

## **The Staged Construction of Imang Dam**

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**SYNOPSIS.** Imang Dam and reservoir was constructed between 1995 and 1997 for irrigation purposes and is located on the Sg Imang in the Brunei-Muara District of Brunei Darussalam. The dam has a maximum height of about 10m, length of 420m and contains a reservoir of 10Mm<sup>3</sup>, which is supported by a 14km<sup>2</sup> secondary rainforest catchment. The scheme was originally designed to serve local irrigation requirements of about 700 ha of double cropped rice.

A major feature of the design of the embankment dam was the soft clay foundation and wide stability berms. The dam was originally designed to be constructed in one stage following treatment of the foundation soils to accelerate consolidation settlement and increase shear strength. However, the foundation materials did not gain sufficient strength during construction to allow the embankment to be constructed to its full height and interim measures were implemented to allow first filling and operation of the reservoir. Following a period of foundation consolidation settlement and strength gain, the embankment crest was raised to its full height in 2006. This paper describes the design and staged construction of Imang Dam.