

Preliminary Estimates of Spatially Distributed Net Infiltration and Recharge for the Death Valley Region, Nevada–California

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and Prudic, 1998). The differences are partly due to differences in the spatially distributed precipitation used to obtain the Maxey–Eakin estimates. The original Maxey–Eakin model predicted recharge only for locations receiving at least 200-mm/yr (8-inches per year) precipitation, which makes the calculated recharge sensitive to the location of the 200-mm/yr isohyet. INFIL estimates (net-infiltration) show a fairly good agreement with the original Maxey–Eakin model recharge estimates as percentages of precipitation, rather than as absolute net infiltration and recharge.

For example, results from Harrill and Prudic (1998) indicate 5.7 percent of precipitation is recharge in the Death Valley hydrographic area, which compares well with the INFIL model result of 5.1 percent (table 3). In terms of absolute recharge volumes, however, the INFIL results were on average three to five times greater than the previous estimates of recharge.

A comparison was also made between the INFIL model estimates using modeled 1980–1995 precipitation and the modified Maxey–Eakin estimated recharge using 1920–1993 cokriged average annual

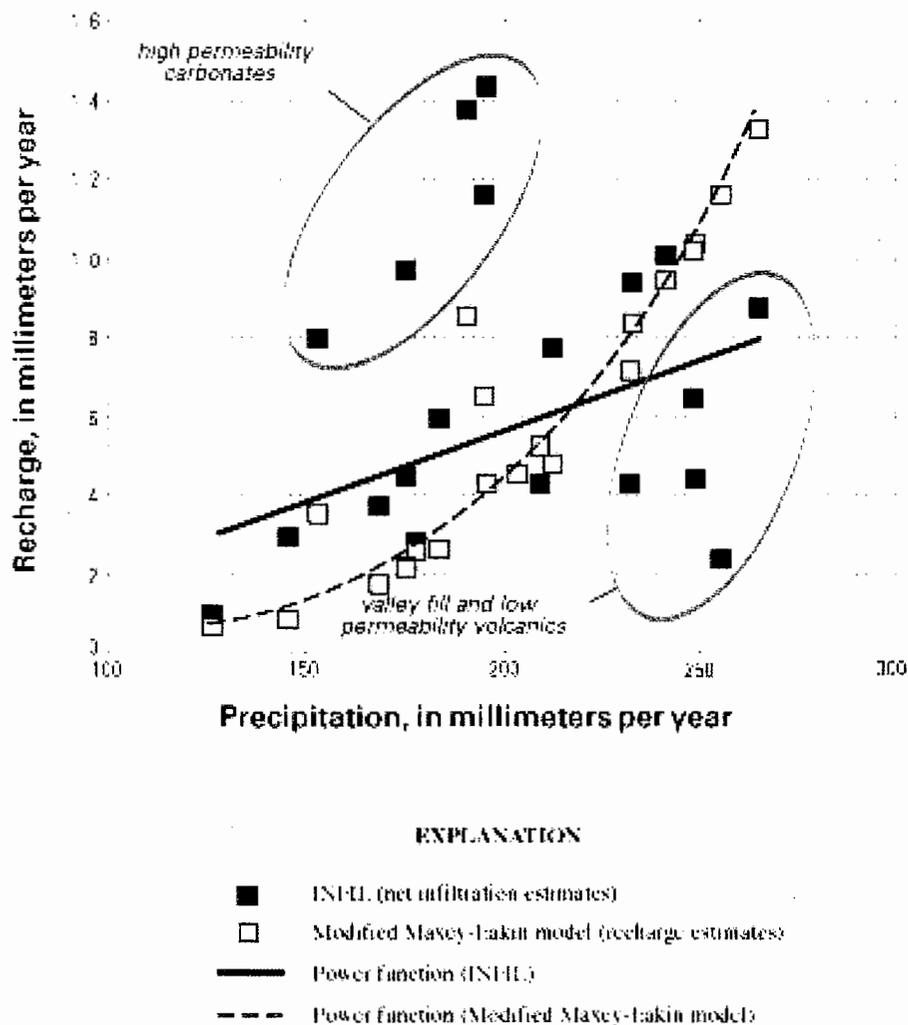


Figure 9. Comparison of recharge estimated using INFIL and the modified Maxey–Eakin model both with the 1980–1995 precipitation estimates.