

INVESTIGATING THE LITTORAL TRANSPORT OF SEDIMENT ALONG THE NASESE COASTLINE, SUVA, FIJI ISLANDS

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ABSTRACT

The research investigated the current Nasese Coastline area from the impact of Littoral transport, a term used for the transport of non-cohesive sediments, i.e. mainly sand, along the foreshore and the shoreface of Nasese due to the action of the breaking waves and the longshore current. The littoral transport is also called the longshore transport or the littoral drift. The theoretical concept coastal sediment properties can be used to evaluate properties of sediment on site to avoid serve impacts towards the Suva Port in the future. The method used was on-site measurement by surveying to generate coastal profiles. Along with this, 1464 hours of wind data for the months of November and December 2019 were used to generate the frequency of the magnitude of Wind and the Direction using Wind Rose Plots for Meteorological Data. The movement of the sediments through the Beach Profiles agrees with the output generated Wind Directions. Therefore, Suva Port, may consider this situation in terms of the routine maintenance of dredging in order to sustain the acceptable depth of the Sea Port.

Key words: *Coastline; Sediments; Beach Profiles; Dredging*