

February 26, 2018

**Via Federal Express**

José A. Cedeño-Maldonado  
Project Manager  
Regulatory Division  
U.S. Army Corps of Engineers  
Jacksonville District - Antilles Office  
Fund. Angel Ramos Annex Bldg., Suite 202  
383 F.D. Roosevelt Ave.  
San Juan, Puerto Rico 00918

Re: *SAJ-2004-12518 (SP-JCM)*  
*St. John Marina Yacht Club*

Dear Mr. Cedeño-Maldonado:

Please accept this letter as The Summer's End Group, LLC's response to the Corps request for additional information by letter dated January 26, 2018 regarding the above referenced application. The applicant's response is as follows:

1. *Exposure to prevailing and storm winds and waves: Your response included a Marina Site Suitability Analysis, dated December 9, 2017, which was completed by Water Environmental Consultants for the proposed project site. The results of this analysis indicate that the estimated 1-year return wave heights at the project site would exceed established industry design guidelines for acceptable berthing operational conditions. The analysis also indicates that to ensure the operational criteria are not exceeded, additional infrastructure, such as a floating wave attenuator, would be required. In addition, the analysis indicates that the probability of a 50-year wave event (which could cause damage and/or failure of the marina) impacting the project site at some point over a 25-year period is 40%; and that to mitigate the effects of such event, additional coastal infrastructure, such as a rubble mound breakwater, would be required. Furthermore, the analysis report indicates that a higher level of confidence in its findings would require more thorough analysis of the site supported by in-situ measurement data, all of which was excluded from the analysis completed. Notwithstanding, your response did not discuss whether additional infrastructure or modifications would be incorporated into the proposed project design to address the findings of the study, or whether additional more detailed studies would be conducted in this regard. As expressed in our previous communications, including our original request for information, the U.S. Army Corps of Engineers (Corps) must consider all*

*components of a single and complete project during the evaluation of a permit application. We are concerned with the possibility that if built as currently proposed, substantial project modifications with additional impacts to aquatic resources would be required in the near future. Therefore, please clarify how the proposed project design would avoid the need of such modifications or describe which modifications should be incorporated into the project design currently under evaluation to address the findings of the Marina Site Suitability Analysis.*

***Applicant's Response:***

Response: Marina Site Suitability Analysis is a planning tool modeling wind and wave conditions at the project site. It is a model with a number of assumptions as to conditions and structures which provide useful information for consideration, but it is not a substitute for human judgment. As a tool, it generates data for marina designers and operators to consider in making decisions about design, construction and operation of facilities suitable for a particular market segment(s) that the marina plans serve in the site location. Further, AMSE publishes guidelines which are regularly reviewed and modified and have not been adopted by rule. This study is quite conservative in the assumptions used to generate the analysis to assure that possibility of severe conditions is included even if anecdotal evidence does not necessarily support the result. *Marina Site Suitability Analysis - See Pg. 10.* This planning tool provides designer and operations insights into likely operational scenarios allowing effective design for the docking systems and to plan for marina operations. The analysis alone is not dispositive in terms of the suitability of an site for a marina, nor is it a substitute for the judgment of the applicant who is undertaking the project. After explaining the options for structural ways to address the findings of the wind/wave analysis, the analysis specifically states "*the Owner may accept the risk that the operational criteria may be exceeded one or more days per year.*" See Pg. 21. As part of developing the design for this marina, the applicant has undertaken three site evaluations to review the project site and its conditions, including the fetch, in addition to the analysis. The analysis does state, "Coral Harbor is well protected from ocean waves, but some wave energy will enter the harbor from the south southeast. See Pg. 12

Based on this information, including the model, the site review, and experienced designers and operators, the applicant developed the proposed design. The design as proposed by the applicant seeks to balance the analysis' suggestion of a structural barrier with the requirements for environmental protection to limit impacts to the environment and address water quality. Based on this balancing effort, the applicant has determined to undertake the following infrastructure design and operational tactics will be used in lieu of seeking additional infrastructure, such as a floating wave attenuator or breakwater.

*Please see Letter from:*

*Matt Goodrich, P.E., Principal  
Water Environment Consultants  
P. O. Box 2221  
Mount Pleasant, SC 29465  
[www.water-ec.com](http://www.water-ec.com),  
attached hereto as Exhibit "Paragraph 1, Attachment A"*

Jeff D Boyd  
President and Managing Director MMC NV  
Yacht Club Port De Plaisance  
BWA Caribbean LLC  
The Country Club at Port De Plaisance  
St Maarten Shipyard N.V.  
El Jefe Charters LLC  
Anaconda Consulting LLC  
St Croix Marine Center  
[www.mmcnv.com](http://www.mmcnv.com)

*attached hereto as Exhibit "Paragraph 1, Attachment B"*

*Finally, thank you for providing the preliminary analysis for the public interest test. Pursuant to 33 CFR Section 320.4(a), for all applications for Division of the Army permits, the Department is required to evaluate probable impacts, including cumulative impacts, of a proposed activity and its intended use on the public interest. In determining whether the granting of a permit would be contrary to the public interest, the ACOE wields broad, but not unlimited, discretion. Among the limitations on the ACOE's authority is the requirement for the ACOE to consider all factors which are relevant to the proposal, including "economics." Although the CFR does not provide a definition or an example for such a broad concept as "economics," courts have interpreted the factor to exclude any consideration of private profit and the general economic interests of municipalities. Rather, in keeping with the purpose of the Clean Water Act, the focus of any "economics" factor in a public interest review is strictly limited to an evaluation of the economic effects related to impacts on the natural environment.*

*Additional information has been requested to clarify how our client would "avoid the need" to implement certain modifications which were suggested by a Marina Site Suitability Analysis dated December 9, 2017. The reason provided for this request was that the analysis suggested modifications are required in order for our client's plan to meet an industry risk tolerance, and that the installation of the suggested modifications create additional risks to the aquatic environment. While it is understandable that the ACOE would wish to know the risks to the natural environment, the request goes a step too far into a private economic analysis by assuming that our client is somehow obligated or compelled to install the modifications in order to operate a successful berthing operation.*

*The analysis merely provides suggestions, and our client is neither obligated to meet nor consider the modifications contained in the MSSA. Any infrastructure beyond that requested is merely a way to improve our client's business, and it in no way reflects our client's needs or the probability that our client will adopt modifications with impacts on the aquatic environment. We respectfully provide the documents from our consultants for your re-consideration of this question.*

2. *Impacts to seagrass and benthic habitats: Your response indicated that due to the highly turbid conditions that continue to prevail within Coral Harbor after the passage of Hurricanes Irma and María, it has not been possible to resurvey the seagrass and benthic habitats within the project areas. Please be advised, that as stated in our previous communications, completion of an updated benthic survey is necessary to ensure that recent changes in the benthic composition of the project area are captured and that the potential for its natural recovery is considered in assessing the potential impacts of the proposed marina and the adequacy of the proposed compensatory mitigation.*

**Applicant's Response:**

*Please see Compensatory Mitigation Plan, by Bioimpact, Inc., attached as Exhibit 2, Attachment A*

3. *Existing mooring buoys and moored boats: Your response included a statement from the Commissioner of the U.S. Virgin Islands Department of Planning and Natural Resources (DPNR), affirming that the DPNR would facilitate the relocation of the mooring buoys currently located within the footprint of the proposed marina. However, no additional information regarding the proposed relocation site, the benthic conditions therein, or the potential impacts of the buoys' relocation on marine habitats and resources was provided. Also, your response acknowledges that completing a post-hurricane assessment would be necessary to further define the proposed plan for the relocation of the existing buoys. As stated in our previous communications, this information is necessary to fully assess the potential effects of the entire single and complete proposed project on the marine environment and adequately define the corresponding mitigation and compensatory requirements.*

**Applicant's Response:**

**Moorings:**

The applicant, Summers End Group (SEG) will be working with DPNR to relocate moored vessels from the SEG project footprint. In advance of construction each boat owner will be contacted and DPNR/SEG will work with the owner to choose an approved mooring field to move into. Once the mooring field is identified SEG will assist in surveying the location and if at all possible will locate the mooring in an area with no benthic resources. If impacts are unavoidable SEG will relocate any seagrass which might be impacted by the placement of the mooring/vessel. The seagrass will be transplanted into SEG seagrass recipient site in Coral Harbor and will be monitored and maintained along with the transplanted seagrass from the dock. This would be done concurrently with the seagrass transplant for the project.

The new moorings will be helix type anchors with properly floated lines and should have minimal impact on the seafloor.

Based on a maximum of 17 vessels requiring relocation and if all of them had to be relocated in to areas containing seagrass with an average vessel length of 30' and an 8' beam, shading and potential additional anchor or rope impacts should not exceed 240sf per vessel. This would result in a maximum seagrass impact of 4080sf or 0.094 acre. Adequate room exists within the recipient site to receive this seagrass.

4. *Water circulation: Your response did not include the water circulation modeling study requested by the Corps for the proposed project site. On the other hand, your response did include additional analysis and discussion on the water circulation and flushing processes within Coral Bay and Coral Harbor. The information provided confirms that due to the very limited flushing and mixing capacity of Coral Bay, the proposed marina would result in long term suspension, increase and/or accumulation of sediments, turbidity, nutrients, hydrocarbons and other pollutants within the bay. The Corps is very concerned with the potential indirect and cumulative adverse effects that this situation could impose on the water quality and the sensitive marine habitats of Coral Harbor and Coral Bay. Please discuss, which additional project modifications, or avoidance and minimization measures would be implemented to address those potential impacts.*

**Applicant's Response:**

The applicant recognizes the limited flushing and mixing capacity with Coral Harbor and Coral Bay and proposes to address the concerns about adverse impacts to water quality and marine habitats by addressing the water quality for flows into the water bodies from the watershed and actively addressing the operations in the marina to protect water quality. The applicant proposes to undertake the work outlined in the watershed mitigation reports set forth as attachments to Exhibit 4 since there have been efforts to address the watershed using grant money, but the grant funds did not provide for ongoing maintenance essential to the operation of those improvements.

In addition, the applicant proposes to implement the management practices set forth in the Clean Marina Action Plan to address water quality within the marina

Finally, as outlined in the Compensatory Mitigation Plan, by Bioimpact, Inc., attached as Exhibit 2, Attachment A, the applicant proposes to address waste going into the water bodies by moored boats by arranging for regular pump out and trash collection services via a pump out boat.

*Please See:*

*Watershed Mitigation Reports:*

*Background Report, attached as Exhibit 4, Attachment A,*

*BMP Identification, attached as Exhibit 4, Attachment B*

*Major Measures and Maintenance, attached as Exhibit 4, Attachment C*

*Appendix A, Work Order for BMP Maintenance, attached as Exhibit 4, attachment D*

*Florida Department of Environmental Protection:*

*Clean Marina Action Plan, attached as Exhibit 4, Attachment E*  
*Clean Marina/boatyard/retainer Components, attached as Exhibit 4, Attachment F*

5. *Ambient and underwater noise: Your response did not provide the geotechnical data or studies requested by the Corps for the proposed project site. Instead, your response referenced a scientific article published on 2005, which analyzed sediment accumulation patterns within Coral Bay. The article described that ten-foot long vibra-cores were used to collect sediment samples within Coral Bay. Based on that article you interpreted that the depth of the sediments at the bottom of Coral Bay was at least ten feet and that a vibra-hammer could be used to install the piles for the proposed project through that sediment layer. Your response further indicated that 200 impact hammer strikes would be required to drive each proposed pile through the material underlying the sediment layer. We reviewed the referenced article and disagree with your interpretation. Even though ten-foot long vibra-cores were used, the article does not indicate the total depth of the sediment layer found at different locations throughout the bay. In fact, the actual core profiles presented in the article indicate that the deepest sediment sample was taken at a depth of 2.2 m (7.2 ft.) from the bottom of the bay. On the other hand, you did not provide any data or discussion to support the estimate of 200 impact hammer strikes per pile. Such calculation should consider the characteristics of the underlying material, the type of piles, as well as the depth needed to drive the piles. Based on data from previous projects authorized by our office, piles used in berthing structures for typical recreational boats between 15ft. to 45 ft. in length have required around 200 impact hammer strikes. We would expect piles for mega yachts up to 140 ft. in length to require deeper driving depths, with more impact hammer strikes required per pile. We again request your submittal of the geotechnical studies and pile installation method analysis described in our previous letter. Please provide revised calculations of the number of strikes per pile, piles to be installed per day, and total number of days required to complete the installation of all proposed piles. If the geotechnical studies are not conducted, the revised estimate should assume that a vibra-hammer would not be used and should also discuss the basis for estimated the driving depth needed for the piles. As previously stated, this information is necessary to assess the potential underwater acoustic impacts of the construction of the proposed project on protected marine fauna.*

**Applicant's Response:**

Please See Letter from TechnoMarine dated February 23, 2018, attached as Exhibit 5, Attachment A

6. *Cumulative impacts: Your response did not sufficiently address our previous requests regarding cumulative impacts. We again recommend that you follow the enclosed template, to format the information and analysis required to adequately complete the cumulative impacts analysis for your proposed marina and satisfy the corresponding requirements under the National Environmental Policy Act (NEPA).*

**Applicant's Response:**

Please See Cumulative Impacts Analysis attached as Exhibit 6 Attachment A

7. *Archaeology and historic resources: Your response included copy of an email message from the Virgin Islands State Historic Preservation Office (SHPO), which provided recommendations for the protection of a shipwreck found in the vicinity of the proposed project. However, your response did not include copy of a drawing referenced in the email message, which depicted the specific project modifications recommended by the SHPO. Also, your response did not include a final communication from the SHPO confirming their concurrence with the current proposed project design. Therefore, we cannot confirm whether your proposed project has indeed satisfied SHPO's recommendations. We will continue our interagency consultation with SHPO pursuant to Section 106 of the National Historic Preservation Act. However, to facilitate this consultation, we request your submittal of the complete e-mail message provided in your response, including the referenced drawing, and/or preferably a posterior message from the SHPO indicating their concurrence with the final project design.*

**Applicant's Response:**

Please see:

*Copy of Drawing referenced above, attached as Exhibit 7, Attachment A*

*Copy of Map labeled "The Wreck" depicting location of the wreck,  
Attached as Exhibit 7, Attachment B*

8. *Compensatory Mitigation Plan: The Compensatory Mitigation Plan submitted with your response acknowledges that it has not been possible to complete a re-survey of the benthic conditions within the project site after Hurricanes Irma and Maria. Therefore, as stated above, we cannot ensure that recent changes in the benthic composition of the project area are captured and that the potential for its natural recovery is considered in assessing the potential impacts of the proposed marina and the viability and adequacy of the proposed compensatory mitigation, including the proposed marine debris removal, seagrass transplant, coral restoration, and mangrove planting. Without such information, we will not be able to complete the evaluation of your proposed project. Also, the Compensatory Mitigation Plan should indicate who would be responsible for the long term maintenance of the informational buoys to be deployed. In addition, the plan should include a location map and a figure depicting the proposed design for the proposed mangrove planting. Furthermore, in order to assess its viability and effects, the plan should include a description of the type and an estimate the volume of the marine debris that would be removed from the bottom of Coral Bay, as well as a description of the number and species of corals colonies that would be restored or repaired. This should also be based on a re-survey of the benthic conditions within the bay to ensure the*

*effects of Hurricanes Irma and Maria are taken into account. Please be advised that the proposed implementation of a fee for users of the marina, which would be donated to marine conservation research cannot be accepted as mitigation for the project. It would be impracticable for us to enforce this condition or assess its effect in compensating for project related impacts to marine resources. Moreover, the mitigation plan should describe which specific watershed storm water management improvements or repairs would be conducted. Finally, we request that you confirm the total amount of the performance bond for the proposed mitigation. Please submit a revised Compensatory Mitigation Plan addressing the above in accordance with the requirements of 33 CFR 332.4(c).*

**Applicant's Response:**

*Please see Compensatory Mitigation Plan, by Bioimpact, Inc., attached as Exhibit 2, Attachment A*

Thank you for your consideration of the applicant's responsive submittal. We respectfully request the initiation of consultation with the commenting agencies regarding this application. If you wish to discuss this submittal further, please contact me at your convenience.

Very truly yours,

Katherine R. English

KRE/ss

Enclosures

cc: Chaliene Summers  
Amy Dempsey