

Zarqa River

The Zarqa River is the third largest river in the region in terms of its annual discharge and its waters are extensively used for municipal water supply, irrigation, and industrial needs. The watershed encompasses the most densely populated and industrialized area on the east side of the Jordan River. The area of the Zarqa River watershed is about 3,900 km² and has two main branches—the Amman–Zarqa draining the higher rainfall areas of the Eastern Escarpment of the Jordan Rift Valley and parts of the Jordan Highland, and the Wadi Dhuliel draining the more arid areas of the Jordan Highland and Plateau. The mean rainfall for the watershed is 273 mm, and the median annual streamflow is 63.3 MCM.



Zarqa River below New Jerash Bridge

The river is controlled by the King Talal Dam, which was completed in 1970 to provide a storage capacity of 55 MCM and raised in 1987 to provide 86 MCM. Connected through a canal and pipes to the King Abdullah Canal, the river provides irrigation for a further 8,400 hectares of land. Withdrawals for water supply from aquifers in the upper Amman–Zarqa groundwater basin have reduced the natural baseflow of the Zarqa River. The flow characteristics have been further modified by the discharge to the river of treated domestic and industrial wastewater that compose nearly all of the summer flow and substantially degrade the water quality. Flow characteristics of Zarqa River are measured above the King Talal Dam at New Jerash Bridge where the drainage area is 3,100 km². The Zarqa River is perennial with typical monthly flows of 2 to 3 MCM during the summer and 5 to more than 8 MCM during the winter. The maximum observed flood occurred on November 29, 1979 (1980 water year) and produced a single day volume of 2.5 MCM.

