the Corps requested an updated benthic resource survey. In the December 13, 2019 submittal, a comprehensive benthic aquatic resource survey was not provided. The last survey was conducted in February 2018. The file was withdrawn/deactivated from the Corps review on October 30, 2018. On December 13, 2019 the applicant submitted a response to the Corps to reactivate the application (13 months from when it was deactivated and 22 months since the last survey). In addition, the February 2018 survey was just months after major hurricanes therefore conditions were not normal including increased turbidity. NMFS has provided information to the Corps that a survey was conducted

(HCD, PRD and DPNR) in August 2018 where double the amount of ESA corals were found. Therefore, an accurate assessment of the resources may not have been obtained in February as stated.

The applicant concludes that from the benthic surveys conducted to date, with the last being in February 2018, there is no presence within the project footprint or project action area of essential features of designated critical habitat for elkhorn and staghorn corals. Exhibits 10 & 10A illustrate the latest map as 2017. Exhibit 11 Critical Habitat map from 2018 only illustrates ESA species. Therefore, for the reasons stated above the Corps requires a more recent survey comprehensive benthic analysis of the project area and action area. Unless the applicant can provide revised modeling and validated calibration, the affected area will remain as stated to be 114 acres. Thus, the comprehensive benthic survey needs to provide data on the resources and habitat present within the action area.

As previously requested, please provide the detailed methodology developed in concert with NMFS that was utilized that ensures detecting and identifying any ESA-listed coral species that may be present and essential features of designated critical habitat, any other species of corals not listed that may be present and coral hardbottom, any native and non-native seagrasses that may be present, any sponges or octocorals, etc. In addition to being developed in coordination with NMFS, this survey should include the entire action area, including any areas at risk of impact from sedimentation.

- Please note that the request is for all areas that may be impacted directly or indirectly by the proposed project. This includes at a minimum the proposed navigation channel, both Pen Point and Harbor Point known coral areas, the proposed marina and all mooring areas, any proposed mooring buoy areas, any area where stormwater activities are to take place, etc. The surveys submitted to date do not include the requested areas because the applicant has made assumptions from the results of the Numerical Modeling that these areas will not be affected. As a reminder, without the validation and calibration of the modeling analysis, the Corps and the agencies are unable to use the modeling assumptions.

#### 15. NMFS, Habitat Conservation Division (HCD)

On February 5, 2015 & March 2, 2015 NMFS issued 3a/3b letter after review of the January 7, 2015 public notice. NMFS, HCD raised concerned that the proposed St. John Marina will result in significant impacts to aquatic resources of national importance. NMFS concludes the docking structure construction, mooring facility, and upland development will adversely impact EFH. Section 305(b)(4)(A) of the Magnuson-Stevens Act requires NMFS to provide EFH conservation recommendations when an activity is expected to adversely impact EFH. NMFS, HCD recommends that the Department of the Army shall not authorize the project as proposed. NMFS, HCD's concerns raised in the 3a/3b letters require resolution prior to completing consultation.

In the December 13, 2019 submittal response #2 regarding Essential Fish Habitat and the circulation study, the applicant states that the “overall analysis provides reasonable assurances that the proposed marina will not adversely impact the ESA-listed corals located at the west and east mouth of the harbor, due to both the depth of those resources and the distance from the marina”. Since a comprehensive benthic aquatic resource survey was not conducted, how does the applicant know the depth of the resources or what resources are present?

- To answer this question the applicant stated that the modeling analysis support’s the Applicant’s science-based conclusion that neither Harbor Point nor Penn Point reefs would be affected by potential sediments carried from the marina.
- As stated above above, the model results are not able to be used. Thus, the Corps is still requiring the requested information below. In addition, the applicant states that complete coverage of both reef areas using sonar technology was completed; however, Exhibit 14 only provides a map of Penn Point.
- Since the Corps has determined that the existing resources have not yet been fully documented, and the model conclusions are not validated, and the action area remains 114 acres, the following information remains unresolved.

The applicants’ statement does not include the potential effects of utilizing the navigation channel. However, the vessels would need to avoid the existing resources in order to not impact those resources with turbidity and sedimentation through the use of the channel. Therefore, the Corps requests that navigation channel is included in the analysis.

- The Corps recognizes that the applicant’s stated that the deposition effect on the Penn Point corals were at a rate of 8% possibility not occurrence. However, the information provided is in question and until fully accepted/validated the Corps cannot evaluate/accept the applicant’s conclusions.
- Please evaluate impacts to corals not listed under ESA as well in the response.
- Please provide the reasonable assurances the applicant states are present.

#### 16. Environmental Protection Agency (EPA)

On 3 March 2015 and 19 August 2015, EPA issued 3a/3b letter after review of the 7 January 2015 and 9 July 2015 Public Notices. EPA raised concerns that the proposed St. John Marina will result in significant impacts to aquatic resources of national importance. This was based on the potential infrastructure needs of the project, its potential for significant water quality degradation, its effects on sea grasses and corals,

its indirect impacts on endangered/threatened species and the consideration of the values and functions of the special aquatic sites within the project area. EPA stated that the applicant has failed to comply with the Clean Water Act Section 404(b)(1) Guidelines due to the lack of a suitable on-site alternatives analysis and a detailed mitigation plan to compensate for the project's unavoidable adverse impacts to the greatest extent possible. EPA recommends the denial of a Department of the Army permit for this project. EPA's concerns raised in the 3a/3b letters require resolution prior to completing consultation.

#### 17. Section 106

The Corps' Archaeologist has been working with the applicant to proceed with the Section 106 review. The initial assessment by the Corps archaeologist, provided to you on April 22, 2021, noted that the project area had not been fully and sufficiently surveyed for undocumented archaeological resources, and that a reported shipwreck within the project's area of potential effect (APE) has not been sufficiently analyzed to determine if there would be adverse effects to the shipwreck. This assessment was based upon review of the Panamerican archaeological survey report dated January 2013, a field analysis summary of the historic shipwreck remains by Ken Wild dated January 2019, and various communications related to historic resources that were submitted to the VI SHPO over the past several years. The Corps noted that a Section 106 determination of effects could not be completed without further information obtained through additional archaeological work.

Subsequent meetings with the applicant and their associates addressed the Corps' requirements and the Corps archaeologist offered to look at any additional data that may be available that was not associated with archaeological surveys but that may prove useful for assessing the marina footprint for archaeological deposits. This included additional remote sensing imagery/data acquired during a geophysical survey of the area conducted by Sea Diversified. No additional data associated specifically with archaeological work was provided. Unfortunately, the additional information was not sufficient for the purposes of assessing archaeological deposits, and there has been no additional information provided that could inform the deficiencies in archaeological identification.

Because the Corps still does not have enough information to make a Section 106 determination of effects, the Corps' request for additional archaeological survey of the permit area, and additional archaeological investigation of the reported shipwreck is still applicable. A submerged cultural resources assessment survey for the entire permit area is required that utilizes currently accepted, professional standards of archaeological survey methodology including the use of sidescan sonar and magnetometer remote sensing techniques as well as other methods appropriate to the project environment as agreed upon between the USACE, VI SHPO, and the agent's archaeologists. It is probable that additional diver investigation may be required in order to assess significant targets identified in the remote sensing survey.

Additionally, a detailed analysis of the reported shipwreck site by a professional underwater archaeologist is required in order for the Corps to continue the Section 106 and Appendix C review. Archaeological testing of this site must define the extent and boundaries of these deposits. The testing must be sufficient to establish the boundaries of the site and to establish the nature and significance of the site with respect to eligibility for inclusion on the National Register of Historic Places.

A subsequent report of the additional permit area survey and site testing must be submitted to the Corps for assessment and review in order for the Corps to make a determination of effects as prescribed in 36 CFR Part 800.5 .

18. Additional comments:

a. Survey and sonar: The applicant continues to assert that side sonar and multibeam sonar were conducted on both Harbor Point and Pen Point reefs, which indicate no corals are present or areas of concern below 2 meters in depth. The submitted Exhibit 11 Critical Habitat Map only provides Pen Point reef. As stated previously, that a comprehensive benthic aquatic survey of both reef areas will confirm the sonar information.

b. With regards to the provided Summer's End Harbor Management Docking and Mooring Plan (HMDMP):

- The management of the marina is stated to include the installation of the channel markers; however, the applicant has submitted application to the USCG only for informational markers to denote shallow areas or resources. Please modify the HMDMP with the updated proposed markers.
- The HDMP states that condemned moorings shall be professionally removed with no impacts. The applicant's response does not provide the necessary assurances that no impacts to existing resources will occur during removal. Please provide a detailed comprehensive plan including methodology with pre and post monitoring surveys.
- The HDMP states that non-compliant vessels in the harbor are expected to vacate Coral Harbor to places unknown. It is stated that vessels remaining in Coral Harbor will be relocated to an approved, permitted mooring area by USVI DPNR. The applicant states USVI DPNR is the permitting authority and enforcement for moorings and non-compliant vessels outside of the National Park. Is there an agreement/MOU between the applicant and DPNR for the management of the up to 75 mooring buoys to relocate the existing vessels currently moored in the harbor? Please provide and supporting information.
- The Corps evaluation of the impacts to existing resources with the increased ingress and egress of the Harbor are still in question and under review due to incomplete information provided on the existing resources and the unvalidated Modeling Analysis as requested and stated above.

## Attachment 1: Corps' Calculations of Square Footage

Table: Project Details – 73,670.35 square feet

Docks		Square Feet
<b>Pier A</b>		<b>18,209.28</b>
Main Pier	737' 10" (737.83') long x 16' wide	11,805.28
bump out	90' long x 10' wide	900
Gangway Connection	16' long x 19' wide	304
Small Pier	40-foot long x 10' wide	400
Interior Piers	(3) 100' long x 10' wide	3,000
Interior Piers	(2) 90' long x 10' wide	1800
<b>Pier B</b>		<b>7,856.00</b>
Main Pier	412' long x 10' wide	4,120
End Pier	85' long x 5'1" wide (5.083)	432.05
East Finger Piers	(10) 40' long x 5'1" wide (5.083)	2,033.2
West Finger Piers	(10) 25' long x 5'1" wide (5.083)	1,270.75
Boat lifts	22 (not measured)	
<b>Pier C</b>		<b>6,356.44</b>
Main Pier	340'10" long (340.83) x 10' wide	3,408.30
Eastern End Pier	80' long x 5;1" wide (5.083)	406.64
Western End Pier	50' long x 5;1" wide (5.083)	254.15
Eastern Finger Piers	(5) 50' long x 5'1" wide (5.083)	1,270.75
Western Finger Piers	(5) 40' long x 5'1" wide (5.083)	1,016.6
<b>Pier D</b>		<b>7,053.33</b>
Main Pier	314' 4" long (314.33) x 10' wide	3,143.3
Eastern End Pier	55' long x 10' wide	550
Western End Pier	45' long x 10' wide	450
Eastern Finger Piers	(5) 55' long x 5' 1" wide (5.083)	1,397.83
Western Finger Piers	(5) 45' long x 5' 1" wide (5.083)	1,143.68
Small Finger Pier-east	27' 6" (27.5) wide x 5' 1" wide (5.083)	139.78
Small Finger Pier - west	45' long x 5' 1" wide (5.083)	228.74
<b>Pier E</b>		<b>10,060</b>
Main Pier	292' long x 15' wide	4,380
Pier 1	160' long x 8' wide	1,280
Pier 2	160' long x 10' wide	1,600
Piers 3 and 4	(2) 140' long x 10' wide	2,800
<b>Pier F</b>		<b>24,135.30</b>
Western Main Pier	457' 4" long (457.33) x 12' wide	5,487.96



Southern Main Pier	474' 11" long (474.92) x 12' wide	5,699.04
Bump-out	90' long x 10' wide	900
Finger Pier 1	100' long x 10' wide	1,000
Finger Pier 2	110' long x 10' wide	1,100
Finger Pier 3	160' long x 10' wide	1,600
Finger Pier 4	129' 11" (129.83) long x 10' wide	1,298.3
Finger Pier 5	110' long x 10' wide	1,100
Eastern Main Pier	210' long x 15' wide	3,150
Eastern Finger Piers 6 and 7	(2) 140' long x 10' wide	2,800
<b>Total</b>		<b>73,670.35</b>

## Attachment 2: NMFS, PRD's Comments

Reference: June 2017 - latest seagrass survey during growing season and Feb 2018 - latest benthic resource survey, side scan not comprehensive, which did not include all resources.

1. According to the plans, there are 12 moorings included in the project, please confirm that there are only 12, as there are 17 moorings stated in the USACE letter on page 7.
2. According to project documents, the applicant will be using a vibratory hammer, however both vibratory and impact hammer are mentioned in USACE letter, please verify which one will be used.
3. USACE modeling experts reviewed a report and sediment transport model provided by the applicant, and the USACE experts did not support the report's conclusions. The USACE recommended improvements to the model, however we have yet to see an updated version. An interested 3<sup>rd</sup> party provided USACE an alternative report and sediment transport model with significantly different conclusions from those provided by the applicant. The USACE modeling experts should review and validate the alternative report and model, or the USACE should share with us how it intends to evaluate sedimentation impacts from the marina's construction and operation, including the composition, extent and depth of sedimentation resulting from this project. This information is essential for our agency's ESA Sec 7 analysis. In the absence of this information, NMFS will be compelled to use a worst-case scenario to develop the action area for the project and quantify impacts to ESA-listed species. Please provide an updated model that can be validated by USACE experts and that supports any conclusions made.
4. The applicant must avoid and minimize impacts to corals. The access gangway is placed in a location that would impact corals. Please move the gangway to the North in order to avoid sedimentation to the corals from the boats slips and shading from the gangway. An alternative to moving the gangway would be to move the corals. If this is the desired option, the applicant must submit a plan for the transplantation of the corals, to include details on methods and monitoring for 5 years.
5. Information submitted regarding the natural resources within the project area are contradictory and incomplete. NMFS requests an updated, comprehensive benthic resource survey of the project footprint AND the entire action area, which would include all benthic resources at risk from project construction and operation. This survey should be developed in close coordination with NMFS and should include the entire action area, including any areas at risk of impact from sedimentation.
6. There are 1.69 acres according to the applicant and 1.74 acres according to USACE, of direct seagrass impacts for turtle forage and refuge habitat. There are also 5.65 acres according to the applicant and 6.02 acres according to USACE of

indirect impacts to seagrasses for turtle forage and refuge habitat due to vessel shading. After reviewing the mitigation plan, NMFS feels there is not adequate mitigation presented to compensate for both the direct and indirect losses. Please provide detailed mitigation plans for these resources. Also, NMFS has also been made aware that several components of the plan are already completed or are being completed by other entities. Please re-evaluate the submitted plan with what is currently being completed or recently completed within the Bay.

7. Please confirm that all buoy anchors, both mooring and informational, shall only be installed in sand patches.
8. Grated decking for docks allows light transmission to submerged aquatic vegetation and other resources below. NMFS dock construction guidance requires a minimum of 43% light transmission, along with height requirements of 5 ft above MHW and size restrictions to give the resources a better chance of survival. It is unclear, from the drawings submitted, whether the dock specifications meet the 43% light transmission and height and size requirements. Please clarify. Please also specify the type of material that will be used for dock construction and decking.
9. Please provide the scientific data that supports this statement as being adequate to protect SAV populations from impacts due to marina operations: "The parameters will ensure not to exceed a clear space of less than eighteen inches from the seabed at low tide which will ensure the vessel does not disturb the seabed ecosystem." The seagrasses can grow to heights of 15 inches, 18-inch clearance does not seem to be sufficient.
10. Corals, both ESA-listed and non-listed, are extremely sensitive to turbidity and can only withstand a small increase of turbidity without stressing out the animals. A 3 NTU threshold (USVI mandate) for construction and operation is required in order to avoid additional turbidity and stress to these corals that exist at the mouth of port. Please provide a detailed turbidity/water quality plan that utilizes this threshold for both construction and operation of the marina in order to maintain the health of these corals.
11. Please describe the locations and types of turbidity curtains that will be used during construction, including Penn reef. This can also be a drawing indicating the locations.
12. How long will the applicant fund enforcement dockage and other associated expenses? The applicant is agreeing to cover the enforcement officer's salary for 5 years, what happens after the first five years to officer's salary? How is this continuing enforcement ensured? How will the harbor management plan be enforced? Will this be the enforcement officer's job?
13. How will Summer's End determine if their pollution reduction plans and relocation of vessels will decrease pollution or just displace it to another part of the bay or

St. John? Does the management plan cover the entire Bay or just the marina facility?

14. Will the applicant implement upland construction BMPS to prevent erosion/sedimentation into the bay?
15. Will the applicant install navigation buoys to enter Coral Bay in addition to escorting vessels? It seems impractical and improbable that all vessels will be escorted into the marina, so installing navigational buoys as a back up to the escort seems to be a way to protect the reefs.