SYNOPSIS  This paper described the issues related to the design of the 40m high conventional concrete Didachara Dam, which will impound a reservoir with a gross storage of 2.3Mm³. It is the principal component of the headworks for the 175MW Shuakhevi HPP located in south-west Georgia near the border with Turkey. Construction of enabling works has already commenced and the dam should be built between 2014 and 2016.

The reservoir is required to provide both diurnal storage for the power generation and also temporary storage for sediment. This sediment will be largely flushed from the reservoir on an annual basis to maintain the diurnal storage requirement and also to provide ongoing storage for sediment management.

The principal issues with the design of Didachara dam are the constraints imposed by the geology of the area, which is dominated by landslips; the topography of the site; and the need to provide both spill and flushing facilities within a relatively tight site. These are discussed in the pape