




# Water Resource Associates

*A network of consultants in hydraulics, hydrology, groundwater & environmental issues*

**Project title:** Safety Review of Four Wadi Dams in the Masafi Mountains of United Arab Emirates

**Summary:** Review of geotechnical, hydrogeological and hydrological characteristics of existing dams, providing certification of dam safety.

<b>Client:</b> CONSER for the UAE Ministry of Environment and Water	<b>Financed by:</b> Ministry of Environment and Water
<b>Period of assignment:</b> Dec 2010	<b>Location:</b> Dubai, UAE
<b>Project Value:</b> Not known	<b>WRA services:</b> £ 6,160
 <p>Lake at Wadi Shawkah Dam</p>	<p><b>Overview</b></p> <p>WRA teamed up with Reservoir Safety Services Ltd and Conser Consulting Engineers to carry out a review of four operational dams in the Masafi Mountains: Tawiyaeen, Wurraya, Sifuni and Shawkah. Potential safety problems were highlighted relating to leakage, settlement and hydrology, listing action and remedial measures required to ensure that dam safety is maintained.</p> <p><b>The WRA assignment</b></p> <p>The assignment included field reconnaissance and visits with the director of dams, Salim Akram, and a desk review of documentation at the offices of the Ministry of Environment and Water. Whilst Wadi Shawkah was full, Wadi Tawiyaeen was empty and over two metres of accumulated sediment was being removed from the reservoir basin.</p> <p>Certificates of dam safety were provided on completion of the report and inspection. The report summarised the findings of the inspection and included recommendations for operation, maintenance, supervision and monitoring of the reservoir that should be carried into effect as soon as is practicable.</p>
 <p>Desilting Operations at Wadi Tawiyaeen Dam</p>	
 <p>Spillway natural rock-chute and reinforced concrete stilling basin at Wadi Wurraya Dam</p>	
<p><b>Conference on Dam Safety</b></p> <p>The team members also spoke at a conference organised by the client in the Municipality of El Ain, delivering papers on flood estimation for wadi catchments and the dams in UAE, and international practice in the monitoring and supervision of dam safety.</p>	

Project Number 000355

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