CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

August 29, 2014

Mr. Jean-Pierre Oriol, Acting Commissioner
VI Department of Planning and Natural Resources
Coastal Zone Management Program
8100 Lindberg Bay, Ste. #61
St. Thomas, VI 00802

Re: CZJ -3-14L and CZJ -4-14W

The following are specific reasons why the Summer's End marina as designed cannot and should not built:

1. Environmental
    a. Harm to seagrass from docks, including inadequate mitigation plan.
    b. Silt and turbidity from propeller backwash.
    c. Shading of seagrass.
    d. More than 3 times the current "footprint" of boat bottoms in the harbor, dramatically increasing toxic boat bottom paint impacts on marine life.
    e. Reduced water circulation from 1,333 pilings.
2. Legal
    a. Fails to meet CZM Act Regulations, see the attached consistency analysis.
    b. Fails to respect littoral rights of other shoreline property owners.
    c. Fails to respect VI Code on designated mooring area.
    d. Fails to meet Property and Procurement standards for private management selection or public/private partnership for mooring field mgt.
3. Impact on Community
    a. Over 250 individually written (not form letter) public comments have been received by CZM detailing the harm that approval of this project would bring to people's lives, businesses, and the environment.
    b. Negative Economic impact analysis, based on above letters and local economy.
    c. Noise impact in amphitheatre valley.
    d. Too much dependence on trucked water in high season.
    e. Proposed business, both land and water-based, is too seasonal, will not provide year round, career jobs.

4. Poor and incomplete Marina design
    a. No geological survey done, so no real design.
    b. Layout was drawn in 2012 by Springline Architects, and then "stamped" for this application by ATM, using their reputation in EAR.
    c. Majority of slips broadside to prevailing wind and waves, dangerous and unusable by boats.
    d. Purpose of design was to maximize # of slips, given limited shoreline control -- for investor attraction, not for actual vessel use.
    e. Plans to build mega-yacht portion first, construction could stop there, so there might never be local services.
    f. Greater safety of moorings (versus boat slip) in a storm/squall to boats.
    g. The lack of impact analysis related to placement of fill material as defined by VI Code.

The application is incomplete and/or lacks substantiating sources and studies and/or contains inaccuracies in numerous important areas that have been detailed in comment letters by federal agencies, local review agencies, such as CBCC, and individuals and business owners – all too numerous to list in this summary.

Attached are a number of new and additional analyses provided by CBCC for CZM's review process.

The attached reports each evaluate different aspects of the applicant's permit application and plans and the impacts on the Coral Bay environment and social landscape, and suitability under the CZM Act. Each provides descriptions of concerns and conditions that individually are the basis for denial of the requested CZM permits – and collectively are overwhelmingly conclusive that the SEG plans must be denied.

As is often the case in these project applications, we had expected that the applicants would arrive at the public hearing with clarifications, more written details and even modest proposed changes to bring the project more closely into conformance with DPNR requirements and expressed community concerns. In this case, at the August 20th hearing, the applicant made no such effort at all. Thus all of the deficiencies and glaring holes in the application continue, and in the initial 20 pages of CBCC comments provided a month ago still continue.

The federal Fish and Wildlife Service and NOAA Marine Fisheries letters which have been entered into the application record detail the completely unacceptable scope and design, and the lack of required studies and documentation for the marine portion of the project.

The professionals in DPNR's various departments probably also have concerns about the land based wastewater systems, the above ground fuel storage tanks, the proximity of the buildings to the shoreline, the designed loss of open public access to the waterfront by planting mangroves (in an unsuitable area), stormwater capacity and more. We hope these analyses are useful both to them and to the CZM Committee.

Please let us know if CBCC can provide any additional useful information or analysis, particularly in our capacity as the community watershed management agency.

Sincerely,

(Signed)
Sharon Coldren
President of CBCC

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Economic Impact Analysis

Summer's End St. John Marina

Economic Impact Model

August 28, 2014

An analysis of the 5-year economic benefits/losses to the Coral Bay community as a result of construction of a marina

Preparation and Coordination by

David Silverman, CBCC Board Member

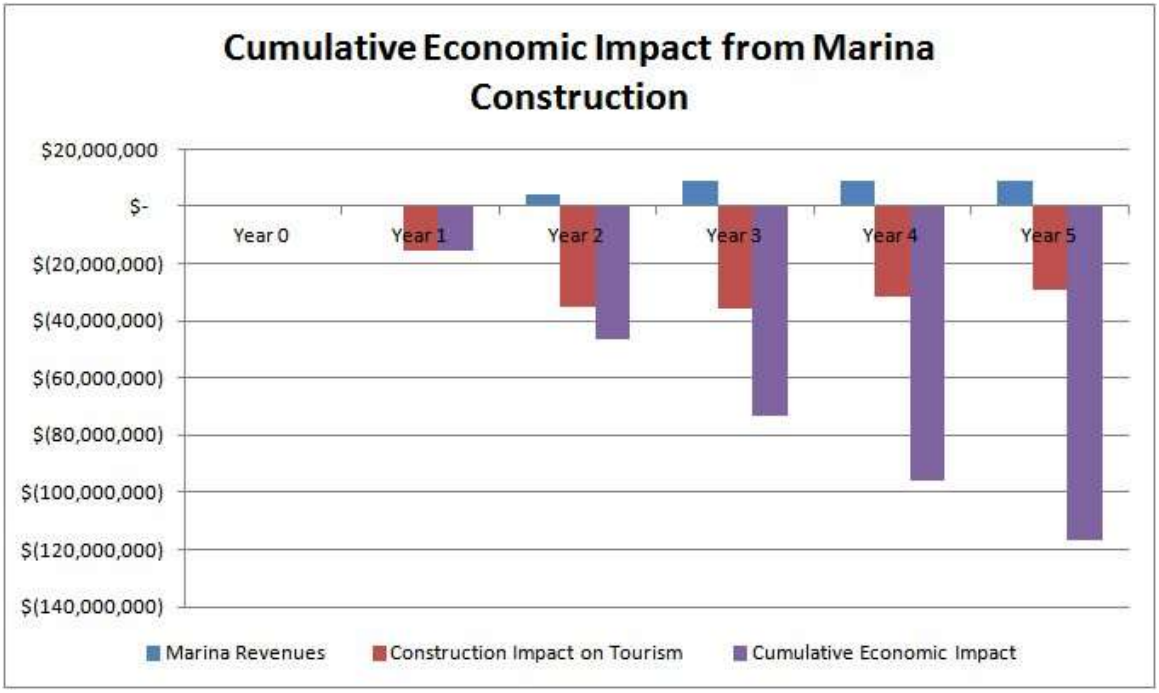
Coral Bay Community Council

Economic Impact Model: Effect on Local Business Income

CBCC asked a couple of its knowledgeable members to do an Economic Impact Analysis of the whole Coral Bay tourism economy. We started by accepting the SEG claims about their project's economic value from the EAR - - $8.7 Million annually after completion of the second land construction phase.

To assemble an accurate Model, we then gathered information about the number of villas, the occupancy rate, tourist daily spending, rental income, the portion of rental income that is spent on local services like management, repairs, supplies, etc. to get an idea of the total size of this economy now. We found Coral Bay business currently adds at least $59.5 Million annually to the territory's economy. This is the amount of income from tourism that is potentially at risk.

The Model takes into careful consideration the temporary impacts to tourism caused by construction noise and disruption (that have been presented by many business owners in CZM written and oral testimony), as it looks at the net impact of the economic value being added according to the marina developer. Below is a chart that shows the net total impact over 5 years – a negative cumulative impact of $116 million dollars.



Details of the Economic Impact Model (See Following Spreadsheet)

Assumptions

1. SEG's claim of $8.5 million annual economic benefit is used
2. Known information about the Coral Bay tourism market
    a. Number of villas
    b. Occupancy Rate
    c. Daily/Annual Income from Villa Rentals
    d. Daily Tourist Spending: Restaurants, Recreation, Automobile Rentals
    e. Expenditure of Rental Receipts by Villa Managers
        i. Management, repairs, supplies
        ii. Renovations, cleaning services
3. As construction noise and disruption begin and continue, tourism is affected (Coral Bay is valued as a quiet ecotourism destination)
    a. Occupancy rates drop
    b. Income from tourism drops

Conclusions:

1. The "No Development" scenario compared to the "Marina Development" scenario indicates the following economic impacts if the “Marina Development” scenario goes forward:

    c. Year 1 shows a Net Loss to the community of $15.7 million
    d. Year 2 shows a Net Loss to the Community of $30.7million
    e. Year 3 shows a Net Loss to the Community of $26.8 million
    f. Year 4 shows a Net Loss to the Community of $22.8 million
    g. Year 5 shows a Net Loss to the Community of $20.5 million
    h. Total Economic Loss to Coral Bay (and St. John) over five years is $116.5 million

2. The SEG claim of 90 jobs created, when phased according to the EAR, and when combined with job losses from existing businesses, results in the following job impacts:

    a. Year 1 shows a Net Decrease of 20 Jobs
    b. Year 1 shows a Net Decrease of 22 Jobs
    c. Year 3 shows a Net Decrease of 5 Jobs
    d. Year 4 shows a Net Increase of 20 Jobs
    e. Year 5 shows a Net Increase of 44 jobs

The Economic Impact Model spreadsheet analysis (attached) and the conclusions outlined above demonstrate that "The St John Marina" proposed for Coral Bay harbor will not have a net positive

impact to the community of Coral Bay or to the island of St John, and in fact will result in significant economic losses over the first five years of construction and business. It was not modeled further.

Conclusion: Coral Bay does not receive a net benefit from this development – not directly or indirectly. How long will it take to recover from this disruption?

CZM Act Policy Discussion

One of the specific goals of the CZM Act that is frequently cited to demonstrate consistency of development projects is Goal 4:

> *(12 V.I.C. § 903) (To) assure the orderly, balanced utilization and conservation of the resources of the coastal zone, taking into account the social and economic needs of the residents of the United States Virgin Islands;*

Large scale development projects which build upon existing uses and infrastructure generally contribute to economic growth. For example, building a new factory in an industrial district will create jobs without negative impact to surrounding uses. **However development projects which introduce a new use into an existing economy will often have both positive and negative effects - the new project may create jobs, but the disruption to the existing economy may negate that contribution.**

Conclusion: The Economic Impact Model spreadsheet analysis and the conclusions outlined above demonstrate that "The St John Marina" proposed for Coral Bay harbor will not have a net positive economic impact to the community of Coral Bay or to the island of St John, and in fact will result in significant economic losses over five years, and probably for long into the future – compared with maintaining and encouraging the current kind of villa tourism business.

Economic Value-Add Model	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Baseline Contribution of Coral Bay to Tourism						
Villa Rentals						
Number of Properties		250	255	260	265	271	276
Occupancy During Peak Season		90%	90%	90%	90%	90%	90%
Days in Peak Season		243	243	243	243	243	243
Occupancy During Low Season		30%	30%	30%	30%	30%	30%
Days in Low Season		122	122	122	122	122	122
Average Weekly Rent per Villa (High Season)		$ 2,750	$ 2,833	$ 2,917	$ 3,005	$ 3,095	$ 3,188
Average Weekly Rent per Villa (Low Season)		$ 1,800	$ 1,818	$ 1,836	$ 1,855	$ 1,873	$ 1,892
Gross Villa Rental Revenue (High Season)		$ 21,479,464	$ 22,566,325	$ 23,708,181	$ 24,907,815	$ 26,168,151	$ 27,492,259
Gross Villa Rental Revenue (Low Season)		$ 2,352,857	$ 2,423,913	$ 2,497,116	$ 2,572,529	$ 2,650,219	$ 2,730,255
Gross Villa Rental Revenue (Annual Total)		**$ 23,832,321**	**$ 24,990,239**	**$ 26,205,297**	**$ 27,480,344**	**$ 28,818,370**	**$ 30,222,515**
Long Term Rentals						
Number of Properties		300	309	318	328	338	348
Average Monthly Rent		$ 1,000	$ 1,030	$ 1,061	$ 1,093	$ 1,126	$ 1,159
Gross Long Term Rental Revenue (Annual)		**$ 3,600,000**	**$ 3,819,240**	**$ 4,051,832**	**$ 4,298,588**	**$ 4,560,372**	**$ 4,838,099**
Other Tourist Accommodations (Hotels, etc)						
Concordia Eco-Resort (Annual Lodging Revenue)		**$ 2,200,000**	**$ 2,266,000**	**$ 2,333,980**	**$ 2,403,999**	**$ 2,476,119**	**$ 2,550,403**
Total Rental Revenues		**$ 29,632,321**	**$ 31,075,479**	**$ 32,591,109**	**$ 34,182,931**	**$ 35,854,861**	**$ 37,611,016**
Tourist Purchase of Goods and Services						
Average Number of Tourists per House		3.75	3.75	3.75	3.75	3.75	3.75
Number of Tourist-Days Per Year		239,344	244,131	249,013	253,994	259,073	264,255
Average Spending Per Person Per Day		$ 75.00	$ 77.25	$ 79.57	$ 81.95	$ 84.41	$ 86.95
Total Tourist Purchases		**$ 17,950,781**	**$ 18,859,091**	**$ 19,813,361**	**$ 20,815,917**	**$ 21,869,202**	**$ 22,975,784**
TOTAL DIRECT VALUE OF CORAL BAY TOURIS		**$ 47,583,103**	**$ 49,934,569**	**$ 52,404,469**	**$ 54,998,848**	**$ 57,724,063**	**$ 60,586,800**
PLUS LOCAL RE-EXPENDITURE OF RENTAL INCOM		$ 11,916,161	$ 12,495,119	$ 13,102,648	$ 13,740,172	$ 14,409,185	$ 15,111,257
GROSS VALUE OF CORAL BAY TOURISM		**$ 59,499,263**	**$ 62,429,689**	**$ 65,507,118**	**$ 68,739,020**	**$ 72,133,248**	**$ 75,698,058**

CUMULATIVE TOTAL VALUE	**$ 62,429,689**	**$ 127,936,806**	**$ 196,675,827**	**$ 268,809,075**	**$ 344,507,132**	

MARINA CONSTRUCTION SCENARIO: Marina construction causes significant decline in tourist visits due to environmental impacts during years 1 and 2, then slow partial recovery

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Villa Rentals						
Number of Properties		250	250	250	250	250
Occupancy During Peak Season		90%	75%	50%	55%	65%	75%
Days in Peak Season		243	243	243	243	243	243
Occupancy During Low Season		30%	20%	10%	10%	10%	10%
Days in Low Season		122	122	122	122	122	122
Average Weekly Rent per Villa (High Season)		$ 2,750	$ 2,500	$ 2,250	$ 2,250	$ 2,500	$ 2,500
Average Weekly Rent per Villa (Low Season)		$ 1,800	$ 1,500	$ 1,200	$ 1,200	$ 1,250	$ 1,400
Gross Villa Rental Revenue (High Season)		$ 21,479,464	$ 16,272,321	$ 9,763,393	$ 10,739,732	$ 14,102,679	$ 16,272,321
Gross Villa Rental Revenue (Low Season)		$ 2,352,857	$ 1,307,143	$ 522,857	$ 522,857	$ 544,643	$ 610,000
Gross Villa Rental Revenue (Annual Total)	**$**	**$ 23,832,321**	**$ 17,579,464**	**$ 10,286,250**	**$ 11,262,589**	**$ 14,647,321**	**$ 16,882,321**
Long Term Rentals						
Number of Properties		300	300	300	300	300	300
Average Monthly Rent		$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000
Gross Long Term Rental Revenue (Annual)	**$**	**$ 3,600,000**	**$ 3,600,000**	**$ 3,600,000**	**$ 3,600,000**	**$ 3,600,000**	**$ 3,600,000**
Other Tourist Accommodations (Hotels, etc)						
Concordia Eco-Resort (Annual Lodging Revenue)	**$**	**$ 2,200,000**	**$ 1,800,000**	**$ 1,400,000**	**$ 1,470,000**	**$ 1,543,500**	**$ 1,620,675**
Total Rental Revenues	**$**	**$ 29,632,321**	**$ 22,979,464**	**$ 15,286,250**	**$ 16,332,589**	**$ 19,790,821**	**$ 22,102,996**
Tourist Purchase of Goods and Services						
Average Number of Tourists per House		3.75	3.75	3.75	3.75	3.75	3.75
Number of Tourist-Days Per Year		239,344	193,734	125,344	136,734	159,516	182,297
Average Spending Per Person Per Day		$ 75.00	$ 77.25	$ 79.57	$ 81.95	$ 84.41	$ 86.95
Total Tourist Purchases	**$**	**$ 17,950,781**	**$ 14,965,980**	**$ 9,973,289**	**$ 11,206,001**	**$ 13,465,218**	**$ 15,849,903**

Marina Construction Scenario: TOTALS

TOTAL DIRECT VALUE OF CORAL BAY TOURIS	**$**	**47,583,103**	**$**	**37,945,445**	**$**	**25,259,539**	**$**	**27,538,590**	**$**	**33,256,040**	**$**	**37,952,900**
PLUS LOCAL RE-EXPENDITURE OF RENTAL INCOM	$	11,916,161	$	8,789,732	$	5,143,125	$	5,631,295	$	7,323,661	$	8,441,161
GROSS VALUE OF CORAL BAY TOURISM	**$**	**59,499,263**	**$**	**46,735,177**	**$**	**30,402,664**	**$**	**33,169,885**	**$**	**40,579,700**	**$**	**46,394,060**
CUMULATIVE TOTAL VALUE			**$**	**46,735,177**	**$**	**77,137,841**	**$**	**110,307,725**	**$**	**150,887,426**	**$**	**197,281,486**
NET GAIN/(LOSS) IN TOURISM DOLLARS	**$**	**-**	**$**	**(15,694,512)**	**$**	**(35,104,454)**	**$**	**(35,569,135)**	**$**	**(31,553,548)**	**$**	**(29,303,997)**
PLUS SEG ECONOMIC CONTRIBUTION	**$**	**-**	**$**	**-**	**$**	**4,395,000**	**$**	**8,790,000**	**$**	**8,790,000**	**$**	**8,790,000**
NET ECONOMIC IMPACT TO ST JOHN	**$**	**-**	**$**	**(15,694,512)**	**$**	**(30,709,454)**	**$**	**(26,779,135)**	**$**	**(22,763,548)**	**$**	**(20,513,997)**
5 YEAR ECON IMPACT TO TOURISM	**$**	**(147,225,646)**										
5 YEAR ECON IMPACT FROM MARINA	**$**	**30,765,000**										
NET ECONOMIC IMPACT (YRS 1 - 5)			**$**	**(15,694,512)**	**$**	**(46,403,966)**	**$**	**(73,183,101)**	**$**	**(95,946,649)**	**$**	**(116,460,646)**

Other Negative Factors Not Considered

Cost of Infrastructure Improvements WAPA Police Fire & Medical PWD / Roadways

Impact on Small Local Business

Other Positive Factors Not Considered

Purchase of Construction Materials On-Island (most materials will be shipped in, incidentals purchased locally)

Construction Workforce Economic Contributio (short term effect)

EMPLOYMENT ANALYSIS	**Year 0**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Jobs in Current Businesses		36	18	0	0	0
Job Creation - Phase I Projects		0	0	18.5	37	37
Job Creation - Phase II Projects		0	0	0	0	26.5
NET JOBS IN MARINA DISTRICT		36	18	18.5	37	63.5
Current & Forecast Jobs in Marina District		36	38	40	42	44

NET JOBS IMPACT	**0**	**(20)**	**(22)**	**(5)**	**20**	**44**

3 YR EMPLOYMENT IMPACT (JOB-YEARS	**(47)**
4 YR EMPLOYMENT IMPACT (JOB-YEARS	**(27)**
5 YR EMPLOYMENT IMPACT (JOB-YEARS	**17**

Other Factors Not Included

Temporary Jobs during Construction Phase (short term effect)

Run 8/27/14

Existing Business	**Employees**
	2
	2
	3
	2
	10
	1
	2
	2
	2
	1
	1
	2
	3
	3
TOTAL EXISTING EMPLOYEES	**36**

Comments / Model Assumptions

2% Annual new villa construction rate (based on CY 2014 est)
Based on review of VRBO booking calendars
Dec 1 - Jul 1
Based on review of VRBO booking calendars
Jul 1 - Dec 1
3% Price increase inflation based on continued demand (est)
1% Lower demand in off season - less price inflation

3% Continued demand for rental housing drives moderate new construction
3% Demand for rental housing drives moderate price inflation

3% Based on CY 2014 sales forecast with moderate price increases

3.75 Equal mix of 2,3,4 and 6 person rentals

3% 2 Meals, Water Sports Rentals, Gift Purchases, Automobile Rental

50% Multiplier Effect - significant portion of rental receipts are re-expended locally for mgmt srvices, repairs, supplies, etc

	No new villa construction due to declining interest in Coral Bay as ecotourism destination Dec - July average occupancy, assume significant decline in Year 1&2, then stabilizing Aug-Nov average occupancy severe decline: low season visitors have wide choice of properties, value quiet time Pricing pressure to attract customers results in price declines, slow recovery years 3-5 Severe price pressure during off-season due to high availability, low demand
	No growth due to reduced demand
0%	Pricing pressure keeps prices stable
5%	Decline in Years 1 & 2 then stabilizes
3.75	Same as base case
3%	Same as base case

50% Multiplier Effect - significant portion of rental receipts are re-expended locally for mgmt srvices, repairs, supplies, etc

Phased according to SEG plans

All current jobs eliminated/replaced over 2 years

Assume Phase II Construction Begins Year 3 lasting 18 Months

Slow job growth - one small business per year

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Littoral Boundaries Analysis

THE BOUNDARIES OF THE PROPOSED "ST JOHN MARINA"

BY THE SUMMER'S END GROUP, LLC

CZJ-3-14(L) and CZJ-4-14(W)

A Discussion of Littoral Rights and Matters of Public Policy

Prepared by David L Silverman on behalf of the

Coral Bay Community Council

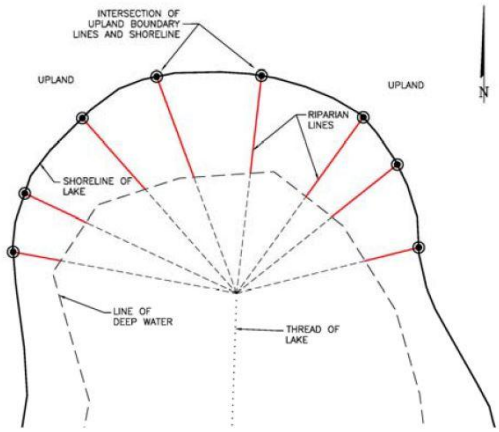
28 August 2014

WHAT ARE THE LEGAL BOUNDARIES FOR THE SEG MARINA?

The counsel for the Moravian Church, Ms. Maria Hodge, raised an extremely important question about the rights of other land owners on the shores of Coral Bay harbor. Many members of the public commented on the "excessive size" of the Summer's End Group proposed marina, but Ms. Hodge raised the marina size question in a very specific context - that of the littoral rights of other landowners. The legal references cited by Ms. Hodge in her letter to CZM (attached) form the basis for the discussion which follows.

Based on available information regarding ownership of waterfront property on Coral Bay harbor, it appears that the "Site Limits" of the SEG marina vastly exceed what would be allowed after due consideration of the littoral rights of other land owners. The basic principles of littoral rights that are relevant in this discussion are (1) the right of land owners on the shore to use the water in front of their land, subject to the rules, regulations and permits required for such use, (2) the right to "pier out" to navigable water, and (3) "equitable" access to the line of deep water.

These principles are illustrated in the following drawing from a Florida Department of State publication which demonstrates the drawing of riparian boundaries by equitable allocation of the "line of deep water" (Guidelines for Allocation of Riparian Rights, 2013):

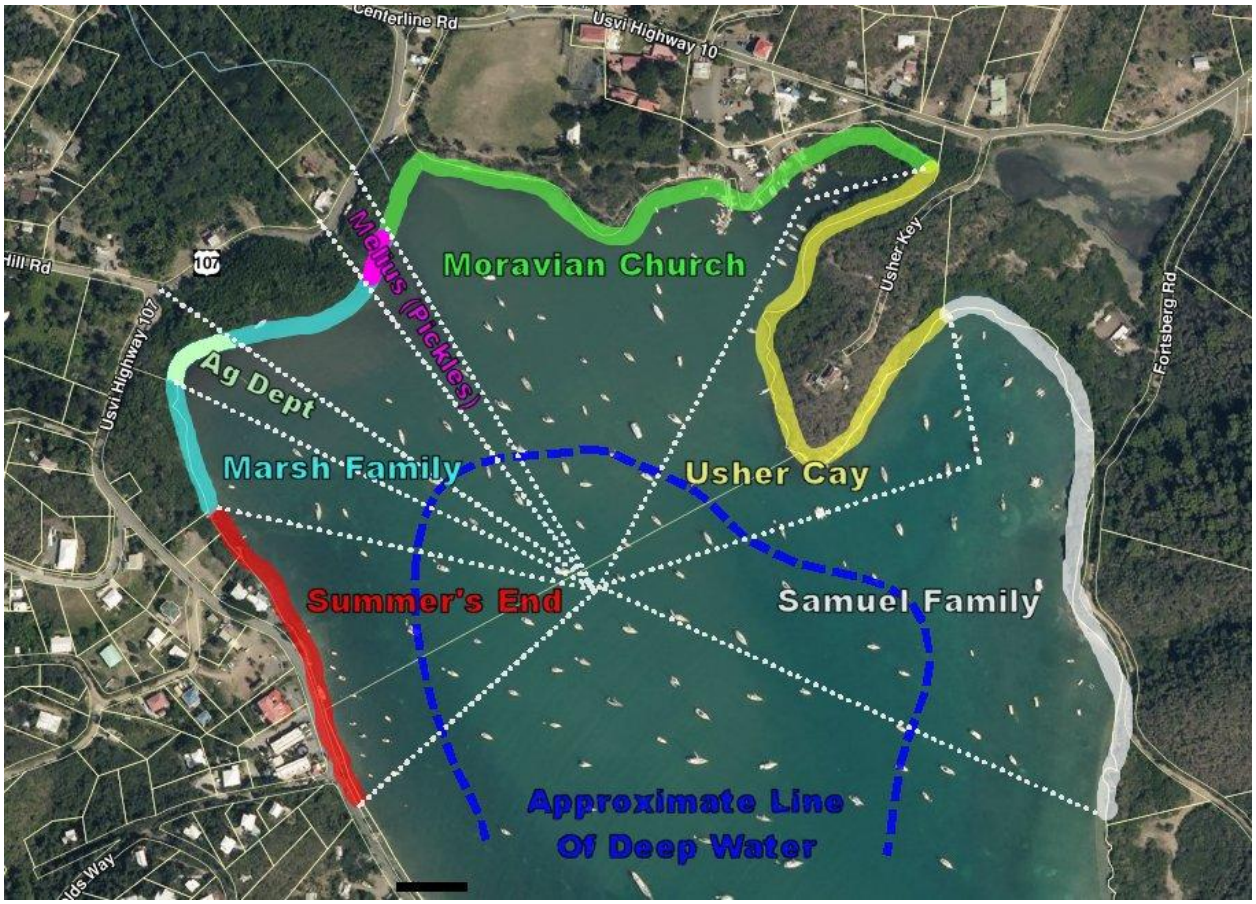


8. The apportionment of the line of deep water is the most universal technique for division of riparian rights that will give the same solution as more traditional techniques in many cases and will follow dominant national case law where the shore is irregular.

The apportionment is done by drawing the "line of deep water" contour, then starting at the ends of the upland parcels, drawing straight lines to the line of deep water so as to allocate it in proportion to the shoreline holdings. This ensures an equitable access to deep water for all owners. Those lines are then extended to a notional center for the body of water to complete the allocation. Depending upon the geometry of the body of water, the center might be deemed to be a single point (as in the illustration

above), or a central line (denoted "thread of lake" above). The example illustrated above is roughly analogous to the geometry of Coral Bay harbor, and is a good model to use in our case.

Applying these principles to Coral Bay harbor produces a set of littoral boundary lines similar to what is shown below:



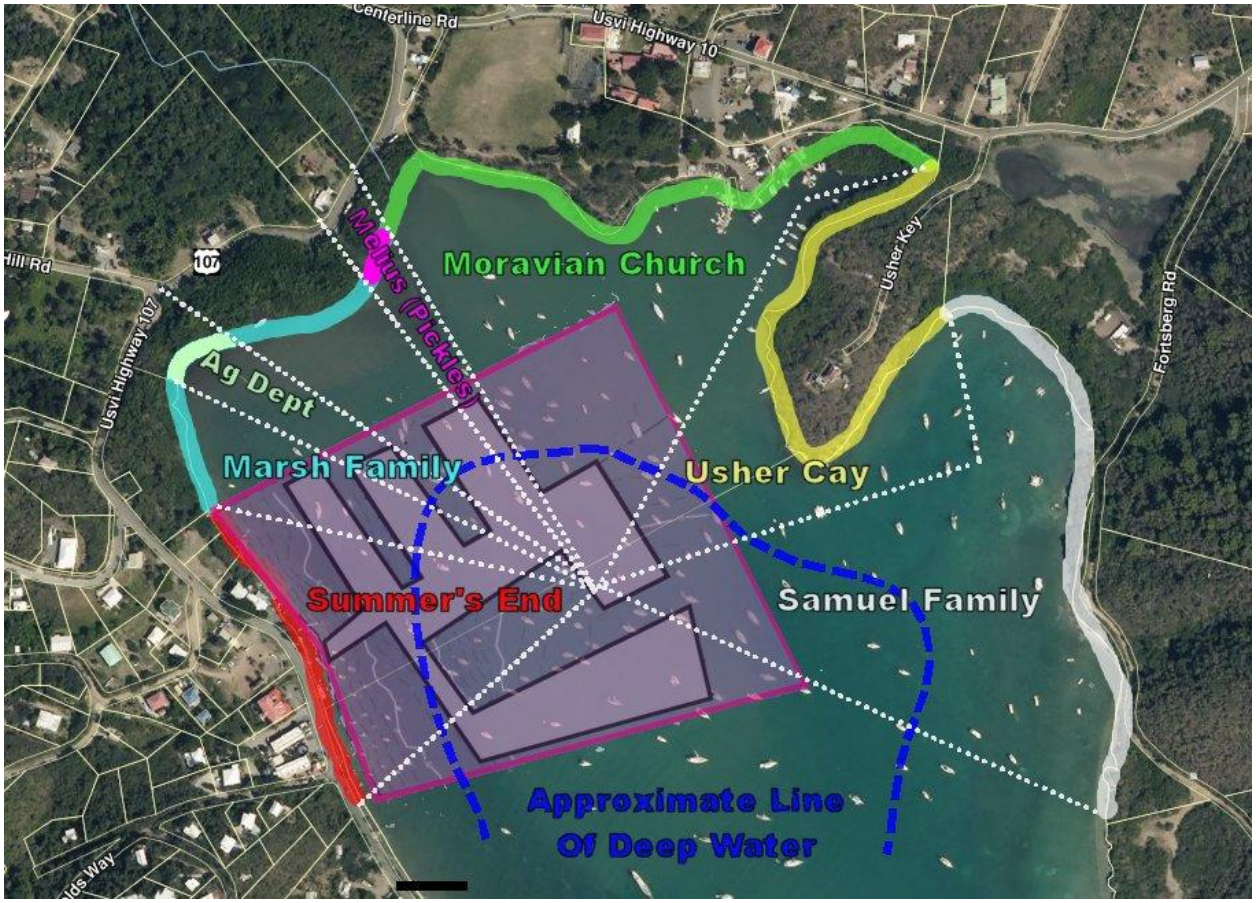
There are at least six private land owners with littoral rights in this portion of the harbor: the Summer's End Group (shown in red), members of the Marsh family (shown in turquoise), Beverly Melius (shown in pink), the Moravian Church (shown in green), the owners of Usher Cay (shown in yellow) and members of the Samuel Family on Fortsberg (shown in white). Additionally, the VI Department of Agriculture appears to own the uplands to a small stretch of shoreline in the northwest portion of the harbor. The wide colored lines along the shoreline are the approximate waterfront of these owners, according to the GIS boundary lines (the Marsh Family line may actually be two or more individual and separate owners). We are aware of many inaccuracies in GIS data and this should **not** be seen as a survey or a definitive statement of ownership; it is shown for illustrative purposes only and is reasonably accurate for that purpose.

The dashed blue line is the **approximate** line of deep water at roughly the 12' contour. It should be stressed that this is approximate because only limited bathymetric data was available for this analysis. One could use other depths - 10' or 15' - but the results will be very similar. The 15' contour is quite

limited in extent (only the central portion of the harbor reaches this depth) and so is difficult to apportion. Similarly the 10' contour varies widely in its distance from the shoreline, and presents difficulties as well. The dashed lines are drawn towards a central point in such a way as to equitably apportion the line of deep water (at the 12' depth contour). This allows all shoreline owners to have access to deep water and to utilize their littoral rights, subject of course to requisite permits and regulations. This is certainly not the only apportionment which achieves equitable distribution, but it is representative.

Now if the proposed SEG marina and its "Site Limits" are overlaid on this map, the problem with encroachment becomes self-evident. The fixed marina structures consume virtually the entire line of deep water and encroach into all other littoral rights regions. This precludes any other land owner on the harbor shoreline from exploiting their littoral rights in a manner similar to Summers End.

Furthermore, the arrangement put forward by SEG forces the public moorings onto the portions of the harbor within the littoral rights of others, further impeding their use of the water. The illustration below demonstrates these points:



The region in purple are the "Site Limits" of the SEG plan, taken from the ACOE Permit Drawings. The area outlined in black within the Site Limits is the area occupied by fixed mooring structures and boats

(the physical marina "footprint"). The proposed "mooring field" has not been drawn since the applicant has stated that its actual location has yet to be determined.

If CZM and/or DPNR were to approve such an allocation of littoral rights and the associated Trust Lands Lease it would very likely be challenged by some or all of the remaining shoreline land owners of Coral Bay harbor, and it does not seem probable that such an allocation would be deemed equitable by an impartial arbiter. The following defects are apparent:

1. Pursuant to the CZM Act a trust lands occupancy lease must be "in the public interest" (12 V.I.C. § 911: "such permit will clearly serve the public good, will be in the public interest and will not adversely affect the public health, safety and general welfare or cause significant adverse environmental effects"). "Public interest," according to the Random House Dictionary, is "the welfare or well-being of the general public." In this case the interest of other property owners is apparently being ignored and impaired while furthering the interest of a single entity, and such action cannot be construed to be "in the public interest."

2. Littoral rights are real rights which accrue to owners of shoreline property - they cannot be ignored or trampled in a "land grab" by the first to apply. These rights are enshrined in common law. (See attached letter for reference.)

3. Although not every shoreline owners may want to build a pier or a marina, some may want to simply preserve their unobstructed shoreline views . This is another littoral right that that must be respected.

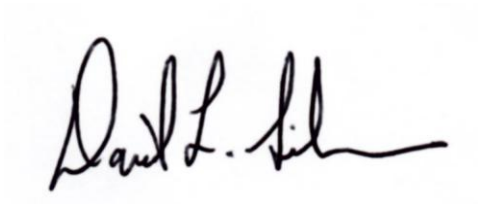
4. The excessive size of the Summer's End Group marina not only encroaches on the rights of other land owners, a practice which cannot be condoned by a permitting authority, but due to its excessive size it might also become an impediment to navigation, a matter of public concern. In the event of a natural disaster (hurricane, landslide) blocking Centerline Road, the preferred approach for emergency services and barges would likely be through Coral Bay harbor, landing at the northern end of the harbor. If this approach were impeded by the excessive expanse of a marina field with debris from wrecked boats and 1333 marina pilings presenting a navigational hazard, the welfare of the entire population of the East End of St John could be put at risk.

5. An inequitable allocation of littoral rights would very likely be challenged in court, leading to a potentially lengthy period of uncertainty and economic stagnation. A fair allocation of littoral rights, on the other hand, will promote properly scaled development.

The applicant was required, pursuant to 12 V.I.C. § 911 to provide: "a complete and exact written description of the proposed site, including charts, maps, photographs, topographic charts, submerged land contours, and subsurface profiles in accordance with the scope and complexity of the work and the site." These requirements apply specifically to applications for Trust Lands Occupancy Permits. The most basic element of such a description - the land area of the proposed site - was not provided anywhere in the application. Nor were complete submerged land contours, complete description of the

"Site Limits", a surveyor's description of the Site Limits, or any justification for the drawing of the Site Limits as they are depicted. The applicant's failure to supply such required information should have precluded acceptance of the application by DPNR and CZM staff.

If a landowner were to approach DPNR with a permit application to build a house, one of the very first requirements would be to provide a survey of the land parcel, and demonstrate that the house footprint conforms to setbacks, size, and other requirements of the zone and the lot. No planning agency would ever consider a building permit without a survey. The fact that this marina is being considered without any objective description of the area that the applicants are permitted to build in, is simply not acceptable. It appears as though the applicant may have designed the marina first, then drew lines to enclose it, with total disregard for the rights of others or the requirements of law.

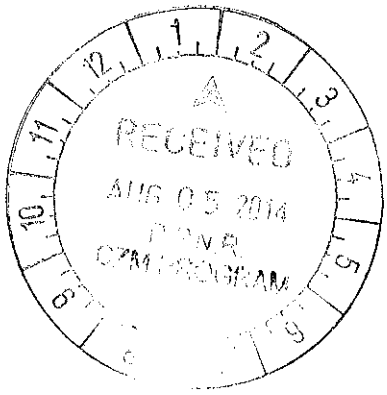


Prepared by David L Silverman

Board Member, Coral Bay Community Council

28 August 2014

HODGE & HODGE



August 5, 2014

Department of Planning and Natural Resources
Division of Coastal Zone Management
Via hand Delivery

RE: Opposition to Scope of The Summer's End Group, LLC's Permit Application for Proposed Development of The St. John Marina (CZJ-3-14 L and CZ– 4-14W)

To Whom It May Concern:

We represent the Moravian Church VI Conference ("Moravian Church" or "the Church"). We are writing to express concerns of the Moravian Church and T-Rex St. John, LLC ("T-Rex"), the lessee of the Church's property at Coral Bay, regarding the permit application of The Summer's End Group, LLC for development of a proposed marina project in Coral Bay, St. John.

The Moravian Church owns property located at the head of Coral Harbor, along the south side of Route 10. T-Rex leases this property from the Moravian Church. The Church has a longstanding interest in developing a marina on the subject property and, jointly with T-Rex, has been drafting an application to CZM for such development. As you know, the Moravian Church and T-Rex attended pre-filing meetings with CZM in May 2014, and intend to submit an application for development of an 85-slip marina to CZM in the immediate future, in conformity with the discussions at those meetings.

Our client has learned that the Summer's End Group, LLC ("Summer's End") seeks to develop The St. John Marina, a 145-slip marina project located on the western shore of Coral Bay. Based on public reports and review of your Department's records, the size and scope of the marina development proposed by Summer's End would interfere with the rights of the Moravian Church and T-Rex to access, and wharf out over, the water adjoining their land.

"The right of access to the water in front of his land is the fundamental riparian right which the owner of littoral land enjoys."[1] *Burns v. Forbes*, 412 F.2d 995, 998, 7 V.I. 256 (3d Cir. 1969), *citing Hughes v. Washington*, 389 U.S. 290, 293-294, 88 S. Ct. 438, 19 L. Ed. 2d 530 *and* 2 Tiffany, Real Property, §§ 659, 660; III American Law of Property § 15.35.

[1] "A littoral landowner is one whose land borders an ocean, sea, or lake." *Club Comanche, Inc. v. Gov't of the V.I.*, 278 F.3d 250, 261 n.1 (3d Cir. 2002), *citing Alexander Hamilton Life Ins. v. Gov't of the V.I.*, 757 F.2d 534, 538 (3d Cir. 1985). A riparian landowner is one whose land borders a river or stream. "Generally speaking, the special property rights of littoral and riparian owners are the same, and cases dealing with one type of waterfront landowner are freely applied when adjudicating the rights of the other." *Alexander Hamilton Life Ins.*, 757 F.2d at 538 n.5.

ATTORNEYS AT LAW
1340 TAARNEBERG, ST. THOMAS, VIRGIN ISLANDS
PHONE: 340-774-6845 FAX: 340-776-8900
EMAIL: MARIA@HODGELAWVI.COM

As the owner of littoral land, the Moravian Church "has the right at common law to erect piers and docks on the submerged public land beyond the water line and to wharf out over it, subject to government regulation and control and with due regard to the rights of the public and adjoining land owners." *Burns*, 412 F.2d at 998 (citations omitted). The right of a littoral owner to access waters adjacent to its land "is not lightly to be deprived." *Id.* Development of The St. John Marina by Summer's End, in accordance with the current proposal, would deprive the Moravian Church of its littoral rights by unreasonably restricting the Moravian Church's ability to access the water adjacent to its land and to wharf out over it. *See, e.g., New Jersey v. Delaware*, 552 U.S. 597, 612, 128 S. Ct. 1410, 1421, 170 L. Ed. 2d 315 (2008) ("a riparian landowner ordinarily enjoys the right to build a wharf to access navigable waters far enough to permit the loading and unloading of ships."), *citing* 1 H. Farnham, Law of Waters and Water Rights § 62, p. 279 (1904) ("The riparian owner is also entitled to have his contact with the water remain intact. This is what is known as the right of access, and includes the right to erect wharves to reach the navigable portion of the stream."); *id.*, § 111, p. 520 ("A wharf is a structure on the margin of navigable water, alongside of which vessels are brought for the sake of being conveniently loaded or unloaded.").

Furthermore, the size of the marina proposed by Summer's End must be sufficiently controlled such that a channel exists for the navigation of vessels between the proposed Summer's End marina and the marina development planned by the Moravian Church and T-Rex. *United States v. Willow River Power Co.*, 324 U.S. 499, 504-05, 65 S. Ct. 761, 765, 89 L. Ed. 1101 (1945) ("The fundamental principle of this system is that each riparian proprietor has an equal right to make a reasonable use of the waters of the stream, subject to the equal right of the other riparian proprietors likewise to make a reasonable use.") (internal citation and quotation marks omitted).

Neither our client nor T-Rex oppose, in principle, the right of the Summer's End developers to construct a marina at Coral Bay. However, to fairly protect the rights of the Moravian Church VI Conference and its lessee, T-Rex St. John, LLC, we respectfully urge the Division of Coastal Zone Management to appropriately limit the scope of the marina development proposed by The Summer's End Group, LLC, to ensure that the littoral right of Moravian Church VI Conference and T-Rex St. John, LLC to access and make reasonable use of Coral Harbor is protected.

Sincerely,

Maria Tankenson Hodge

Cc: Moravian Church VI Conference; T-Rex St. John, LLC

ATTORNEYS AT LAW
1340 TAARNEBERG, ST. THOMAS, VIRGIN ISLANDS
PHONE: 340-774-6845 FAX: 340-776-8900
EMAIL: MARIA@HODGELAWVI.COM

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

Pile Driving Analysis/ Noise

Impact on the Coral Bay Community
From Pile Driving and Other Construction Noise
During Construction of the Proposed SEG Marina

Gerry Hills, St. John
St. John Resident Since 2000
ST. John CZM Commissioner, 2005 - 2012
August 25, 2014

This is an analysis about the expected noise pollution in Coral Bay if the proposed SEG marina were to be built. Emphasis is on the noise from pile driving, but other construction noise is equally disruptive. Part I addresses pile driving. Part II provides a specific local example of noise disruption and a project gone bad – the Pond Bay Club. Part III is not about noise, but instead lists some of the many organizations that have voiced disapproval of this marina. Part IV is my recommendation to the CZM Commission.

I. Pile Driving

The application by SEG for the marina in Coral Bay states that 1,333 pilings will be driven into the seafloor to support the docks. However, the Environmental Assessment Report (EAR) is almost completely silent about what type of equipment is proposed for the driving, what type of substrate is expected at the bay floor, what the decibel levels will be in the Coral Bay area, and the duration of the pile driving.

There is no Geological Survey of the Coral Bay floor, which is required to determine the type of substrate. The substrate could be anything from soft clay to incredibly hard rock called blue bitch. The pile driving effort could be anywhere from moderately difficult to virtually impossible.

There is no report from an accredited Acoustic Engineer. Specifically, this should be in Section 7.04 (Social Impact) of the EAR. A report should take into account the Geological Survey (not provided), determine the length of time to drive 1,333 pilings, and calculate the decibel level at various distances from the bay in the Coral Bay area. The EAR states partially, in Section 7.04, Social Impact:

"The St. John Marina hopes to have a positive social impact on both visitors and the local community. Decades of unsatisfied demand by the St. John community and recreational boaters will be fulfilled in Coral Harbor through the development of The St. John Marina, which will provide much needed dockage, fuel, provisioning and pumpout services. The St. John Marina will be located on a combination of land leased from a long-time St. John family and purchased property. This highly visible St. John project will be a substantially locally owned

marina, in and of itself constitutes a significant and positive social impact. In addition, further business opportunities in the marine sector will occur once there is a marina to provide the needed support services. The provision of marina facilities in the place of haphazard anchoring and mooring patterns will yield a positive social impact on the St. John and Coral Bay communities."

The EAR goes on to say that SEG supports such local agencies/organizations as IGBA, KATS, CBCC, Coral Bay Yacht Club, etc., and therefore meets all Social Impact requirements. In my opinion, this is a non-responsive section.

For example, there is no mention that I can find anywhere in the EAR, and definitely not in the "Social Impacts" section, of the effect that protracted noise would have on Coral Bay.

However, this information is readily available. The Internet provides a rich source of information about noise from pile driving. I found a large number of pertinent articles, and have quoted from some of them below. (Notes are cited as such, and are from me.)

1. "Dealing with Vibration and Noise from Pile Driving". W. Allan Marr, P.E. http://www.geocomp.com/files/technical_papers/DealingwithVibration&NoisefromPileDriving_Adapted_PAPER_WEB.pdf

Within the pile driving industry, companies are aware that this is a noisy and disruptive process. This is an industry paper actually telling contractors how to attempt to minimize complaints from the community about pile driving noise.

"Pile driving produces vibrations and noise that may extend thousands of feet away from the driving activity. People have become increasingly intolerant of these effects. They complain to government agencies and oppose developments that use pile elements. Their opposition is beginning to seriously affect the pile driving industry in the developed countries."

"Noise from pile driving rarely if ever produces structural damage, but it causes annoyance that may reach a long distance."

"Studies by the World Health Organization have shown that the majority of people become moderately annoyed by steady, continuous sound levels above 50 dB(A) and seriously annoyed at continuous sound levels above 55 dB(A)."

(Note – the estimated db level for the type of drill proposed appears to be approximately 175 to 200 dB, from various sources on the Internet.)

"Figure 2 shows a range of sound levels reported for pile driving for a variety of hammer types and sizes. For the noisiest hammer, one would have to go approximately 300 feet away from the hammer to get below the OSHA 8 hour exposure limit (Note: the OSHA safety limit is 90 dB). One would have to get several miles from the noisiest hammer for the sound level to drop below that causing moderate annoyance for most people."

(Note: The EAR is not specific about the type of drill to be used. It mentions possibly using a vibration type drill some of the time if conditions permit. This would potentially slightly lower the dB levels. However, research also states that vibration drills cannot be used in all locations, and that this process is slower.)

2. "Pile Driving Noise." Wieland Acoustics.
http://wielandacoustics.com/images/stories/pile_driving_noise.pdf

Discussion about vibration drills versus percussion drills. Sound is reduced with vibration hammers, but not significantly. Vibration hammers can be used only under certain soil conditions.

3. "Memorandum. Airborne Noise Levels." Washington State Department of Transportation. http://www.wsdot.wa.gov/NR/rdonlyres/8D088EE1-8BE9-4A59-8296-451E58CCDDB5/0/AirborneVibratoryTechMemo.pdf

Discussion of decibel levels from several projects in Washington State. Measurements were taken at various distances from the pile driving. For example, in the Keystone Ferry Terminal project, using a vibration driver, the airborne sound 40 feet from the actual drill averaged about 100 decibels. (Note: the OSHA safety level is 90 decibels. The level at which people become seriously annoyed is 55 decibels. For this project, we have no data on what the sound levels would be at various distances from the pile driving. It was omitted.)

4. "Naval Base Kitsap at Bangor, Trident Support Facilities Explosive Handling Wharf (EHW-2) Project, Acoustic Monitoring Report." Illingworth & Rodkin, Inc.
http://www.nmfs.noaa.gov/pr/pdfs/permits/navy_kitsap_ehw2_acoustics2013.pdf

A very long and detailed report, full of charts and technical analysis of noise propagation both underwater and airborne.

The report addresses the potential harm zone to marine life, and states specific underwater decibel levels that must not be exceeded:

160 dB RMS for marine mammals during impact pile driving
120 dB RMS for marine mammals during vibratory driving; and
150 dB RMS for fish and marbled murrelets during both impact and vibratory driving.

"Effect on Injury and Behavioral Zones Based on RMS Sound Pressure Level -- Data from the individual measurements indicate that RMS sound pressure levels exceeded 190 dB at distances of up to 25 meters from the pile and the 180 dB was exceeded at distances up to 100 meters." P.75.

The project consisted of a large pier in a saltwater canal. "257 pilings were put in, with a total of 11,859 strikes. The bottom of the canal where the piles were driven was the same as encountered with the TPP project. Based on the USCS soil classifications the soil ranged from poorly graded gravel-silty gravel to silty sand/gravel. The water depth where the piles were driven ranged from just above the water to approximately 90 feet. The distance from the shore to the piles driven ranged from on land to approximately 600 feet." P. 9. (Note: Since there is no Geological Survey for the proposed marina, it is difficult or impossible to compare the conditions, which may be more difficult in Coral Bay.)

"One to 19 piles were driven in a day with an average over the project of five piles per day." P. 11. (Note: At times, this project used multiple pile drivers. At rate of five pilings per day, driving 1,333 pilings in Coral Bay would take 266 days, or over 53 continuous 5-day weeks of pile driving noise. Other estimates, of time to drive pilings estimated setting of just 3 piles per day, meaning that the pile driving would take approximately 89 continuous 5-day weeks.)

The SEG EAR in Section 6.9 has a few graphs/tables, some text about ambient oceanic decibel levels elsewhere (Alaska, California, open ocean, etc.) and nothing specific about Coral Bay, which apparently was not measured or surveyed. Then there is a claim for which I can't locate any solid reasoning or supporting technical validation: "Based on this information if a vibratory hammer is used the sound created during construction should be 120 dB and below that which injury occurs." (Note: It is not even certain that vibration hammers can be used. In addition, the various claims state 'should', instead of 'will'.)

The EAR also states in Section 6.9. "The threshold for behavioral impacts for all fish is 150 dBRMS (FHWG 2008). Vibratory hammer activities should be below that range." (Note: A Geological Survey of Coral Bay Harbor and the opinion of an independent Acoustical Engineer are required to verify these statements, because they are counter to actual measured results reported above, showing underwater decibel levels significantly greater at distances up to 100 meters.)

5. NOAA did an analysis of the proposed marina, dated July 28, 2014. https://onedrive.live.com/view.aspx?cid=9F78A94DCD9236CE&resid=9F78A94DCD9236CE!7975&app=WordPdf&authkey=!AH-f2zhH7h_d4Gk

NOAA made 15 specific recommendations. Number 4 of 15 stated "4. details of pile driving [Environmental Assessment Report (EAR) states that a vibratory hammer will be used where possible but this is not enough information] and quantification of potential acoustic impacts to sea turtles, including distance of impact estimates for the driving of an estimates 1,333 pile and measures to reduce potential impacts to sea turtles from acoustic impacts." (Note: text appears missing at the end of the last sentence.)

6. The Coral Bay Community Council (CBCC) raised the same issues in its analysis of the project, sent to CZM.

On page 6-13, Sec 6.02 of the EAR, the applicant states: "Impact of Geology on the Proposed Project:.... On the marina area, conditions permitting, piles are anticipated to be driven with a vibratory hammer and local geological conditions are not expected to adversely impact this plan."

CBCC comments: "This is an unsubstantiated statement. There needs to be a geological study to determine feasibility of driving pilings in the seafloor of the bay in the EAR. We did not notice this survey and analysis included. (On a related matter, we did not notice any specification for how deep each piling needs to be driven – which is critical to determining the time/cost and noise generated when doing 1333 pilings.) Unless the piles can be driven easily through solid rock, not addressing this issue fully in this written application stage could lead to the same type of problems faced by Cruz Bay when Grande Bay was developed. We all recall that developer saying later – 'We did not know we would run into .....hard rock!' This geological report and an engineering/cost report about driving the pilings based on that report is a HIGH PRIORITY item to be included in this EAR – for a number of reasons, but especially due to the construction duration and noise pollution consequences to the community and the economy, as well as the marine creatures."

(Note: This doesn't seem to have been addressed yet by SEG.)

Conclusions about Pile Driving Noise

- Social Impact not addressed in the EAR
- An extreme nuisance for many months/years
- Potentially dangerous to humans
- Harmful to marine life
- No specifications on type of equipment, depth, substrate composition, estimated time, decibel levels airborne or underwater
- No Geologic Survey
- No Acoustical Engineering

II. What happened at Pond Bay Club

Noise during a construction project is unavoidable, and can have disastrous effects.

This is the actual experience that occurred on St. John with the failed project at Pond Bay Club. Construction noise was extremely disruptive to the Chocolate Hole community. The results from construction noise are addressed below in the sub-section on "Tourism".

The expected noise during construction of the proposed SEG marina would be more than that experienced during the construction of Pond Bay Club, since the project is much larger, there are more buildings, it is directly on a main road, and there are many months of pile driving. Coral Bay, like Chocolate Hole, is a natural bowl, with hills/mountains bordering a bay. Sound propagates up the hillsides. From my house at 600 feet altitude, 2 miles from Coral Bay, I can easily hear late-night live music from Coral Bay restaurants. In fact, we were able to listen to concerts at the ball field from our deck. It is my opinion that pile driving and other construction noise, significantly louder, longer duration, and much more unpleasant than that of a band, would devastate the community.

Pond Bay Club was lauded by its developers in exactly the same fashion that SEG lauds the marina proposal. It will provide jobs, will be a huge economic benefit to the island, will attract tourism, and will be a shining example throughout the Caribbean of a successful resort. Government officials from Tourism and from Economic Development made very similar presentations for Pond Bay Club back then that they recently made for SEG. These presentations and promises are certainly well-intentioned, but none of the promises came true at Pond Bay Club.

- **Job gains**. During the construction phase, some jobs were definitely created. Much of the labor was not from St. John, however. Most of the construction labor came from St. Thomas on the daily ferry. Today, there are obviously no long-term jobs.
- **Economic benefit.** Some local craftsmen were hired as subcontractors. However, many were simply not paid. The estimate at the end of the project was that local contractors were owed over $650,000 by the developer, who simply walked away from the debt. This was a huge loss to the local population, instead of a gain.
- **Tourism.** During the Pond Bay Club construction, which lasted two years or so before shutdown, there was incredible noise which adversely affected tourism. Villas in the Chocolate Hole area had to publicly state that excessive noise was likely. Tourists immediately posted negative comments all over websites like TripAdvisor telling people to avoid Chocolate Hole and St. John. Many tourists, still unaware of the noise, came anyway, left angrily, and demanded refunds and/or placement in

alternate properties away from the noise. Losses to the villa owners and to the economy were enormous. The problem in Coral Bay is significantly greater than that in Chocolate Hole, with a larger project, more buildings, over a longer time period, with restaurant closures, a massive construction site along the public road and blocking views of the bay, and with pile driving. Noise in Coral Bay reverberates up the hillsides, and carries to hundreds of properties. VRBO, a popular site for listing vacation rentals lists 98 properties for rent in Chocolate Hole. VRBO lists 175 properties for rent in Coral Bay. I believe that it is extremely naïve, and also extremely incorrect for the Virgin Islands Department of Tourism to state publicly that there are benefits to tourism from this project. On the contrary, it is obviously a huge disaster just waiting to happen. I believe that Coral Bay and St. John tourism would take an enormous hit for the duration of the construction, and for years beyond. The proof is in Pond Bay for everyone to look at, remember, and learn from.

- **Shining example to be proud of.** The Pond Bay Club site is in shambles. A disgrace. No further comment is necessary.

III. Who Has Spoken Against The SEG Marina

Opposition has included the following, and others:

1. Over 200 St. John residents or visitors sent letters to CZM through CBCC, who collected and printed the letters. Three sets of over 160 letters were given to CZM at the Public Hearing, and many more are being provided. Each letter was individually written, was not mass-produced, and was not a form letter.

2. Over 350 people, either residents, landowners, or frequent visitors to St. John who could not attend the Public Hearing signed a statement opposing the marina. The names have been provided to CZM.

3. Fish and Wildlife issued a report in letter format, dated August 18, 2014. https://onedrive.live.com/view.aspx?cid=9F78A94DCD9236CE&resid=9F78A94DCD9236CE!7976&app=WordPdf&authkey=!AH-f2zhH7h_d4Gk

The report contained a number of specific comments and recommendations, including this statement: "Based on the above, we recommend that a CZM permit for the proposed action not be issued until our concerns and recommendations are addressed in the EAR and subsequent permit applications."

4. NOAA issued a report dated July 28, 2014, which was focused mainly on the water-based section of the project. https://onedrive.live.com/view.aspx?cid=9F78A94DCD9236CE&resid=9F78A94DCD9236CE!7975&app=WordPdf&authkey=!AH-f2zhH7h_d4Gk

"On the other hand, as we expressed after reviewing the previous version of the marina, which consisted only of a marina for smaller vessels, similar to the currently proposed North Club, we continue to have concerns regarding the potential project impacts to seagrass beds and water quality in the bay. In response to the past permit application for a smaller marina, we had recommended that the applicant explore avoidance and minimization of project impacts to seagrass, including through alternatives such as the construction of a marina at an alternate location. Instead, when Summer's End acquired the property, they proposed a larger project that includes the currently proposed marina for small vessels and vessels up to 120 feet in the South Club and up to 80 feet in the North Club based on notes in our project file. While they have redesigned the project to incorporate grated decking and extend into deeper water away from shore in order to avoid the need to dredge, the project has gotten larger rather than smaller, resulting in greater impacts to benthic habitat that is used by sea turtles as well as creating the potential for greater water quality impacts in the bay, which contains habitat for ESA-listed and proposed corals in addition to sea turtles. For this reason, we continue to have concerns regarding this project. As part of the federal permit process, a Section 7 consultation under the Endangered Species Act (ESA) will be required. As part of this consultation, the following information will be required to address all temporary and permanent impacts, including direct and indirect effects, to ESA resources: "

(Note: 15 separate items were listed as necessary for compliance.)

The report concluded with this:

"Note that, once the ESA Section 7 consultation has begun, we may require additional information to that listed above in order to complete our determination. Finally, the project may require an essential fish habitat (EFH) consultation with NMFS Habitat Conservation Division (HCD) as part of the federal permit process. By letter dated June 2, 2006, NMFS HCD provided comments to the USACE in response to a previous major land and water application for a small boat marina only in the same location. At the time, NMFS HCD had significant concerns regarding the proposed marina and associated impacts to the dense seagrass beds in the area, as well as potential impacts to water quality. Therefore, I recommend that you contact Ms. Lia Ortiz with NMFS HCD regarding EFH consultation requirements."

(Note: This was one of the many Special Conditions attached by CZM to the permit for the previous, smaller marina, and it was never met. NOAA has repeated the same objections, and it appears that NOAA is even more concerned now that the project has increased in size.)

5. CBCC submitted a 19-page document to CZM, dated August 4, 2014. https://onedrive.live.com/view.aspx?cid=9F78A94DCD9236CE&resid=9F78A94DCD9236CE!7895&app=WordPdf&authkey=!AML6KoaOvMjo0wg

The document is extremely thorough, and includes mention of multiple problems with information, or lack of information in the EAR, public opinion, reasons why the marina doesn't meet approval standards, etc.

6. A report was provided to CZM by David Silverman of Coral Bay and CBCC. Mr. Silverman had a position similar to that of a CZM Commissioner where he lived previously, and submitted this: "Over the ten years which I served as a Coastal Commission member, I reviewed many private dock applications, a public marina application, and countless residential projects and subdivisions, both large and small, within the coastal zone. As a consequence of this background I am very familiar with the Coastal Zone Management Act and its implementation."

David also testified at the Public Hearing about the contents of the report. The report is 35 pages long, full of references to specific sections of the CZM act. It documents many specific instances where the proposed marina is not consistent with the CZM act, and therefore must be denied by law.

This application is NOT CONSISTENT with **CZM Goals** 1, 3, 4, 5 and 8.
It is NOT CONSISTENT with CZM **Development Policies** 1, 5, 6, 8 and 9.
It is NOT CONSISTENT with CZM **Environmental Policies** 1, 2, 4 and 9.
It is NOT CONSISTENT with CZM **Amenity Policies** 2, 4, 5 and 6.

(Note: Below I have excerpted text from just two of these 18 separate inconsistencies with the CZM act, to show the thorough level of evaluation and the degree that the proposal does not follow the CZM act, which is part of Virgin Islands law. The other sections are equally descriptive.)

CZM Act Goal 1: – protect, maintain, preserve and, where feasible, enhance and restore, the overall quality of the environment in the coastal zone, the natural and man-made resources therein, and the scenic and historic resources of the coastal zone for the benefit of residents of and visitors of the United States Virgin Islands;

Analysis why the marina proposal doesn't meet this: -- "The applicant proposes to build an extensive marina complex situated above lush marine meadows and within critical habitat of federally protected endangered species (corals and marine turtles). This activity cannot be construed to be protecting, maintaining, preserving, enhancing or restoring the quality of the natural environment in the coastal zone, since, by the applicant's own statements,

'seagrasses are impacted after approximately 2 weeks of shading (and) this will result in the loss of seagrass within the marina due to vessel shading. This will probably be seen as loss of density as well as denuding of some areas especially around larger boats which are permanently moored.' (Major Water EAR, Page 5-4) The goal also speaks of protecting the man-made, scenic and historical resources of the coastal zone. This proposed development will dramatically change the viewshed of Coral Bay Harbor, as clearly indicated in the renderings of the finished project prepared by the applicant. Such changes do not maintain or preserve scenic resources of the coastal zone.

The applicant may claim that this project will 'enhance the overall quality of the environment' and specifically refer to the man-made resources therein. However 'quality' is not an objectively defined term, and the vast majority of Coral Bay residents have said that this project will degrade, not enhance, the quality of the man-made environment."

CZM Act Amenity Policy 6: – to ensure that development will not interfere with the public's right of access to the sea where acquired through customary use, legislative authorization or dedication, including without limitation the use of beaches to the landward extent of the shoreline.

Analysis why the marina proposal doesn't meet this: – "There are approximately 50 boats on DPNR-approved moorings within the footprint of the proposed marina. Many of these boats have utilized the same mooring location for many years. Displacing almost half of the legally moored vessels in Coral Bay Harbor and relocating them into densely packed mooring fields with substantially less privacy and greater risk of collision with neighboring vessels is clearly not consistent with this CZMA goal.

Additionally, the proposed 'mooring field' does not have appropriately designed facilities to accommodate the vast majority of vessels currently utilizing Coral Bay Harbor. This plan effectively monopolizes the entire harbor to the benefit of one private group, and is clearly not consistent with the letter or the intent of this policy. Furthermore, as detailed elsewhere, there is considerable doubt as to the legality of a private developer constructing and managing a public mooring field; this responsibility is specifically assigned to DPNR under the VI Boating code."

IV. My Recommendation to the CZM Commission

My opinion as a St. John citizen for fourteen years and as a former CZM Commissioner for 7 years is that this proposal fails in virtually every conceivable measure – aesthetically, socially, environmentally, and legally. Do not approve.

To: J.P. Oriol
Acting Commissioner, DPNR

From: Gerry Hills

Date: August 26, 2014

Subj.: Public Testimony about proposed SEG Marina

Enclosed is a copy of an analysis of noise pollution resulting from driving 1,333 pilings into Coral Bay Harbor.

I have made three copies and put into individual envelopes to help distribute to the two voting Commissioners, and to the CZM staff.

I have also sent a PDF version to you and to Anthony Richards. You may distribute this if you wish.

Hope this helps in your analysis.

Please feel free to contact me regarding this.
stjohncaptain@aol.com
340-642-3360

Gerry Hills
St. John

Addendum to Pile Driving Analysis

From: "Hudson River PCBs Superfund Site, Phase 1 Final Design Report, Attachment J - Noise Impact Assessment". Epsilon Associates, Inc. http://www.epa.gov/hudson/pdf/2006_03_21%20Phase%20I%20FDR%20ATTACHMENT%20J.pdf

This report analyzes the propagation of airborne sound from both vibration and impact pile drivers, and what proper mitigation should be. It is 41 pages long, plus additional photos and illustrations, and contains enough scientific data to properly assess the effect on the community.

The EAR produced by SEG should contain a similar analysis, which should be included in the Social Impact section. Instead, this section contains only a couple of non-specific paragraphs about noise, and concludes only that noise levels underwater "should be" below 120 dBA. There is nothing about expected airborne noise, its impact on the community, and necessary mitigation.

I have combined two charts into one, for simplicity.

Expected Decibel Levels, at various feet from the source, Tables 4-4b and 6-4

	Vibratory Driver	Impact Driver
100 feet	90	92
200 feet	84	86
300 feet	81	82
400 feet	78	80
500 feet	76	78
575 feet	75	
600 feet		76
700 feet		75

(Note: 75 dBA is the "Residential Daytime Control Level". For this project, residences were within a mandatory mitigation zone (specifically a barrier, shroud, quieter equipment, etc.) if they were within 575 feet of a vibratory driver, or within 700 feet of an impact driver.)

The decibel level of a moving locomotive, at 50 feet, is 88 dBA. P. 37.

From other sources - -

The OSHA safety limit in a workplace is 90 dBA.
The level at which people are moderately annoyed is 50 dBA.
The level at which people are extremely annoyed is 55 dBA.

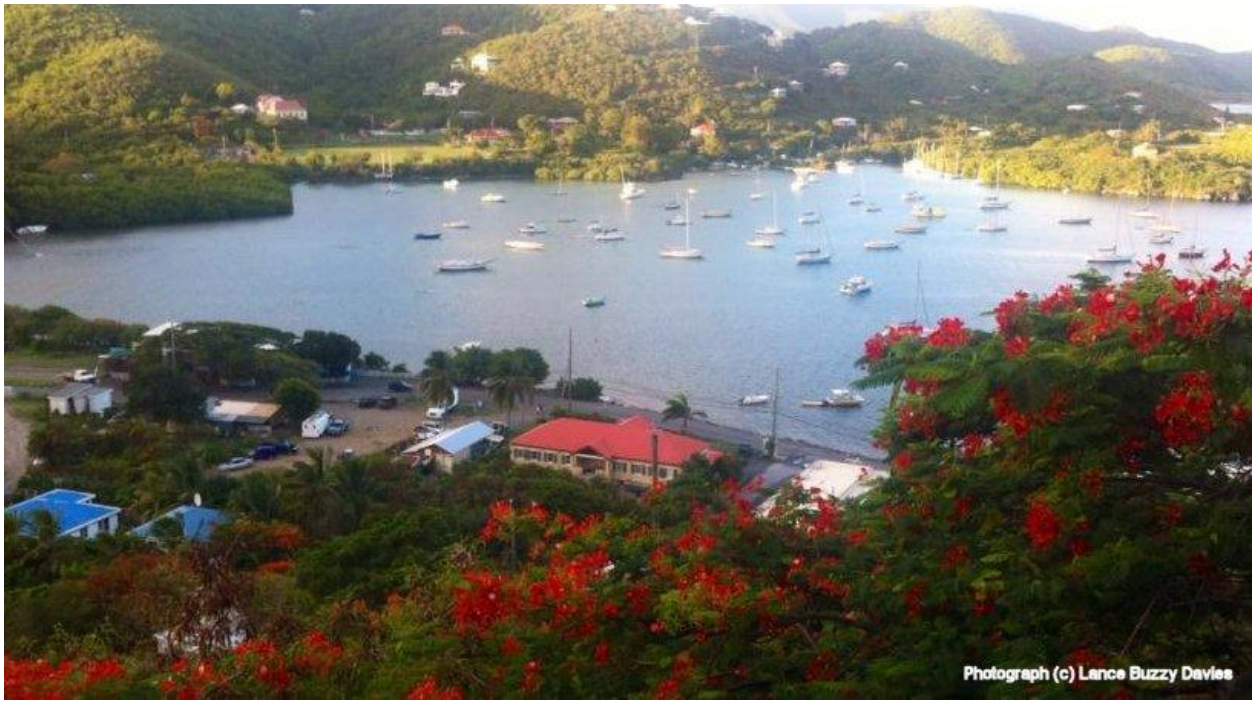
Depending on the equipment used, size of pilings, etc., the sound level at the source in Coral Bay Harbor could be in the range of 175 to 200 decibels. We don't know, because the EAR doesn't include any analysis.

In any case, the absolute least amount of noise expected is roughly the equivalent of a moving locomotive from 50 feet away, off and on, all day long, for a year.

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

CZM Act Consistency Review



CZM Consistency Analysis and Environmental Impact Analysis

for Applications CZJ-3-14(L) and CZJ-4-14(W)

by Summer's End Group LLC,

Marina and Associated Facilities in Coral Bay, St. John

Submitted By

Coral Bay Community Council

29 August 2014

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INTRODUCTION

This analysis of CZM consistency and mitigation of environmental impacts was prepared by a Coral Bay Community Council board member with ten years of experience in reviewing development applications for Coastal Zone consistency. The board of CBCC endorses this analysis and is submitting it as part of the institutional review of the CZM Permit Application.

SCOPE OF THE PROPOSED DEVELOPMENT

The "St John Marina" proposed by the Summer's End Group is a large project by any standard. However, due to ambiguities and lack of clarity in the application documents, it isn't perfectly clear exactly how large the project is, and what the scope of the application covers.

There are two permits which the applicants require from the CZM at this stage: a Major Land permit for the land-based development activity within Tier 1 of the coastal zone, and a Major Water permit for the construction of the marina. These are both "Section 910" permits. Since the marina will be built upon submerged lands in Coral Bay harbor, the applicant also requires a "Section 911" permit (the relevant language states: "12 V.I.C. § 911: No person shall develop or occupy the trust lands or other submerged or filled lands of the United States Virgin Islands without securing a coastal zone permit which includes, in addition to the elements of a section 910 permit, a permit or lease for the development or occupancy of the trust lands or other submerged or filled lands." So this can be viewed as a separate permit, or as an extension of the Section 910 Major Water permit.

THE MOORING FIELD

The scope of the Major Water permit for the development of the trust lands is unclear from the application, in at least two very significant regards. First, the applicant has mentioned in numerous places a Letter of Intent with DPNR for management of the so-called "Mooring Field" described in general terms in the application documents. Clearly some accommodation needs to be made for the 115 boats which are, for the most part, moored on DPNR approved moorings and a large portion of which are within the footprint of the proposed marina and would be displaced if this project were to proceed.

However, the Mooring Field is only vaguely mentioned in the application: there are no detailed engineering drawings or calculations to support the density and structure of the field, there are no analyses of the potential environmental impacts of its construction, there is no discussion of how this facility will be managed, the fees that would be charged, and so forth. The only thing the applicant has done is submit a non-binding, expired Letter of Intent, and make the claim that the relocation of 115 vessels into this managed mooring field will mitigate the severe impacts to the marine meadows stemming from construction of the marina. In effect, the applicant has chosen to use the highly prospective mooring field to serve their own purposes in the Major Water application, without explicitly including the Mooring Field in the scope of the application. This major flaw in the scope of the application needs to be addressed: either the Mooring Field is part of the application, in which case its

design, impacts, and mitigations need to be fully discussed, or it is not part of the application, in which case it should not even be mentioned.

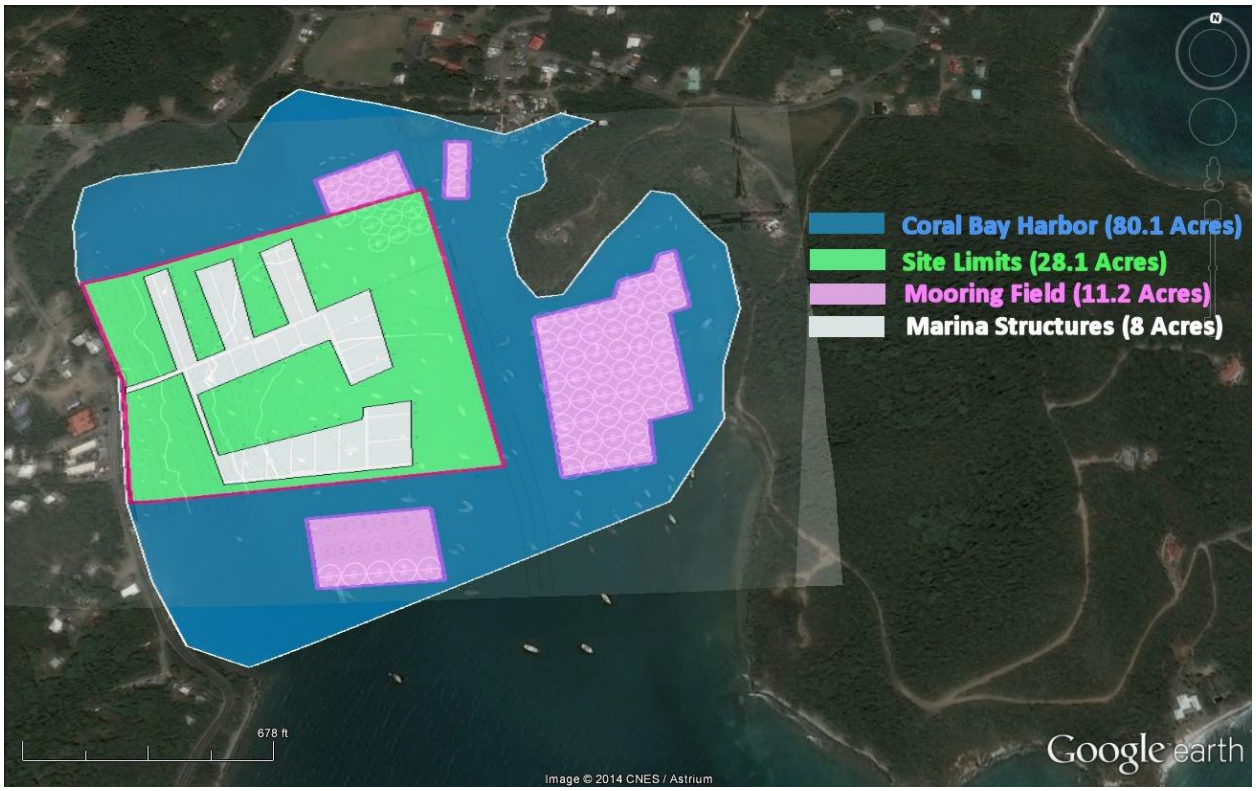
One final point on mooring fields is in order. According to the Table of Permitted Uses in the zoning code (29 V.I.C. § 228) marinas (such as proposed by Summer's End Group) are permitted in the W-1 and W-2 waterfront zoning districts. However a "mooring field" appears nowhere in the Table of Permitted Uses, in any zone. The allocation and regulation of moorings is a responsibility assigned explicitly to DPNR (25 V.I.C. § 401). The code explicitly requires DPNR to implement a mooring plan (25 V.I.C. § 404: "The Department shall develop and implement a mooring plan, subject to the approval of the Legislature's Committee on Planning and Natural Resources.") Furthermore, 25 V.I.C. § 404 states: "Until such time as a water use plan is developed, the Department shall administer programs in a manner consistent with the goals and objectives of this chapter and in a manner responsive to social and environmental needs."

Based on the forgoing, it appears as though SEG overstepped the limits of the zoning code by including a discussion of the prospective "Mooring Field" in their application. They cannot claim any compensatory mitigation from this activity since it is outside the scope of the application.

SIZE OF PROJECT AREA - THE SITE LIMITS

Second, we have been unable to find any explicit mention of the acreage of trust lands which the applicant seeks to utilize for the marina structure. The only area figures which we have been able to find in the Major Water EAR are 1.42 acres for the physical footprint of the marina, and 5.7 acres for the water coverage by boats, and the statement on page 5-4 where the development is described as an "approximate 8 acre project area." All of these figures are repeated in multiple places, particularly in any discussion of environmental impacts. This would lead one to believe that the size of the water-based project is 8 acres.

However, all of the drawings which depict the "Site Limits" are at odds with this figure. Take, for example, Sheets Number 02, 03 and 04 of the Army Corps of Engineers Permit Drawings, which all delineate the same "Site Limit" boundaries. The area within the Site Limits is not even close to 8 acres - it is approximately 30 acres. If one includes the area covered by the Mooring Field (multiple locations), then this adds an additional 11.1 acres to the project coverage. The illustration below is a current aerial photograph of Coral Bay Harbor (from Google Earth) with the physical marina structure, the marina site limits, and the mooring field areas all highlighted.



It would appear, and this needs to be confirmed with the applicant, that the 8 acres described as the "project area" is actually only the finally developed portion of the site, and the entire site which is within the Site Limits is around 30 acres. If the Mooring Field regions are added, the entire site is approximately 40 acres, covering most of the navigable water of Coral Bay Harbor, and around 50% of the entire harbor acreage.

If it was an unintended oversight not to mention the total site acreage then this can be corrected in the application, and it should be resubmitted with this acreage forming the basis for the EAR and impact studies on the marine meadows. If the mooring field is intended to be within the formal scope of the project then this too needs to be added and the application amended. If the total acreage was intentionally omitted then this is a serious matter which should be dealt with administratively.

SCOPE OF THIS REVIEW

Although many members of the community may view the CZM permit hearing as an opportunity to comment and critique specific details of the proposed marina project, that is not, and should not be the focus of the public hearing, public comments, and the deliberation of the commission following this public hearing. The role of the CZM in this process is clearly spelled out in the Virgin Islands Code (VIC), and can be found in Title 12, Chapter 21, Section 910. This section says, in relevant part:

> "any person wishing to perform or undertake any development in the first tier of the coastal zone ... shall obtain a coastal zone permit in addition to obtaining any other

> permit required by law from any public agency prior to performing or undertaking any development. A permit shall be granted for a development if the appropriate Committee of the Commission or the Commissioner ... finds that
>
> (A) **the development is consistent with the basic goals, policies and standards provided in sections 903 and 906 of this chapter**; and
>
> (B) the development as finally proposed **incorporates to the maximum extent feasible mitigation measures to substantially lessen or eliminate any and all adverse environmental impacts of the development**; otherwise the permit application shall be denied. The applicant shall have the burden of proof to demonstrate compliance with these requirements"

This language is central to the Coastal Zone Management Plan and is found in virtually all coastal management plans in the United States and its Territories. The burden placed on the Commission is to assess the consistency of the proposed development with the goals and policies of the management plan, and to determine whether the plan incorporates the maximum feasible mitigation measures to lessen or eliminate any and all adverse environmental impacts. For this reason, the process we are currently in is generally known as a "Coastal Consistency Review".

The second purpose of this application review pertains to the part of the development plan which is built upon submerged lands of the Virgin Islands. In this case, that includes the entire multi-acre fixed marina facility. Such lands can only be used pursuant to a lease agreement with the Territory, implemented through an act of the Legislature. The CZM is required under Section 911 to adopt specific findings in order to approve such use of submerged lands. These findings are:

> (1) that the application is **consistent with the basic goals of section 903 and with the policies and standards of section 906** ...
>
> (2) that the grant of such permit will clearly **serve the public good**, will be in the public interest and will not adversely affect the public health, safety and general welfare or cause significant adverse environmental effects;
>
> (3) that the occupancy and/or development to be authorized by such a permit will **enhance the existing environment** or will result in minimum damage to the existing environment;
>
> (4) that **there is no reasonably feasible alternative to the contemplated use or activity which would reduce the adverse environmental impact upon the trust lands** or other submerged or filled lands;
>
> (5) that there will be **compliance with the United States Virgin Islands territorial air and water quality standards**;
>
> (6) that the occupancy and/or development will be **adequately supervised and controlled to prevent adverse environmental effects**; and

> (7) that in the case of the grant of an occupancy or development lease, an occupancy or development permit for the filled land is not sufficient or appropriate to meet the needs of the applicant for such lease. The burden of proving such insufficiency or inappropriateness shall be upon the applicant.

The law here is very clear and precise: the Commission must adopt these seven findings in order to approve a CZM application which includes development on trust lands or submerged lands. So the work of this commission includes not only the Coastal Consistency determination but six additional specific findings required under the law.

So, with this as background, we would now like to offer observations on the consistency of the St John Marina proposal with the goals, policies and standards of the Virgin Islands Coastal Zone Management Plan.

COASTAL CONSISTENCY REVIEW

The methodology for conducting a Coastal Consistency Review is fairly straightforward but it does require a considerable level of judgment on the part of the review agency. The goals and policies are contained within the CZM law in Section 903 (Goals) and Section 906 (Policies). These goals and policies cover an extremely broad range of possible activities, including such disparate projects as subdivisions, hotels, fishing, dredging, sand and gravel mining, and so forth, many of which are simply not relevant to any particular application. So the review begins by identifying the goals and policies which are relevant to a particular application, and then analyzing the application and reaching an analytical conclusion as to whether the proposed development is consistent with the explicitly stated goal or policy. The analysis is based on data supplied by the applicant and any other data which the CZM deems relevant.

With the assistance of one of our board members who has extensive experience in Coastal Zone consistency analysis, we have performed such a review on the St John Marina application and would like to share our findings with the Commission. We begin with the Section 903 Goals, and then proceed to the Section 906 Policies. The data is presented in tabular fashion to assist in the presentation. The table consists of three columns: the first column is the verbatim language of the Goal or Policy, excerpted from the VI Coastal Zone Management Act, the second column is a brief discussion of relevant aspects of the proposed development which have a direct bearing on the consistency with the stated goal or policy. The third column is the finding of consistency for this goal or policy - simply stated as a YES, or a NO, or N/A (Not Applicable).

CONSISTENCY WITH SECTION 903 GOALS

CZMA Goal	Commentary	Consistency
(1) protect, maintain, preserve and, where feasible, enhance and restore, the overall quality of the environment in the coastal zone, the natural and man-made resources therein, and the scenic and historic resources of the coastal zone for the benefit of residents of and visitors of the United States Virgin Islands;	The applicant proposes to build an extensive marina complex situated above lush marine meadows and within critical habitat of federally protected endangered species (corals and marine turtles). This activity cannot be construed to be protecting, maintaining, preserving, enhancing or restoring the quality of the natural environment in the coastal zone, since, by the applicant's own statements, "seagrasses are impacted after approximately 2 weeks of shading (and) this will result in the loss of seagrass with in the marina due to vessel shading. This will probably be seen as loss of density as well as denuding of some areas especially around larger boats which are permanently moored." (Major Water EAR, Page 5-4) The goal also speaks of protecting the man-made, scenic and historical resources of the coastal zone. This proposed development will dramatically change the viewshed of Coral Bay Harbor, as clearly indicated in the renderings of the finished project prepared by the applicant. Such changes do not maintain or preserve scenic resources of the coastal zone. The applicant may claim that this project will "enhance the overall quality of the environment" and specifically refer to the man-made resources therein. However "quality" is not an objectively defined term, and the vast majority of Coral Bay residents have said that this project will degrade, not enhance, the quality of the man-made environment.	NO
(2) promote economic development and growth in the coastal zone and consider the need for development of greater than territorial concern by managing: (1) the impacts of human activity and (2) the use and development of renewable and nonrenewable resources so as to maintain and enhance the long-term productivity of the coastal environment;	The applicant states that this project will result in significant economic benefits for the Coral Bay community and for the island of St John. If these projections prove to be true then the application is consistent with this goal. Although possibly outside the scope of a coastal consistency review, we should note that the financial projections by the applicant, including the construction costs for the marina complex, put into question whether the project will be financially viable.	YES
(3) assure priority for coastal-dependent development over other development in the coastal zone by reserving areas suitable for	This application is not being proposed in an area which was reserved for coastal development and suitable for commercial use. The Virgin Islands Coastal Management Program and Final Environmental Impact Statement (VICMP)	NO

commercial uses including hotels and related facilities, industrial uses including port and marine facilities, and recreation uses;	submitted by the USVI to NOAA in 1979 has the following guidance on Marine Meadows (Grass Beds): "Priority uses for marine meadows and algal plains are conservation (with limited fishing) and carefully monitored mariculture. Any uses in or adjacent to marine meadows and algal plains that create chronic, heavy turbidity or otherwise impede sunlight penetration, or cause perturbation, should be prohibited." (page 119) By the applicants own statements, we know that the proposed development will cause significant shading resulting in loss of multiple acres of sea grass. Furthermore, the "Coastal Land and Water Use Plan" which was adopted by reference in the 1978 CZMA, includes a map of St John that identifies precisely two places on St John "suitable for commercial uses ... including marine facilities". These two places are Enighed Pond and the Creek in Cruz Bay Harbor. Conversely, the western shore of Coral Bay Harbor north of Pen Point is identified on the same map as suitable for "Preservation" or "Conservation". Finally, Table 7-1 of the VICMP identifies the characteristics of regions suitable for marina development as having the following traits: "developed shorelines and waters, sand bottoms". This site, with its sparsely developed shoreline and extensive marine meadows, is not suitable for marina development.	
(4) assure the orderly, balanced utilization and conservation of the resources of the coastal zone, taking into account the social and economic needs of the residents of the United States Virgin Islands;	The purpose of this goal is to balance utilization with conservation, in the best interests of the residents of the USVI. This project is proposed as a development with significant community involvement and local ownership. Assuming this is true, then the application would appear to be at least partially consistent with this goal. The applicant has proffered a letter commitment for non-VI funding of $35 million which does lead one to question whether ownership will ultimately vest with the land owners, or with the debt holders, however the applicant is representing that the landowners and Virgin Island resident investors will benefit economically from the project. Notwithstanding the above, a large number of USVI residents in the Coral Bay area have produced statements that the project is not in their social or economic interests. It will likely harm villa rentals (at least in the short term) and small business owners (who may be displaced from their premises). So it would appear that the economic benefits will accrue to a relatively small number of residents,	NO

	whereas a large number of residents will not have their interests (either socially or economically) furthered by this proposed development. A benefit which accrues to a small number of individuals, while much larger numbers of residents are harmed, and while the environment is severely harmed, does not appear to constitute "orderly, balanced utilization and conservation."	
(5) preserve, protect and maintain the trust lands and other submerged and filled lands of the United States Virgin Islands so as to promote the general welfare of the people of the United States Virgin Islands;	The proposed marina will occupy over half of the entire area of inner Coral Bay Harbor, all of which is trust lands of the United States Virgin Islands. By transferring such a large portion of Coral Bay into private control, this goal is clearly not achieved - the trust lands are not preserved and protected, and the project does not promote the general welfare. In fact, many long-term users of DPNR approved moorings will be displaced by this project, in favor of a privately owned and operated facility. Several experienced boaters in Coral Bay have expressed serious doubts that the existing boats, on DPNR approved moorings in Coral Bay, will be able to fit within the "mooring field" depicted by the applicant. Furthermore, it does not appear as though the proposed "mooring field" is a formal part of the present application. There are no details on its construction, its environmental impacts, its usage policies, or any other information necessary to assess its feasibility. There is an expired "Letter of Intent" and the applicant claims mitigation of sea grass based on construction of this mooring field, but it does not appear to be part of the application. As such, the impact on existing users of Coral Bay Harbor cannot be quantified or assessed, and the application is clearly inconsistent with the goal promoting the preservation of the trust lands for the general welfare of the people of the USVI.	NO
(6) preserve what has been a tradition and protect what has become a right of the public by insuring that the public, individually and collectively, has and shall continue to have the right to use and enjoy the shorelines and to maximize public access to and along the shorelines consistent with constitutionally-protected rights of private property owners	The applicant will provide public access to the shoreline.	YES
(7) promote and provide affordable and diverse	Not applicable - the current application is not for a public recreational facility.	N/A

public recreational opportunities in the coastal zone for all residents of the United States Virgin Islands through acquisition, development and restoration of areas consistent with sound resource conservation principles;		
(8) conserve ecologically significant resource areas for their contribution to marine productivity and value as wildlife habitats, and preserve the function and integrity of reefs, marine meadows, salt ponds, mangroves and other significant natural areas;	This development, by the applicants own estimates, will result in the destruction of at least 2.8 acres of pristine marine meadows. It is quite possible that if the marina is successful with high occupancy rates, then the loss of marine meadows could be as high as 8 acres, in some of the most lush and dense marine grass in St John. This clearly does not conserve ecologically significant resource areas. The total acreage of the marina is unclear from the applicant's documents. The ACE drawings delineate an area designated as the "Site Limits" which surrounds the entire marina structure. If one assumes that it is the entire Site Limits which the applicant is seeking to lease from the trust lands of the VI, then it is this entire area which becomes potentially subject to environmental degradation. The area within the Site Limits is approximately 30 acres, most of which is marine meadows. Turbidity from propeller wash, shading from large "mega yachts" and toxic compounds from boat bottoms will inevitably degrade most of the marine meadows within the 30 acre site limits.	NO
(9) maintain or increase coastal water quality through control of erosion, sedimentation, runoff, siltation and sewage discharge;	Applicant states that surface water catchment will be adequate to reduce sediments entering Coral Bay Harbor. There is some concern that the engineered rainfall limits may be inadequate for this side of Bordeaux Mountain. The pump-out facility will reduce sewage discharge.	YES
(10) consolidate the existing regulatory controls applicable to uses of land and water in the coastal zone into a single unified process consistent with the provisions of this chapter, and coordinate therewith the various regulatory requirements of the United States Government;	Not directly applicable.	N/A
(11) promote public participation in decisions affecting coastal planning conservation and development.	The applicant claims to have consulted with many public groups, and CZM is convening this public hearing, both of which are supportive of this goal.	YES

CONSISTENCY WITH SECTION 906 POLICIES

Policy	Commentary	Consistency
DEVELOPMENT POLICIES		
(1) to guide new development to the maximum extent feasible into locations with, contiguous with, or in close proximity to existing developed sites and into areas with adequate public services and to allow well-planned, self-sufficient development in other suitable areas where it will have no significant adverse effects, individually or cumulative, on coastal zone resources;	The western shore of Coral Bay Harbor in the vicinity of the proposed project is an area of very low density commercial development - three restaurants, two bars, and one convenience store make up the primary commercial activity in the area. In addition there are several small jewelry and handicraft stores, a pottery studio, a chiropractic office, an interior decorator and a computer repair service. All businesses are locally owned and operated. The seaward portion of the proposed development is on undeveloped underwater Trust Lands. The landward portion of the project is largely on developed parcels, however the density of the developed areas is far less than is planned in the present application. The applicants agree that public services are inadequate and will need to be enhanced (solid waste disposal, sewage treatment, police and public safety, potable water). The intent of this policy is to guide development into areas which are "ready to be developed" in the sense that the new project should be an extension of what is already present and not be something fundamentally new and requiring new public services. This project fails to meet the objective of the policy. By locating a high density marina in a sparsely occupied portion of Coral Bay Harbor, offshore from a sparsely developed residential and commercial neighborhood, this policy is explicitly violated. A far lower density marina project might be deemed consistent, however this project, with its extensive land-based parking and commercial development, and its 145 slip marina accommodating 10,000 linear feet of boat, is in blatant disregard for this development policy. There are currently 115 boats moored in Coral Bay, with an average boat length of around 30 feet, for a total of around 3500 linear feet of boat. The proposed marina places an additional 10 thousand (10,000) feet of boat into the harbor, an increase of 300%. This proposed development cannot be deemed to be a "well-planned, self-sufficient development" where it will "have no significant adverse effects ... on coastal zone resources." By the applicants own admission the marina will have significant	NO

	adverse effects on marine meadows, a critical coastal zone resource.	
(2) to give highest priority to water dependent uses, particularly in those areas suitable for commercial uses including resort hotels and related facilities, industrial uses including port and marine facilities, and recreation; to give secondary priority to those uses that are water-related or have special siting needs; and to discourage uses which are neither water-dependent, water-related nor have special siting needs in areas suitable for the highest and secondary priority uses;	The current proposal is clearly water dependent, in that it is a marina.	YES
(3) to assure that new or expanded public capital improvement projects will be designed to accommodate those needs generated by development or uses permitted consistent with the Coastal Land and Water Use Plan and provisions of this chapter;	Not applicable: this is not a public capital improvement project.	N/A
(4) to assure that all new subdivisions, in addition to the other requirements contained in this chapter and in the Virgin Islands Zoning and Subdivision Law, are physically suitable for the proposed sites and are designed and improved so as to avoid causing environmental damage or problems of public health;	Not applicable: this is not a subdivision.	N/A
(5) to encourage waterfront redevelopment and renewal in developed harbors in order to preserve and improve physical and visual access to the waterfront from residential neighborhoods and commercial downtown areas;	This policy guides the Commission to encourage redevelopment in developed harbors. Coral Bay is not a developed harbor, and the project does not improve visual access to the waterfront from residential neighborhoods.	NO
(6) to assure that development will be sited and designed to protect views to and along the sea and scenic coastal areas, to minimize the alteration of natural land forms, and to be	The near-shore area of the proposed marina consists of mangroves and open space. The offshore area is largely seagrass meadows and public moorings which have been in place for at least 25 years. This project will dramatically alter the views to and along the sea. It will not be at all visually compatible with the character of the	NO

visually compatible with the character of surrounding areas;	surrounding area. There are many historic structures which are currently within the viewshed from the shoreline where the marina is proposed to be built: the Moravian Church, the Customs House on Usher Cay, and the Battery at Fortsberg. It is likely that this entire viewshed will be eliminated by virtue of placement of the marina, large boats, and additional buildings in close proximity to the shoreline.	
(7) to encourage fishing and carefully monitor mariculture and, to the maximum extent feasible, to protect local fishing activities from encroachment by non-related development;	Although this project will result in the removal of an informal local fish market, it proposes to replace it with a new local fish market.	YES
(8) to assure that dredging or filling of submerged lands is clearly in the public interest; and to ensure that such proposals are consistent with specific marine environment policies contained in this chapter. To these ends, the diking, filling or dredging of coastal waters, salt ponds, lagoons, marshes or estuaries may be permitted in accordance with other applicable provisions of this chapter only where there are no feasible, less environmentally-damaging alternatives and, where feasible, mitigation measures have been provided to minimize adverse environmental effects, and in any event shall be limited to the following: (i) maintenance dredging required for existing navigational channels, vessel berthing and mooring areas; (ii) incidental public service purposes, including but not limited to the burying of cables and pipes, the inspection of piers and the maintenance of existing intake and out-fall lines; (iii) new or expanded port, oil, gas and water transportation, and coastal dependent industrial uses, including commercial fishing facilities, cruise ship facilities, and boating facilities and marinas; (iv) except as restricted by	According to the definitions within the CZMA, "filling" includes the installation of pilings on the sea floor: "Fill" means earth or any other substance or material, including pilings placed for the purposes of erecting structures thereon, placed in a submerged area. (12 V.I.C. § 902) The SEG application, as specified, requires installation of 1,333 pilings to support the fixed marina structures. According to the CZMA definition cited above, the pilings constitute "fill" and their installation is "filling". Therefore CZMA Development Policy (8) applies to this application. In particular, the clause which states: "filling ... may be permitted ... only where there are no feasible, less environmentally-damaging alternatives" is applicable to the marina application. The applicant has not performed a LEDPA (Least Environmentally Damaging Practicable Alternative) analysis as required by this policy. Without such an analysis, including the "No Action" alternative (i.e. not constructing a marina in this location), the LEDPA cannot be determined, and the filling cannot be permitted. Furthermore, the applicant's statement on page 6-16 of the "Major Water EAR" that "no dredging or fill is proposed" is clearly in error, given that the definition of "fill" in the CZMA (quoted above) includes pilings.	NO

federal law, mineral extraction, including sand, provided that such extraction shall be prohibited in significant natural areas; and (v) restoration purposes;		
(9) to the extent feasible, discourage further growth and development in flood-prone areas and assure that development in these areas is so designed as to minimize risks to life and property	The project is within an existing flood plain. In recent years there have been several extensive floods in the area, severe enough to alter the shoreline and impede access for several days. The area is known to take the brunt of tropical force weather, including storm surge and tidal and wave induced erosion. There is significant concern that a concentration of over 100 watercraft in this particular location would be disastrous in the event of a typical strong hurricane, resulting in significant loss to property and possible loss of life. If, in the event of a hurricane, multiple boats were to be beached on the shoreline and the roadway, then this could impede traffic and emergency services for the entire residential population south of the marina. Their only means of access to the rest of St John is to pass through the proposed marina complex. Note that New Buildings 8, 9, 10 and 11 on Site Plan Drawing C200 are all within the delineated FEMA 100 year flood plain.	NO
(10) to comply with all other applicable laws, rules, regulations, standards and criteria of public agencies.	To the best of our knowledge, the application is compliant with all other applicable laws and regulations.	YES
ENVIRONMENTAL POLICIES		
(1) to conserve significant natural areas for their contributions to marine productivity and value as habitats for endangered species and other wildlife;	By the applicants own estimates, the current proposal envisions loss of 2.8 acres of marine meadows, including sea grass beds which are habitat for endangered sea turtles. If the occupation levels at the marina reach 75%, as envisioned by the applicants' marketing plan, then the loss of sea grass from boat shading will amount to a minimum of 6.5 acres of some of the finest sea grass beds in the territory. The Site Limits for the marina encompass approximately 30 acres of submerged lands, the majority of which is marine meadows. Nowhere in the EAR is this total acreage mentioned, nor is the possibility that the entire acreage might be lost due to combination of turbidity, shading, and toxic chemical leaching from boat bottoms. Permitting this scale of marina in this site is clearly inconsistent with the	NO

	environmental conservation policy.	
(2) to protect complexes of marine resource systems of unique productivity, including reefs, marine meadows, salt ponds, mangroves and other natural systems, and assure that activities in or adjacent to such complexes are designed and carried out so as to minimize adverse effects on marine productivity, habitat value, storm buffering capabilities, and water quality of the entire complex;	The installation of 1333 pilings, and the shading created by 300,000 sq ft of piers and watercraft, will severely impact the existing marine meadow in the footprint of the proposed marina. Marine meadows are specifically called out for protection in this policy, as well as elsewhere in the Coastal Zone Management Plan approved by NOAA. Given the probable adverse impact to 3-7 acres of marine meadows and the compensatory mitigation of approximately 0.06 acre (2500 sq ft) this application cannot be deemed to "protect complexes of marine resource system ... including ... marine meadows". In fact it will lead to very significant loss of highly valuable habitat.	NO
(3) to consider use impacts on marine life and adjacent and related coastal environment;	As far as we can tell, the applicant has not considered the use impacts on the adjacent coastal environment. However, since the EAR does identify the marine life in the vicinity of the proposed development, and does identify some measures to mitigate potential threats to marine life, they can be deemed to be consistent with this policy which simply requires that the applicant "consider use impacts." It would have been preferable if the applicant had considered the use impacts on adjacent protected waters, including Hurricane Hole. Migratory whales are found just outside the project area (humpback whales) and pile driving is known to be harmful to the health of this species, as well as marine turtles. The applicant states (Major Water EAR, page 5-5) "esonification of the marine environment can have a negative impact on sea turtles, marine mammals and fish." To mitigate this impact, the applicant states "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" however there is NO data supplied on the geological characteristics of the seabed where the 1333 pilings are proposed to be installed. Without knowing the depth to bedrock it is impossible to ascertain whether installation using a vibratory hammer is possible. If it is not possible to install using vibratory hammer then the sonic impacts might result in significant adverse impacts to these protected species.	YES
(4) to assure that siting criteria, performance standards, and activity regulations are stringently enforced and upgraded to reflect advances in	The Army Corps of Engineers Wetlands Research Program (WRP) has published guidelines for design of piers to minimize impacts on sea grass. See "WRP Technical Note VN-RS-3.1, June 1999, Design and Construction of Docks to Minimize Seagrass	NO

related technology and knowledge of adverse effects on marine productivity and public health;	Impacts" as one example of these siting criteria reflecting the latest empirical research on the effects of shading on sea grasses. This document provides the following guidance for dock design: Docks less than 2 m wide, oriented within 10 deg of north-south, and at least 3 m above the bottom will have the least impact to seagrasses. An additional 0.4 m in height should be added for each additional meter increment in width. If the alignment is more than 10 deg from north-south, the dock should be 0.2 m higher for each additional 10-deg increment. The drawings submitted for ACE approval do not conform to these guidelines, and hence do not reflect the most current standards and criteria for marina construction over sea grasses.	
(5) to assure that existing water quality standards for all point source discharge activities are stringently enforced and that the standards are continually upgraded to achieve the highest possible conformance with federally-promulgated water quality criteria;	The applicant states that there will be no point source discharge activities resulting from this project. This claim needs to be verified.	YES
(6) to preserve and protect the environments of offshore islands and cays;	Not directly applicable.	N/A
(7) to accommodate offshore sand and gravel mining needs in areas and in ways that will not adversely affect marine resources and navigation.	Not applicable.	N/A
(8) to assure the dredging and disposal of dredged material will cause minimal adverse affects to marine and wildlife habitats and water circulation;	Not applicable. The applicant has not applied for a dredging permit.	N/A
(9) to assure that development in areas adjacent to environmentally-sensitive habitat areas, especially those of endangered species, significant natural areas, and parks and recreations areas, is sited and designed to prevent impacts which would significantly degrade such areas;	The destruction of between 2.8 and 8.0 acres of marine meadows, which is habitat for endangered sea turtles, is not consistent with this policy. The measures proposed to prevent vessel strikes with coral and endangered marine mammals and turtles is to post signage with guidelines for avoiding impacts with sensitive marine life. This does not constitute "assurance" that the development will "prevent impacts" and is inadequate to meet the standards of this policy.	NO
(10) to assure all of the foregoing, development	The applicant has proposed a sediment and erosion control plan to be implemented	YES

must be designed so that adverse impacts on marine productivity, habitat value, storm buffering capabilities and water quality are minimized to the greatest feasible extent by careful integration of construction with the site. Significant erosion, sediment transport, land settlement or environmental degradation of the site shall be identified in the environmental assessment report prepared for or used in the review of the development, or described in any other study, report, test results or comparable documents	during land-based construction, as well as storm water management during and after construction. Assuming these plans are implemented properly then the development should meet this policy goal.	
AMENITY POLICIES		
(1) to protect and, where feasible or appropriate, enhance and increase public coastal recreational uses, areas and facilities;	This proposed development does increase coastal recreational uses and facilities, albeit in a private context. It is unclear whether this policy is specifically about public use, or simply about recreational use in general. We will assume the latter, in which case the application is consistent with this policy.	YES
(2) to protect and enhance the characteristics of those coastal areas which are most valued by the public as amenities and which are scarce, or would be significantly altered in character by development, or which would cause significant environmental degradation if developed;	The existing anchorage in Coral Bay is highly valued by the boating community as a protected anchorage. This proposal would not only eliminate the public anchorage sites in up to 30 acres of Coral Bay Harbor (see the "Site Limits" on the USACE Permit Drawings) but it would also create significant navigational hazards due to the maneuvering of mega-yachts in and out of the dock facility. The risk to life and property resulting from a collision between a mega-yacht and a small dinghy or kayak is extreme. Open coastlines with easy access from public roadways are fairly rare, and the coastline adjacent to the roadway opposite Aquabistro is one of the few places where tourists, hikers, and residents can sit at the water's edge and contemplate the view without having to negotiate a trail or steep embankment. This amenity will be lost entirely if the proposed marina is developed.	NO
(3) to preserve agricultural land uses in the coastal zone by encouraging either maintenance of such present agricultural use or use as open-	This application does not impact agricultural uses.	N/A

space areas;		
(4) to incorporate visual concern into the early stages of the planning and design of facilities proposed by siting in the coastal zone and, to the extent feasible, maintain or expand visual access to the coastline and coastal waters;	Although the applicant does express "visual concern" within their application documents, their vision of a beautiful harbor is not consistent with the views of numerous long time residents of Coral Bay. Their project certainly does not "expand visual access to the coastline" and, in fact, their land-based construction plans, particularly for Phase 2, will impede visual access to the water. The shoreline at the precise location identified by the applicants for the landward portion of the proposed marina is one of the very few areas on the western shore of Coral Bay where a scenic vista of the entire harbor may be enjoyed. Views of historic structures, such as Fortsberg (listed on the National Register of Historic Places), the Emmaus Moravian Church (also listed on the National Register), and the Customs House on Usher Cay are all possible from this location, and possibly nowhere else easily accessible by tourists. The construction of the landward portion of this project as proposed would destroy these scenic shoreline views which are an amenity valued by the public.	NO
(5) to foster, protect, improve, and ensure optimum access to, and recreational opportunities at, the shoreline for all the people consistent with public rights, constitutionally-protected rights of private property owners, and the need to protect natural resources from overuse;	The applicant intends to plant a line of red mangroves on either side of the main entrance to the marina pier. The shoreline in this area is currently open for public access, and is frequently accessed by users of dinghies and kayaks as a safe and convenient place to enter or leave the water, to access restaurants and grocery stores, and for general leisure use. The planting of the mangroves is justified by the applicant on the basis of erosion control, although it appears as though the existing rip-rap revetment is functioning adequately. The ACE Permit Drawing Sheet Number 03 depicts two lines of mangroves, one on either side of the main pier entrance. These total approximately 600 feet in length (300 feet on either side) and up to 25 feet in width. These plantings will have the effect of completely blocking access to the shoreline and the water beyond. It will, in effect, become a living fence along the coastline. This, combined with the locked access to the main pier, will make the entire shoreline inaccessible to the public, in express contradiction to this policy.	NO
(6) to ensure that development will not interfere	There are approximately 50 boats on DPNR-approved moorings within the footprint	NO

with the public's right of access to the sea where acquired through customary use, legislative authorization or dedication, including without limitation the use of beaches to the landward extent of the shoreline;	of the proposed marina. Many of these boats have utilized the same mooring location for many years. Displacing almost half of the legally moored vessels in Coral Bay Harbor and relocating them into densely packed mooring fields with substantially less privacy and greater risk of collision with neighboring vessels is clearly not consistent with this CZMA goal. Additionally, the proposed "mooring field" does not have appropriately designed facilities to accommodate the vast majority of vessels currently utilizing Coral Bay Harbor. This plan effectively monopolizes the entire harbor to the benefit of one private group, and is clearly not consistent with the letter or the intent of this policy. Furthermore, as detailed elsewhere, there is considerable doubt as to the legality of a private developer constructing and managing a public mooring field; this responsibility is specifically assigned to DPNR under the VI Boating code.	
(7) to require, in the discretion of the appropriate Committee of the Commission, that public access from the nearest public roadway to the shoreline be dedicated in land subdivisions or in new development projects requiring a major coastal zone permit.	There appears to be public access to the shoreline.	YES

Consistency is not simply a matter of tallying "YES" and "NO" votes in the various policies and goals. Consistency requires use of judgment to assess whether, on balance, the proposed development is in line, to the maximum extent practicable, with the guidance provided by all of the goals and policies, and whether those areas in which the proposal is not consistent may be excused on the basis of infeasibility or some other objective standard. In fact, in the case of federal consistency with state and territorial Coastal Zone Management laws, "coastal consistency" is defined as "consistent to the maximum extent practicable" - and this is generally the standard adopted by state and local Coastal Zone Management boards.

Inconsistency with a single goal or policy is sufficient grounds to deny a consistency determination and deny a coastal zone permit. In the case of the Summer's End Marina application, there are numerous goals and policies which are totally ignored by the proposal, and this is more than sufficient cause for the Coastal Zone Management board to deny the requested permit.

SECTION 910(a)(2)(A) CONCLUSIONS

Based on the information submitted in the application by the Summer's End Group for a Major Land, Major Water, and Trust Lands Occupancy CZM permit for the "St John Marina" the following conclusions must be reached:

- The proposed development is **not consistent** with CZMA Section 903 Goals 1, 3, 4, 5 and 8, and
- The proposed development is **not consistent** with CZMA Section 906 Development Policies 1, 5, 6, 8 and 9, and
- The proposed development is **not consistent** with CZMA Section 906 Environmental Policies 1, 2, 4 and 9, and
- The proposed development is **not consistent** with CZMA Section 906 Amenity Policies 2, 4, 5 and 6.

The application does not, therefore, meet the coastal consistency standards required by Section 910 for issuance of a CZM permit and the permit(s) must be denied.

ADVERSE ENVIRONMENTAL IMPACTS AND MITIGATIONS

As stated earlier, the criteria for issuance of a CZM permit hinges on two clearly defined tests: first, whether the development is consistent with the goals and policies of the Coastal Zone Management act, and second, of equal importance, whether "**the development as finally proposed incorporates to the maximum extent feasible mitigation measures to substantially lessen or eliminate any and all adverse environmental impacts**" (12 V.I.C. § 910). Mitigation is not a "nice to have", it is an essential and required element of every plan in order to qualify for a CZM permit. This is the clear and unambiguous law.

Furthermore, the standard for mitigation is set quite high in the code. It is not sufficient to "do something" - what is required is sufficient mitigation to "**substantially lessen or eliminate any and all adverse**" impacts. If 3 out of 4 impacts are mitigated, this is not sufficient because it is not "any and all". If a mitigation is proposed which is unproven, or which provides only partial relief, this is not sufficient unless it is proven by the applicant that it "substantially lessens or eliminates" the impact. This is the law.

Finally, the "environment" is defined quite broadly in the CZMA: "Environment" means the physical, social and economic conditions which exist within the area which will be affected by a proposed project. (12 V.I.C. § 902). There are several significant environmental impacts identified by the applicant in this proposal. We will discuss just two of these, one of which was addressed by the applicant, and one of which was not:

1. the impact of the proposed development on the physical environment, specifically the sea grass beds, also known as marine meadows
2. the impact of the proposed development on the social environment stemming from viewshed impairment

IS THE MOORING FIELD PART OF THIS APPLICATION?

There is a serious defect in the Major Water Permit application, relating to the so-called "Mooring Field". The applicant has produced an expired, non-binding Letter of Intent, signed by the ex-head of DPNR and dated March 14, 2014 which indicates a desire to reach a formal agreement on management of the mooring field within 90 days. This time period has obviously lapsed, and absent any other information one must conclude that there is no further documentation on the possibility or probability of this aspect of the project.

The defect is this: one cannot discern from the available SEG application materials, whether the Mooring Field is within the scope of the requested permit, or not. If it IS within scope, then the application is deficient in not providing any engineering details (other than rough location maps), no environmental impact analysis of the construction of the field or removal of existing moorings, no evidence that it will support the existing boat population, and no evidence that it is a viable design from a navigational standpoint. All of this material one would expect, to the same level of detail as the applicant has submitted for the fixed marina facility, if the mooring field is a component of this application.

Furthermore, given its density, we would expect the mooring field to be included in the Army Corps of Engineers permit application, or at least a request for a determination from ACOE that no permit is required. It is nowhere to be found in the USACE appendix to the Major Water Permit.

Finally, given that there is no definitive agreement submitted by the applicant to demonstrate legal authority for construction and management of the mooring field, it is questionable how it could even be a part of the application. A "mooring field" is not a Permitted Use in any of the existing VI Zoning

Districts. The applicant has omitted ANY mention of the mooring field in the formal CZM Permit application (L&WD-2 Permit Application) which describes the project as follows (answer to question 7: "The Summer's End Group, LLC proposes to install a 145 wet slip, fixed dock marina with services including pump out, proper fueling, and other amenities for marina guests and the public. Also included are land based U.S. Customs facility, retail, restaurant, parking, and other services through the upgrade and renovation of existing buildings and property."

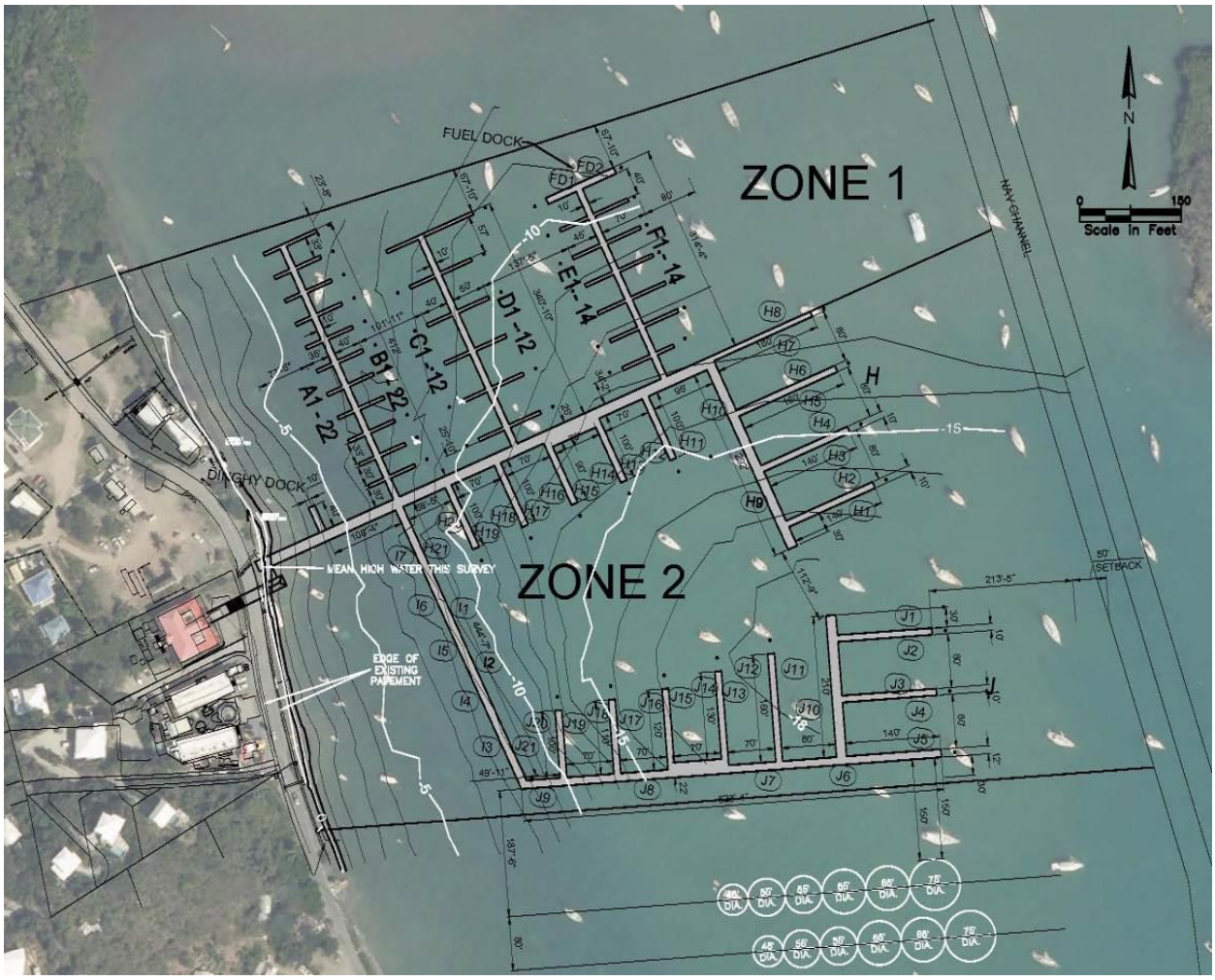
Based on all of the foregoing, perhaps the applicant does not consider the mooring field to be a part of the current application. However the term "mooring field" appears no less than 28 times in the Major Water EAR, and the applicant is claiming significant mitigation stemming from the construction of the mooring field. Clearly, one cannot claim mitigation for an activity which is speculative, not within the scope of the current permit application, and for which no material analysis has been performed. Mitigation must be a direct consequence of activities undertaken by a developer pursuant to a permit application.

This lack of clarity on whether the mooring field is intended to be within the scope of the permit application, or not, is a critical matter to resolve before the application can be properly reviewed.

MARINA IMPACT ON LEGALLY MOORED VESSELS

There are, at recent count, approximately 115 boats currently moored in Coral Bay Harbor. Of these, approximately half are on DPNR approved and registered mooring facilities. About half of the remainder have applied for DPNR approval and are awaiting processing of applications and/or inspection by DPNR.

Within the "Site Limits" of the Summer's End Marina, as shown on the aerial photographs of their application, there are approximately 54 vessels on moorings.



Summer's End has made the following statement regarding vessels within the marina site: "Construction of the marina will result in a decrease in available mooring within the immediate footprint of the marina. Based on a recent inspection perhaps up to 6 permitted vessels may be required to move." It is difficult to reconcile that statement with their aerial photograph, unless they are claiming that roughly 46 of the 54 vessels are not permitted. We do not believe this to be the case.

Nevertheless, it is clear that some number, perhaps a large number of individual moorings will be displaced by the construction of the proposed marina. Clearly the owners of these vessels cannot be displaced until alternative suitable arrangements have been made.

The allocation and regulation of moorings is a responsibility assigned explicitly to DPNR (25 V.I.C. § 401). The code explicitly requires DPNR to implement a mooring plan (25 V.I.C. § 404: "The Department shall develop and implement a mooring plan, subject to the approval of the Legislature's Committee on Planning and Natural Resources.") Furthermore, 25 V.I.C. § 404 states: "Until such time as a water use plan is developed, the Department shall administer programs in a manner consistent with the goals and objectives of this chapter and in a manner responsive to social and environmental needs."

Why is this relevant? The current Major Water Permit by Summer's End Group would result in loss of approximately 30 acres of mooring space in a harbor of only 80 acres. It would result in the loss of approximately 54 currently established mooring locations. Until DPNR, through the mechanisms prescribed in the VI Code, establishes a mooring plan for Coral Bay Harbor, any approval of the Major Water Permit and trust lands lease will severely restrict the options which DPNR has to implement its duties under the law.

A "Letter of Intent" for a "Mooring Field" does not relieve DPNR of its responsibilities. Furthermore, we do not believe that the CZM Committee has the authority to tacitly endorse a mooring plan. Summer's End Group wishes to claim mitigation of sea grass impacts by virtue of this highly speculative, probably non-functional, and generally unacceptable mooring field. The applicant has no authority to implement a mooring field - an authority solely vested in DPNR itself.

It is our conclusion that the Major Water CZM Permit application must be revised to omit any mention of a "Mooring Field" since this is not a facility which any private entity can construct - it is not even a permitted use under the zoning law. And any mitigation of environmental impacts stemming from the speculative "Mooring Field" must also be removed from the application.

BENTHIC MITIGATION PLAN - MARINE MEADOWS

The applicant has submitted, as Appendix C to the Major Water Permit application, a "Benthic Mitigation Plan" which aims to demonstrate compliance with the mitigation standards of the CZMA. The Benthic Mitigation Plan, as its title indicates, focuses exclusively on adverse environmental impacts to the physical benthic environment.

DESCRIPTION OF ADVERSE IMPACTS

A mitigation plan must begin with a description of the environment, which the applicant has supplied. We have no reason to doubt the accuracy of their description. The seabed in the vicinity of the proposed marina is primarily marine meadow colonized by sea grasses (Thalasia) of varying density and composition.

For reference on Thalasia sea grass (also known as turtle grass), the following excerpt from http://seagrassrecovery.com provides useful data on its physical structure, some of which is not found in the application:

> "Turtle grass (Thalassia) is distinguished by its broad ribbon like leaves. Of all the locally found seagrass species, it has the **largest and most complex rhizome and root system** and the widest blades. Blades can grow up 14 inches long and approximately 4.5-10mm wide. Its robust rhizome system extends deeper into the substrate than other Florida seagrasses. **The strong rhizomes stabilize the sea floor during large storms making Turtle grass very important in the prevention of coastal erosion**. Turtle grass is typically found in clear, shallow waters, but has

been observed in Florida in depths down to 18m.**1 It requires stable salinity, high light availability and stable sediments**..."

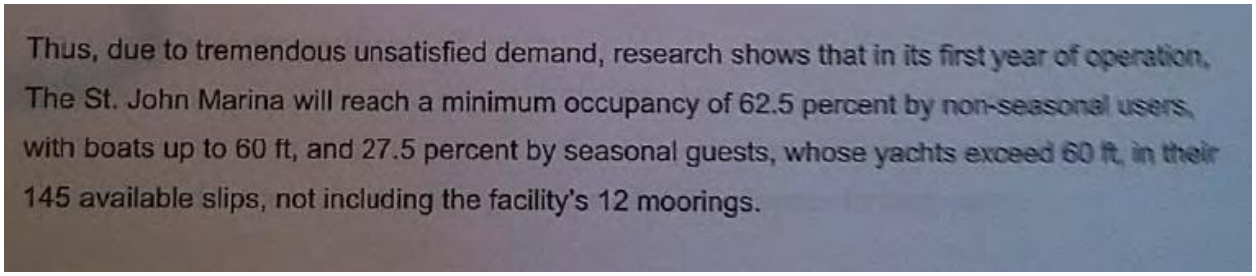
The next component of a mitigation plan is a description of the probable source of adverse impacts. In the case of benthic flora, the primary impact of this development is the sunlight depletion resulting from the shadows cast by the fixed marina structures, the shadows cast by transient boats, and the increased turbidity of the water column resulting from propeller wash. Although there may well be other impacts, such as toxic substances leaching from bottom paints, the applicant has not offered any data on these, and for the purposes of mitigation analysis the shading impacts are sufficient to analyze the adequacy of the proposed mitigation.

QUANITIFICATION OF HABITAT LOSS

The applicant has quantified the impact using the following methodology and assumptions:

1. The total area of the fixed marina structures is 1.42 acres. The horizontal portions (decks and piers) of the marina are constructed using what the application calls "graded decking" - We believe this is a typographical error and what is meant is grated decking.
2. The applicant cites references to support an estimate of 46% survival for the sea grass beneath the fixed marina, equivalent to a loss of 54% or 33,402 square feet of sea turtle foraging habitat.
3. There are 1,333 pilings required for construction of the marina, and the applicant estimates each piling will directly impact a little less than 2 square feet, for a total loss of 2500 square feet of sea turtle foraging habitat.
4. The boats, at full occupancy, shade an additional 5.7 acres. The Benthic Mitigation Plan makes the following statement regarding the shading of the boats: "The slips will be occupied on average 47% of the year as that (sic) seagrasses are impacted after approximately 2 weeks of shading this will result in the loss of seagrass with in the marina due to vessel shading. This will probably be seen as loss of density as well as denuding of some areas especially around larger boats which are permanently moored. It is probable that as much as 2 acres of seagrass which is turtle forage habitat may be lost." There is no further reference cited, nor computation provided to explain the methodology for computation of the "as much as 2 acres" figure. We believe it is incorrect for several reasons.
5. Nonetheless, based on the applicant's own computations, the total habitat loss amounts to the sum of 2500 square feet (pilings), 33400 square feet (fixed marina) and 87120 square feet (boats). This is a total of 123,020 square feet of habitat loss.

The computation of habitat impact from boat shading is particularly troubling as it is inconsistent with the applicants own data elsewhere in the application, and inconsistent with the scientific data supplied by the applicant. The "Marketing Plan" submitted by Summer's End as a component of their application offers the following forecast of slip occupancy during the first year of operations:


Thus, due to tremendous unsatisfied demand, research shows that in its first year of operation, The St. John Marina will reach a minimum occupancy of 62.5 percent by non-seasonal users, with boats up to 60 ft, and 27.5 percent by seasonal guests, whose yachts exceed 60 ft, in their 145 available slips, not including the facility's 12 moorings.

The applicant is, according to their own estimate, forecasting 62.5% occupancy for non-seasonal (year round) users in their slips up to 60 ft, and 27.5% occupancy for the seasonal mega-yacht slips.

Elsewhere, in the Army Corps permit drawings, the slip mix and boat capacity for the proposed marina are explicitly tabulated (Sheet Number 03, Appendix E - USACE Permit Drawings):

St. John Marina Slip Mix		
Slip Size (ft)	***Number***	***Linear Feet***
North Club		
25	25	625
40	33	1,320
50	11	550
45	14	630
55	11	605
Side Tie*	2	225
Total	**96**	**3,955**
South Club		
90	2	180
100	11	1,100
110	3	330
120	1	120
130	1	130
140	10	1,400
160	6	960
210	1	210
Side Tie*	14	1,621
Total	**49**	**6,051**

To compute shading from boats, we will use an average figure for the beam (width) of the boats in the two clubs. For the boats between 25 and 55 feet in length we will assume an average beam of 15 feet. For the boats from 90 to 210 feet in length we will assume an average beam of 25 feet. Both of these

figures are conservative estimates based on a sample of listings in yachtworld.com (an online yacht brokerage).

Using these figures, the total shade created by boats in the North Club (if fully occupied) would amount to 59,325 square feet, and the total shade in the South Club would amount to 151,275 square feet. The total of these two figures is 4.8 acres, slightly less than the 5.7 acre figure provided by the applicant. One possible explanation for this discrepancy is the estimate of the average beam - the applicant has apparently used a higher figure than our calculations.

The shade cast by boats on the surface of shallow water is dense and complete shading. The shade cast by boats on lifts is still dense but there might be some small amount of diffused or reflected light entering into their shadow. The applicant cites scientific references which demonstrate that sea grasses are impacted by shading in as little as 2 weeks.

So, based on the applicants own data, the following conclusions can be drawn:

1. The North Club, at 62.5% non-seasonal occupancy, will shade 59,325 square feet of habitat, and the shade will be essentially year-round, resulting in complete loss of marine meadow habitat in the impacted region.

2. The South Club, at 27.5% seasonal occupancy, will shade 151,274 square feet of habitat, with most of the shading occurring during peak season. Since the occupancy is almost certainly distributed fairly uniformly across all available slips (i.e. not 27% of the slips occupied and 73% unoccupied all season), we can assume that each slip will be occupied for 27.5% of the season, on average, or roughly 50 days based on an 180 day season.

3. The shadow cast by a mega-yacht in 10-15' of water is total, with only very minimal opportunity for diffusion or reflection. The resulting habitat loss is rapid (2 weeks until impact is noticeable). The applicant has estimated that the mega-yacht slips will be occupied for roughly 7 weeks every season (50 days). So a reasonable estimate for the impact to this habitat resulting from shading would be 100% habitat loss, if not in the first year, certainly with 2-5 years. Note that the occupancy estimates were "minimum first year occupancy". The loss is therefore 151,274 square feet due to boat shading in the South Club.

4. These figures add to 4.8 acres, which is more than double the applicant's estimate of "up to 2 acres." The applicant supplied no methodology for computing their figure.

SUMMARY: CRITICAL HABITAT LOSS

Based on the foregoing computations, it is estimated that a minimum of 228,584 square feet (5.66 acres) of critical habitat for endangered species will be lost as a result of the construction and operation of the marina facility. Note that this does not include the 12 "Vessel Moorings" which are planned as

part of the "South Club" and for which no data on anticipated boat size was provided. The table below summarizes this data:

Source of Shading Impact	Square Feet of Habitat Loss
Marina Pilings	2,500 square feet
Fixed Marina Structures	33,402 square feet
"North Club" Boats	59,325 square feet
"South Club" Boats	151,275 square feet
TOTAL HABITAT LOSS	**228,584 sf (5.66 acres)**

COMPENSATORY MITIGATION

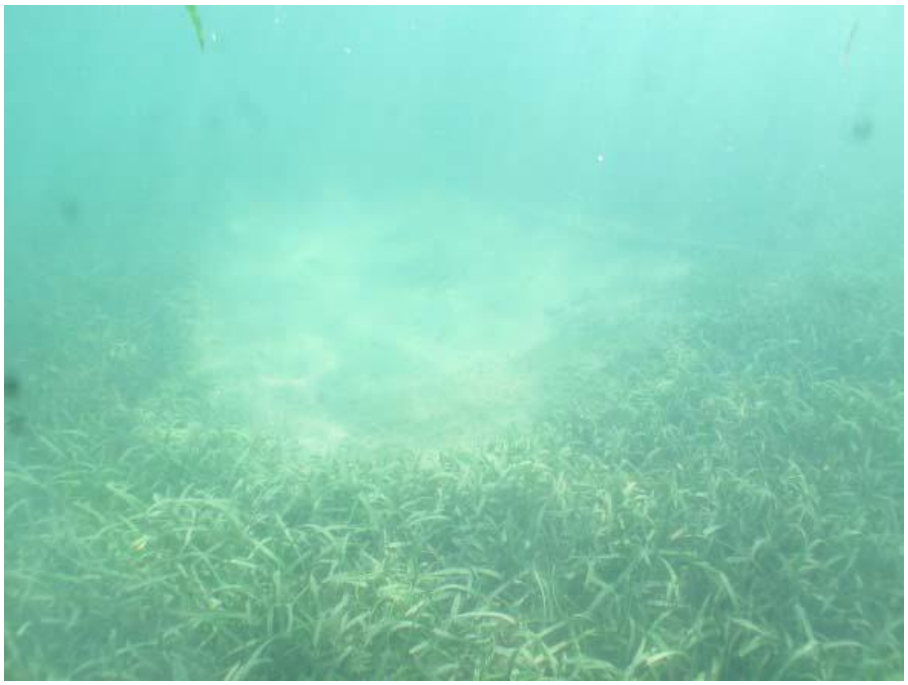
The applicant is offering two sources for compensatory mitigation of habitat loss: replanting of sea grass plugs taken from the footprint of the marina pilings, and an estimate of the potential for sea grass restoration stemming from moving all existing boats in the harbor to new and improved moorings. We will discuss each of these below.

The mitigation plan for the sea grass plugs is described in some detail, and it involves transplanting pieces of "sod" from the seabed under the marina to an alternative location at the north end of the harbor where the applicant claims most sea grasses have died off due to sediment runoff from the uplands. The applicant seems familiar with the principles and practice of Thalassia transplant with sod units. This mitigation will apply to the 2500 square feet directly impacted by the installation of pilings.

No other direct mitigation is offered.

There is considerable doubt whether the applicant is entitled to claim mitigation from an action which is not part of the current application - namely the prospective "Mooring Field". There is no guarantee this plan will be approved. There is no data supporting the claimed extent of scouring by existing moored vessels (the applicant claims between 300 and 400 square feet per vessel but has provided no evidence whatsoever to support this claim). There is no data supplied on the potential impact stemming from the installation of the proposed new mooring field other than the undocumented claim that it will have "negligible impact on the sea floor" (Benthic Mitigation Plan, Section VI).

In fact, the single piece of evidence to support the claim of impact from existing moorings seems at odds with the applicant's own data. Three photographs (lacking dates, lacking coordinates, and lacking linear scale) were provided to support the claim of seagrass scouring from moorings. The photograph labeled "common footprint" is shown below (from Benthic Mitigation Plan, Section VII):



Although no ruler is provided to estimate the size of the bare patch, the blades of Thalasia provide a reasonable measuring aide. Thalasia blades are typically around one foot in length (see reference cited above). Using this as a yardstick, the patch depicted in the photograph appears to be roughly ten feet in diameter (ten blades). This is equivalent to an area of less than 100 square feet. The applicant, however has made the following unsubstantiated claim: "There are currently 115 boats anchored or moored within the bay and these conservatively impact an area of between 34,500 and 46,000 sq. ft. based on their anchor drag and rope swing impacts." The figures 34,500 and 46,000 apparently are based on average impacts of 300 square feet (300 x 115 = 34500) and 400 square feet (400 x 115 = 46000) per boat. As the prior analysis indicates, the photograph supplied by the applicant demonstrates a "typical" scouring area of less than 100 square feet.

Given that at least half of the 115 boats currently moored in the harbor are on DPNR registered, inspected and approved moorings, utilizing essentially the same technology as Summer's End proposes for the managed mooring field (helical anchors and shackles), it is surprising that they can claim such mooring practices typically scour 300-400 square feet when installed by a boater, but negligible impact when installed by Summer's End. The reality is that seabed scouring is caused by line or chain drag, and this can be eliminated through use of floats or other devices to keep the lines off of the seabed.

The mitigation claimed for the prospective, out-of-scope mooring field is thoroughly inappropriate to be considered in this application. Alternatively, if the applicant wants this mitigation to be considered by the CZM Committee, then the Mooring Field must be included in the application, together with the engineering, EAR, and legal authority for its construction. Frankly, that would be impossible.

The total mitigation which this applicant has demonstrated is 2,500 square feet.

RECIPIENT SITE SELECTION AND PROBABILITY OF SUCCESS IN HABITAT RESTORATION

The applicant has proposed a recipient site at the north end of Coral Bay Harbor. The target site was once covered in sea grass but much of the vegetation has been lost due to sediment accumulation from upland overland sediment sources.

> The plan proposes to transplant the *Thalassia* and *Syringoduim* from the piling foot prints to an area in the northwestern corner of the harbor. Seagrass has been lost in this area due to the deposition of sediment. The Summers End Group will be undertaking improvements and maintenance of this drainage way and should significantly abate the input of terrestrial sediment. The area once had thriving seagrass beds. The placement of sod units in this area should serve to accelerate the re-colonization of this area.

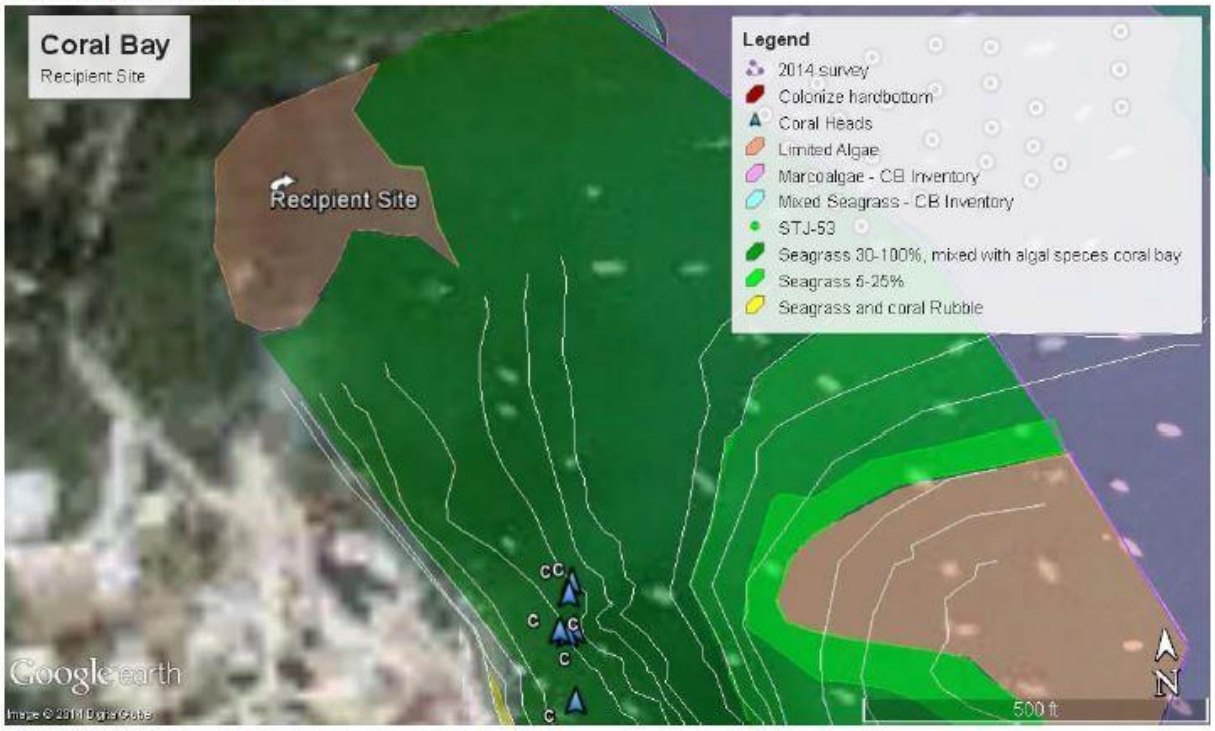


Figure 1. Location of seagrass Recipient Site

However, contrary to the claims made by the applicant, there is nothing in this application to mitigate those sources of sediment, which primarily stem from Kings Hill Road, the main Carolina ghut, the Johnny Horn Road, and the ghut near the fire station. All of the applicants efforts at removing sediment from upland sources apply to the surface water runoff approaching the marina itself, not the runoff which has impacted the seagrass in the designated Recipient Site. Efforts are being made (by others, not SEG) to reduce those sources, but nothing in the current application is relevant to that effort. It is highly likely that the 2500 individual sod plugs will not survive a single season.

HABITAT COMPENSATORY MITIGATION RATIOS

The standards for mitigation ratios (the area of restored habitat compared to the area of impacted habitat) vary widely depending on the locale, the species, and other variables. However, in all cases the mitigation ratio is something greater than 1:1 since it is widely recognized that there will be significant losses in the restored habitat. In order to simply remain habitat-neutral, the restoration ratio is often in

the range of 2:1 to 3:1. One reference to support these figures is from NOAA, Office of Habitat Conservation, Habitat Protection Division - "Developing Defensible Wetland Mitigation Ratios", Dennis M. King, Ph.D. and Elizabeth W. Price, M.S., University of Maryland, Center for Environmental Science, September 30, 2004. That reference cites compensation ratios in the range between 1.9 : 1 to 2.7 : 1 for "concurrent restoration." This is equivalent to 190% to 270%.

This applicant has provided a Benthic Mitigation Plan which offers a habitat compensation ratio of 2500 square feet for 228,500 square feet - somewhere around 1% when the standards and best practices call for 200-300%.

MITIGATION REQUIREMENT OF THE VI CZMA

The mitigation requirement of the CZMA for issuance of a Section 910 CZM permit is found in 12 V.I.C. § 910: "A permit shall be granted for a development if the appropriate Committee of the Commission or the Commissioner, whichever is applicable, finds that (A) the development is consistent with the basic goals, policies and standards provided in sections 903 and 906 of this chapter; **and (B) the development as finally proposed incorporates to the maximum extent feasible mitigation measures to substantially lessen or eliminate any and all adverse environmental impacts of the development; otherwise the permit application shall be denied."** (emphasis added)

The standard for mitigation is "to the maximum extent feasible" in order to "substantially lessen or eliminate". This application absolutely and totally fails this test.

The applicant acknowledges the feasibility of utilizing sod transplant for habitat restoration, and includes this as their proposed mitigation in their plan. However, if it is feasible to transplant 2500 square feet, then it is feasible to transplant 228,000 square feet, provided an adequate receptor site is identified. The applicant cannot claim infeasibility.

The standard specified in the code for the end result of mitigation is "to substantially lessen or eliminate any and all adverse environmental impacts." It should be obvious that 1% (the applicant's most optimistic mitigation result, assuming complete success of the transplants), is not even remotely acceptable under the CZMA standard. It is does not substantially lessen or eliminate the impact to the seagrass beds.

THE SOCIAL ENVIRONMENT - HISTORIC VIEWSHEDS

The CZMA explicitly defines "environment" to include the social environment - the manmade components of a site which help to define its character. This includes historical monuments, social institutions, scenic views enjoyed by the public, and all other aspects which give a site its unique "personality" apart from that which nature provided.

The photograph below was taken on August 8, 2014. The photographer was standing on the rip-rap shoreline directly across the road from the Cocolobo complex. This is almost exactly at the point where the main marina pier meets the shoreline. It is a scenic vista enjoyed by residents and visitors countless times, almost every day of every year.

Three historic structures are visible on the opposite shore: The Emmaus Moravian Church, The Customs House on Usher Cay, and the Battery at Fortsberg. Two of these structures are listed on the National Register of Historic Places.

Rather than attempt an artist's rendering, we will simply assert that a 100' yacht docked approximately 180 feet offshore and parallel to the shoreline (as shown on the applicants permit drawings) as well as around 412 feet of lifts, supporting twenty-two 25' boats, again parallel to and about 180 feet offshore, would obliterate most of this viewshed.

This impact to the social environment has not been identified or addressed by the applicant. If it had been, then mitigation might consist of avoidance - locating the main pier north of the open viewshed, by slip arrangements leaving open spaces so as not to obliterate the entire horizon, or other architectural approaches to minimize, to the maximum extent feasible, the impact to this environmental resource. This is the requirement of the law.

CONCLUSIONS

Pursuant to the requirements for issuance of a CZM Permit, as stated in 12 V.I.C. § 910, it is our opinion that the applications by Summer's End Group, LLC, for a Major Land CZM Permit and a Major Water CZM Permit must both be denied. The applications are **not consistent with** the goals provided in 12 V.I.C. § 903 and the policies and standards provided in 12 V.I.C. § 906. Furthermore, the development as finally proposed **does not** incorporate to the maximum extent feasible mitigation measures to substantially lessen or eliminate any and all adverse environmental impacts of the development.

Respectfully submitted,

Sharon Coldren

President, Coral Bay Community Council

18 August 2014

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

Appropriate Fill Activities -Pile Driving Application

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

August 28, 2014

Department of Planning and Natural Resources
Coastal Zone Management Program
8100 Lindberg Bay, Suite #61
Cyril E. King Airport Terminal Building, 2nd Floor
St. Thomas, VI 00802

Subject: Omission of Fill Activities in Permit Applications CZJ-3-14(L) and CZJ-4-14(W)

Dear Commissioner Oriol and Director Williams:

The Summer's End Group, LLC (SEG), in their environmental assessment reports (EARs) for permit applications CZJ-3-14(L) and CZJ-4-14(W), stated in two sections (6.02, 6.05a) "[t]he project proposed no filling or dredging" and "[n]o dredging or fill is proposed…". According to VI Code (V.I.C.) Title 12 Chapter 21 Section 902(q) the definition of fill "means earth or any other substance or material, **including pilings** placed for the purposes of erecting structures thereon, placed in a submerged area" (emphasis added). Given that SEG will be placing approximately 1,333 pilings, they are in fact conducting fill activities and need to revise their application to reflect this fact and to describe impacts associated from placing fill into Territorial Waters.

Furthermore, according to 12 V.I.C. §906(a)(8) (emphasis added):

> (a) Development policies in the first tier shall be as follows:
> (8) to assure that dredging or filling of submerged lands is clearly in the public interest and to ensure that such proposals are consistent with specific marine environment policies contained in this chapter. To these ends, **the** diking, **filling,** or dredging **of coastal waters**, salt ponds, lagoons, marshes or estuaries **may be permitted** in accordance with other applicable provisions of this chapter **only where there are no feasible, less-environmentally damaging alternatives and, where feasible, mitigation measures have been provided to minimize adverse environmental effects**, and in any event shall be limited to the following: … (iii) new or expanded port, oil, gas and water transportation, and coastal dependent industrial uses, including commercial fishing facilities, cruise ship facilities, and boating facilities and marinas; …"

SEG provided only two alternatives for analysis, the No Action Alternative and the Preferred Alternative. As stated in the *Major Land & Water Development Permit Application* guidelines for the Earth Change Plan/Environmental Assessment Report Section 9.00 Alternatives to Proposed Action should address (emphasis added) "**all such reasonable alternatives**, including a no action alternative…" The EAR should also "[d]escribe alternatives which would reduce or eliminate any adverse effects, **even if such alternatives substantially impede the attainment of the project objectives** and are more costly". SEG has failed to meet the requirements for this section of the permit application guidelines and, as such, fails to provide the information necessary to determine if there are other less-environmentally damaging alternatives as required by 12 V.I.C. §906(a)(8).

Additionally, several other public comment respondents (e.g. see the Coral Bay Community Council's 29 August, 2014 *CZM Consistency Analysis and Environmental Impact Analysis*) have described the lack of appropriate mitigation measures to minimize adverse environmental effects. This also fails to meet the requirements of 12 V.I.C. §906(a)(8).

Given these deficiencies in the SEG documents, the current permit application should be denied because: (1) the application has not met the requirements of the VI Code and the permit application guidelines; (2) a determination of the least environmentally damaging alternative has not been made; and, (3) sufficient mitigation has not been described to minimize adverse environmental impacts.

Very truly yours,

Patricia C. Reed
Environmental Projects Manager
Coral Bay Community Council

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

Mitigation of Adverse Impacts to Seagrass

MITIGATION OF ADVERSE IMPACTS TO SEA GRASS BEDS OF CORAL HARBOR

EXECUTIVE SUMMARY

1. The various mitigation actions proposed by applicant to mitigate for the certain damage to the seagrass meadows-- from constructing docks, shading seagrass under boat slips, and increasing boat traffic -- are too small and insignificant in scope to begin to cover a fraction of the lost natural habitat. These proposed actions includes transplanting seagrass and new mooring fields. The benthic mitigation plan does not provide sufficient protection or mitigation by DPNR or Federal standards.

2. The applicant claims that the existing usage patterns in Coral Bay (115 individually moored boats) are causing direct impacts to SAV from improperly installed moorings (1 acre), as well as impacting water quality (bacteria), and indirectly threatening 16 acres of SAV. However, the only evidence supplied by the applicant to support these claims does not support them at all. (Page 4-5) The applicant has demonstrated a maximum of 1/4 acre of direct impacts, no bacterial water quality impact, and no evidence whatsoever to demonstrate current boater/mooring threats to 16 acres of SAV.

3. The applicant has not supplied any of the information necessary to assess the potential impact from construction of a new mooring field. (page 3) We concur with NOAA fully on this point. NOAA requests "details of the proposed mooring plan, type of moorings, and the operation of the mooring field to ensure this will not result in additional impacts to seagrass due to the installation of improper mooring anchors, such as can be seen in areas such as American Yacht Harbor in St. Thomas."

4. US Army Corps of Engineers (USACE) compensatory mitigation standards state "the amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions" and goes on to state "if ... other suitable metric is not used, a minimum one-to-one acreage ... compensation ratio must be used."

5. Based on an impact of 8 acres (NFWS) and mitigation of 2500 square feet (0.057 acres) the compensation ratio described in the SEG Benthic Mitigation Plan is 0.007-to-1 or less than one hundredth of the required USACE standard.

DISCUSSION OF SEA GRASS IMPACTS AND MITIGATION

During the applicant's response to public testimony, Ms. Amy Dempsey stated that "she found it amusing" that the testifier referred to the 2500 square feet of sea grass transplant as mitigation since it was, she said, not mitigation but rather it was minimization. This note explains the reasons for referring to the 2500 square feet as mitigation, and expands upon prior testimony on inadequate mitigation.

The reason that the sea grass transplantation was referred to as mitigation is that Ms Dempsey called it mitigation within the Major Water EAR, which she prepared. Consider the following statements from the Major Water EAR, Appendix C, Benthic Mitigation Plan:

1. "In order to **mitigate** for the project impacts, seagrasses within the area of impact will be transplanted ..." (Benthic Mitigation Plan, Section II: Objectives)

2. " **MITIGATION WORK PLAN**, **THALASSIA TRANSPLANT**
   Prior to the start of the marina project the piling locations will be marked. Thalassia be collected by divers in large sod units using trowels to cut completely through the root mass, the ideal unit size is approximately 1 sq. ft. and 8"-10" in depth. The sod units will be place (sic) in underwater binds and carried to the transport tray which will be beneath the boat." (Benthic Mitigation Plan, Section VII: Mitigation Work Plan)

3. " MONITORING REQUIREMENTS
   Monitoring the **compensatory mitigation** project site is necessary to determine if the project is meeting its performance standards and to determine if measures are necessary to ensure that **the compensatory mitigation project** is accomplishing its objectives. As per the guidelines set forth in §230.96 the mitigation project will be monitored for a minimum period of 5 years. The monitoring will take place along two schemes: **the monitor of the transplanted seagrasses** ..."
   (Benthic Mitigation Plan, Section X: Monitoring Requirements)

Since (a) Ms Dempsey discussed the sea grass transplant within the Benthic Mitigation Plan, and (b) she explicitly referred to the transplant as mitigation, and (c) she described the "Thalassia Transplant" within the section entitled "Mitigation Work Plan", and further described it as "compensatory mitigation" then it is surprising she found it "amusing" that others believed the Thalassia transplant was, in fact, mitigation.

Perhaps the applicant no longer views the 2500 square feet of sea grass transplant as mitigation. If so, the EAR should be modified and resubmitted to reflect this fact, since it is actually the sole mitigation for the substantial, multi-acre sea grass impact that is attributable to the project described in the application.

IS THE APPLICANT ENTITLED TO CLAIM MITIGATION FROM THE "MOORING FIELD" ?

There are multiple defects in the applicant's discussion of the "mooring field" which lead one to question how the applicant can make the claim that "The most important mitigation measure will establishing (sic) a long-term controlled mooring plan in Coral Bay." The mooring field, although frequently mentioned in the Major Water EAR:

- has been described by the applicant in public testimony as preliminary and subject to change
- is not explicitly within the scope of the project according to the description written by the applicant
- has not been described in any detail within the application and appendices
- has no certainty of being executed based on documents supplied by the applicant

If the "mooring field" is not described in sufficient detail, is not explicitly an element of the proposed development, and the applicant has offered no evidence of legal authority to construct it, then how can the applicant be allowed to claim mitigation from its installation?

The applicant describes the proposed marina development in the following words, taken from Form "L&WD-4 Major Project Summary Data", Section II Summary of Proposed Development, Question 3:

> **3. Describe the proposed development**
> **The St. John Marina is a 145 wet slip marina. Supporting land based businesses including ample off street parking, restaurants, Customs and Border Protection office, a marina office, marina engineering facilities, Marina Security office, crew shower and locker facilities, apartments to support marina management, proper solid, hazardous and liquid waste management, proper stormwater management, and proper fueling that are addressed in a separate Major Land CZM Permit Application.**
> ***Note that the description of proposed upland activities is provided in this form only for reference and area* (sic) *not the subject of this application.***

Nowhere in this description of the proposed development is there any mention of a mooring field. In fact, the applicant chose to include mention of "proposed upland activities" which were not the subject of the Major Water application but declined to make any mention of a "managed mooring field" for 75 boats. Furthermore, the application to the Army Corps of Engineers makes no mention of the mooring field.

The applicant, when asked a question by a CZM commissioner about the Mooring Field, responded, in part, by saying that the drawings of the Mooring Field were subject to change regarding location, spacing, and size and indicated that the plan was highly preliminary, rather than final. However, although there are **no detailed drawings** depicting details of the mooring field, its installation procedures, calculations of the size of boats it will support, the environmental impact of its installation, or anything else required to assess its consistency and impacts under the CZMA, the applicant nonetheless claims **substantial mitigation** from its installation. Page 3-4 of the Major

Water EAR makes the following statement and claims: "**The most important mitigation measure will establishing (sic) a long-term controlled mooring plan in Coral Bay to eliminate illegally moored and anchored boats and substandard moorings that currently are having a significant impact on seagrasses and water quality.**"

Accepting, for the moment, that the CZM deems that the applicant may claim mitigation from installation of the mooring field, there is still the question of the extent of this mitigation. The applicant's statement quoted above is made with utterly no evidence, data, or rationale that support its conclusions. The following points must be made:

- the applicant has not supplied any data on the number and location of "illegally moored and anchored boats" or the number and location of "substandard moorings"
- the applicant has not supplied any evidence (other than a single photograph, undated, unknown location, with no measurement scale) that existing moorings are "having a significant impact on seagrasses and water quality".
- the applicant has provided no drawings or description of the location, design, or environmental impact stemming from construction of a new mooring field, nor the environmental impact (if any) associated with removal of 115 existing, established moorings.

In fact, the applicants own statements regarding water quality in the harbor seem to belie the conclusion that water quality, particularly bacterial contamination, is a significant concern. The applicant has presented data that purport to provide evidence of degradation in water quality due to waste discharge from boats moored in the harbor. The applicant makes the following statement regarding the data:

> "Water Quality measurements have been made in the project area on a regular basis since mid-May 2012. **A total of 20 measurements have been taken thus far. The results are shown in the table 6.05b-2 presented above between 2012 and 2014**. The data shows a highly variable system with fluctuating water quality."

The table referenced in this statement (6.05b-2) is titled "**Table 6.05b-2. Current Velocity Measurements at the Mouth of Coral Harbor**" and is found on page 6-20 of the Major Water EAR. **It has nothing to do with water quality**. In fact, there is no table in the EAR with 20 water quality measurements from 2012-2014 to be found in the EAR. The table reproduced below (6.05d-1) contains what appear to be quarterly water quality samples, presumably collected by DPNR, over a period from 2009-2012 and it has 10 entries, however it contains no data for the period 2013-2014.

Table 6.05d-1. Coral Bay Water Quality Data, Station STJ 53

Date	TSS (mg/L)	Turbidity (NTU)	Fecal Coliform (#/100mL)	Enterococci (#/100ml)	Temp (C)	Salinity (ppt)	D.O. (mg/L)
3/27/09	10.1	1.91	2	8	25.08	37.41	
6/29/09	35	1.63	0	0	29.92	36.23	6.40
10/8/09	2.6	1.99	1	0	29.97	35.72	8.67
6/16/10	4.2	4.17	0	2	29.70	36.15	
3/30/11	3.1	3.58	4	1	28.22	37.10	6.35
7/28/11	4.3	2.24	1	3	29,92	36.25	6.11
6/6/12	11.7	4.64	6	3	30.35	36.57	5.89
7/17/12	20.5	1.23	0	0	30.32	35.44	6.03
8/20/12	23.4	4.23	1	0	30.82	35.49	6.37
12/6/12	18.1	4.64	1	2	28.19	35.49	6.20

We respectfully request that the applicant submit a correction to the EAR by either referencing the correct table, or including the correct table if it was inadvertently admitted. **The public is entitled to review the data supporting any claims of degraded water quality due to waste discharge from moored boats.**

In fact, the data which was submitted do not indicate excessive bacterial contaminants within Coral Bay harbor. The Federal bacterial water quality standard of the EPA for recreational uses is shown below:

CRITERIA ELEMENTS	**Recommendation 1** Estimated Illness Rate 36/1,000		**Recommendation 2** Estimated Illness Rate 32/1,000	
Indicator	GM (cfu/100 mL)	STV (cfu/100 mL)	GM (cfu/100 mL)	STV (cfu/100 mL)
Enterococci (marine & fresh)	35	130	30	110
E. coli (fresh)	126	410	100	320

This standard is taken from "2012 Recreational Water Quality Criteria", U.S. Environmental Protection Agency, December 2012, Publication EPA-820-F-12-061. The "Recommendation 2" threshold level for Enterococci is 32. The samples from Coral Bay were all substantially less than that (ranging from 0 to 8, with a geometric mean of 1.6).

In order to obtain an objective interpretation of the bacterial water quality, based on the data submitted by SEG, we sent the table from the EAR to the contact person identified on the EPA Recreational Water Quality Standards fact sheet:

Sharon Nappier, PhD, MSPH
Microbiologist, Office of Water, Office of Science and Technology
Health and Ecological Criteria Division, Human Health Risk Assessment Branch
US Environmental Protection Agency

Ms. Nappier responded as follows:

> *Dear Mr. Silverman –*
> *If those numbers are actual bacterial counts (cfus), then you would interpret your waterbody to be very clean and meeting our recommended criteria (at least for enterococci).*
> *Thanks,*
> *Sharon Nappier, PhD, MSPH*

Based on the data presented by the applicant, as interpreted by the EPA authority on such matters, one can only conclude that the existing use patterns are not resulting in significant bacterial water quality problems in Coral Bay harbor.

The **sole piece of evidence** offered by the applicant to support a claim that existing moorings are damaging sea grass beds is an undated photograph lacking location data or linear scale. It purports to show a "common foot print" of an individually moored boat. Based on the best estimate of the denuded area in this photograph, using the length of the Thalassia leaves as a scale, the scar appears to be roughly 10' in diameter, equivalent to an area of 75 square feet. If this same scar were found on all 115 moorings the total impact to sea grass from the existing moorings would amount to 8,625 square feet (75 x 115), which is less than a quarter of the amount claimed by the applicant, without any explanation or data to support their claim ("As of last count, there were 115 boats anchored or moored within the bay and these conservatively impact an area of between 34,500 ft2 and 46,000 ft2 based on their anchor drag and rope swing impacts.")

The applicant supplies **no data or evidence whatsoever** to support the claim that the mooring field will "protect ... approximately 16 acres of SAV" (submerged aquatic vegetation). There is no calculation, explanation or rationale offered for the figure of 16 acres of SAV. There is no evidence this SAV is threatened by the existing moored boats, or in need of protection under current use patterns. It is, in fact, highly likely that the re-suspension of fine sediments from the propeller wash of mega yachts could be more damaging to the SAV in Coral Bay harbor than any of the existing uses. The applicant has provided no evidence, data or rationale for the claimed mitigation consisting of the "protection of 16 acres of SAV."

Given the applicant's public statement that the 2500 square feet of *Thalassia* transplant are not mitigation, and given the total lack of evidence that relocating 115 existing moorings will result in a net lessening of adverse impacts to sea grass beds or water quality, it is our considered opinion that the current application offers no mitigation whatsoever for adverse environmental impacts to the benthic habitat, particularly the loss of multiple acres of sea grass beds in Coral Bay harbor.

Alternatively, if the 2500 square feet are accepted as mitigation, then based on NFWS estimate of 8 acres of impact, the mitigation is less than 1% of what is required under USACE rules.

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

CBCC Follow-up Comments

The St. John CZM Committee has the responsibility in its decisions to balance what is good for the people of St. John with what is good for the environment. Good growth is accompanied by good planning. Thank you for providing us with the opportunity to make follow-up comments after the Public Hearing.

Here are some additional observations and concerns to assist the Committee in its deliberations.

1. Coral Bay Harbor is a uniquely pristine and productive seagrass, mangrove and coral marine nursery environment, and as such is mandated for the highest level of protection under environmental laws. The applicant has made no effort to understand and design the marina to conform with these laws, nor listened to the advice and comments on the proposal made by various government agencies responsible for environmental protection.

2. Coral Bay has been legislatively identified as an Area of Particular Concern by the VI government. Motor boat use is restricted in all of Coral Bay, by VI DPNR regulation. Comprehensive land and water use planning is needed for the Coral Bay harbor area in order for the CZM committee to have the needed information to determine the future use of large portions of the bay. Perhaps a small marina or dock not impacting other land owner or mooring area rights and public trust uses, could be permitted at this point in time by the CZM Committee. But a monopolization and control of the greater portion of the Coral Bay harbor – in the absence of any of the "public trust" planning activities described in this paragraph and below – is not in keeping the intent and language of the CZM law, including provision of public recreation, open water access for fishing, and other purposes, or protecting the environment from a use that could occur better elsewhere or in a different form. (i.e., moorings rather than docks, for instance.)

With almost no publicly owned shore land in Coral Bay, how can the Committee feel comfortable making private submerged land use decisions, without a comprehensive plan for appropriate public and private use and environmental protection for many years into the future? Public needs must be incorporated into any private marina permitting that is done now or in the future – with participation by the public to assure that the needs are accurately and actually met.

3. A Water Use Plan for the designated mooring area has also been a requirement under the law for more than two decades, yet has not been done. DPNR has started and abandoned 2 efforts in the last 15 years, and denied the written request of the Coral Bay Marine Uses Planning Committee made in spring 2013 to lead a new effort. (see letters in file). Perhaps this is because they were already planning to let Summer's End pre-empt the VI Code process. This is not the only place in the bay a marina could be built. It is the only place under the applicant's control, so it is being proposed, despite its unsuitable physical and environmental aspects as a marina site.

4. In the oral hearing presentation, and other documents, there have been statements that the "mega yacht" docks will be built first, followed by the smaller boat docks. What happens if the developer builds the first portion and claims they cannot afford to build the rest of the docks – that will provide the fuel, pumpout and dock services for St. Johnians? We are all aware of this

strategy for reducing future investment and getting what the applicant really wants - the megayacht slips.

5. Since the applicant has created barriers in their plans for shoreline access by the public road, and only plans a very small dinghy dock behind a secure 24 hour gate, there is a loss of shoreline, water access by many boaters who bring their tenders into this shoreline along 107 right now. There are places that boaters are free to park their cars in currently, even overnight. All of that will be gone in this plan. Any mooring plan needs to have – as part of it – dinghy docking for all moored boats and vehicle parking (or other publicly agreed provisions), and repair/supplies access.

It is very unclear how the applicant plans to resolve these important issues– for live-aboard boaters going to work, or land-based boat owners leaving a dinghy for access to their boat. Since there is no publicly-owned dock facility in Coral Bay, it is especially important that the submerged land lease application include, as is required, access for the public to the water, which in the Coral Bay context means public docking facilities for dinghies and parking. The applicant by the way they have designed parking, has eliminated any potential for public roadside parking within the public right of way.

6. The extent of qualified marina and other planning for this project is wholly inadequate to assure a good project. Many modifications/details are still needed, items that are normally required of an applicant. We are not aware that there is any actual engineering analysis of the dock design for hurricane survival, nor an explanation of why the docks are principally set sideways to the prevailing wind and waves, leaving vessels "to rock and roll" in any southeast wind and wave conditions. We note that the marina layout prepared by Springline Architects and circulated in 2012 is now included – with what appears to be little or no change-- as a plan 'stamped" by ATM, and using their reputation in the EAR. No meaningful additional details are added, to assure that the marina will meet the "world class" standards it purports to meet.

7. Boaters in marinas are usually supposed to and prefer to use the restrooms and showers ashore rather than their boat's facilities. Should they have to cross a public road, with increasing traffic, for these essential services?

8. Driving 1333 pilings using traditional methods would mean months of continuous pounding noise resonating through the entire Carolina Valley area. One pile driver operator has told us that only 3 to 5 pilings might be installed in a working day. (also see the detailed pile driving noise analysis in the CBCC comment packet). The applicant has not done test cores or a geological analysis yet, therefore neither they nor the CZM committee is in a current position to judge that the noise, time, cost, difficulty and practicality of the proposed construction methods are appropriate. On this basis alone, the permit must be denied, as providing insufficient information about centrally required elements of the EAR, that impact many sections of analysis.

9. In the Army Corps permitting process, the applicant is going to need to meet the requirements of Section 404 permitting under the Clean Water Act., and the requirements of the Fish and

Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Endangered Species Act (16 U.S.C. 1531 et seq. as amended), and the National Environmental Policy Act. The current application does not meet these requirements, neither in mitigation nor in designing the docks to minimize negative impacts on the seagrass. Furthermore the environment assessment is deficient under any of the laws.

Fortunately, there are no significant seagrass areas in need of restoration in Coral Bay, based on aerial photos from 1946 forward. The book cited below provides much useful information.

Compensating for Wetland Losses Under the Clean Water Act
http://darwin.nap.edu/books/0309074320/html

Alternative dock designs and water access that might more fully protect the seagrass habitat and fulfill the requirements for protection of seagrass under the Clean Water Act have been ignored by the applicant, and should have been presented as alternative. .

10. The Submerged Lands leasing law and regulations require that the fairways (open water surrounding the docks used as traffic lanes by the arriving and departing boats) be included in the land area to be leased. The maps and documentation presented are not clear enough to independently calculate the acreage being claimed for the submerged land area, but as has been detailed elsewhere in the comments – the area is 28 to 30 acres plus some private moorings. When adding the plan to control/manage the designated mooring area – the monopoly control takes in most of the rest of the bay, if not all.

We thank you for the opportunity to comment on this project application. We look forward to CZM encouraging and directing the applicant and any others considering marina investments in Coral Bay to respect the natural needed conditions for boats and boaters (wind, waves, depth, natural barrier protection from open seas) , start off planning to protect our natural environment – and legally-protected precious marine benthic habitat (seagrass, mangroves, coral, turtles) rather than having to seek substantial mitigation opportunities, and to make their initial applications more in sync with the values, culture and tourism economy of Coral Bay and St. John.

Prepared by
Sharon Coldren
President

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

Best Winters Surveying – Flood Zone comments

Best Winters Land Surveyors, Inc.
P.O. Box 1655, The Lumberyard Building, #15, St. John, VI 00831 Tel. / Fax 340.693.9339

August 28, 2014

Mr. Jean-Pierre Oriol, Acting Commissioner
Department of Planning & Natural Resources
Cyril E. King Airport, Terminal Bldg., 2d Floor
St. Thomas, Virgin Islands 00802

Re: Summers End Marina Proposal:

Dear Mr. Commissioner,

There is a lot of anecdotal evidence that the site of the proposed marina is in a location that is too exposed to storms.

However, the developers submission says on 6-11 and 6-12:

"*The typical wave and wave patterns usually have minimal affect Coral Harbor due to the constricted nature . The harbor and site are well protected by Harbor Point and to a lesser degree by Pen Point. The Shoreline area and the offshore area have been determined to be in VE elevation 14 ft. areas of the coastal flood zone with velocity hazards (wave action)*".

I find this statement to be contradictory within itself.

I have looked at the FEMA Flood Maps for other marinas that are also in exposed locations.

Red Hook (Lat. 18 and AYH Marinas)	VE 10
Yacht Haven Grande , St. Thomas	VE 7
French Town Marina St. Thomas	VE 9
Crown Bay St. Thomas	AE 7 (no waves)
St. Croix Marina Christainstead	VE 18
Green Cay Marina St. Croix	AE 10 (no waves)
Puerto Del Ray Marina Puerto Rico	VE 5.8 outside the new seawall built a few years ago and 4.3 inside the seawall

So this would be the most exposed location of any marina nearby except St. Croix Marina in Christainstead according the FEMA Flood Maps.
Of course these maps may not show the best available information on storm risks, but it is the best I could find. I expect that the computer models that were used to create the FEMA Maps would also be used to create sea condition predictions including wave heights. The proposal should include information to address this issue.

Unless information is provided that shows otherwise, I do not think that a marina without a large seawall for protection from storms can last in the proposed location.

Lawrence Best
Registered Professional Land Surveyor #649LS

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

CBCC Letter on Marine Uses Planning

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org
- a 501(c)(3) nonprofit organization -

August 18, 2014

Mr. Jean Pierre Oriol
Acting Commissioner
VI Department of Planning and Natural Resources
(delivered via email)

Re: Water Use Management Plan for Coral Bay and CZM applicant Summer's End Marina misstatement

Dear Mr. Oriol,

Normally I don't waste time defending myself or CBCC against misstatements intentional or otherwise. However, amidst a number of similar incidences including in the EARs and the press, one particular accusation by Rick Barksdale speaking for Summer's End, LLC must be addressed because he falsely puts words in my mouth insulting other people.

The *St. John Tradewinds*, August 11-24, 2014 issue, Page 4: quotes Rick Barksdale directly saying:

""Sharon Coldren, President of the Coral Bay Community Council drafted a letter to DPNR citing the need for harbor management in which she stated that DPNR is incompetent and incapable of managing the harbor, and she further stated that asking DPNR to manage Coral Harbor would be like asking the Virgin Islands Police Dept. to manage the school system.""

First, the actual letter he discusses, which is appended here, does not say ANY of these insults at all. Period. Fortunately, most people know this is not the kind of language or concept that anyone hears from CBCC or me personally. Mr. Barkdale's improper quote uses his kind of belittling language –the kind he has chosen to use repeatedly when talking about ALL of us here on St. John and the VI.

Taking this letter in a more positive direction: I urge you to read the attached letter that was actually emailed to your predecessor in 2013 (and the reply which I was told was written by the Governor's office for her signature.) It does make true statements and requests with which the various members of the Coral Bay Marine Uses Planning Committee who signed the letter agreed. Rick Barksdale and Chaliese Summers who were in the meeting when it was approved by the group chose not to sign the letter (as did some others who were not legal residents and thus not eligible for the ad hoc committee being requested).

As a followup, CBCC and the Coral Bay Yacht Club in July 2014 asked to make a presentation to the Governor's Marine Economic Advisory Committee on these and other issues, and have been told we will get that opportunity soon.

We have been gratified to learn that the Marine Economic Advisory Committee recommended in Spring 2014 that DPNR reopen mooring approvals and take boaters all over the VI off the waiting list – and this is in process now.

We are also asking for clarification of the short and confusing letter of intent, now expired, from the former Commissioner that is in the CZM application, suggesting that a partnership might be formed between the Summer's End Group and DPNR to manage the mooring field. As conceived, this would violate the mooring laws and regulations cited in the attached letter.

Thank you for taking the time to review this,

Sincerely,

Sharon Coldren,
President, CBCC

Attachments

March 12, 2013

Hon. Alicia Barnes
Commissioner, Department of Planning and Natural Resources
8100 Lindberg Bay, Cyril E. King Airport
St. Thomas, VI 00802

Dear Commissioner Barnes,

The Marine Uses Planning Team, part of the Coral Bay Watershed Management Project, Phase 2, is developing a written plan to help protect the future of the waters of Coral Bay and consider future marine related and shoreline economic development. We would like to include the legislatively required "water use plan" for the Coral Harbor Designated Mooring Area as part of the overall plan.

As you know, we announced and began this planning effort, with monthly meetings in December 2012. Boaters and other community members have participated in four meetings thus far, and this is expected to continue.

May we request that you authorize the Marine Uses Planning Team of the Coral Bay Watershed Management Project to act as the "Ad Hoc Community Committee" for the Coral Harbor designated mooring area, as outlined in the VI Code: Title 25, Chapter 16, Section 403(c), and to be responsible for developing a draft of the required Water Use Plan for Mooring and Anchoring **(**Regulations,1992, Section 404(b)) for governmental review and approval? We anticipate working together with DPNR staff and other agencies to create a pragmatic and useful plan for the area. An outline is attached. Our timetable for completing the planning work is early 2014. The plan can then be reviewed by your office, and if approved, submitted to the VI Legislature for final approval.

The participants of the Coral Bay Marine Uses Planning Team have, among them, a wealth of boating, mooring and anchoring experience and best practices, knowledge of local currents and benthic habitats, water quality expertise, community leadership, planning, and business development experience. Meetings are publicly announced and everyone is welcome to participate.

As a side note: although we view the investigation into the enforcement officers' actions last July as a completely separate issue, we are relieved to see that this investigation was conducted, and has led to thoughtful recommendations about additional training for officers. We trust that, under your leadership, DPNR is also actively seeking to improve the "community relations" skills of the officers so that people throughout the territory will view them as courteous, helpful, and even-handed. The details of the law and regulations for moorings are very supportive of a cooperative community-based approach to managing problems, with social sensitivity and practicality.

Since the 1980s, your predecessors at DPNR have initiated a number of short-lived efforts to rationalize mooring areas on St. John and start the process of creating the water use plans. Little has ever come of this, except occasional bans of new mooring applications. Why? We expect this has occurred because past commissioners have repeatedly assigned the responsibility to the Enforcement Division -- individuals who are hired for their policing skills and law enforcement training, as well as ability to handle high-speed motor vessels. Understandably, they generally do not have the planning & environmental education or management skills to successfully organize the mooring planning work, and the "ad hoc committee" and Water Use Plan drafting process.

The objectives of the Title 25, Chapter 16 are intentionally synchronized with the objectives of the CZM law and program. Therefore, may we suggest that you consider moving the responsibility for planning and directing the management of mooring areas and Chapter 16 objectives to the CZM division?

Another important issue: Reopening Mooring Applications and Fee payments**.** Right now there are a number of boaters in Coral Harbor who have submitted mooring applications (or inquired about mooring applications) and have been told they cannot be processed. These boats are currently moored or anchored in Coral Harbor patiently waiting for DPNR to reopen applications so they can pay their fees. DPNR is losing revenue every day by not processing these applications.

Five years ago, when DPNR realized it was losing valuable revenue, it reopened applications in Coral Harbor and quickly added numerous boats and thousands of dollars in revenue. But for some unknown reason the harbor was again closed for applications a few years ago, without public explanation. Now, as is normal -- a number of boats have permanently left the harbor and new boats have arrived – only to be told by DPNR Boating Enforcement that mooring applications are not being processed. In these tight budget times, we expect you could immediately noticeably increase revenue by re-opening the mooring field here and in other bays. Please let us know what we can do to assist in resolving this issue.

Thank you very much for taking the time in your busy schedule to consider these requests. They are summarized below:

- Authorize this team to be the ad hoc committee to develop the Coral Harbor water use plan;
- Authorize CZM as the principal DPNR agency for this water use plan and direction of management of mooring areas;
- Reopen Mooring applications and collection of fees.

The undersigned respectfully ask that you consider these requests. We look forward to working with you and your staff to plan a great future for the waters and the people of Coral Bay.

Please respond to: Members of the Marine Uses Planning Team, c/o Coral Bay Community Council, 9901 Emmaus, St. John, VI 00830 or coralbaycommunitycouncil@hotmail.com

Thank you.

Respectfully yours,

Signature	Name	Address	Legal Resident
	John Stewart	Sugar Apple East	
	STEPHEN C. HENDREN	9901 EMMAUS STJ	YES
	Philip J. Stenger	7916 Emmaus, St John	Yes
	SHARON COLDREN	7916 EMMAUS ST JOHN	Yes.
	DAVID BORROR	(See Attached Email)	
	SUSAN WAKELEE	(See Attached Email)	

Coral Bay Harbor Designated Mooring Area

Water Use Plan Outline Draft 3 -12 -13

Legislative Background (Title 25, Chapter 16, "Mooring and Anchoring of Vessels and Houseboats")

Section 401: Declaration of policy: *Key points*

- *Orderly, efficient, equitable, safe and ecologically sound allocation and regulation of moorings, anchorages, and unobstructed navigational channels.*
- *Need to protect and preserve natural and historic character of… harbors, bays and shoreline areas;*
- *Improve, protect and maintain water quality*
- *Provide for Public Access, use and enjoyment of coastal areas,*
- *Generate revenue for improvement and maintenance of harbor and shoreline facilities*
- *Encourage water dependent uses*
- *Resolve conflicts between competing uses of territorial waters*
- *Authorize DPNR to administer and enforce provisions relating to Mooring and anchoring.*

Sec. 404(f) "The Legislature recognizes that for reasons of conservation, recreation, ecology, navigation or aesthetics, the coastal areas require a flexible and modifiable management program responsive to changing social, economic and environmental conditions. Until such time as a water use plan is developed, the Department shall administer programs in a manner consistent with the goals and objectives of this chapter and in a manner responsive to social and environmental needs."

Management Objectives of Plan (includes legal, administrative, educational, ecological, physical concerns)

I. Natural Resources conservation
   a. Description of existing resources/habitats/maps (seagrass, coral, mangroves, fish, etc.)
   b. Protective measures needed – in general
II. Optimization of current uses and integration of traditional uses with mooring area
   a. Description of current uses and traditional uses
   b. Alternative optimization strategies explored
III. Separation of incompatible uses in coastal areas
IV. Efficient Management of mooring and anchoring areas
V. Establishment of effective techniques for monitoring current and future environmental and social impacts on the designated and adjacent areas.

OUTLINE OF TOPICS

1. **Mooring and Anchoring Areas Design: (to include maps, GIS locations)**
    a. Current area and use description for both
    b. Size, bottom topography, tide, circulation, weather exposure, services

2. **Recommended future design for moorings and anchoring area**
    a. Locations
    b. Types of mooring systems
    c. Hurricane protection
    d. Users

3. **Other uses: Fishing, Swimming, Shoreline walks, restaurants, businesses, navigation, transportation, recreation, conservation (limited use), marinas and associated uses.**
    a. Details as appropriate

4. **Shoreline public access and facilities:**
    a. Dinghy dock
    b. Parking
    c. Pump out
    d. Fuel
    e. Marine services and supplies
    f. Nonboater access for recreation
    g. Charter captain boat access for tourists

5. **Prioritization of Uses**

6. **Implementation time line**

Re: Marine Pl Team: Letter to Commissioner Barnes for signing

From: **Dave** (daveborror@hotmail.com)
Sent: Fri 3/15/13 10:38 AM
To: Coral Bay Community Council (coralbaycommunitycouncil@hotmail.com)

Please include my signature for this letter to comm Barnes. David Borror

Sent from my iPhone

On Mar 14, 2013, at 3:28 PM, Coral Bay Community Council <coralbaycommunitycouncil@hotmail.com> wrote:

> Hi all-
>
> In the 4th Marine Use Planning Team meeting on Tuesday, we collaboratively drafted and edited the attached letter and Water Use Plan outline to send to Commissioner Barnes at DPNR. 18 of us were present and participated in the work. The whole group agreed the letter should be sent. Some may not sign because they are not currently legal residents - as is required for the ad hoc committee. I was left with the responsibility to "dot the i's", "make it english" and make it ready to circulate to you all. Please read it, and if you were at the meeting, be sure it says what it should! Even if you weren't at the meeting, if you agree with the points made, it would be great to have your signature. You can send an email saying you are signing on (and we will attach to the file) -- or better yet, stop by the office and sign the original -- by 2pm on Friday. Assuming we have a reasonable number in hand, the letter will be sent via later Friday, hard copy to follow. Good planning will happen because we all make an effort to do it! Please respond.
>
> Thank you for your participation -- and excellent ideas/editing.
>
> Sharon Coldren
>
> **Coral Bay Community Council, Inc**1#V#d#834#f,+6,#qrqsuril#rujdql}dwrq#
> P dddj#bgguhv#k<34#Ipp dxv/#Vw#Mrkq#X I#33;63#Skrqh2id{#6730::9053<<#
> Z hevlwh#z z z1frudoed|frp p xqlw|frxqfldruj
> R iilfh=#;04#Ipp dxv/#Frud#Ed|/#Vw#Mrkq/#X 1V1#X lujlq#vodggv
>
> <Comm Barnes letter and plan outline 3 12 13.pdf>

Re: Marine Pl Team: Letter to Commissioner Barnes for signing

From: **Susan Wakelee** (wakeleesusan@yahoo.com)
Sent: Sat 3/16/13 12:26 PM
To: Coral Bay Community Council (coralbaycommunitycouncil@hotmail.com)

I would like to sign the letter, but was unable to get by the office on Friday.
Susan Wakelee
7511 Bordeaux
St John, USVI
00830

From: Coral Bay Community Council <coralbaycommunitycouncil@hotmail.com>
To: mAnna and Tom Lawson <lawsonanna@rbnet.com>; Stephen Hendren <henstjohn@yahoo.com>; mRev Rae and Jim Kurt <revrae@mailstation.com>; Bob DeBonis <daddychiro@gmail.com>; m Sarah Groves Donovan <sarhigdon@aol.com>; Leona smith <calabash1960@hotmail.com>; Karen Vahling <karen.vahling@yahoo.com>; Kevin Schnell <kevin@caribbeansolarcompany.com>; Maya Schnell <maya@caribbeansolarcompany.com>; Chaliese Summers <chaliesesummers@gmail.com>; rick barksdale <rickbarksdale@gmail.com>; mRobin & Rick Gallup <sailboatlongdistance@hotmail.com>; m John & Marcia Stewart <islandrootstoursusvi@gmail.com>; Ken Burt <nevadunfarm@metrocast.net>; Sandra Coral Bay marine Mohler <sandymohler@gmail.com>; david rosa <david.rosa@dpnr.gov.vi>; Jason Hayman <jason@pelicanbeachvi.com>; Jason Siska <jusiska@gmail.com>; m Jeffrey & Ann McCrave <mccravej@yahoo.com>; Will Hudson <kingfishwilly60@yahoo.com>; Dave Dostall <ddostall@yahoo.com>; Dick Burks <rpburks@hotmail.com>; Mary Burks <maryjburks@gmail.com>; mJan and George Courlas <jancourlas@holidayhomesvi.com>; Deborah Aitken <debzcam@hotmail.com>; Robert Oconnor <234@vitelcom.net>; Dave Borror <daveborror@hotmail.com>; m melody smith <melodysmithvi@gmail.com>; Ed Roberts <edmundroberts@ymail.com>; Susan Wakelee <wakeleesusan@yahoo.com>; Kevin Curtwright <kcvi06@yahoo.com>; Patricia Reed <triciareed@coralbaycommunitycouncil.org>
Sent: Thursday, March 14, 2013 3:28 PM
Subject: Marine Pl Team: Letter to Commissioner Barnes for signing

Hi all-

In the 4th Marine Use Planning Team meeting on Tuesday, we collaboratively drafted and edited the attached letter and Water Use Plan outline to send to Commissioner Barnes at DPNR. 18 of us were present and participated in the work. The whole group agreed the letter should be sent. Some may not sign because they are not currently legal residents - as is required for the ad hoc committee. I was left with the responsibility to "dot the i's", "make it english" and make it ready to circulate to you all. Please read it, and if you were at the meeting, be sure it says what it should! Even if you weren't at the meeting, if you agree with the points made, it would be great to have your signature. You can send an email saying you are signing on (and we will attach to the file) -- or better yet, stop by the office and sign the original -- by 2pm on Friday. Assuming we have a reasonable number in hand, the letter will be sent via later Friday, hard copy to follow. Good planning will happen because we all make an effort to do it! Please respond.

Thank you for your participation -- and excellent ideas/editing.

GOVERNMENT OF THE UNITED STATES VIRGIN ISLANDS
--------0--------
DEPARTMENT OF PLANNING AND NATURAL RESOURCES
45 Mars Hill, Frederiksted
St. Croix, U.S. Virgin Islands 00840-4474

Office of the Commissioner

Telephone: (340) 773-1082
FAX: (340) 773-1716

May 14, 2013

Ms. Sharon Coldren
Coral Bay Community Council
9901 Emmaus
St. John, VI 00830

Dear Ms. Coldren:

We are in receipt of your request for the Coral Bay Watershed Management Project Marine Uses Planning Team to be the representation for Coral Bay as it relates to the development of regulations for mooring and anchoring in Coral Bay.

As it relates to the Mooring and Anchoring of Vessels in the Territory, the Department of Planning and Natural Resources has the specific mandate "to provide for the orderly, efficient, equitable, safe, and ecologically sound allocation and regulation of moorings, anchorages and unobstructed navigational channels in the territory".

As we further our discussions throughout the community regarding issues such as reasonable fees, terms of permit, and areas to be affected, we would sincerely welcome the input from the Coral Bay Watershed Management Project Marine Uses Planning Team. As it is, the Governor is about to convene his first meeting of the Marine Economic Advisory Council which will also serve to garner input from various constituencies of the marine community throughout the four Virgin Islands.

It is our intent to have input from the entire St. John Community which has proven to be very aware and active in their civic participation and community service. We are appreciative for your desire to participate and look forward to continuing the dialogue as it relates to the use, protection and preservation of our territorial waters.

Sincerely,

Alicia V. Barnes
Commissioner

pc: Governor John P. de Jongh, Jr.

CORAL BAY COMMUNITY COUNCIL

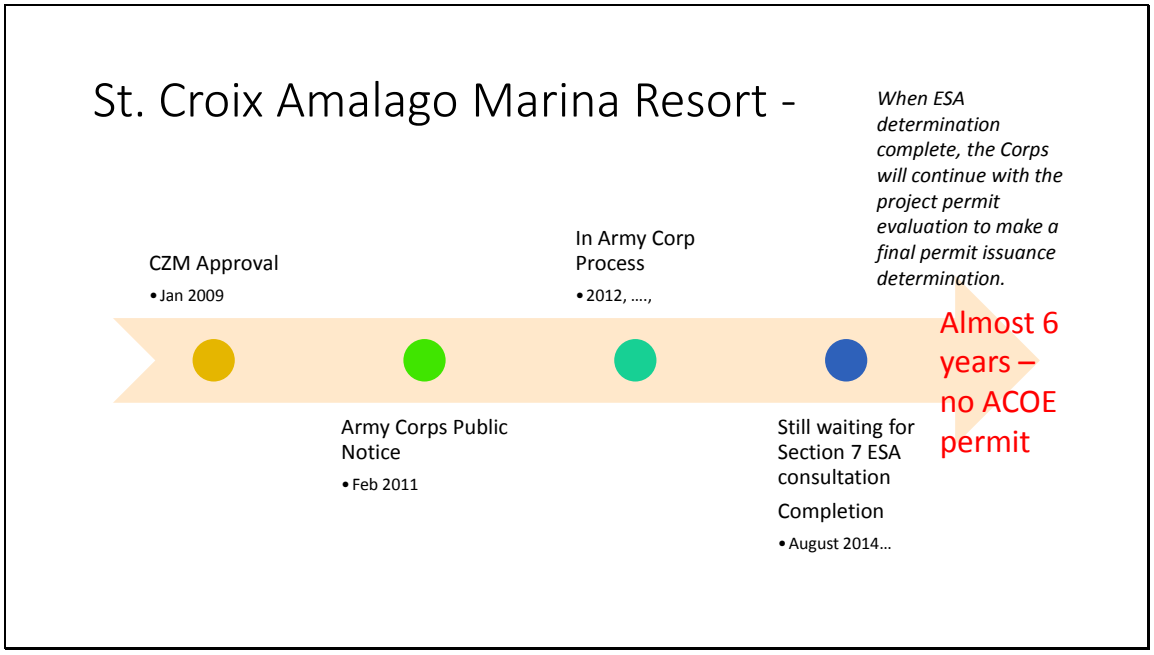
Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

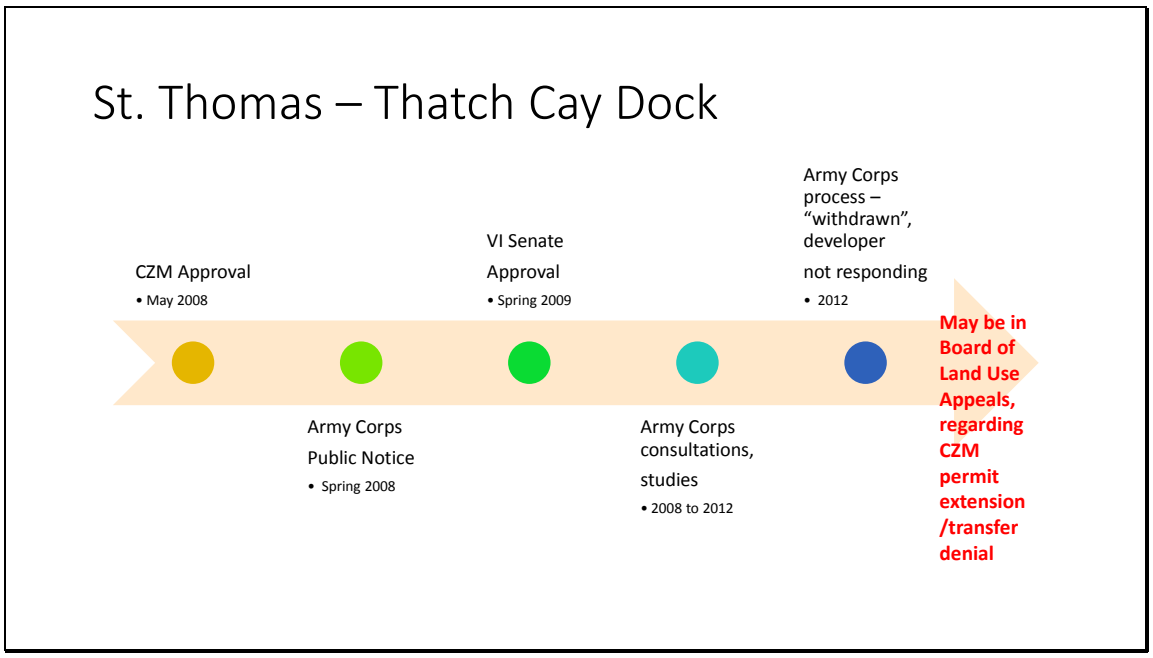
Developer Delays in ACOE process

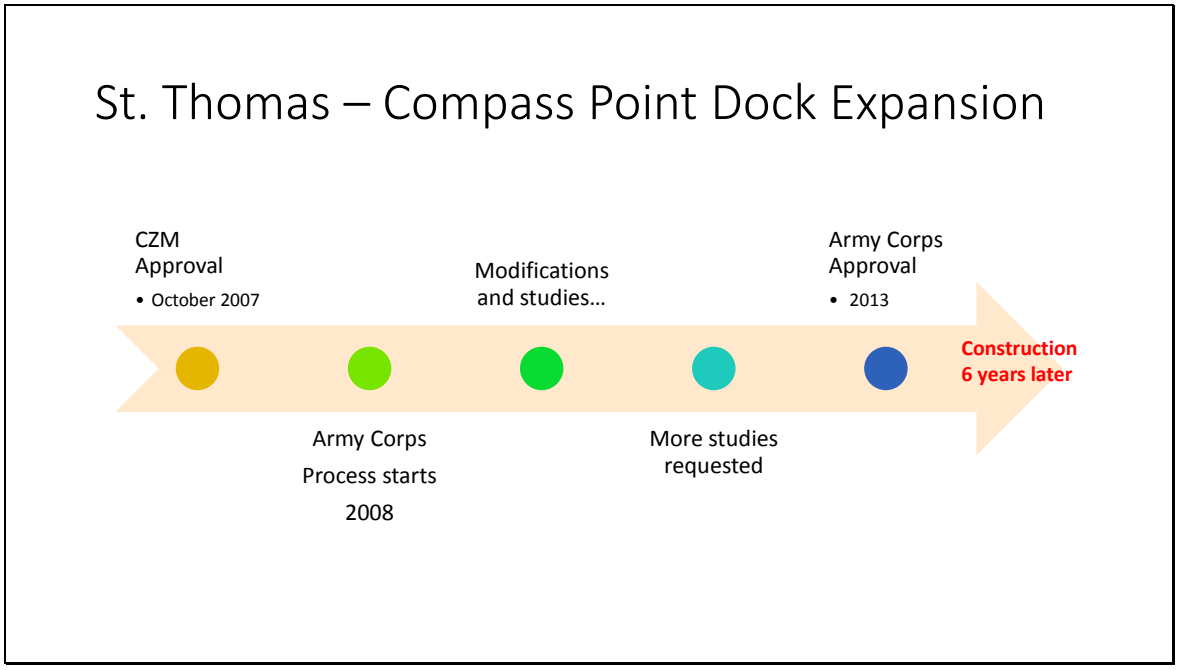
CONCERN ABOUT NEAR TERM NEGATIVE ECONOMIC IMPACT due to inadequate plans and studies by developers, thus delaying the Army Corps (ACOE) process:

If the CZM Summer's End permits are approved, even with significant restrictive special conditions, CBCC and the residents and businesses on all of St. John are highly concerned that the overhang of "pending marina construction" will have a near term negative impact on tourism and residential construction spending, thus causing a drag on the economy beginning immediately and continuing for the duration of the lengthy Army Corps (ACOE) permitting process – and then on into the actual construction phase, if the ACOE permits were granted – which is considered highly doubtful by CBCC, given the federal agency comments placed in the record, and the developer's reluctance to modify their designs or spend money on additional required analysis.

The ACOE process involves many federal agencies and concerns, some enumerated below. Looking at other recent examples of marina and dock projects in the Virgin Islands – they either did not make it all the way through the ACOE permitting process yet, or it took them 6 years. For some applicants, this may be because the developers try to "push the envelope" and don't make any real effort to comply with local or federal environmental laws in their development designs. All known examples:







Coral World has also asked for marine ACOE permits, and are just now entering the ACOE public comment period which "starts the clock' for the dolphinarium after longer than a year since their CZM permit was approved. Since Coral World has completed many ACOE applications in the past – presumably their portfolio of studies and settled issues with ACOE is large, and it might take less total elapsed time.

There is no similar record or portfolio for Coral Bay's conditions to be used by a developer. All the environmental analysis must be established from ground zero by the applicant. In addition, the ACOE process takes into account the impacts of similar proposed or possible uses in any given area – and looks

at the implications of total impact. The other marina proposal, the toxic impacts of bottom paint and discharges from the many additional vessels large and small that are using the slips, and even anchoring in the larger bay to use the marina services are all impacts that will be considered in the ACOE process for this marina.

The Summers End marina application to ACOE will need to address all of the issues enumerated above, -- on a larger scale in a more enclosed body of water (than Coral World)—as well as many more issues , including but not limited to:

- Fuel docks/fuel spills and potential damage to all habitats including the local mangroves (which are situated directly downwind of the proposed fuel dock location).
- Alternative Location analysis
- Alternative Design analysis
- Toxic vessel antifouling paint
- Impacts on any and all the surrounding benthic habitat and various marine species, as determined within the ACOE process based on analysis presented.

Furthermore, the ACOE statutory deadline clock doesn't begin ticking until the applicant has submitted everything initially required by the agencies. NOAA and FWS have already indicated in their comment letters on the Summer's End Group permit application the numerous studies and/or design changes they would need to see before official "clock start." Key needed studies – such as the geological study that is required in the CZM EAR process (but not included) for the pile driving design -- have not been started. It's possible it could take a couple of years to accomplish all this work (in part because some studies may need to be longitudinal). Given this, and the developer's lack of willingness to voluntarily conform with federal standards in their application, it seems likely that the Army Corps process will take 5 years or longer, after CZM permitting, and may not lead to approval.

It is probably inherent in any developer's public relations to say that "construction will begin within months ", but it is equally important that the VI stop having "failed projects" that never get off the ground or die mid construction – fundamentally because they were unrealistic from the start and should never have received government permitting in the construction form that was approved. Perhaps if the government was firm that only realistic development would be approved – so that the newspapers would be filled with successes – not failures, wouldn't this encourage future development investment… for the long term? And this kind of positive press would encourage well-funded, reputable developers to invest, not the "wannabes" that the Virgin Islands has been plagued with in recent years. This would bring us a better economy and more prosperous Virgin Islands.

Therefore, to assure strong and consistent economic activity and development appropriate to the Virgin Islands, the CZM Committee needs to deny the Summer's End application, until sufficient design and

study work has been completed in advance, so that the future ACOE approval process can proceed smoothly and efficiently, without developer delays.

Prepared by Sharon Coldren
CBCC President
August 28, 2014

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

Advantages of Moorings vs. Docks

ADVANTAGES OF MOORINGS VS. DOCKS FOR RECREATIONAL BOATS

(alternate required in EAR)

Moorings Environmentally preferable :

No permanent change to harbor/seafloor

No constant shading of seagrass habitat

Moorings can be designed to avoid seagrass habitat damage (many already are)

Less expensive capital investment; asset survives hurricanes

Safer for boats in squall conditions, and tropical storm conditions. Boats normally have to leave marinas in tropical storm conditions – where do they go?

Because moored vessels take up more total sea area than when boats are packed in at docks – Moorings self-regulate the vessel density of the harbor and limit the space available for transient vessels to anchor and damage seagrass. Less density means less boat toxins from bottom paint in the water, among other advantages.

Widely dispersed pattern of moored boats reduces speed of all vessel traffic, lessening chances of vessels traveling too quickly and scarring seagrass, or striking turtles or coral.

Most moored boaters live here and have a fully vested interest in protecting the environmental assets, they are not transient and unknowledgeable about local needs and conditions.

Prepared by Philip Strenger for the Coral Bay Community Council

8 27 14

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

Above Ground Fuel Storage Tanks

Location and Size of Above ground Fuel Storage Tanks:

Above ground storage tanks are subject to numerous regulations including EPA's Spill, Prevention, Control, and Countermeasure (SPCC) requirements (40 CFR, Part 112) and other regulations that safeguard human health, such as fire codes that limit tank capacity and generally require minimum setback distances from buildings, public ways, etc. The National Fire Protection Association (NFPA) is a non-profit that publishes nationally recognized fire codes and standards. NRPF 30 *Flammable and Combustible Liquids Code Handbook* and its subpart NFPA 30A: *Automotive and Marine Service Station Code* is the code most often adopted by state and local jurisdictions. In 2004, this document was incorporated by reference into federal regulations.

The Virgin Islands Code (V.I.C) Title 20 Chapter 9 Fire Prevention Code contains the VI's regulations pertaining to public safety and storage tanks. These include setback limits such as a setback of 20 feet from buildable property line for tanks between 24,001 and 30,000 gallons and necessary venting to reduce pressure when filling or allow tanks to breathe during temperature changes.

This current parking area is the planned location for the large fuel storage tanks for diesel and gasoline for the marina. This is behind the existing Aqua Bistro kitchen building and the rest of the Cocoloba shops. On the plans, you can see the retaining wall - which is actually on this neighboring house property. The plans currently have the tanks set back approximately 25 feet from the retaining wall and very near this house. Given the prevailing winds, this residential dwelling, not included in the marina site, will be subject to any fuel tank venting odors, any fire/explosion dangers of being near a fuel tank (witness the

explosion at Gasworks on St. Thomas last year), and will most likely have a portion of their current water view blocked by these above ground tanks (see tank size discussion below). The tanks are also within 15 feet of the restaurant kitchen, which complies with code but still presents a large public safety concern with fuel tanks so close to a flame source. These are concerns that need to be addressed in the design prior to approval.

Here are photos of two 30,000-gallon diesel tanks; the photos show the size, relative to the person standing there. These tanks have a 12-foot diameter and are 43 feet long. As you can see, including tank base and roof cover, these tanks essentially occupy a two-story building. Additionally, the SEG drawings have two 25,000-gallon tanks. The EAR lists 45,000 gallons of diesel and 5,000 gallons of gas. Given their statement of 45,000 gallons of diesel they'd either need a tank much larger than what's shown in the photos or two tanks slightly smaller and a third 5,000 gallon gasoline tank. Again, problems that need to be fixed now.

Prepared by Patricia Reed, Coral Bay Community Council

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

Coral Concerns

On August 27, 2014 the National Oceanic and Atmospheric Administration (NOAA) published its *Final Listing Determinations on Proposal to List 66 Reef-building Coral Species and to Reclassify Elkhorn and Staghorn Corals* (50 CFR Part 223). This resulted in the new listing of five Caribbean coral species (see table below) as threatened under the Endangered Species Act of 1973, as amended.

Scientific Name	**Common Name**
*Acropora cervicornis**	Staghorn Coral
*Acropora palmata**	Elkhorn Coral
Mycetophyllia ferox	Rough Cactus Coral
Dendrogyra cylindrus	Pillar Coral
Orbicella annualaris	Boulder Star Coral
Orbicella faceolata	Mountain Star Coral
Orbicella franksi	Boulder Star Coral
*Listed as threatened in 2006.	

Benthic habitat surveys conducted by The Summers End Group, LLC (SEG) for its major land and water permit applications included these corals. SEG found *Acropora* spp. and *Orbicella annularis* around Penn Point and Fortsberg. Surveys conducted by the Coral Bay Community Council (CBCC) on July 30-31, 2005 in the same areas (described in Appendix B of the draft *Coral Bay Turbidity and Floatable Debris Management Plan*), also found both *Acropora* species and *Orbicella annularis.* CBCC conducted follow up surveys in 2014 and is currently pulling together the photo catalog.

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

Seagrass and Dock Design and Research

Comments on Dock Design and Seagrass Protection and transplanting for Mitigation:

The proposed plan is completely inadequate and does not meet the minimum federal standards for compensatory mitigation – which generally require as much as a 3:1 ratio of replanting/mitigation, since transplanting is known to have a high failure rate. Furthermore, the dock designs do not conform at all with published federal standards (acknowledged by the VI government) for dock design in seagrass habitat areas, and therefore applicant calculations of impact are not based on an approvable dock design.

The comment letters from two federal agencies (FWS and NOAA Marine Fisheries) spell out some of these concerns and additional ones --- that the applicant has failed to address, despite previous in-depth consultation with these agency experts. All of these issues need to be addressed, in sufficient detail that there is a likelihood that the project can be fully locally and federally permitted, prior to CZM approval. Failure to do this work and provide it to CZM requires a CZM denial.

###

The EAR includes a brief reference to the seagrass research work of Paul Bologna, to support their contentions.

CBCC initiated contact with the same **Paul A. X. Bologna, PhD., Director of the Aquatic and Coastal Sciences Program at Montclair State University, and Associate Professor, Biology and Molecular Biology,** who is noted for his significant work on submerged aquatic vegetation, and especially seagrasses. (Contact: bolognap@mail.montclair.edu). He provided some references that are submitted here.

He also briefly reviewed the permit application documents and had the following expert comments related to the proposed mitigation plan:

"I am reading the mitigation plan and there are some odd things, like proposing 16 acres of seagrass (SAV) protection based on the applicant's assertion that
"providing pump out facilities and waste receptacles which will significantly reduce the indirect impacts of these vessels. This will result in the protection of approximately 16 acres SAV and allow for the recolonization of approximately 1 acre of seagrass by removal of the inappropriate a nchors."

I am always wary of someone saying they are 'protecting' SAV. It is tenuous at best.

Transplanting Thalassia and/or Syringodium (turtle and manatee grass) generally has poor survival so the people who will be doing the transplanting should have a lot of experience.

One problem with Thalassia transplants is that when the rhizome is cut, it will not rapidly regrow. Essentially it has what is referred to as 'apical meristem' or the growing tip. When the rhizome is cut (prop scars or in this case, cutting) it does not regenerate this tissue quickly (years sometimes) and therefore it won't grow and expand in the proposed area. Also, I see no compensatory

mitigation for all the losses. It seems like they are collecting what they are destroying and moving it, but no compensation for loss due to shading by the dock and boats. Generally, there is mitigation for this anywhere from 1:1 up to 3:1 mitigation to impact ratios."

He also provided CBCC with some scientific article citations, supporting his comments.

http://floridakeys.noaa.gov/review/documents/swbiologyeconomics.pdf

Mark S. Fonseca [a,*], Brian E. Julius [b], W. Judson Kenworthy [a]

[a] *National Oceanic and Atmospheric Administration (NOAA), National Ocean Ser6ice, Center for Coastal Fisheries and Habitat Research*, 101 *Pi6ers Island Road, Beaufort, NC* 28516, *USA*

[b] *National Oceanic and Atmospheric Administration (NOAA), National Ocean Ser6ice, Damage Assessment Center, SSMC4 Room* 10218, 1305 *East–West Highway, Sil6er Spring, MD* 20910, *USA*

Received 30 March 1999; accepted 10 March 2000

Abstract

Although success criteria for seagrass restoration have been in place for some time, there has been little consistency regarding how much habitat should be restored for every unit area lost (the replacement ratio). Extant success criteria focus on persistence, area, and habitat quality (shoot density). These metrics, while conservative, remain largely accepted for the seagrass ecosystem. Computation of the replacement ratio using economic tools has recently been integrated with seagrass restoration and is based on the intrinsic recovery rate of the injured seagrass beds themselves as compared with the efficacy of the restoration itself. In this application, field surveys of injured seagrass beds in the Florida Keys National Marine Sanctuary (FKNMS) were conducted over several years and provide the basis for computing the intrinsic recovery rate and thus, the replacement ratio. This computation is performed using the Habitat Equivalency Analysis (HEA) and determines the lost on-site services pertaining to the ecological function of an area as the result of an injury and sets this against the difference between intrinsic recovery and recovery afforded by restoration. Joining empirical field data with economic theory has produced a reasonable and typically conservative means of determining the level of restoration and this has been fully supported in Federal Court rulings. Having clearly defined project goals allows application of the success criteria in a predictable, consistent, reasonable, and fair manner.

http://www.sciencedirect.com/science/article/pii/0044848674900325

http://www.sciencedirect.com/science/article/pii/S0304377097000211

Regrowth of the seagrass *Thalassia testudinum* into propeller scars

- Clinton J. Dawes[a],
- John Andorfer[a],
- Craig Rose[a],
- Christina Uranowski[a],
- Nicholas Ehringer[b]

Abstract

Regrowth of turtle grass, *Thalassia testudinum* Banks *ex* Konig, into existing propeller scars and artificial cuts was studied in a mangal estuary located in Tampa Bay, Florida. Sediments from scars and cuts and adjacent grass beds were not significantly different in relation to particle size distribution and levels of calcium carbonate. Significantly lower concentrations of total organic matter and extractable ammonium but not phosphate were detected in scars. Increases in ammonium levels coincided with the expansion of *T. testudinum* into a propeller scar. Seagrass blade morphology and productivity did not significantly differ in short shoots growing along the edges of scars or cuts relative to those in adjacent seagrass beds. Rhizome architectural studies

revealed that apical meristems were few in number (19 to 38% of rhizomes) and randomly orientated in undisturbed grass beds (31 to 53% oriented toward center). In contrast, a greater percentage of apical meristems (78 to 88%) along the edges and in scars or cuts were directed towards the center. Full regrowth required an average of 3.5 to 4.1 years in existing propeller scars and could take up to 7.6 years in artificial cuts. The lack of changes in shoot productivity and limited production of rhizome meristems in *T. testudinum* result in slow regrowth in propeller cuts. The management implication is that turtle grass meadows will show long-term damage from propeller scars if not protected.

http://repositories.tdl.org/tamug-ir/handle/1969.3/22580

Abstract:

The number of short shoots per transplant unit of Thalassia testudinum had a marked effect on survivorship. Four-shoot units had survival rates over 85% nine-months post-transplantation, two-shoot units averaged 60%, and one-shoot units averaged 33%. Four-shoot units were also more likely to produce new shoots than one- or two-shoot units. The presence or absence of a rhizome apical meristem had no effect on survivorship of transplant units or the probability of surviving units producing new shoots. However, transplant units with intact rhizome apical meristems produced more new short shoots than transplant units without rhizome apicals. The study indicates that survival of bare rhizome sprigs of Thalassia testudinum increases with the number of short shoots, and more rapid proliferation of new short shoots occurs in units with intact rhizome apical meristems.

http://www.jstor.org/discover/10.2307/25736348?uid=3739256&uid=2&uid=4&sid=21104558783253

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

Wastewater Treatment and Nutrients

Waste Water Treatment – Nutrient Concerns

Cromaglass treatment system (or similar) is proposed. There is local experience in the BVI with this manufacturer's system failing. It is assessed as cumbersome and relying on too many pumps as part of the treatment process. These pumps often go bad and the system breaks down. Also, the company is going through some ownership issues and there is even talk of the company shutting down. Technical support therefore might be difficult. Due to the proximity of the shoreline, there needs to be a contingency plan in case the system fails. This kind of system is called a sequencing batch reactor system (SBR).

Furthermore, Cromoglass systems, as well as some other onsite systems, have been found to fail to meet nitrogen standards critical for coastal areas, in the Pinelands of New Jersey, http://www.nj.gov/pinelands/landuse/waste/2012_Annual_Septic_Pilot_Program_Report.pdf, and in other places . EPA Region 2 has called out the failure of the systems in NY and NJ in coastal areas. The Nature Conservancy has written a set of watershed guidelines related to similar systems. (see below). Since runoff or subsurface introduction of nitrogen from WWTPs of this collection of 5 restaurants, residential and other retail facilities, not to mention shoreline restroom use by marina boat residents/tourists, will be a significant higher burden to the soils surrounding the bay, in an area known to have subsurface water flows and intermittent springs (it is called Spring Garden locally) – choosing the correct systems to fully treat wastewater is critical.

Additionally, these systems are often used to develop at greater densities in areas without sewer systems. However, as noted in the NJ Pinelands study, these systems shouldn't be used in residential developments at less than 20,000 square feet in order to meet nitrogen criteria. Again, it should be noted this development level is for residences. Commercial developments, with their higher usage, may require larger land areas to meet water quality criteria.

Another factor to consider is that, "[e]xcessive use of certain cleaning and laundry products as well as the use of certain medications can stress the bacteria that provide biological nitrification and denitrification (State of New Jersey Pinelands Commission 2012)." "ATS failure may result from … flushing even small amounts of cleaning agents down a toilet may kill the bacteria, a common [alternative treatment system] problem (TNC 2007)."

The applicant should be required amend the plan prior to CZM approval to propose a different, higher quality WWTP system, using a better manufacturers specifications, that will not risk nitrogen runoff – or alternately reduce the size of the inhabited development. The threat of excessive amounts of nitrogen entering the bay from the applicant's proposed wastewater treatment systems, coupled with untreated stormwater runoff is serious and would significantly degrade the marine habitat.
http://nepis.epa.gov/Exe/ZyPDF.cgi/P1005FQK.PDF?Dockey=P1005FQK.PDF The EPA National Estuary program has many strategies and recommendations for reducing nitrogen loading of ocean waters.

Further concerns and doubts about the acceptability of Chromaglass and similar system in this coastal area are raised in a report by the Nature Conservancy in 2007 for watershed managers in Connecticut.
http://www.hvceo.org/septicalternativenatureconservancy.pdf In this report, permitters are cautioned to be sure that nitrogen flows will not exceed allowed limits, as it has been unfortunately proven they often do with these systems – whether it is due to improper daily maintenance, system functioning or improper choice of system. Further "[s]peacial attention should be given to travel time and local site conditions to promote removal of viruses and bacteria. … for small or environmentally sensitive sites, decision makers should be certain that transport times are sufficient to perform necessary pathogen removal. Alternative systems may not be appropriate in situations where proposed design flow, siting or sensitivity of the receiving environment to a particular contaminant requires that the system meet performance standards on a consistent basis (TNC 2007)."

Subsurface flow is planned for dispersing the outflow from the 4 WWTPs. It is our understanding that this counts as "injection wells" and, if so, EPA, rather than DPNR, has authority over the permitting and is known to be reluctant to authorize such facilities in environmentally sensitive shoreline areas. The applicant will need to receive these permits prior to beginning any land or water construction.

On shore restroom facilities for boaters:
Most boaters on less than 80 foot boats prefer to use on-shore showers and toilets when staying in a marina, to avoid the cramped quarters on the boat and using the holding tanks. In the case of this marina, the boaters will have to walk down a long dock and then cross a busy street to get to the marina restrooms. This will also increase the load on the WWTPs.

The applicant also needs to choose a WWTP design that is capable of handling the highly seasonal loads inherent in the planned marina business.

Without the local availability of a public sewer system and municipal treatment plant for sewage, it is required of the applicant to show the design and the ability to install and run an onsite WWTP that will provide the needed services – and protect the surrounding environment – both land and water based. Failure to provide a plan for a system with a known reputation of working correctly and scientific evidence that it will remove all required nitrogen and other pollutants prior to soil injection is grounds for denial of the application.

It is highly critical that nitrogen and phosphorous and other nutrients and contaminents are kept from entering the bay from this new shoreside development.
These are the reasons - the seagrass and coral habitats need to be protected.

Impacts on Coral Ecosystems:
http://sanctuaries.noaa.gov/about/ecosystems/coralimpacts.html it says:

"Coral reef ecosystems are complex, dynamic, and sensitive systems. Although they are geologically robust and have persisted through major climactic shifts, they

are however, sensitive to small environmental perturbations over the short-term. Slight changes in one component of the ecosystem affect the health of other components. Changes may be attributed to a number of causes but generally fall into two categories, natural disturbances and anthropogenic disturbances. Distinguishing between natural and anthropogenic disturbance is not always simple because the impacts of human actions may not be seen until well after the action has occurred or may not be seen until it is coupled with a natural disturbance. Also, some events that appear to be natural may have been influenced by human actions. Impacts may be direct or indirect and may be compounded where several occur. For these reasons, it is often difficult to make cause-and-effect linkages when reef degradation is observed."

Seagrass : This source shows the science briefly in laymans' terms that relate to maintaining the health of seagrass beds through the balance of nitrogen and phosphorous
http://floridakeys.noaa.gov/scisummaries/seagrassnut.pdf (might want to include this 2 page pdf from noaa)

Prepared by Sharon Coldren and Patrician Reed, Coral Bay Community Council

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

Fish and Wildlife Services Comment Letter

United States Department of the Interior

FISH & WILDLIFE SERVICE
Boqueron Field Office
Carr. 301, KM 5.1, Bo. Corozo
P.O. Box 491
Boqueron, PR 00622

AUG 18 2014

In Reply Refer To:
FWS/R4/CESFO/78020-089

Mr. Jean-Pierre L. Oriol
Director, CZM
8100 Lindberg Bay, Ste 61
Cyril E. King Airport Terminal
St. Thomas, USVI 00802

Re: CZJ-3-14(L) and CZJ-4-14(W),
Environmental Assessment Report,
Summer's End Group, St. John Marina,
Coral Bay, St. John, USVI

Dear Mr. Oriol:

Thank you for your June 25, 2014, letter requesting our comments on the above major land and water CZM permit application and Environmental Assessment Report (EAR). Our comments are issued as technical assistance in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Endangered Species Act (16 U.S.C. 1531 et seq. as amended).

The applicant is requesting a permit to construct a 145 slip marina, 12 moorings and additional upland facilities and amenities in Estate Carolina, Coral Bay, St. John, USVI. An addition 75 mooring buoys will be placed in partnership with the Virgin Island Department of Planning and Natural Resources (DPNR). The docks and associated moored boats will occupy about 6 acres of marine bottom. Because the marinas design, there will be no need to dredge. The purpose of this is to provide a marina facility in the east end of St. John which does not exist at this time.

Upland facilities will be constructed in existing land lots which already have buildings or have been previously disturbed. There are no federally listed species under the purview of the Fish and Wildlife Service located in the upland area. In water listed species include the Antillean manatee (*Trichechus manatus manatus*) which although rare in the USVI is still known to occur and those species under the purview of NOAA NMFS. The proposed avoidance and minimization measures for these species need to be adequately addressed in the EAR.

While the applicant states that there are no wetlands in the project site, there are special aquatic sites such as sea grass beds which are regulated by the Clean Water Act. A total of 2500 square feet of marine bottom will be directly impacted by the placement of piles; however, the entire footprint of the project should be considered for impacts. The enclosed mitigation plan estimates that as much as 8 acres of seagrass and other submerged aquatic vegetation (SAV) could be impacted by the project.

DPNR and NOAA studies in the existing marinas associated with Mangrove Lagoon in St. Thomas, show that long term use, shading, leaching of antifouling compound and other impacts associated with marina operations, have converted the benthic marine areas adjacent to these marinas into areas of very low biological diversity. This can be the possible long term impacts with the St. John Marina as well.

To offset these 8 acres of impacts the applicant states that the current 115 boats moored in Coral Bay will be assigned to the proposed mooring field to be jointly managed with DPNR. This reorganization of the existing vessel mooring in the bay will result in the protection of 16 acres of SAV. In addition, the applicant will relocate the SAV that will be directly impacted by the pile placement to a new site that was previously impacted by excess sedimentation. The applicant will abate the sediment input and plant SAV sod patches in the area to hasten restoration.

Based on the above, we believe that the proposed mitigation actions do not adequately compensate for the possible loss of the 8 acres of SAV associated with their project. We believe that there is still a net loss of SAV in the bay. If the applicant cannot find additional in-kind or on site mitigation opportunities, then they should consider out-of-kind, off-site or both.

The applicant is also proposing to plant red mangroves along the shoreline to stabilize the shore and improve water quality. Red mangrove roots also provide much needed structure to the shallow marine habitat and can serve as a refuge and nursery area for fish and invertebrates.

Based on the information provided we have the following comments and recommendations:

1) The planting of mangroves as on-site/out of kind compensatory mitigation should be further investigated. While the EAR mentions the planting of mangroves for shoreline stabilization, water quality and habitat improvement in several sections of the document there is very little detail regarding this proposal. We recommend at least 4 rows of red mangroves be planted along the entire coastal fringe of the property. These can be planted in 3 foot centers using the Riley encasement or similar methodology. A detailed mangrove planting scheme should be included in the engineering drawings and in any additional documentation and permit application drawings.

2) Compensatory mitigation in other off-site areas within Coral Bay should also be further investigated. Possible off-site compensatory mitigation areas within Coral Bay should be identified and included in any additional documentation and permit application drawings.

3) The reorganization of the existing 115 moored and anchored boats in Coral Bay should be complemented with the appropriate regulatory mechanism to promote the use of the proposed mooring field and reduce additional impacts of anchoring vessels. The enclosed Letter of Intent between DPNR and the applicant is not clear on how enforcement of the proposed mooring areas will be accomplished.

4) The enclosed documents include a Spill Prevention Control and Countermeasures Plan (SPCC). We recommend that at least one spill response box be located midway along each of the major docks and at the fuel dock. In addition the applicant may want to consider the use of solidifier compounds in addition to the more traditional sorbent pads, socks and booms. The use of these compounds has been approved in a marina environment and they are very effective at removing light refined products and sheen from the water.

5) The applicant should consider adding bird perches or piles in the proposed SAV relocation area. Seabirds perching or loafing in these structures would provide a level of natural fertilizer to the newly transplanted SAV.

Based on the above, we recommend that a CZM permit for the proposed action not be issued until our concerns and recommendation are adequately addressed in the EAR and subsequent permit applications. Thank you for the opportunity to comment on this project, if you have any questions please contact Felix Lopez of my staff at 787 851-7297 x 210.

Sincerely yours,

for Edwin E. Muniz
Field Supervisor

fhl
cc:
COE, San Juan
NMFS, Boqueron
DPNR, DFW, Red Hook
David Pohle, EPA, New York

CORAL BAY COMMUNITY COUNCIL

Mail: 9901 Estate Emmaus, St. John, VI 00830
8-1 Estate Emmaus, Coral Bay, St. John, U.S. Virgin Islands
Coralbaycommunitycouncil@hotmail.com Phone/Fax: 340-776-2099
www.CoralBayCommunityCouncil.org

NOAA Marine Fisheries Comment Letter – Highlighted

From: Lisamarie Carrubba - NOAA Federal <lisamarie.carrubba@noaa.gov>
Sent: Monday, July 28, 2014 6:16 PM
To: Anthony Richards; Jean-Pierre Oriol
Cc: Anabel Padilla; Lia Ortiz; Pace Wilber; Jocelyn Karazsia - NOAA Federal; Edgar.W.Garcia@usace.army.mil
Subject: CZJ-3-14(L) and CZJ-4-14(W), Summer's End Group LLC, Marina and Associated Facilities in Coral Bay, St. John

This is in response to your letter dated June 25, 2014, regarding the proposed application by the Summer's End Group LLC for a major land and water permit for the construction of a marina and associated facilities in Coral Bay, St. John. Summer's End Group is proposing the construction of a marina, called the St. John Marina, divided into zones to cater to different size classes of vessels with Zone 1, North Club, having 96 slips and Zone 2, South Club having 49 slips, and 12 moorings. The applicant is also proposing an upland development associated with the marina using existing buildings and through the construction of new buildings in a two-phase approach. The upland development will house restaurants, a Customs and Border Protection office, marina office, marina security office, crew shower and locker facilities, and apartments to support marina management, as well as parking spaces for the development. Phase 2 of the upland development will include 4 new buildings offering office, retail, and restaurant space, and 6 short-term rental units and will be constructed strictly based on market demand. The project also includes a fueling facility, pump-out facility, sewage treatment facility for the upland development, and public dinghy dock. The applicant also proposes the installation and management, in cooperation with the Virgin Islands Department of Planning and Natural Resources (DPNR), of a 75 buoy mooring field in Coral Bay in order to organize existing vessels that regularly anchor in the bay. The marina project will impact approximately 8 acres of seagrass.

Based on a review of the information that accompanied your letter, we do not have an objection to the proposed upland facilities. The sewage treatment facility will be tertiary, the area is previously disturbed, a road already separates the majority of the proposed upland portion of the project from the water, and adequate sediment and erosion control and stormwater management measures have been designed for during construction and operation of the project. The use of treated effluent for irrigation should be strictly managed and coupled with nearshore and effluent stream sampling to determine whether this use leads to the introduction of contaminants to nearshore waters along the shoreline. It may also be necessary to sample the ghut that runs through the site to determine whether this is the source of contamination rather than the project. Monitoring should include human fecal coliform bacteria and nitrogen compounds. Similarly, if pesticides will be used as part of any upland landscaping, nearshore water quality monitoring should include testing for these compounds to ensure they are not reaching the bay.

On the other hand, as we expressed after reviewing the previous version of the marina, which consisted only of a marina for smaller vessels, similar to the currently proposed North Club, we continue to have concerns regarding the potential project impacts to seagrass beds and water quality in the bay. In response to the past permit application for a smaller marina, we had recommended that the applicant explore avoidance and minimization of project impacts to seagrass, including through alternatives such as the construction of a marina at an alternate location. Instead, when Summer's End acquired the property, they proposed a larger project that includes the currently proposed marina for small vessels and vessels up to 120 feet in the South Club and up to 80 feet in the North Club based on notes in our project file. While they have redesigned the project to incorporate grated decking and extend into deeper water away from shore in order to avoid the need to dredge, the project has gotten larger rather than smaller, resulting in greater impacts to benthic habitat that is used by sea turtles as well as creating the potential for greater water quality impacts in the bay, which contains habitat

for ESA-listed and proposed corals in addition to sea turtles. For this reason, we continue to have concerns regarding this project. As part of the federal permit process, a Section 7 consultation under the Endangered Species Act (ESA) will be required. As part of this consultation, the following information will be required to address all temporary and permanent impacts, including direct and indirect effects, to ESA resources:

1. an adequate alternatives analysis, including on and off-site alternatives and alternatives to a marina
2. incorporation of the NMFS/USACE dock construction guidelines in the design of the project
3. adequate mitigation and monitoring plan to address all temporary and permanent impacts to ESA resources
4. details of pile driving [Environmental Assessment Report (EAR) states that a vibratory hammer will be used where possible but this is not enough information] and quantification of potential acoustic impacts to sea turtles, including distance of impact estimates for the driving of an estimates 1,333 pile and measures to reduce potential impacts to sea turtles from acoustic impacts
5. details of the proposed mooring plan, type of moorings, and the operation of the mooring field to ensure this will not result in additional impacts to seagrass due to the installation of improper mooring anchors, such as can be seen in areas such as American Yacht Harbor in St. Thomas
6. details of the fuel barge operation for refilling the upland fuel storage tanks for the marina, including where the barge will dock and its draft
7. information regarding the number and size of vessels and expected time at dock versus time boating based on other marina projects along with an estimate of potential boat strike impacts to sea turtles
8. information regarding the number of moorings within the proposed marina footprint that will have to be relocated, including the proposed relocation site and type of mooring and anchor method, as well as bottom type where the moorings will be relocated
9. details of shoreline revetment construction
10. copy of the construction management plan for in-water construction, including sediment and turbidity control measures and maintenance and monitoring of these controls and information regarding the proposed spud and barge and work vessel anchor locations
11. information as to whether the shoreline gazebo will impact additional seagrass beds as it extends over the water
12. information regarding whether all docks will be constructed of grated decking. In several areas of the EAR the use of precast dock segments is noted. It is not clear whether these are the pile caps or portions of the dock that will be alternated with the grated decking
13. hurricane plans for marina operation during severe storms, including monitoring and clean up activities after the storm
14. more current water quality data for the project area since the data in the EAR are from 2009-2012 and there have been several stormwater and sediment and erosion management measures implemented since that time as part of the Coral Bay Watershed Management Plan to address sediment loading to the bay during storms
15. we have requested a sea turtle survey for this project in the past based on a review of our records, but did not see this information in the EAR or its appendices

Note that, once the ESA Section 7 consultation has begun, we may require additional information to that listed above in order to complete our determination.

Finally, the project may require an essential fish habitat (EFH) consultation with NMFS Habitat Conservation Division (HCD) as part of the federal permit process. By letter dated June 2, 2006, NMFS HCD provided comments to the USACE in response to a previous major land and water application for a small boat marina only in the same location. At the time, NMFS HCD had significant concerns regarding the proposed marina and associated impacts to the dense seagrass beds in the area, as well as potential impacts to water quality. Therefore, I recommend that you contact Ms. Lia Ortiz with NMFS HCD regarding EFH consultation requirements. Ms. Ortiz may be reached at 340-718-1236 or via email at lia.ortiz@noaa.gov.

Thank you for the opportunity to provide comments on this permit application,

Lee

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Dr. Lisamarie Carrubba
NOAA Fisheries
Caribbean Field Office, PRD
P.O. Box 1310
Boquerón, PR 00622
787-851-3700
787-851-5588 (fax)