PATTERNS OF CLIMATE, WATER PER CAPITA, WATERGY, & SUN: PERRIS, CA[1]

CLIMATE

AVERAGE HIGH & LOW TEMPERATURES: 1917-2010 *Source: wrcc.dri.edu*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	
	69.2	67.8	73.0	76.3	85.0	92.1	98.9	98.7	94.5	84.6	74.7	68.1	81.9	˚F HIGH
	38.1	39.3	41.9	44.5	50.4	55.6	60.9	60.7	57.3	49.6	42.0	36.9	48.1	˚F LOW
	20.7	19.9	22.8	24.6	29.4	33.4	37.2	37.1	34.7	29.2	23.7	20.1	27.7	˚C HIGH
	3.4	4.1	5.5	6.9	10.2	13.1	16.1	15.9	14.1	9.8	5.6	2.7	8.9	˚C LOW

HIGHEST TEMP ON RECORD: 116 ˚F, 46.7 ˚C, August 5, 1997 *Source: wrcc.dri.edu*

LOWEST TEMP ON RECORD: 21 ˚F, -6.1 ˚C, December 28, 2007

WATER PER CAPITA

AVERAGE RAINFALL: 1917-2010 *Source: wrcc.dri.edu*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	
	2.34	2.21	1.79	0.90	0.31	0.05	0.15	0.24	0.40	0.49	1.01	1.39	11.28	INCHES
	59.4	56.1	45.5	22.9	7.9	1.3	3.8	6.1	10.2	12.4	25.7	35.3	286.5	mm

WETTEST YEAR'S RAINFALL: 26.6 INCHES, 675.6 mm, 1978 *Source: wrcc.dri.edu*

DRIEST YEAR'S RAINFALL: 4.12 INCHES, 104.6 mm, 1989

LONGEST PERIOD W/O MEASURABLE PRECIPITATION: 222 days (April-November 2007) *Source: see note #2*

AREA: 31.50 SQ MILES; *Wikipedia* 81.6 km^2

POPULATION: 55,153 *Source/Year: census.gov / 2009 est*

RAINFALL INCOME: 306.7 GPCD; 1161 ℓpcd

WATERGY

Note: the percentages below are per energy source, and are not to be combined for percent of total energy consumption.

% of CA's annual electricity consumption used for water-related purposes:[3]	19%	2005
% of CA's annual natural gas consumption used for water-related purposes:[3]	32%	2005
# of gallons of diesel fuel used annually in CA for water-related purposes:[3]	88 mil	2005

MUNICIPAL USE: 219.0 GPCD; 829 ℓpcd *Source/Year: see note # 4*

SUN

LATITUDE: 34 *Source: Google Earth*

ELEVATION: 1456 FT; 444 m

WINTER-SOLSTICE SHADOW RATIO:* 1:1.57

	ON MAR 21	ON JUN 21	ON SEP 21	ON DEC 21
[A] DEGREES N or S of DUE E THE SUN RISES:	0	29N	0	29S
[A] DEGREES N or S of DUE W THE SUN SETS:	0	29N	0	29S
[B] # of DEGREES SUN IS ABOVE THE SOUTHERN HORIZON AT NOON:	56	79	56	33

To find current magnetic declination for location: HarvestingRainwater.com/books/volume1/volume-1-resource-pages-appendix-6/#magdec

**Object height:length of shadow cast at noon (Dec 21's is longest noontime shadow of year). The ratio is 1:x, where x = 1/(tangent(90-(latitude+23.44))*

Notes: 1. All rainfall & climate data are for Hemet, CA, as advised by Michelle Breckner of WRCC, as Perris does not have historical weather data // 2. M. Breckner, Service Climatologist, WRCC, via phone 3/7/2011 // 3. CA Energy Commission, Final Staff Rpt on CA's Water-Energy Relationship, 2005. Data incl energy for supply & treatment, ag use, end-users & wastewater // 4. Baseline 10-year average (1999-2008) for Eastern Municipal Water District includes water for ag. Helen Stratton, EMWD, phone conversation 3/7/2011. // A. www.esrl.noaa.gov/gmd/grad/solcalc B. Mar 21: 90-latitude, Jun 21: 90-(lat-23.44), Sept 21: 90-lat, Dec 21: 90-(lat+23.44)

Available online at: www.harvestingrainwater.com/watergy-climate/water-conservation-and-climate-overview-data-sheets/