

**KAJIAN PENANGANAN BENCANA BANJIR  
SUNGAI CALENDU KABUPATEN BANTAENG  
PROVINSI SULAWESI SELATAN**

**Edy Rahmat**

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**ABSTRACT**

Calendu River located in Bantaeng Regency is one of the rivers passing over Bantaeng City. It has periodically resulted in flood disasters. Along the river is a dense settlement area, so that when flood occurred the overwhelming water is flooding the area. Therefore, measures for the mitigation control of flood should be taken in order that any loss can be reduced.

This research was to study the system of flood mitigation treatment as the effort of mitigating the flood in Bantaeng Regency. In the research, a simulation of flood in Calendu River was conducted in a region of 5.3 km hit by the flood, so that alternative control required to mitigate the flood could be determined. The study was conducted by analyzing capacity of the river's hydraulic section, which flown the flood discharge of 20 year return period (392 m<sup>3</sup>/s), using instrument of the Hydrologic Engineering Center-River Analysis System (HEC-RAS) Software Version 4.0.

Simulation results indicate that over flow occurred in almost all river reach at the existing conditions of +0.5 m to +0.1 m in height. The main cause of flooding in Calendu River was known, i.e. a small bank full capacity. Therefore, alternative mitigation control of flood recommended are normalization and the heightening of levee. Result of the simulation with the normalization from RS 400 to RS 2200 with a dredging volume of 25,691 m<sup>3</sup> shows that the elevation of maximum water surface decreased of 0.35 m. But, the over flow still occurred, so that a mitigation treatment by using the levee of 0.2 m to 1.0 m in height is required.

**Keywords :**

*Flood mitigation control, discharge, HEC-RAS*