

November 18, 2021

Ms. Dornet hull
Secretary Physical Planning and Development Board
Kingstown
St. Vincent

Re: Objection to erect a new Jetty in Richmond Bay and Quarry operations at Richmond.

Dear Ms. Hull,

The St. Vincent and the Grenadines Conservation Fund (SVGCF) takes this opportunity to register its objection to the application submitted by Rayneau Construction and Industrial Equipment Ltd to the Physical Planning and Development Board to erect a new jetty in Richmond. We also register our objection for the Quarry operations at Richmond Bay that is being applied for by the same applicant.

The SVGCF:

Established as a Not for Profit Company on November 30, 2015, our general purpose is to provide a sustainable flow of funds to support the long-term management and expansion of the Saint Vincent and the Grenadines National System of Protected Areas and other activities that contribute substantially to the conservation, protection and maintenance of biodiversity.

One of our grant making goals which is to Protect and Enhance Ecosystems— Protect and enhance critical ecosystems in St. Vincent and the Grenadines against threats inclusive of pollution, unsustainable development, climate change.

We are concerned that the application for both the Jetty and the Quarry does not present sufficient evidence as to the sustainability of the proposed activities. We are also concerned that there has been no public or community consultation regarding said activities. For a project of this magnitude it is expected that the immediate and surrounding communities, as well as all relevant stakeholders (NGOs, CBOs, NPRBA, Forestry, Fisheries, Ministry of Tourism, Ministry of Health, local Community groups, Farmers, Fisherfolks, small business owners, Tour operator, dive shops, etc.) whose lives and livelihoods would be affected, would be given the opportunity to express their concerns. However, this has not been done.

We are also extremely surprise to see that no Environmental Impact Assessment(s) (EIA) has been done for either of the applications.

Jetty or Groin/Gryone:

The application proposes a jetty/pier that will use approximately 2- 5 tons' boulders that will be packed and stacked to form the pier. The proposed length of the pier is 199'-1" in length, and surprisingly this is the only evidence of measurement presented in the application as reference. The width and height of the pier are not illustrated. A two lane proposed access road to the pier is also proposed, however, the size (Width) of the road is not indicated neither its connection to the leeward highway. There is no reference indicating the distance from the shore line to the starting point or endpoint of the jetty so it is unclear how much of the 199'-1" will be projected into the sea. On the typical section details the mean sea level, the Jetty height and the sea floor elevation are not indicated. It is uncertain what is the proposed width of the groin, however these type of structures typically has a width of 3-6 meters.

While the application refers to a proposed Jetty and subsequently refers to it as a pier, the four-page document that was submitted illustrates that it is really a Groin/Gryone that will be used as a docking/ landing area for barges.

Jetties and groins are structures designed to modify or control sand movement. A jetty is generally employed at inlets for the

purpose of navigation improvements. When sand being transported along the shoreline by waves and currents arrives at an inlet, it flows inward on the flood tide to form an inner bar, and outward on ebb tide to form an outer bar. Both formations are harmful to navigation through the inlet.

A jetty is usually constructed of steel, concrete or rock. The type depends on foundation conditions and wave, climate and economic considerations. To be of maximum aid in maintaining the navigation channel, the jetty must be high enough to completely obstruct the sand stream. The adverse effect of a jetty is that sand is impounded at the updrift jetty and the supply of sand to the shore downdrift from the inlet is reduced, thus causing erosion.

Groins are barrier-type structures extending from the backshore seaward across the beach. The basic purpose of a groin is to interrupt the sand movement along a shore.

Groins can be constructed in many ways using timber, steel, concrete or rock, but can be classified into basic physical categories as high or low, long or short, and permeable or impermeable.

Trapping of sand by a groin is done at the expense of the adjacent downdrift shore, unless the groin system is filled with sand to its entrapment capacity.

As there are no other supporting documents it is uncertain what type(s) of study (wave action, bathymetric survey, etc) was done in this area of Richmond Beach to influence the design of the proposed Jetty/groin. However, upon review of the application the information provided is not sufficient to grant approval in light of the fact that there is no EIA, bathymetric survey or a wave action study. I have outlined below what needs to be taken into account when considering the design and use of groins.

Parameters related to groin structure are:

- Length;
- Spacing between groins (if more than one);
- Elevation;
- Porosity;
- Tapering;
- Angle to the shoreline;
- Shape (as straight, angled, T-head, spurred etc.).

Parameters related to beach and sediment are:

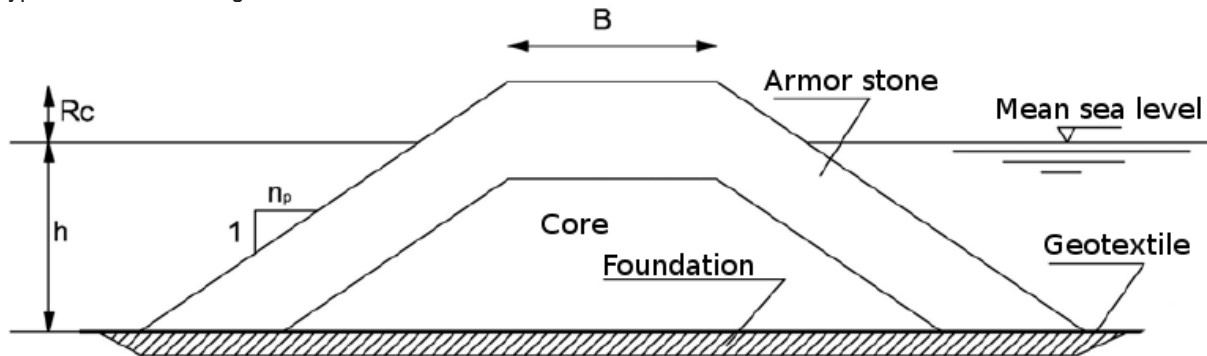
- Depth at tip of groin;
- Beach morphology (slope, berm height, shape of the shoreline etc.);
- Depth at the average breaker line or beach closure;
- Sediment availability;
- Grains size and variability;
- Sediment density.

Parameters related to waves, wind and tide are:

- Wave height and variability;
- Wave period and variability;
- Wave direction and variability;
- Wind speed and variability;
- Wind direction and variability;
- Wind duration and variability;
- Tidal range.

Furthermore, functioning of groins may be affected by wave diffraction if it occurs. The impact of diffraction may be difficult to predict.

Typical dimensions of groins.



- h - depth of the basement of the groin head with respect to mean sea level (msl)- From 2.5 to 4 m.
- R_c - height of the groin top with respect to mean sea level - From 0.5 to 1.5 m.
- Depth of the groin basement landward with respect to mean sea level - From 1.0 to 2.0 m.
- B - Width of the groin top - From 3.0 to 6.0 m.
- $1/n_p$ - Slope of the groin sides - From 1:1 to 1:2.
- Thickness of foundation - From 0.5 to 1.0 m.

Stability of groins should be verified against extreme sea conditions. If groins are made by boulders, the stability of the single stone should be checked against the expected wave energy.

With respect to this application careful consideration should be given to the following

- the effect of the proposed jetty or groin on sand movement;
- location and design should minimize the adverse impact on that sand movement.
- Give special attention to the effect jetty or groin will have on fish and wildlife propagation and movement.

The Quarry:

The application is accompanied by an Environmental Management Plan (EMP) and an Environment and Social Management Plan (ESMP). Both plans were done by the applicant Reyneau Construction and industrial Equipment Ltd. The parcel of land in question is approximately 53.5 acres from Richmond to Chateaubelair. It is very surprising that no Environmental Impact Assessment (EIA) was done, as a project of this type and magnitude will surely present environmental and social impacts. It is concerning that both the EMP and the ESMP mentions nothing of the corals and marine life that line the coastal waters of the immediate shoreline where the quarry will operate.

There is no mention of the duration of the lease and operation of the quarry. The dust and noise pollution overtime will undoubtedly have tremendous negative impact on the surrounding communities, the local flora and fauna and the marine ecosystem. The dust overtime will definitely affect the air quality in the immediate and surrounding areas which may also contribute to adverse health issues. We must weigh the benefits against material sale or the conservation of our natural resources/Biodiversity and good health of our people. For a project of this type given its size and location, it will be extremely difficult to mitigate against the many negative environmental and social impacts that will manifest. However, it is very evident that if this project is approved we may see and experience the following overtime:

- Wildlife habitats will be destroyed.
- Valuable agricultural land will be taken away.
- The heavy traffic will cause pollution and congestion on the narrow roads
- The vibrations from heavy traffic can cause damage to the roads.

Mission: To provide funding to support conservation of biodiversity in Saint Vincent and the Grenadines.

- Apart from the dust and noise pollution the Quarry will create visual pollution and tourists may be deterred by the scars on the landscape. This will impact our ecotourism product in the immediate and neighboring areas.

Conclusion:

It is indeed surprising that works have already commenced without the due process of planning approval having been completed. This kind of behavior that seems to circumvent the Physical Planning should not be ignored and should be dealt with in the strictest manner.

It is also extremely important that a thorough EIA, EMP and ESMP be done by an independent consultant(s) to present and unbiased view so an informed decision can be made by all stakeholders and the Physical Planning Development Board

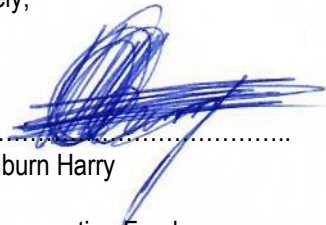
The SVGCF does not oppose development but it must be done in a transparent, inclusive and sustainable manner.

The SVGCF therefore registers its objection to the proposed application(s) for the reasons mentioned above and on the following basis:

- No Independent EIA, EMP and ESMP were done
- No public or community consultations were done
- No bathymetric survey was done
- No wave action study was done
- Insufficient information regarding the construction method and process of the Jetty/Groin/Pier

We sincerely hope that our objection and recommendations will be considered.

Sincerely,



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 "Conservation for a green future"



CC:

- Minister of Agriculture, Forestry, Fisheries, Rural Transformation, Industry and Labour
- Minister of Health, Wellness and the Environment
- Minister of Tourism, Civil Aviation, Sustainable Development and Culture
- Minister of Finance, Economic Planning and Information Technology
- National Parks Rivers and Beaches Authority