Abstract

Syphon of Lemurung, situated in the Village Brumbung, Subdistrict Kepung, District Kediri, serves to supply irrigation at District Jombang.

To secure that syphon towards waterflow and river scouring, so consolidation dams were built at syphon downstream. The consolidation dams which already built had been damaged in serious condition. To cope with that damaged, so it is necessary to build a new consolidation dam, in order that syphon still secure from riverflow threat.

During the planning of Consolidation Dam of Syphon Lemurung, a precise calculation is needed, such like hydrology analysis, hydraulic analysis, and stability control especially from roll and shear threat. Those analyses are needed because Consolidation Dam of Syphon Lemurung located on Mount Kelud’s material flow which still active.

Keywords: Consolidation dam; Planning; Stability Control