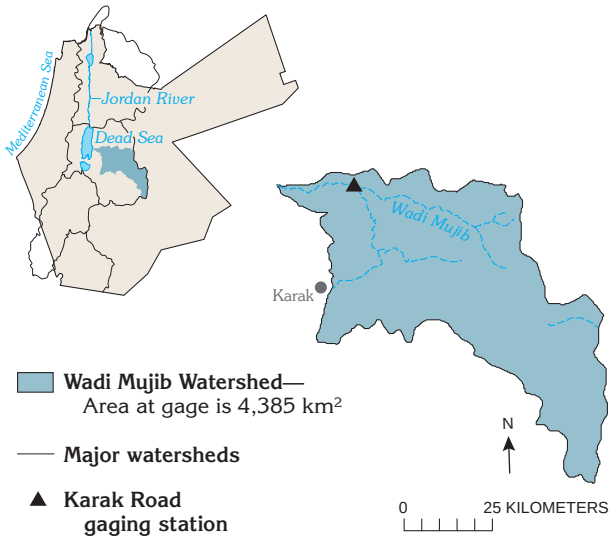
Wadi Mujib

The Mujib watershed is drained by several wadis that run gently along the Jordan Highland and Plateau at elevations of 700 to 900 m above sea level before plunging down into gorges as they approach the eastern escarpment of the Jordan Rift Valley and flow to the Dead Sea, at about 410 m below sea level. The Wadi Mujib is the largest tributary on the eastern side of the Dead Sea with a total drainage area of 6,600 km², including the Wadi Wala catchment. The climate is semi-arid to arid, with cold and rainy winters, and hot, dry summers that often are marked by drought. The average annual precipitation is 154 mm and ranges from 300 mm in the northwestern part of the watershed to 50 mm or less in the southeastern corner. Most precipitation is distributed in the rainy season from October to April. The average annual potential (pan) evaporation is 2,200 mm.



Incised valley of the Wadi Mujib

Flow characteristics of the Wadi Mujib have been measured at Karak Road, where the drainage area is about 4,385 km². The Wadi Mujib has fairly stable baseflow that typically provides from about 0.1 MCM per month during the summer to more than 1 MCM per month during the winter, as shown in the graph of the median monthly volume to the right. Zero flow conditions have occurred infrequently at the Karak Bridge gage during summer months of very dry years. Occasional intense storms during the winter months can produce large flood events that, in some years, account for more than half of the annual flow volume. The largest observed flood on the Wadi Mujib occurred in January 1965, and produced a maximum daily mean discharge of 632 m³/s. The total annual flow volume for 1965 was 112 MCM, of which 108 MCM occurred during the month of January.