

Title: Soil erodibility for water pollution management of Melaka watershed in Peninsular Malaysia

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Abstract: The relationships between surface runoff and soil erodibility are significant in water pollution and watershed management practices. Land use pattern, soil series and slope percentage are also major factors to develop the relationships. Daily rainfall data were collected and analyzed for variations in precipitation for calculating the surface runoff of these watersheds and surface runoff map was produced by GIS tools. The equation was utilized to predict soil erodibility of watershed soils. Results indicated that the weighted curve number varies from 82 to 85 and monthly runoff 23% to 30% among the five watersheds. Soil erodibility varies from 0.038 to 0.06 ton/ha (MJ.mm/ha/h). Linau-Telok-Local Alluvium, Malacca-Munchong, Munchong-Malacca-Serdang and Malacca-Munchong-Tavy are the dominant soil series of this region having the average soil erodibility of about 0.042 ton/ha (MJ.mm/ha/h). The main focus of this study is to provide the information of soil erodibility to reduce the water pollution of a watershed.