

Oman: 7 dams planned

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MUSCAT -- The Government has finalised plans for the construction of a total of seven dams across Wadi Adai and its tributaries, as part of a massive flood protection system designed to secure large areas of the capital area from flooding. Construction of the Wadi Adai Dams Project is being overseen by the Ministry of Regional Municipalities and Environment. Its primary objective is to provide a greater degree of protection to the Qurum and Al Amerat areas against flooding triggered either by cyclonic or normal rainfall. Additionally, the project will also help enhance water resources through groundwater recharge.

According to officials, the multiple dams project will be implemented in phases, with construction work on the first dam expected to commence early next year. Dubbed the Al Amerat Height Flood Protection Dam, this massive structure, extending nearly six kilometres in length, will be built just above the mouth of the wadi gorge. Designed to retain flows through Wadi Adai, Al Amerat Height Flood Protection Dam will constitute the main flood protection element in the entire project. Rising some 18-20 metres above natural ground level, the structure is conceived either as a concrete face rock-fill dam (CFRD) or an earth-fill dam with cut-off wall.

Also as part of the project, the selected contractor will be required to build 2-3 free overflow concrete spillways and an appurtenant spilling basin, leading to the existing downstream wadi channels. Valves will be suitably designed and installed to ensure the controlled release of reservoir water into the wadi downstream of the dam. Earlier this month, the Tender Board invited experienced Omani and international construction firms to enter a prequalification process ahead of a competitive tender for the dam construction contract. Leading construction firms from India, China and Korea, besides the Sultanate, are lining up to bid for the contract. The six other dams that also form part of the Wadi Adai flood protection system are currently being designed, and will be executed in separate contracts, say officials.

An estimated 95 million cubic metres of floodwater gushed through Wadi Adai in the immediate aftermath of last June's adverse weather conditions, triggering major flooding in Qurum, and along Wadi Bausher and Wadi Al Ansab. The deluge wrecked roads and infrastructure, inundated shopping complexes, flooded homes and businesses, and claimed many lives as well. Separately, Muscat Municipality is also planning to construct a system of wadi bridges, flood protection dykes and drainage systems to secure Qurum from severe flooding. The flood protection measures are planned along key places where Wadi Adai intersects the road network or traverses the shopping and residential neighbourhoods of Qurum.