



St. Croix Environmental Association

A Chapter of the Virgin Islands Conservation Society

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Written Testimony on
Environmental Assessment Report
Estates William and Punch, Frederiksted, St. Croix VI
September, 2008
William and Punch, LLC
2111 Company Street, Suite 3
Christiansted, USVI 00820

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Introduction

Staff and directors of the St. Croix Environmental Association (SEA) have been in direct communication with the principals of William and Punch, LLC and representatives of the Mashantucket Pequot Tribal Nation for well over a year on the conceptual design of this project. SEA provided written comments and recommendations to William & Punch October 24, 2007 (Attachment A).

While SEA much appreciates the many opportunities for community engagement afforded by William & Punch during this design phase, SEA staff and directors are disappointed that few of SEA's recommendations are reflected in the final Environmental Assessment Report (EAR). SEA is particularly disappointed, because with preparation of a responsive EAR and avoidance or minimization of environmental impact where practicable, and compensatory mitigation where not, the project may have been able to move forward without major opposition on environmental grounds.

General Comments on the William & Punch EAR

The William & Punch EAR does not meet basic requirements of an Environmental Assessment Report.*
According to the Virgin Islands Coastal Zone Management Act of 1978 (Title 12, Chapter 21 §902(o)):

“Environmental Assessment Report” means an informational report prepared by the permittee available to public agencies and the public in general which, ... shall be considered by the Commission prior to its approval or disapproval of an application for a major coastal zone permit. Such report shall include detailed information about the existing environment in the area of a proposed development, and about the effects which a proposed development is likely to have on the environment; an analysis and description of ways in which the significant adverse effects of such development might be mitigated and minimized; and an identification and analysis of reasonable alternatives to such development.

* **SEA findings and recommendations are highlighted throughout for ease of reference.**

The William & Punch EAR includes detailed information on the project that is needed for design engineers and architects, and generally good baseline information about the existing environment in the area of the proposed development. **What is generally missing is information ... about the effects which [the] proposed development is likely to have on the environment; an analysis and description of ways in which the significant adverse effects of such development might be mitigated and minimized; and an identification and analysis of reasonable alternatives to such development.**

By appending the EAR with revised and additional information in responses to letters of deficiencies, and not replacing outdated information in the body of the EAR or Appendices A – Q, William and Punch has made it difficult to sort new and final information from old text and drawings, thus leading to confusion and a lack of clarity about the nature and extent of the potential environmental impacts of the project. SEA determines that inconsistencies and insufficiencies in the EAR cause it to be inadequate for assessment of a) the project's potential environmental impacts or b) measures proposed to avoid, minimize or mitigate unavoidable adverse environmental impacts.

DPNR Division of Fish and Wildlife (DFW) staff appear to share SEA's evaluation of the EAR. In their September 11, 2008 comments on William and Punch's response to CZM 3/25/08 List of Deficiencies, DFW staff wrote: *[t]he information provided by the applicant is insufficient for the Division of Fish and Wildlife to fully evaluate.* (The DFW staff comments are attached herein as Attachment B.)

SEA recommends that the EAR with appended responses to deficiencies be deemed by the CZM Commission to be not sufficient to adequately assess environmental issues outlined in the CZM permit application, and require the application to be resubmitted when it is responsive to requirements of the VI Coastal Zone Management Act.

Specific Comments on the William & Punch EAR

Section 4.00 STATEMENT OF OBJECTIVES SOUGHT BY THE PROPOSED PROJECT

SEA recommends that CZM require additional objectives reading:

- Avoid or minimize environmental impacts where practicable; and
- Provide compensatory mitigation for unavoidable environmental impacts.

Section 6.00 SETTING AND PROBABLE IMPACTS ON THE NATURAL ENVIRONMENT



6.03 Drainage Flooding and Erosion Control

SEA is concerned with the statement under post-development drainage (p. 34) that storm flows in excess of the 50-year storm (which may well occur more frequently than every 50 years due to global climate change) *will proceed overland through the golf course and cross Roadway A south of the golf maintenance facility.* SEA recommends that CZM require further discussion of the potential for overland flows to become polluted with oil and gas residues on roads and parking areas; and pesticides, fertilizers and other hazardous materials stored at the golf course maintenance facility. If this further analysis indicates the potential for adverse impacts, SEA recommends that CZM also require measures to avoid, minimize or mitigate those adverse environmental impacts.

The brief discussion and conclusion that *total water volume will be similar in the pre- and post-development conditions* in the William/Prosperity wetland (p. 35) does not adequately address the sensitivity of the wetland habitats to seasonal surface and groundwater availability. Furthermore, the statement appears inconsistent with the statement in EAR Appendix B Hydrologic Impact Assessment that *[t]he project has achieved a reduction in flows to the wetland in WPO2 of between 30 and 40%,*

depending upon the return period of the storm being considered. And neither statement is consistent with communications between SEA staff and William and Punch representatives to the effect that the water level would be raised permanently. What will be the effect of the project on the seasonal water level of the William/Prosperity wetland?

It appears that the proposed erosion controls will meet Storm Water Pollution Prevention Plan (SWPPP) and Territorial Pollutant Discharge Elimination System (TPDES) permit standards. However, SEA finds that more information is needed in the EAR concerning seasonal flows into the William/Prosperity wetland, discharge of sediment into the wetland, marina and flushing channel, and modeling of alongshore transport of sediment during and post-construction.

6.05 Oceanography

The dog-leg jetties at the entrance channel have been reoriented to the Southwest as described in Exhibit A of William & Punch's Responses to CZM 3/25/08 Checklist of Deficiencies. Yet, this reorientation is not reflected in the EAR discussion of flushing efficiency (pp 60-67). SEA recommends that CZM require analysis in the EAR of direct and indirect impacts of the reoriented jetties on marina flushing and critical habitat for *Acropora* corals.

Environmental impacts of dredging the marina, entrance and flushing channels, and construction of jetties must be covered as part of the US Army Corps of Engineers (USACE) Clean Water Act Section 404 / Rivers and Harbors Act Section 10 permit process. SEA's comments to the USACE (Attachment C) are hereby included by reference to these comments on the major CZM permit application. SEA calls upon the CZM Commission to take the position with USACE that an Environmental Assessment be prepared and public hearings be held on the William & Punch application for a combined Section 404 / 10 permit.

Under the discussion of beach restoration and enhancement, the EAR provides the results of models predicting maximum southward-directed alongshore sediment transport of approx 900 cubic yards per year and maximum northward-directed transport to be approx. 360 cubic yards per year. Alongshore sediment transport north and south after construction of the jetties is predicted to be "minimal" during normal conditions (p. 71). This statement raises two questions: What are predicted impacts on beaches north and south of the project area as a result of the disruption by the jetties of alongshore sediment transport during storm conditions? And, was southward-directed transport of sediment and turbidity from dredging and excavation modeled? If so, what are the predicted impacts on water column clarity and hardbottom habitat? SEA recommends that CZM require an assessment of impacts on water column clarity and hardbottom habitat in the EAR.

In addition to alongshore sediment and sand transport, seaward transport must be addressed. Based upon an April 2008 site inspection, the US Fish and Wildlife Service found that:

Some of the (hard ground) habitat will be directly eliminated by the construction of entrance and flushing channel jetties. A larger portion of the habitat may be indirectly impacted by the construction of the artificial beach. This beach will extend far beyond the existing shoreline and (sand) could be transported off the beach and onto the deeper coral hardgrounds during storm events, possibly burying these or subjecting them to scour. (Attachment D)

SEA recommends that CZM require William & Punch to include in the EAR a discussion of scour on hardbottom habitat from seaward movement of beach nourishment sand, especially during storm events.

That the Estate William beach is important for the nesting of three species of sea turtles is well documented in the Sea Turtle Impact Study prepared by WIMARCS (EAR Appendix I). Proposed beach

nourishment has a great potential impact on nesting sea turtles (an impact that may be negative or positive, depending upon timing, sand depth, sand grain size and character, beach disturbance and other factors). As in the cases of marina dredging and fill in the William/Prosperity wetland, beach nourishment must be covered as part of the USACE Section 404 / 10 permit process.

Direct and indirect artificial lighting is another potential impact on sea turtle nesting success. The William & Punch EAR presents a turtle lighting plan for 3,000 feet of beachfront in a one page discussion (page 122). SEA's determination that this page does not constitute a turtle lighting plan is shared by the staff of the DPNR Division of Fish and Wildlife (Attachment B):

The applicant has not provided a turtle lighting plan, only a discussion of what might go into a plan. A plan must be written and approved before a CZM permit is issued and construction begins.

The Palms at Pelican Cove was required by the DPNR Division of Coastal Zone Management and Division of Fish and Wildlife to file a full and detailed Turtle Lighting Plan on their 925 feet of beachfront as part of their CZM permit application. The Palms at Pelican Cove's 26-page site-specific Sea Turtle Safe Lighting Plan (included herein as Attachment E) is specific to light fixture, location and direction, extent of cones of illumination, and light spill from nearby structures, security and interior lighting etc. and provides a valuable tool for assessing and mitigating impacts on turtle nesting from artificial light. The William & Punch EAR should not be approved without a detailed turtle lighting plan reviewed and approved by DPNR Division of Fish and Wildlife staff to the same degree as DFW reviewed The Palms at Pelican Cove Sea Turtle Safe Lighting Plan.

6.06 Marine Resources

While the EAR makes the point that threatened elkhorn and staghorn corals (*Acropora spp.*) were not found in the study area (p. 74), it fails to mention that over 70% of the study area is occupied by hardbottom benthic community, proposed by National Marine Fisheries Service (NMFS) for designation as *Acropora* critical habitat pursuant to the Endangered Species Act of 1973 (Ref. Federal Register Vol. 73, No. 25, pp. 6895-6919). *Acropora spp.* colonies were found on nearby hardbottom habitat, and snorkelers and divers can attest that large areas of the hardbottom of north of William beach were occupied by dense and healthy stands of coral, including staghorn coral, before Hurricane Hugo. There is no reason to believe that *Acropora spp.* Could not be restored to this habitat. Unavoidable loss of *Acropora spp.* colonies and *Acropora* critical habitat, both on and off the project site, resulting from the project must be discussed in EAR Section 8.00 Mitigation Plans.

The Marine Monitoring discussion (pp. 87 – 88) is very good as far as it goes. What is missing is a contingency plan. SEA recommends that CZM require an adequate contingency plan outlining actions that will be taken by William & Punch if water quality standards are exceeded inside the marina and/or in receiving marine waters.

6.07 Terrestrial Resources

The terrestrial resources section includes an excellent baseline survey of terrestrial flora and fauna prepared by Virgin Forest Restoration, however it is lacking in any assessment of the impacts of the project on the terrestrial environment. Section 6.00 should cover not only the setting, but also *probable impacts on the natural environment*. According to the survey (pp. 88-102) nearly 5,000 “significant trees” [trees with diameter at breast height (DBH) greater than 6”] are currently found on the project site. Of these, while none are *rare*, over 25% are *native* to St. Croix. Nativity is not the only factor of importance, however. Many naturalized and introduced species have cultural and historic significance [e.g. saman (*Samanea saman*), small-leaf mahogany (*Swietenia mahagoni*), tamarind (*Tamarindus indica*), and

baobab (*Asansonia digitata*)] as do native trees [e.g. gregre (*Bucida buceras*), kapok (*Ceiba pentandra*)]. There are exceptionally grand specimens of saman and gregre in the project site western lowlands that should be protected.

SEA commends William & Punch on its general commitment to adjust construction activities to avoid significant trees (p. 14), however to assess the practical effectiveness of this policy and the ultimate impact on significant trees, William and Punch should develop a tree protection and mitigation plan. EAR figures 6.07-2 and 6.07-3 (pp. 97 & 98) show that many of the significant trees exist on sites proposed for golf course development. How many significant trees will be lost as a result of the development; how can taking of significant trees be minimized; how will taking of trees be monitored; and how will unavoidable loss of trees be mitigated? SEA recommends that CZM determine that the EAR is insufficient to assess terrestrial environmental issues until an assessment of potential impacts and a tree protection and mitigation plan is submitted.

6.08 Wetlands

A coastal wetland is a dynamic system involving not only the water, land, plants and animals in the wetland, but also the freshwater entering the site from the upland watershed, saltwater exchange with the ocean, birds flying in and out, and other animals entering and leaving. The natural cycling of the wetland depends upon wet and dry seasonal change, storm events, bird migrations and nesting patterns. By isolating the William/Prosperity wetland from its watershed and the ocean through the construction of 4 ft levees on two of its three sides, William and Punch will alter the dynamics of the wetland community. By bringing people, cars, buildings, impervious parking lots, generators, hazardous chemicals, noise and lights to within 50 to 360 feet, and levees to within 10 or 15 feet of the designated wetland, the project design provides virtually no buffer between these environmental stressors and the wetland community.

According to the EAR (p 131) three 1.5 megawatt emergency generators will be located in the "Service Area." Sheet C-6.03 shows the emergency generators to be located within approx 360 ft. of the wetland boundary. No mention is made of the noise levels or air emissions to be produced by these generators or the potential impacts on birdlife in the William/Prosperity wetland. Bird disturbance occurs when birds perceive the sound or sight of a threat. There are varying levels of disturbance, the highest of which can make a site unsuitable for some species. For example, Pearly-eyed thrashers and bananaquits get along well in close proximity to humans, but many other bird species do not.

The EAR fails to identify the ecological or hydrological impacts on the William/Prosperity wetland resulting from the bermed roadbeds on the west and east side of the wetland (seen for example on EAR Appendix A sheet C-2.03). The EAR fails to provide information on provisions for surface or groundwater water management that will be established to mitigate impacts on the wetland. For example, the William/Prosperity wetland has an annual wet/dry cycle, the extent of which depends on rainfall and clearing of beach sand at Rainbow to allow outflow to the ocean. Salinity levels are also important. The wet/dry cycle and salinity level fluctuations both impact the species that exist in this habitat. If either of these is permanently changed, the suitability of the habitat is likely to be altered as well. The drainage from watershed W2 will enter into the wetland through culverts at four locations along the 1,500 ft. of eastern wetland boundary on Estate William. How does the construction of berms under Roadway A and VI Route 63 and culverts under Roadway A affect the natural flow pattern of surface water into the Estate William portion of the wetland, and how will the portion of the wetland on adjacent Estate Prosperity be affected? The EAR fails to spell out how ecological and hydrological impacts will be monitored and reported. Beyond monitoring and reporting regimens, adaptive management options which allow for appropriate and corrective changes must be identified.

Five 36” culverts carry surface water from the employee parking lot and four 36” culverts carry water from the golf course maintenance facility into the wetland. What potential impacts on wetland water quality may result from oil and gas contamination of the employee parking lot and accidental spills of hazardous materials stored in the golf maintenance facility? SEA recommends that CZM require analysis of these impacts on the wetland, and measures be proposed by the applicant to mitigate unavoidable adverse impacts.

The EAR fails to discuss the construction setback from the wetland margin that will be honored. The width of a buffer zone should be established based on the level of adjacent human activity, the sensitivity of the wetland flora and fauna and the hydrological or ecological function of the setback. In the case of the wetland at Great Pond, DPNR Division of Fish and Wildlife recommended that a 300 foot setback (Ref. DFW Review of Major CZM Permit Application No. CZX-37-03(L), Golden Resorts, LLLP, Section 6.09 Rare and Endangered Species). The DFW language reads:

The closest setback of the proposed project, 60 ft., would have appreciable negative impacts on the numbers of shorebirds using Great Pond, especially for Wilsons Plover. A minimum setback of ca. 300 feet is recommended.

Note that of the seven bird species cited in reference to the Great Pond recommendation, at least two, Semi-palmated Sandpiper (*Calidris pussila*) and Black-necked Stilt (*Himantropus mexicanus*), are present at William and Punch.

According to the USVI Environmental Protection Handbook (University of the Virgin Islands Cooperative Extension Service, Third Revision – 2002, Chapter 4-2):

Buffer zones are areas of vegetated land along a shoreline, wetland or gut where development is prohibited. Buffer zones are intended to physically protect and separate guts, wetlands and shorelines from development activities. They also provide stormwater management, filter pollutants from stormwater runoff, provide food and cover for wildlife and aquatic organisms, and provide cooling shade.... There are three types of buffer zones: setbacks, vegetated buffers and engineered buffers....

Setbacks are areas that separate waterways from potential pollution hazards (typically development sites). Vegetated buffers are natural areas that exist to divide land uses or provide landscaping. Engineered buffers are areas specifically designed to treat stormwater before it enters a gut, wetland or coastal area.... Buffer zones are designed specifically to protect waterbodies, slow stormwater runoff and remove pollutants from stormwater....

Setbacks should have a minimum width of 100 feet to provide adequate protection of waterbodies from development activities.

In Appendix C of the USVI Environmental Protection Handbook, the authors explain that:

The optimum width for a buffer depends on the function of the buffer.... Figure C.2 (Range of minimum width for meeting specific buffer objectives) recommends a buffer width of from 50 ft. to 250 ft. for protection of wildlife habitat and greater minimum widths (ranging from 60 ft. to over 200 ft.) for flood control, sediment control and nutrient removal.


I.e. the minimum buffer zones recommended by the USVI Environmental Protection Handbook require at least 50 ft for wildlife and 100 ft. for protection of waterbodies from development – widths much greater than the 10 or 15 ft. setback proposed along the east and west boundaries of the William/Prosperity

wetland. In addition to the buffer width, SEA is concerned about the character of the buffer. Buffer zones should be vegetated, preferably with native species that don't require care (pruning, weeding, fertilizing, pest control, etc.). If the buffer zones are bare or have inadequate vegetation, the zones need to be wider.

The William & Punch EAR Appendix A sheet C-2.02 illustrates that road construction on the realigned Route 63 and Roadway A is proposed immediately adjacent to the delineated wetland (EAR Figure 6.08-1). According to sheet MA-1.02, the realigned Route 63 actually crosses into the "APPROX LOCATION OF EXISTING WETLAND." SEA's March 2008 comments on William & Punch application to USACE for a Section 404 permit identified that this encroachment on the William/Prosperity wetland will be a Sec. 404 permit issue (Attachment C).

There is much confusion in EAR drawings about the boundary of *the wetland*. The jurisdictional William/Prosperity wetland delineation as defined under the Clean Water Act Section 404 is identified as:

- the "Wetland Delineation" on EAR Figure 6.08-1, and
- "SECTION 404 WETLAND DELINEATION BY ECOSCIENCE" on EAR Appendix A sheets C-2.03 and L1-2.06.

This EcoScience *wetland delineation* was verified and found to be correct by the US Fish and Wildlife Service (Attachment D). A different  than the Section 404 jurisdictional delineation is identified as:

- "WETLAND LINE" on EAR Appendix A sheet MA-1.01, and
- "APPROX LOCATION OF EXISTING WETLAND" on EAR Appendix A sheet MA-1.02.

References on EAR Appendix A sheet C-1.03 and other drawings to "Approx WETLANDS" referring to the area lower than the -1.1 ft. contour line, while useful for discussions about water level management, are not germane to the discussion of potential impacts on the William/Prosperity wetland. The reference to a topographic line inside the Sec. 404 Wetland Delineation gives the appearance that relocated and bermed Route 63 and Roadway A are well buffered from the wetland, while an examination of the actual Wetland Delineation shows that the roads are, at some points, so close as to leave no buffer at all.

SEA recommends that CZM require wetland delineation discrepancies in the EAR and appendices be resolved and that the applicant provide adequate buffers to protect the William/Prosperity wetland from adverse environmental impacts to the extent feasible and mitigate unavoidable impacts.

Appendix H Wetland Delineation Report by EcoScience Corp.

The Wetland Delineation report prepared by EcoScience Corporation (December 8, 2006) and appended to the EAR as Appendix H appears to provide a good baseline description of the William/Prosperity wetland and an accurate Clean Water Act Sec. 404 jurisdictional delineation (Fig. 4 of the EcoScience report and incorporated into the EAR as Figure 6.08-1). The EcoScience report does not, however, provide any discussion of the potential impacts of the proposed project on the hydrology, water quality and habitat functions of the William/Prosperity wetland.

According to the Wetland Delineation report: *The mangrove wetland was evaluated for value using three wetland functions: Hydrology, Water Quality, and Habitat. Each of these primary functions is expected to vary depending upon the amount of disturbance observed within the evaluated wetland.... After evaluating the wetland for evidence of stressors that may affect the wetlands performance, the mangrove wetland was found to be functioning well with minor stressors.... However, the mangrove wetland*

appears to have adjusted to most of the stressors present, and the system is expected to improve in quality as time passes assuming that no additional stressors are introduced.

No attempt appears to have been made by EcoScience to assess potential impacts on hydrology, water quality and habitat functions from the proposed project. According to the EcoScience Wetland Delineation report: *The stressors observed that may affect the hydrology function include vegetation clearing, minor ground disturbance around the ecotone, and a backwater effect behind VI 63 due to the restricted outlet to the Caribbean Sea.* No assessment is offered of potential impacts on hydrology of berming VI Route 63 or Roadway A and thereby isolating the wetland hydrologically from its watershed, except for water channeled through a 5' x 20' culvert under Roadway A at the southeast corner of the wetland and nine 36" culverts from the maintenance area. Nor was an assessment of the loss of buffer zone as a result of construction of bermed roads to within 15 ft. (SEA communications with William & Punch representatives) or 10 ft [according to the US Fish and Wildlife Service (Attachment D)] of the wetland.

According to the EcoScience Wetland Delineation report: *[t]he stressors observed that may affect the water quality function include drainage from a gut that drains from a residential neighborhood on Estate Prosperity and non-restricted access to the wetland by livestock (primarily horses).* No assessment is offered on potential impacts on water quality of water running off employee parking areas or through the golf maintenance area where oil and gas, fertilizers, pesticides and other hazardous materials will be stored. According to EAR Appendix B Hydrologic Impact Assessment: *A small subcatchment area (WP02 SA-8) consisting primarily of the employee parking areas, the golf maintenance area and golf holes 5 and 6 will flow through a bank of five 36-inch culverts under the beginning of Roadway A and into the wetland area.*

According to the EcoScience Wetland Delineation report: *The stressors observed that may affect the habitat function include vegetation clearing, and the young stand age of approximately 60 percent of the wetland.* No assessment is offered on the potential impacts on habitat function as a result of loss of any practical buffer zone, reduction in water flows to the wetland, or changes in seasonal water levels as a result of bermed roads constructed along all but the south side of the wetland. According to EAR Appendix B Hydrologic Impact Assessment: *The project has achieved a reduction in flows to the wetland in WP02 of between 30 and 40%, depending upon the return period of the storm being considered.*

6.09 Rare and Endangered Species

The section addresses federally threatened and endangered sea turtles, green sea turtle (*Chelonia mydas*), hawksbill sea turtle (*Eretmochelys imbricata*), and leatherback sea turtle (*Dermochelys coriacea*), including probable impacts of the project on sea turtles and their beach habitat. However, the EAR must also assess impacts on hardbottom communities, NMFS-proposed critical habitat for federally listed elkhorn coral (*Acropora palmata*) and staghorn coral (*Acropora cervicornis*).

The EAR does not provide an assessment of potential impacts on territorially endangered species (Ref. VI Endangered and Indigenous Species Act of 1990). SEA recommends that CZM require the EAR to include an assessment of the potential impacts of the project on the following territorially endangered avian species found on Estates William & Punch:

Least Grebe (*Trachybaptus dominicus*),
White-cheeked Pintail (*Anas bahamensis*),
Great Egret (*Casmerodius albus*), and
White-crowned Pigeon (*Columba leucocephala*).

Section 7.00 IMPACT OF THE PROPOSED PROJECT ON THE HUMAN ENVIRONMENT

7.02 Visual Impacts

As mentioned above, the Sea Turtle Lighting discussion (p. 122) is not site specific and is inadequate as a Sea Turtle Lighting Plan. The narrative in Exhibit B of the Responses to CZM 3/25/08 Checklist of Deficiencies dated August 25, 2008 is an improvement over the Turtle Lighting Plan in the body of the EAR, and the commitment to follow Florida Marine Research Institute guidelines is welcomed. But these still fall short of a site-specific sea turtle lighting plan that identifies locations and types of light fixtures, light spectra and intensities, and shielding of direct and reflected artificial light from reaching the beach. Note that nesting and hatching sea turtles are not just affected by lighting on the beach. Upland lighting, visible on the beach is also known to have a negative impact on these turtles.

7.03 Impacts on Public Services

SEA is concerned about the tie-in to the VIWMA sewage transport system at Lagoon in Frederiksted. This is an area of recurrent problems that have not been sufficiently addressed by USVI government agencies to ensure fail-safe delivery downstream to the sewage treatment plant at Anguilla, and avoid the pooling of untreated sewage at Lagoon and outflow to the sea.

The current site plan does not locate or describe the water storage and pumping facilities meant to gravity-feed water to the project. Nor is it explained where the run-off from roofs and parking areas inside the ring road will drain. While SEA commends William & Punch for the proposed use of “oases” of vegetation for run-off from parking lots and paved areas, **water catchment by the large roof areas needs to be addressed.** SEA recommends use of permeable paving as an alternative where grade or other considerations prevent the channeling of water to designated “oases.”

7.07 Recreational Uses

According to the VI navigation regulations pertaining to the operation of motorboats, personal watercraft and other thrillcraft (VI Rules and Regulations Title 25 Navigation, Chapter 15, Subchapter 297, §297-5):

The following are designated as non-motorized (except for fishing and diving activities) recreational watersports areas (specifically for wave surfing or windsurfing); when wave surfing or windsurfing activities are being conducted (by one or more persons) in these areas, except for fishing and diving related activities, motorized recreational vessels are prohibited from using Sprat Hole (Williams Beach north to Butler Bay).

No assessment is included in the EAR on the impacts of the project on recreational uses of Sprat Hole. How will the jetties affect the character of waves and thus the value of this area for wave surfing or windsurfing? How will the movement of motorized watercraft into and out of the marina be monitored and prohibited during times when *wave surfing or windsurfing activities are being conducted in Sprat Hole waters?* **SEA recommends that CZM require the applicant to address in EAR Section 7.07 impacts of the project on recreational uses of William Beach and beaches and waters north and south of the project area.**

Section 8.00 MITIGATION PLANS

The partial page of the EAR in which mitigation plans are presented is not sufficient to adequately address environmental issues outlined in the CZM permit application. First, a list of 12 *aspects of the project* does not constitute a discussion of *mitigation plans*, and secondly, only six of the 12 aspects qualify as *mitigation*. While various project *aspects* may represent sound management practices (1, 6 & 9), cultural benefits (7), and socioeconomic benefits of the project (2, 3 & 4); these aspects do not constitute mitigation for unavoidable environmental impacts. Project aspects 5 & 9 may qualify as avoidance or minimization of environmental impacts, and aspects 8, 10, 11 & 12 may qualify as compensatory mitigation. DPNR Division of Fish and Wildlife staff appears to share SEA's evaluation of the mitigation plans, in writing: *[t]he applicant has not provided adequate mitigation plans that sufficiently address the potential impacts of the proposed project* (Attachment B). Furthermore, the US Fish and Wildlife Service concluded (Attachment D):

- *The current PN (Public Notice) does not offer any minimization or compensatory mitigation for any of the impacts stated above. and*
- *Based on the limited information provide[d], we believe that the project as proposed in the public notice is a major construction project with significant impacts to various habitats without attempts at avoidance, minimization, or compensatory mitigation.*

SEA recommends that CZM require the applicant to prepare specific mitigation plans for all unavoidable environmental impacts of the project, in order to enable SEA and others to make an informed determination of their adequacy as *mitigation*.

The guidelines that will apply to William & Punch in their application for a Clean Water Act Section 404 Permit define three general types of mitigation (Ref. Attachment F, Memorandum of Agreement (MOU) between the Department of the Army (DOA) and the Environmental Protection Agency (EPA)). While these guidelines will be applied by the USACE to some aspects of the project (dredging the marina and entrance and flushing channels, construction of dog-leg jetties in navigable waters, depositing fill material in the William/Prosperity wetland, and beach nourishment), they are useful in defining the meaning and scope of *mitigation* for the purposes of the CZM permit application. According to the DOA / EPA MOU:

The Council on Environmental Quality (CEQ) has defined mitigation... to include: avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts. The types of mitigation enumerated by CEQ are ... can be combined to form three general types: avoidance, minimization and compensatory mitigation....

Appropriate and practicable compensatory mitigation is required for unavoidable adverse impacts which remain after all appropriate and practicable minimization has been required. Compensatory actions should be undertaken when practicable, in areas adjacent or contiguous to the discharge site. If on-site compensatory mitigation is not practicable, off-site compensatory mitigation should be undertaken in the same geographic area if practicable. In determining compensatory mitigation, the functional values lost by the resource to be impacted must be considered. Generally, in-kind compensatory mitigation is preferable to out-of-kind.

According to the Virgin Islands Coastal Zone Management Act of 1978 (Title 12, Chapter 21 §902(o)):

“Environmental Assessment Report”... shall include... an analysis and description of ways in which the significant adverse effects of such development might be mitigated and minimized

William & Punch's Responses to CZM 3/25/08 Checklist of Deficiencies dated August 25, 2008 includes a Coral Survey and Mitigation Plan written by Island Resources Foundation (IRF) on jetties, flushing

channel, beach nourishment and artificial reefs. The IRF Mitigation Plan represents well what must be included in the EAR Section 8.00 for all aspects of proposed project.

A Turtle Mitigation Plan presented in Exhibit B of the August 25, 2008 Responses to Deficiencies goes a long way toward addressing avoidance and minimization of impacts on endangered and threatened sea turtles. SEA does have some specific concerns about the proposed mitigation, however. According to the Turtle Mitigation Plan, *Some of the steps that will be taken to reduce negative impacts on turtles are:*

- *Daily morning patrols...by Resort staff educated regarding turtle concern/issues.* Based upon SEA's experience, this statement oversimplifies the training and certification requirements for turtle monitoring patrols under territorial and federal endangered species regulations.
- *All nests will be roped off.* Given the amount of poaching on St. Croix, SEA is not certain that this is a good strategy. Obliterating turtle tracks to and from a turtle nest may be a better strategy, to eliminate calling attention to the nest.
- *Beach umbrellas that function by placing the pole in the sand will not be allowed within 10 ft. of any nest.* This will be difficult to enforce. No beach umbrellas that function by placing the pole in the sand should be allowed.
- *Horses, vehicles and heavy machinery will not be allowed within 10 ft. of any nest.* Vehicles and heavy machinery should not be allowed on the beach at all.

SEA's greatest concern with the Turtle Mitigation Plan that is presented is that it is not a final plan. And beach nourishment, terrestrial landscape, wetland and other impact mitigation plans are not included as part of the EAR. According to the Turtle Mitigation Plan (Exhibit B):

[w]hen the CZM Permit is approved and detailed construction plans are being prepared, the designers will work with CZM and DFW for their review and input in the final beach nourishment, landscape, lighting and turtle mitigation plans. All operational requirements of these plans will be incorporated into the Hotel Management Agreements. ... The beach landscape planting program will be developed in conjunction with the VI Rare and Endangered Species Coordinator.

SEA understands from our experience advising on the preparation of the major CZM permit application for The Palms at Pelican Cove that mitigation plans must be considered by CZM as part of the CZM permit application process, not after the approval of the CZM permit. Pursuant to the VI Coastal Zone Management Act, V.I. Code, Title 12 §910(a)(2), the CZM Committee may issue a permit only after finding that:

(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; ...

In a 1994 legal opinion in the case of Virgin Islands Conservation Society v. the Virgin Islands Board of Land Use Appeals, Virgin Islands Coastal Zone Management Commission, and Sugar Bay Land Development, LTD, (Attachment G) U.S. District Court Judge Stanley S. Brotman wrote:

... the CZM Committee is statutorily required to gauge the environmental impact of each project and to explore possible mitigative measures before granting a permit....

Deferring the review of plans and studies until after a permit is issued creates twin evils: the tendency to tolerate more environmental harm once development has begun, and the incentive for applicants to present the CZM committee with a fait accompli by delaying the submission of the requested information....

Adequate review and investigation of permit applications serves as the lynchpin of the VICZMA. To ensure adequate review, the legislature requires the CZM Committee to make certain findings before ever issuing a permit. Accordingly, the Committee must require all information reasonably necessary before making the delicate judgments required by the VICZMA.

For these reasons, this court holds that no permit may issue until all necessary studies and plans have been submitted and approved by the Division of Coastal Zone Management and/or the Committee.

Adoption of Audubon *Green Flag* standards is a means for William & Punch to avoid and minimize many environmental impacts associated with golf course design, construction and management. SEA has recommended that William & Punch commit to building and managing the golf course to the standards of the Audubon International's Cooperative Sanctuary Program (ACSP) for Golf Courses (Attachment H). Audubon International's program offers ACSP Golf Course Certification for golf courses that implement environmental management practices in the following areas of environmental planning:

- Wildlife and habitat management,
- Chemical use reduction and safety,
- Water conservation,
- Water quality management, and
- Outreach and education.

SEA recommends that William & Punch adopt Audubon International golf course *Green Flag* standards as a means to avoid and minimize environmental impacts associated with construction and management of the golf course.

As with adoption of *Green Flag* standards for golf course construction and management, adoption of "green" building standards is a means for William & Punch to avoid and minimize many environmental impacts associated building construction and energy use. The U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Green Building Rating System is a voluntary, consensus-based national rating system for developing high-performance, sustainable buildings (www.usgbc.org). LEED addresses all building types and emphasizes state-of-the-art strategies in five areas: sustainable site development, water savings, energy efficiency, materials and resources selection, and indoor environmental quality. **SEA recommends that William & Punch adopt LEED green building standards, including:**

- Use of solar and wind power where practicable;
- Drafting of covenants and restrictions for private owners of property and residences which mandate or suggest "green" solutions regarding energy and water conservation, as well as the use of native species for landscaping;
- Use of permeable surfaces and reduction in hardscape to allow the natural infiltration of storm water into the ground
- Use of construction materials that conform to any established code of "green" building standards wherever practicable;
- Re-use of "gray water" for golf course irrigation and recycling;

- Provision for the recycling of demolition and construction waste rather than disposal at the Anguilla landfill;
- Reducing the demand for air conditioning through natural ventilation, evaporation, or other less energy-intensive solutions; and
- Clearer description of plans for general outdoor lighting for the project to assure the security of both wildlife and people.

Adoption of Foundation for Environmental Education (FEE) *Blue Flag* standards (Attachment I) for the marina provides an opportunity for William & Punch to avoid, minimize or mitigate environmental impacts associated with marina design and management. *Blue Flag* standards address areas of:

:

- Environmental education and information,
- Environmental management,
- Safety and service facilities, and
- Water quality.

Adherence to FEE *Blue Flag* standards may even enable William & Punch to avoid the expense and environmental, social and archaeological impacts associated with construction of a flushing channel. SEA recommends that William & Punch adopt FEE *Blue Flag* standards as a means of avoiding and minimizing environmental impacts associated with management of the marina.

SEA staff has suggested to William & Punch opportunities for compensatory mitigation of unavoidable environmental impacts to the William/Prosperity wetland and taking of *Acropora spp.* critical habitat. January 30, 2008 SEA recommended that William & Punch contact Dr., Edwin Hernandez-Delgado, a professor at the University of Puerto Rico, who is successfully recolonizing *Acropora* off the island of Culebra. Dr. Hernandez-Delgado attaches fragments of *Acropora* coral directly to hardbottom substrate, not requiring introduction of reef balls or other foreign material to the habitat. SEA recommends that Dr. Hernandez-Delgado be consulted on compensatory mitigation of impacts on proposed *Acropora* critical habitat through colonization of *Acropora* in hardbottom benthic habitats. SEA recommends that CZM require discussion of such mitigation options before deeming the EAR sufficient to adequately assess environmental issues outlined in the CZM permit application.

Section 9.00 ALTERNATIVES TO PROPOSED ACTION

According to US Council on Environmental Quality (CEQ) (Ref. The Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, Federal Register Vol. 46, No. 55, March 23, 1981), the section of an Environmental Impact Statement (EIS) discussing the alternatives to the proposed action is the "heart" of the EIS. CEQ writes:

... The "alternatives" section is the heart of the EIS. This section rigorously explores and objectively evaluates all reasonable alternatives including the proposed action.... It should include relevant comparisons on environmental and other grounds.... Discussion of the environmental impacts of these alternatives should be limited to a concise descriptive summary of such impacts in a comparative form, including charts or tables, thus sharply defining the issues and providing a clear basis for choice among options.

The partial page in the EAR Section 9.00 Alternatives to Proposed Action, does not come close to the standard for analyzing alternatives established by CEQ and is wholly inadequate for SEA or CZM to compare the proposed project design to alternative project designs.

In the Alternatives to Proposed Action Section, William & Punch states that they *looked at various alternatives to the present proposal*. It is not enough to say that they looked at alternatives and concluded that the proposed alternative is the best. **In this section of the EAR, the applicant must (according to the VI Coastal Zone Management Act) provide an analysis of reasonable alternatives to such development,** and according to federal guidelines they must *rigorously explore and objectively evaluate all reasonable alternatives including the proposed action... thus sharply defining the issues and providing a clear basis for choice among options*.

William & Punch's Responses to CZM 3/25/08 Checklist of Deficiencies dated August 25, 2008 Exhibit A includes a well written Alternatives Analysis for the marina entrance jetties apparently prepared by Moffatt & Nichol. Four alternatives are comparatively evaluated and *the alternative that represents the best balance of the stated project goals* (Alternative 3) is recommended. Included among the reasons for their determination is that Alternative 3 *minimizes impacts to habitats with high ecological value including coral, hard bottoms, and soft bottoms*.

While the Alternatives Analysis addresses the orientation, it fails to address alternative lengths of the jetties or the location of the marine entrance. The US Fish and Wildlife Service (Attachment D) wrote:

The applicant should consider altering the design of the jetties ... shorter structures would have fewer impacts on the offshore coral hardground areas. The applicant should also consider relocating the marina entrance and aligning it with an existing channel rather than locating it over coral hardgrounds.

Furthermore, SEA does not understand why the Moffatt and Nichol Alternatives Analysis is limited to addressing the Marina Entrance jetties. It should have addressed the marina and flushing channel as well. The DPNR Division of Fish and Wildlife wrote (Attachment B):

The applicant has not addressed all possible alternatives for the marina entrance to reduce the proposed project impacts. The applicant should consider eliminating the flushing channel and having the entrance to the marina from the south end of the property.

SEA recommends that CZM require William and Punch provide an Alternatives Analysis for a "no-flushing channel alternative" for maintaining water quality in the marina. While incomplete even for the limited analysis of marine entrance alternatives, the Moffatt and Nichol Alternative Analysis represents the type of comparative analysis of alternatives that is called for by the Council on Environmental Quality and is precisely the type of analysis of alternatives SEA recommends that CZM require William & Punch to prepare for all aspects of the proposed project before deeming the EAR sufficient to adequately assess environmental issues outlined in the CZM permit application.

Section 10.00 RELATIONSHIP BETWEEN SHORT AND LONG TERM USES OF MAN'S ENVIRONMENT

William & Punch asserts that *checks and balances will be in place to ensure minimal impacts on the environment*. Yet there is no attempt to identify the nature or entities responsible for those *checks and balances*. **SEA recommends that CZM require a complete description of the checks and balances that will be put in place to ensure minimal impacts on the environment, and identify the entity responsible for monitoring, reporting, and archiving data.**

The US Fish and Wildlife Service in their comments to the USACE relative to William & Punch's application for a Section 404 permit certainly did not find that the project would cause *minimal impacts on the environment* (Attachment D). US Fish and Wildlife wrote:

... we believe that the issuance of this permit may result in substantial and unacceptable impacts to resources of national importance. We recommend that the Corps not issue a permit for this action as currently designed.

Conclusions

- SEA agrees with DPNR Division of Fish and Wildlife staff finding that the information provided by the applicant is insufficient to fully evaluate potential environmental impacts of the project.
- SEA agrees with the legal opinion of U.S. District Court Judge Stanley S. Brotman when he wrote:

.... the CZM Committee is statutorily required to gauge the environmental impact of each project and to explore possible mitigative measures before granting a permit.... Adequate review and investigation of permit applications serves as the lynchpin of the VICZMA. To ensure adequate review, the legislature requires the CZM Committee to make certain findings before ever issuing a permit. Accordingly, the Committee must require all information reasonably necessary before making the delicate judgments required by the VICZMA For these reasons, this court holds that no permit may issue until all necessary studies and plans have been submitted and approved by the Division of Coastal Zone Management and/or the Committee.

- SEA recommends that the William and Punch Environmental Assessment Report as amended by responses to deficiencies be deemed by the CZM Commission to be not sufficient to adequately assess environmental issues outlined in the CZM permit application.
- Finally, SEA recommends that the CZM Commission not approve the major CZM permit application of William and Punch LLC in its current form and require the application to be resubmitted when it is responsive to the VI Coastal Zone Management Act.

SEA offers and would welcome the opportunity to work with William & Punch on completing the mandated requirements for future CZM Commission review.

Thank you for the opportunity to provide public comment on the application of William & Punch, LLC for a major CZM Permit. For further comment or clarification you are welcome to contact me at 773-1989 or pchakroff.atSEA@gmail.com.

Respectively Submitted,

Paul Chakroff
Managing Director

Attachments

- A Letter from SEA to William and Punch, LLC and Mashantucket Pequot Tribe, October 24, 2007
- B DPNR Division of Fish and Wildlife September 11, 2008 comments on the William and Punch Responses to CZM 3/25/08 Checklist of Deficiencies
- C SEA Comments on the William and Punch, LLC Application for a Department of Army permit pursuant to the Clean Water Act § 404 and the Rivers and Harbors Act § 10, March 28, 2008
- D Letter from Mr. Sindulfo Castillo, US Fish and Wildlife Service, Boqueron Field Office to US Army Corps of Engineers dated May 2, 2008 Re. William & Punch application for a Clean Water Act Section 404 permit.
- E Sea Turtle Safe Lighting Plan, The Palms at Pelican Cove, Cindy Clearwater, July 2008
- F Memorandum of Agreement (MOU) between the Department of the Army and the Environmental Protection Agency
- G Virgin Islands Conservation Society v. the Virgin Islands Board of Land Use Appeals and Virgin Islands Coastal Zone Management Commission, Respondents and Sugar Bay Land Development, LTD, Intervenor (Civil No. 87/339 Opinion on Writ of Review), Judge Stanley S. Brotman, U.S. District Court for the District of New Jersey
- H Environmental Management Practices for Golf Courses, Audubon International, 2006, www.audubonintl.org/programs/acss/golf.htm
- I Blue Flag Marina Criteria and Explanatory Notes, Foundation for Environmental Education, 2007 – 2008, <http://www.blueflag.org.uk/downloads/MarinaExplanatoryNotes-2007.pdf>.