Planning of Building Sediment Control  
Gondang River, Tulungagung City,  
East Java

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ABSTRACT
Reservoir Wonorejo began operation since 2011, is located in the village of Wonorejo, Pagerwojo subdistrict, about 12 kilometers to the west of the city vBulletin. Reservoir area of 30.08 km² Wonorejo expected to operate and serve the needs of the water until the planned time. In addition as a function of the development of water resources are also used for hydroelectric power generation, irrigation, tourism, sports and others.

The main problems encountered in the development and operation of its dams are a lot of sediment in the river as the main flow stream that goes to the reservoir so that the water will make distributed and also jumped into his dirty water level in the reservoir Wonorejo. Therefore in building sediment control plan in Gondang river.

The results from the processing of the obtained data flow calculation for 80.58 m/s, the calculation of the volume of sediment entering 209,412.345 m³, structure calculations obtained m B1 = 15, B2 = 18.8 m, Bmin = 1,5 m, Upstream slope of (m) = 1: 0,75, Slope Downstream (n) = 1: 0,2, Scouring Depth (T) = 0,89 m, and also the calculation of the stability of sediment control structures. Sediment control structures so that planning can be built and also functioned optimally.

Keywords: Reservoir Wonorejo, Sedimentation, building planning, results.