

Karon Watershed, was selected as a study area for flood and drainage system design study in the hillsided coastal plain area. It is a small watershed area in Phuket Province covering approximately 8 sq.km. and tended to be urbanized in the rapid speed. In the study, flood problem in the area were investigated and parameter calibrations for model application in drainage system assessment and improvement was also conducted via field data observation. Suitable drainage scheme for present and future land use pattern were proposed.

From the field investigation and drainage system assessment, it is found that drainage system for Karon Watershed should be redesigned by considering the characteristics of each subarea. i.e. flood protection dam or weir in the upstream zone by using Rational or SCS methods to estimate flood peak or drainage pipe/channel/retention storage in the plain area by adopting SWMM, or increase drainage channels to the sea etc.

The study result showed that the suitable drainage scheme are to set the drainage pipe in the newly developed zone and to set the drainage channel in the developed zone. The outlet drainage to the sea should be increased. The constructions of flood protection dam or weir or deforestation or storage retention are costly and unsuitable for Karon Watershed. These measures may be applicable for other hillsided coastal plain area.

ภาควิชา วิศวกรรมโยธา
สาขาวิชา วิศวกรรมโยธา
ปีการศึกษา 2533

ลายมือชื่อนิสิต
ลายมือชื่ออาจารย์ที่ปรึกษา Sucharit Koontanakulvong