TABLE 3-3
RANGE OF REPORTED RECHARGE ESTIMATES FOR THE INDIAN WELLS VALLEY BASIN
(IN ACRE-FEET PER YEAR)

Data Source[a]	Surface Drainage from Sierra Nevada	Surface Drainage from Coso Range	Surface Drainage from Argus Range	Surface Drainage from El Paso Mountains	Geothermal Leakage (Upwelling)	Subsurface Inflow from Sierra Nevada Bedrock	Subsurface Inflow From Rose Valley	Leakage from Owens Valley Aqueduct	Leakage from IWVWD Lines	Shrubbery Irrigation (Agriculture)	Wastewater Treatment Plants	Total Recharge
Kunkel and Chase 1969[b]	7,200	----	----	----	----	----	----	----	----	----	----	----
Bean 1989	6,300	2,000	1,000	400	100	2,500	400	900	500	----	1,000	15,100
Austin[c]	----	----	----	----	1,000 to 10,000	----	----	4,000	----	----	----	30,000
Lee 1913[d]	27,000				----	----	----	----	----	----	----	
Thompson 1929[c]	39,000[f]				----	----	10,000	----	----	----	----	49,000
Bloyd and Robson 1971	6,235	3,168		400	----	----	43	----	----	----	----	9,846
Berenbrock and Martin 1991	6,236[b]	3,170		400[b]	----	----	46	----	----	100	1,001	10,853
Thyne and others 1999	8,026	----	----	----	----	30,000	1,297	----	----	----	----	----
Watt 1993	8,876	975		0	----	----	----	----	----	----	----	----
St. Amand 1986	11,000			----	----	----	40	----	----	2,000	400	13,440
Dutcher and Moyle 1973[e]	13,200	----	----	----	----	----	----	----	----	----	----	----
Ribble and Haslebacher 1999	4,120[g]	----	----	----	----	----	----	----	----	----	----	----
Bauer 2002	----	----	----	----	----	----	3,300	----	----	----	----	----

Notes:

---- Recharge component was not evaluated or specifically presented in report.

[a] See Section 7.0 for the references cited here.

[b] Recharge estimated by St. Amand using 1920-1921 water level map and corrected transmissivity data.

[c] Data obtained from undated review of the report entitled "Hydrogeologic Conditions in the Indian Wells Valley and Vicinity" (Bean 1989) by Carl Austin

[d] Recharge estimates by Lee (1913) and Bloyd and Robson (1971) as reported in Bean (1989).

[e] Recharge estimated by St. Amand using 1920-1921 water level map and transmissivity data from Dutcher and Moyle (1973).

[f] Recharge estimate includes 12,000 acre-feet per year of runoff from the mountains bordering the Coso Basin.

[g] Recharge estimate is for Grapevine Canyon only.