

TABLE II
CALCULATED COMPONENTS OF RECHARGE IN
SELECTED WATERSHEDS IN SANTA BARBARA COUNTY

Watershed	Annual Rainfall at Aquifer (inches)	Average Annual Rainfall in Watershed Above Outcrop (AFY)	Average Annual Streamflow (AFY)	Infiltration Rate (based on Site-Specific Consolidated Rock permeability)	Stream Seepage based on Aquifer Permeability (AFY)	Area of Outcrop (acres)	Field Recharge (AFY)	Calculated Subsurface Inflow ⁽¹⁾	Total Annual Recharge-Modified Inventory Method (Field Recharge + Stream Seepage & Subsurface Inflow)	Estimated Perennial Yield-Pumpage Change in Storage Method (Year of Test)	Comments
Gato/Las Varas Canyons (Northern and Southern Vaqueros Sandstone)	20"	2758 + 4812 = 7570	1020 + 300 = 1320	0.86 gpd/ft ²	11	531	110	50 AFY	171	150 AFY (1994-2004)	Wet cycle
El Capitan/Destilera/Llagas Canyons (Northern and Southern Vaqueros Aquifers)	20"	8159 + 2920 + 844 = 11,924	2068 + 26 + 234 = 2328	2.77 gpd/ft ²	16	196	70	235 AFY	321	450 AFY (1980-2010)	Multiple wet and dry cycles
Carneros Canyon (Northern and Southern Vaqueros Aquifers)	21"	3958	520	4.3 gpd/ft ²	20	46 + 86 = 132	17 + 24 = 41	40 AFY + 40 AFY = 80 AFY	141	200 AFY (1982-93)	Wet and dry cycles
Venedito Canyon (Northern and Southern Vaqueros Aquifers)	22"	1514	247	9.48 gpd/ft ²	38	140	50	73 AFY	161	143 AFY (1993-2004)	Wet cycle
Tajiguas /Leon Canyon (Sacate, and Vaqueros Aquifers)	20"/27.5"	6280	1276	5.5 gpd/ ft ²	51 ⁽²⁾	1945	364	329	744	600 AFY (2010-2017)	Dry cycle Loss of storage
Las Flores Canyon (Northern and Southern Vaqueros Aquifers)	20"	9349	1826	9.48 ⁽⁴⁾ gpd/ft ²	86	265	36	134 ⁽³⁾	267 ⁽³⁾	139 AFY	Wet and dry cycles

(1) Subsurface inflow based on Formula $Q = Tiw$

(2) Stream seepage adjusted from Ahlroth model based on site specific permeability

(3) Calculated Annual Recharge likely impacted by impaired subsurface recharge due to east-west trending fault

(4) Estimate based on nearby Venadito Canyon