

C-14: Hydraulic model investigations on Menik Ganga diversion : evolution of design criteria

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Lunugamvehera reservoir formed by a dam across Kirindi Oya, creating a capacity of 184,000 acre ft at full supply level (191.0 ft msl) to irrigate 10,500 ac of new land and to augment 11,300 ac of existing land, which went into operation in 1986 has been facing water shortages every year since then. Hence as a remedial measure diversion of water from Menik Ganga to Lunugamvehera reservoir has been proposed.

The head works proposed across Menik Ganga is a low diversion weir at a point 18 km upstream of Kataragama and having a catchment area of 541 sq km and an average inflow of 160 MCM, with an offtake of capacity 17.0 cumecs and a 17 km long concrete lined canal which will provide diversion during a part of the year.

Hydraulic model investigations were carried out to evolve design criteria for the weir, off-take and silt exclusion in a 1/40 geometric scale model. Different variants were investigated in the model.