

Neqarot River

The entire Neqarot watershed lies in the arid southern Negev in the North Wadi Araba watershed. Average annual rainfall in the Neqarot watershed is about 50 mm, while potential evaporation is more than 40 times this amount, creating extremely arid conditions that support little vegetation. The geography of the watershed is characterized by bare craggy peaks, rocky plateaus and, prominently, the Ramon erosional cirque. This deeply incised feature is about 8 km across and 35 km long and exposes a broad range of rock types. Soils in the region may form a surficial crust that increases the intensity and volume of storm runoff.



Neqarot River in the arid Negev

Since 1960, flow characteristics of the upper Neqarot River have been measured near the northeastern end of the Ramon erosional cirque, where the drainage area is 697 km². The Neqarot River is typically dry except during storms that can produce dangerous flash floods. Only a few runoff producing storms occur in most years, so that the annual flow volume of the Neqarot River takes place over a short duration. A large flood in October 1965 (1966 water year) accounted for the entire flow volume for the year. Storms in the Negev are not as seasonally related as in other parts of the region, and zero flow conditions have been observed in all months. There have been 5 years between 1960 to 1997 when zero flow was measured for the entire year. The largest flood observed at the Neqarot River gage occurred on December 22, 1993, and had a peak discharge of 708 m³/s.

