

KARAKTERISTIK MORFOLOGI *POINT BAR* PADA BAGIAN HILIR PENGAL SUNGAI BOGOWONTO, KABUPATEN PURWOREJO, JAWA TENGAH.

Ekhandoko Aji Wibowo

13/347389/GE/07512

INTISARI

Penelitian ini dilakukan di daerah hilir pengal Sungai Bogowonto dan sekitarnya. Lokasi penelitian ini memiliki suatu karakteristik morfologi yang khas akibat adanya proses geomorfologi berupa proses fluvial (erosi, transportasi, dan sedimentasi). Proses geomorfologi yang terjadi sangat beragam dan juga dipengaruhi oleh musim penghujan maupun musim kemarau. Tujuan dari penelitian ini adalah: (1) Mengidentifikasi proses pengendapan sedimen di area *point bar* berdasarkan ukuran besar butir, (2) Mengetahui karakter perubahan morfologi *point bar* setiap per lapisan sedimen yang terbentuk, (3) Menganalisis ukuran butir sedimen sebagai dasar rekonstruksi morfologi *point bar*.

Metode penelitian yang dilakukan dalam penelitian ini adalah observasi lapangan. Observasi lapangan bertujuan untuk mengidentifikasi kondisi geomorfologi dan kejadian penting yang mempengaruhi morfologi *point bar*. Pengambilan sampel sedimen secara vertikal dilakukan pada 2 titik dan secara horizontal dilakukan pada 3 titik. Sampel sedimen tersebut selanjutnya diuji di laboratorium dan dilakukan pengukuran fisik secara langsung.

Hasil analisis dari proses pengendapan yang di area *point bar*, material yang terendapkan berupa pasir halus hingga pasir kasar dengan kecepatan aliran sungai sebesar 0,1-4 cm/s. Morfologi *point bar* memiliki karakteristik yang digambarkan melalui rekonstruksi per lapisan sedimen yaitu berupa pengulangan lapisan material pasir halus dan pasir sedang di lokasi B dan material pasir kasar hanya ada di dasar lapisan lokasi A. Karakteristik ini dipengaruhi oleh adanya proses banjir. Analisis ukuran butir yang terdapat di daerah penelitian, mayoritas berupa material pasir sedang dengan ukuran 267 – 289 μm , pasir halus dengan ukuran sebesar 224 – 230 μm dan pasir kasar dengan ukuran sebesar 745 – 768 μm . Bentuk butir juga merepresentasikan hasil penggambaran morfologi *point bar*, bahwa lapisan yang bermaterial kerikil/kerakal berada di bagian dasar lapisan sedimen *point bar*.

Kata Kunci: *Morfologi point bar, Proses Pengendapan, Ukuran Butir dan Bentuk Butir, Rekonstruksi*

MORPHOLOGICAL CHARACTERISTICS OF THE *POINT* *BAR* IN DOWNSTREAM OF BOGOWONTO RIVER, PURWOREJO, CENTRAL JAVA.

Ekhandoko Aji Wibowo

13/347389/GE/07512

ABSTRACT

This research was conducted in the downstream of Bogowonto River area. The location of this research have a distinctive morphology characteristics due to the geomorphology of fluvial processes (erosion, transport, and sedimentation). Geomorphological processes that happened are very various and also were affected by the rainy season or dry season. Purpose of the study are: (1) to identify the deposition process of sediments in the area of *point bar* based on grain size, (2) to understanding changes the characteristics of morphology of *point bar* based on the sedimentary layer that formed, (3) to analyze the grain size of sediment as the basis of the reconstruction of the *point bar* morphology.

Research method used in this study was field observation. The aim of field observation area is to identification of geomorphology processes and the important events that affect the morphology of *point bar*. Vertically sediment sample were collected at 2 points and horizontally sediment sample were collected at 3 points. Sediment samples were analyzed in the laboratory and another sample were carried out during the physical measurement in the field.

The results of the analysis of the deposition process in the area of *point bar*, the material were deposited is the form of fine sand and coarse sand with the velocity flow of the river are 0,1 – 4 cm/s. *Point bar* has a morphological characteristic can be illustrated through the reconstruction of sediment layer materials, there are many repetition the name of fine sand and medium sand layers on site B, and coarse sand layer only within the base layer of site A. These characteristic are influenced by the presence of flood processes. Grain seize analysis in the area of study, the majority of material in the form of medium sand with a size of 267 – 289 μm , fine sand with the size of 224 – 230 μm , and coarse sand with the size of 745 – 768 μm . Grain shape can represents the results of *point bar* morphology illustration, layer of the gravel was lay on the base of the sedimentary layer in the *point bar*.

Key Word: *Point Bar Morphological, Deposition Process, Grain Size and Grain Shape, Reconstruction.*