

Estimation of River Bed Morphology Using S-PLUS  
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River-bed morphology is a product of sediment material that is transported by streams. The hydrology and morphology are interpreted to be control the form of river channel. This research is focussed of river-bed morphologic changes that influenced by tailing impoundment in Ajkwa lowland, Timika, Papua. The river transects data give variation in surface profiles of Modified Ajkwa Depositional Area (ModADA). Hence, maps based on shape of change in the river-bed morphology. The significant criteria of selected observation based on channel form in straight to get variation in bed forms per annual discharge. Rapid and frequent variation in  $Q$  tend to increase the magnitude of the alternating patterns of erosion and deposition that seem to be a necessary part of braiding mechanics. Combination of discharge and sediment load include tailing drops in highland refer the relationship of river-bed morphology and hydraulic efficiency can be made quantitatively. Computation and estimation of bed river morphology using S-PLUS for Windows, that is an object-oriented programming and visualization environment.