

Thesis Title	The Study of Wave and Current Influences on Shoreline Changes at Bangkhuntien District.
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#### Abstract

The coastal erosion problems in Bangkhuntien District area was studied to analyze the influences of wave and current towards coastline erosion by using data from aerial photographs, site survey and numerical modeling.

It was concluded that the coastline in the study area suffered from erosion problem and the total eroded distance is more than 3,320 meters on shore. The average erosion rate in the first 21 years was founded to be 10 meters per year while in the last five years (1988-1991) the erosion rate increased to be 31.46 meters per year. From the data of wind speed to the area especially in the south and southwest directions, the recent wind is stronger and induced the average wave height to increase from 0.23 m. to 0.36 m. The deep water wave broke and caused beach erosion at shoreline when the deep water wave height is greater than 0.5 m. in the all directions. The average tidal level is found to be stable and the mean current velocity was in the order of 0.06-0.15 m./sec. The rate of sediment transport derived from both SPM and Sawaragi formula gave similar results and the effect of tidal current to sediment transport was found to be minor. The beach erosion in the study area during 1967-1987 is attributed to the net sediment transport at sea bed due to wave and current while beach erosion during 1988-1991 is additionally cause by the wave force directly hit the beach.

Keywords : Wave / Current / Shoreline Changes / Bangkhuntien