

ABSTRAK

ANALISIS STABILITAS BANGUNAN PENGAMAN PANTAI (*REVETMENT*) DI PANTAI MULI LAMPUNG SELATAN

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Penelitian ini menganalisis bangunan *revetment* yang berada di Pantai Muli Lampung Selatan melalui analisis gelombang yang terjadi di pantai tersebut. Stabilitas bangunan pengaman pantai *revetment* di Pantai Muli menjadi perhatian yang sangat penting karena faktor keamanan dan keselamatan pengguna pantai. Jika *revetment* tidak stabil, maka dapat menimbulkan kerusakan pada bangunan dan bahkan berpotensi menimbulkan bahaya bagi pengguna. Tujuan dari penelitian ini ialah untuk menilai kesetabilan bangunan *revetment* tersebut terhadap gelombang tinggi yang terjadi di pantai tersebut. Metode analisis pada penelitian ini menggunakan peramalan gelombang dengan periode ulang 10 tahun. Analisis juga dilakukan pada struktur penyusun bangunan *revetment* di Pantai Muli. Hasil dari penelitian menunjukkan adanya penyusun struktur bangunan *revetment* tidak stabil terhadap gelombang tinggi. Analisis peramalan gelombang pada pantai muli menghasilkan tinggi gelombang signifikan $H_s = 1,02$ m dan tinggi gelombang pecah $H_b = 1,82$ m. Untuk struktur bangunan nilai koefisien stabilitasnya terdapat beberapa batu pecah > 2 sehingga tidak sesuai berdasarkan literatur. Pada analisis pelindung kaki *revetment* didapatkan nilai $N_s^3 = 290$ dapat dikatakan aman. Berdasarkan hasil analisis tersebut disarankan untuk melakukan penanganan untuk mencegah keruntuhan bangunan *revetment* saat terjadi gelombang tinggi.

Kata kunci: *revetment*, gelombang, stabilitas, pantai.

ABSTRAK

STABILITY ANALYSIS OF COASTAL PROTECTION STRUCTURE (REVTMENT) AT MULI BEACH SOUTH LAMPUNG

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This study analyzes the revetment structure located at Muli Beach, South Lampung, through wave analysis occurring at the beach. The stability of the coastal protection structure, revetment, at Muli Beach is of utmost importance due to safety and security concerns for beach users. If the revetment is unstable, it can cause damage to the structure and potentially pose hazards to the users. The aim of this research is to assess the stability of the revetment structure against high waves occurring at the beach. The analysis method employed in this study utilizes wave forecasting with a return period of 10 years. The analysis also encompasses the examination of the components constituting the revetment structure at Muli Beach. The research findings indicate that the composition of the revetment structure is unstable against high waves. The wave forecasting analysis at Muli Beach resulted in a significant wave height, $H_s = 1,02$ m and a wave height at breaking point $H_b = 1,82$ m. Regarding the structure's components, there are several shattered stones > 2 , indicating inconsistency with the existing literature. In the analysis of the revetment toe protection, a stability coefficient value of $N_s^3 = 290$ was obtained, which can be considered safe. Based on these analysis results, it is recommended to implement necessary measures to prevent the collapse of the revetment structure during high wave events.

Keywords: revetment, waves, stability, beach.