**Abstrak**

Sungai Pekalongan sendiri mempunyai fungsi sebagai pelabuhan dan alur pelayaran perikanan. Dampak pengendapan sedimen menyebabkan pendangkalan, adanya pendangkalan di daerah muara sungai pekalongan ini dapat menghambat kegiatan nelayan. ,menyebabkan air tidak dapat tertampung atau teralirkan secara maksimal sehingga dapat menyebabkan banjir.

Pada proses pengkajian ini bertujuan untuk menganalisa prediksi laju sedimentasi sungai dan pantai didaerah Pekalongan. Ada beberapa parameter dan indikator yang digunakan dalam menganalisa sedimentasi diantaranya curah hujan, debit rencana banjir, pasang surut, prediksi angin, prediksi gelombang didaerah muara sungai Pekalongan.

Dari hasil analisa prediksi sedimentasi tersebut diketahui bahwa hasil sedimentasi sungai adalah 219,89 m$^3$/hari, dan p sedimen 582,70 ton/hari, lalu perhitungan total prediksi sedimen sepanjang pantai mendapatkan hasil 2878076,31 m$^3$/tahun. Berdasarkan hasil dari pengkajian pendangkalan sedimentasi muara sungai dan sedimentasi sepanjang pantai maka perlu adanya penanganan terhadap peningkatan sedimentasi yaitu dengan pengerukan.

Kata Kunci : Laju Sedimentasi sungai, Laju Sedimentasi Sepanjang Pantai, Curah Hujan, Debit Rencana Banjir.

# Abstract

Pekalongan River itself has a function as a port and fisheries shipping channel. The impact of sediment deposition causes siltation, the siltation in the estuary area of Pekalongan River can hamper fishermen's activities. , causing water to not be able to be accommodated or fully flowed so that it can cause flooding.

This study is intended to analyze the predictions of river and beach sedimentation rates in Pekalongan area. There are several parameters and indicators used in analyzing rainfall, design-flood discharge, tides, wind predictions, wave predictions in the Pekalongan river mouth area. From the analysis of the sedimentation prediction, the estimation of river sedimentation result is 219.89 m3 / day, and sediment p is 582.70 tons / day, then the calculation of the total sediment prediction along the coast yields 2.878.076.31 m3 / year.

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Keywords: River Sedimentation Rate, Coastal Sedimentation Rate, Rainfall, Design-flood Discharge.