

**TERMS OF REFERENCE FOR THE PROPOSED VULANI ISLAND RESORT****BACKGROUND**

This terms of reference is prepared for the proposed Vulani Island Resort located at the mouth of the delta of the Sabeto River approximately 9km due north of Nadi Town centre.

Vulani Island Ltd aims to achieve an integrated resort community comprising several hotels, retail and commercial hub, marina facilities, residential and recreational facilities.

**PURPOSE OF THE TERMS OF REFERENCE**

The purpose of the Terms of Reference is (a.) to determine the environmental baseline condition at the site, (b.) assess the environmental impact of the construction and operation of the resort and (c.) identify practicable mitigating measures.

**The components of the EIA are to be:**

A technical report

A non-technical summary of the same report

- The report is a scientific document and should be presented as such, strictly adhering to the format and layout of the terms of reference.

**RESPONSIBILITY**

The report should be signed and dated by the developer or his representative at the beginning of the report. The signatory will assume full responsibility for the contents of the EIA document and implementation of recommendations contained within it.

**I EXECUTIVE SUMMARY**

Provide a concise summary of the EIA in non- technical language with the findings including major potential impacts and recommendations.

**II PROJECT DESCRIPTION**

Provide a brief description of the development plan (including a detailed conceptual plan to scale) and the typical features of the site, in terms of location (including map), population, economic activities, geography and environment and any limitations to any resources (as relevant).

All aspects of the development should be clearly highlighted and detailed descriptions of their siting should be discussed with justifications.

**Also include information on:**

- Discussion of the project concept and why it is the preferred option with a scheme plan.
- Location criteria, including constraints
- **Prospective Estate Management**
- Area of land required
- Identification of development programming at any staging
- The proposed materials to be used (including such details as quantities, sources and nature of materials for fill, aggregate for construction etc) and the transport methods and routes;
- Excavation (including earthworks), dredging, reclamations and clearing to be undertaken.
- Design criteria for earthworks and coastal works.
- Nature of the proposals for public access to the beach
- Methods of storm water drainage, including details of the expected volumes and velocity of discharge and the proposed point/s of discharge into receiving water ways
- Infrastructure and utilities to be applied on site.
- Identification of the building materials

**III. INTRODUCTION**

Explain why, for whom and by whom the EIA has been prepared. Include sub-sections on the following:

- Statement of need (the objective of the project)
  - Justification for the necessity of the project
  - The current timetable for the development
- Background information on a list of all consents required or consents sought with their areas of interest in relation to the project
- Identification of people/parties consulted in the preparation of the EIA
- Tabulation of personnel involved in the preparation of the EIA, their expertise and their roles

**1.0 DESCRIPTION OF EXISTING ENVIRONMENT****1.1 Physical Environment**

- Geology, landscape, and topography (map) in relation to the different aspects of the development
- Coastal geomorphology and processes, climate, cyclone frequencies and intensities and hydrology (particularly flooding)
- Gather baseline information on existing foreshore (beach) together with a trend analysis to show historical coastal movement induced by wind, wave pattern etc (this baseline survey will be fully utilized for the purpose of monitoring during construction and operation).
- Soils map for other potential land uses of the site
- Bottom sediment also needs to be described with relation to the stability of structures within the coastal/ foreshore area etc
- Tides, currents and sediment transport with relation to how they occur presently

- Water quality of existing water courses likely to be affected. Parameters to be measured include temperature, clarity/ turbidity/ suspended solids, conductivity, pH, dissolved oxygen/ BOD, oil/grease and hydrocarbons, total and faecal coliform count.
- Assess drainage plan against the storm water to minimize silt-soil being discharged into the surrounding watercourses.
- Assess the integration of the resort and associated facilities in the existing environment (including current land use)

### 1.2 Biological Environment

- Present baseline inventories of both terrestrial and marine fauna and flora with emphasis on endemic, rare or endangered species of conservation significance.
- A baseline survey focusing on current condition of corals shall be carried out. Also, include the presence of algal seaweed, if any (their significance and possible causes) on the reef.
- Present information on any mangroves that may occur on or around the site and how they will be affected by any aspect of the development (if at all)
- Locate sensitive habitats and significant natural sites
- Identify species with potential to become nuisances, vectors or dangerous; species or ecosystems vulnerable to natural hazard or climate change impacts
- Present an inventory of avifauna species within the project area focusing on their ecological significance and population status in Fiji

### 1.3 Socio-cultural Environment

- Administrative setting; consultation with provincial and district authorities
- Record of Consultation with adjacent communities (including issues and concerns raised by neighbouring properties/ landowners).
- Fishing Rights Owners
- Description of the nearest residents and settlement on the island
- Beach Recreational Use – current and potential use.
- Marine safety issues
- Adjacent land-use
- Existing infrastructure - access and transportation; availability of power; potable water and telecommunications
- Sewage treatment
- Sources of water supply and evidences to state that there is enough freshwater to support the development activities. In such a case where water will be sourced from a bore or spring a sustainability analysis needs to be conducted to determine the quantity and quality of water available.
- Archaeological, cultural or historical sites.

## 2.0 POTENTIAL SIGNIFICANT ENVIRONMENTAL IMPACTS

The potential significant impacts needs to be precisely addressed from several aspects such as conservation of endemic, rare, endangered significant species.

The impacts are to be assessed as follows:

**2.1 Design and engineering**

Includes issues such as compatibility with existing structural plans; site suitability and routing, changes to sediment transport system as a result of the erection of the marina, island restaurant and lagoon etc. geological-geotechnical investigations and coastal engineering works must show the subsoil condition by drilling and other means, so that compatibility with structural plans e.g. piers, marina and over water structures etc, can be presented; foundation level; erosion control and armouring.

**2.2 Construction**

Including land take and site boundaries, site clearance and preparation works, effect of the development on the local topography e.g. via earthmoving, soil stability, erosion, effect of constructing over water structures on the foreshore, dredging, excavations, reclamation works and disposal of surplus dredged material/spoil, road works, identification of routes that construction vehicles will use to and from the site, road safety, noise, wastewater treatment and disposal, solid waste disposal, sand movement as a result of development i.e. induced by change in coastal processes due to construction of jetties, marina and over water structures etc; use and storage of fuel; siltation.

**2.3 Operation and Maintenance**

Use and disposal/reuse of surplus solid waste material; use and storage of chemicals (as required); changes to currents and sediment transport as a result of the construction of the foreshore/ over water structures in close proximity to which may induce erosion and/or accretion along any part of the shoreline, wastewater treatment and disposal (including those from the swimming pool, accommodation units, kitchen and spa etc); site drainage or storm water runoff; erosion and sedimentation and visual impacts, traffic management; public access, marina operation and access.

**2.4 Ecological impacts**

Loss of, damage to and alteration of any terrestrial, aquatic and marine habitats and species as relevant as a direct result of the development itself or as a result of tourism related activities such as snorkelling, diving, fishing etc. Also include the mangrove conversion analysis in relation to the Nadi Bay Locale, in accordance with the Mangrove Management Plan for Fiji.

**2.5 Vulnerability of the project to natural disasters**

The vulnerability of the project to natural disasters such as cyclones and/or tsunamis also needs to be clearly discussed. Climate change and sea-level rise impacts need to be discussed stating how vulnerable the project may be to any anticipated sea-level rise in future. Appropriate building setbacks or building heights/ and or designs also need to be proposed with justifications.

**2.6 Carrying capacity**

It is critically important that the carrying capacity of the island be clearly discussed noting in particular limitations to any resources that may be impacted by the proposed project.

This needs to be further discussed in terms of the maximum number of visitor and related infrastructure that the proposed site can accommodate.

### **3.0 SOCIAL STUDY**

The study area will encompass an area of 1km around the border of the development sites. The impact of the proposed project on human beings and their activities shall be assessed. Particular attention shall be paid to impacts arising from land ownership issues. Also include the qollqoli owners or the fishing rights owners and the changes in the beach access and recreational use.

Central to the purpose of the social study is to identify issues or problems, which the landowners' and/ or residents in or around the study area may have concerning the proposal. Hold at least one meeting in the presence of the Provincial Council/ District Advisory Council and other relevant governmental agencies. Minutes must be kept of these meetings and appended to the report.

*The summary needs to include the expression of commitments of the developer to the respective issues raised in the social study, for instance, how to solve the issues raised, which will be eventually incorporated in the mitigation measures addressed in the subsequent chapter.*

The beneficial impact of the proposed development on the local communities, National Economy and Public Recreation should also be discussed.

### **4.0 MITIGATION AND ABATEMENT MEASURES**

The study shall examine and recommend suitable mitigating and abatement measures for the adverse impacts identified. The effectiveness of the measures proposed, should be stated and impacts of significance clearly identified. Measures recommended should be practical to local conditions and readily implemental. This should include a description of the measures envisaged to prevent, minimize and where possible offset any significant adverse effects on the environment of the project. The major issues and/or concerns raised should be addressed well in the mitigation measures.

### **5.0 SUMMARY & CONCLUSION**

Appropriate conclusions should be drawn. It is useful to summarize the environmental impacts of the proposal and the steps that would be taken to mitigate adverse impacts.

### **6.0 ENVIRONMENT MANAGEMENT/MONITORING PLAN (EMP)**

A brief management/monitoring plan shall be addressed referring to the mitigating measures and recommendations of the EIA report. The full plan shall be submitted one month prior to commencement of construction work.

### **7.0 REFERENCES**

Any publication or papers both published and unpublished, that were used, as reference should be listed.

### **8.0 APPENDICES**

Append any raw data or any other information relevant to this development.