Abstract

Nipah reservoir takes place in Banyuates sub district, Sampang madura, it is located in the west of Banyuates. DAS area 82.75 km². The location habitually lacks of water in dry season. Nipah reservoir is a reservoir using cistern of rain system, so when the dry season comes the local resident use it for their permanent water need and irrigation for their field.

In this case, the working through is requiring hydrological analisys, irrigation need calculation, and permanent water need, planned flood-rate calculation, technical planning of side spillway construction, stability calculation of side spillway construction. There were got technical data about Nipah reservoir below:

Main dam:

- Type: homogen earthwork
- Top dam elevation: + 50.00
- Basic dam elevation: + 30.00
- Height of surveillance: 2.00 m
- Height of dam: 20 m
- Volume: 846992.00 m³
- Effective capacity: 771992.00 m³
- Sediment capacity: 75000.00 m³

Side Spillway Construction

- Type: Ogee Crest
- Planned flood: $Q_{100}$ (341.11 m³/det)
- Basic spillway elevation: +35.15
- Threshold spillway elevation: + 44.05
Effective Width : 30 m
Upstream inclination : 3 : 3
Apron width : 29.28 m

The creating Nipah reservoir is a hope to keep the irrigation need and to keep permanent amount of water requirement for local resident in Montor resident, banyuates sub district and a hope for the local resident can live without lacking of water when the dry season comes.

Key word : Side Spillway Construction.