

STUDY ON SINGLE PURPOSE DAMS FOR FLOOD MITIGATION WITH MINIMIZING IMPACT ON ENVIRONMENT

Abstract : From the viewpoint of preservation of river environment, we are strongly required to construct a dry dam, which is a dam for the single purpose of flood mitigation. Large-scale conduits should be installed near the bottom of dam bodies to allow the river channel to flow freely during normal conditions.

In this study, we conducted numerical simulations considering structures of concrete dams, in order to investigate the maximum possible scale for conduits. We analyzed the stress distributions of two types of conduit models, such as a conduit within a block and a conduit between two blocks.

Key words: Concrete dams, Single purpose dams for flood mitigation, FEM analysis, Conduit