

## Pemodelan Tata Letak Bangunan Pengaman Erosi Pantai

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### Abstract

*Coastal area Sub-Province Pekalongan specially in Coastal Region of Depok and its surroundings is area of tourism, settlement, rice field and fishpond. During the last 20 years have happened erosion in coastal region of Sub-Province Pekalongan resulting very big coastline retreating. Some efforts to overcome erosion and the resignation of coastline have been conducted by government offices, among others is done activity of cultivation return mangrove in Depok Coastal Region. But cultivation of mangrove without protection under coastal structure is difficult because highest wave can come and destroy mangrove crop. Field perception show it is true that have happened erosion in Depok Coastal Region, that is existence of coconut tree pickings residing in coastal area. Data analysis needed as condition to support result of perception that is analysis of hidro-oceanografi and simulation of coastline change with GENESIS software. With Admiralty method, result of tide analysis got as following : HHWL = 143,55 cm, MSL = 87,25 cm, dan LLWL = 30,95 cm. Influence of wind direction : from northwest, north, and north-east. Dominant wave direction from north. Significant of wave height  $H_s = 0,47$  m, significant wave period  $T_s = 2,5$  second, breaking wave  $H_b = 1,77$  m, and depth of breaking wave  $d_b = 1,74$  m.*

*Simulation of Arrange Situation of Coastal Structure Erosion addressed to maintain coastline at the same time add sediment supply at Depok Coastal Region. Determination of priority sequence handling of coast conducted with simulation some kinds of alternatives coastal structure protector. Based on result of simulation from some alternative coastal structures, the selected is placed coastal structure : jetty in "S Sragi Lama" as long as 100 m and sea wall as long as 25 m in shares which was erosion area.*

**Keywords** : Coastal erosion, Jetty, Sea Wall.