

ABSTRAK

Sanindo Muhammad Arif (NPM. 05181611046). Determinasi Tipe Substrat dan Sumber Material Sedimen permukaan Pantai Barahima Desa Mesa – Kabupaten Halmahera Tengah. Dibawab Bimbingan Salnuddin dan Zulhan A. Harahap.

Komposisi ukuran butiran sedimen di suatu perairan merupakan akumulasi dari sistem dinamika perairan serta sifat kohesif dari material, Mekanisme transport sedimen akibat adanya aliran maka stuktur sedimen merupakan akumulasi kerja yang kompleks. Tipe substrat adalah persentase kelompok butiran *silt*, *clay* dan pasir, sedangkan sumber material dikontrol oleh nilai statistik sedimen. Nilai tersebut akan saling memvalidasi kondisi sedimen di suatu daerah serta menggambarkan kestabilan pantai. Perlu pengembangan metodologi penelitian sekaligus pendekatan teknis dalam proyeksi kestabilan sedimen. Penelitian ini untuk mendeterminasi dan membandingkan tipe substrat dari data analisis granulometri dan penerapan prosedur Bendell-Young; serta menentukan sumber material penyusun substrat yang terdapat pada Pantai Barahima. Pengambilan data menggunakan metode survei dengan mengambil data dinamika perairan, morfologi pantai dan sample sedimen permukaan. Analisis granulometri serta perhitungan parameter statistik sedimen untuk mendeterminasi tipe dan sumber material sedimen. Hasil analisis persentase substrat pasir dari hasil analisis granulometri, hanya kelompok katagori pasir halus (kelompok D) dan persentase kadar debu dan liat memberikan tipe substrat yang relatif sama dengan data persentase material dari hasil penerapan prosedur Bendell-Young. Tipe substrat Pantai Barahima terdiri dari substrat pasir berlumpur. lempung berpasir dan lempung liat berpasir. Sumber material pada bagian depan dikontrol oleh pergerakan gelombang, pada bagian tengah terdapat 2 titik sampling dikontrol oleh sistem aliran sungai, sisa yang lainnya dikontrol oleh sistem dinamika pantai.

Kata kunci : sedimen, tipe substrat, Pantai Barahima

ABSTRACT

Sanindo Muhammad Arif (NPM. 05181611046). *Determination of Substrate Type and Source of Surface Sediment Material of Barahima Beach, Mesa Village - Central Halmahera Regency.* Supervised by Salnuddin and Zulhan A. Harahap.

The grain size composition of sediment in a body of water is the accumulation of the water dynamics system as well as the cohesive properties of the material, Considering the sediment transport mechanism due to flow, the sediment structure is the accumulation of complex work. The substrate type is the percentage of silt, clay and sand grain groups, while the material source is controlled by the sediment statistical value. These values will validate each other's sediment conditions in an area and describe the stability of the beach. Therefore, it is necessary to develop a research methodology as well as a projection of sediment stability. This research is to determine and compare the type of substrate found at the Barahima Beach location from granulometric analysis data and the application of the Bendell-Young procedure; and Determine the source of material that makes up the substrate found on Barahima Beach. Data collection using survey methods by taking data on water dynamics, morphology and surface sediment samples at the Barahima Beach research site. Granulometric analysis and calculation of sediment statistical parameters to determine the type and source of sediment material. The results of the analysis of the percentage of sand substrate from the granulometric analysis, only the fine sand category group (group D) and the percentage of dust and clay content give the same substrate type as the percentage material data from the application of the Bendell-Young procedure. The substrate type of Barahima Beach consists of silty sand, sandy loam and sandy clay loam substrates. The source of material at the front is controlled by wave action, at the centre 2 sampling points are controlled by the river flow system, the rest are controlled by the beach dynamics system.

Keywords: sediment, substrate type, Barahima Beach