

PATTERNS OF CLIMATE, WATER PER CAPITA, WATERGY, & SUN: LAGUNA HILLS, CA¹

CLIMATE	AVERAGE HIGH & LOW TEMPERATURES: 1928-2008													Source: wrcc.dri.edu
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	
	65.1	66.1	67.1	69.0	70.9	73.1	76.5	78.1	77.5	74.5	70.4	66.1	71.2	°F HIGH
	43	44.1	45.8	48.4	53.0	56.1	59.3	59.6	58.2	53.7	47.5	43.4	51.0	°F LOW
	18.4	18.9	19.5	20.6	21.6	22.8	24.7	25.6	25.3	23.6	21.3	18.9	21.8	°C HIGH
6.1	6.7	7.7	9.1	11.7	13.4	15.2	15.3	14.6	12.1	8.6	6.3	10.6	°C LOW	
HIGHEST TEMP ON RECORD:		108	42.2	September 26, 1963	LOWEST TEMP ON RECORD:		20	-6.7	October 3, 1928					
		°F	°C				°F	°C						
		Source: wrcc.dri.edu												

WATER PER CAPITA	AVERAGE RAINFALL: 1928-2008													Source: wrcc.dri.edu
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	
	2.47	2.79	2.02	0.98	0.25	0.10	0.02	0.07	0.27	0.46	1.25	1.92	12.60	INCHES
	62.7	70.9	51.3	24.9	6.4	2.5	0.5	1.8	6.9	11.7	31.8	48.8	320.0	mm
	WETTEST YEAR'S RAINFALL:		28.24	717.3	1941	DRIEST YEAR'S RAINFALL:		3.45	87.6	1953				
		INCHES	mm				INCHES	mm						
		Source: wrcc.dri.edu												
LONGEST PERIOD W/O MEASURABLE PRECIPITATION: 209 days (2/28-9/24/1977)													Source: see note #2	
AREA:		6.40	SQ MILES	POPULATION:		31,945	RAINFALL INCOME:		120.2	GPCD				
Wikipedia		16.6	km ²	Source/Year: census.gov / 2009 est					455	¢pcd				

WATERGY	<i>Note: the percentages below are per energy source, and are not to be combined for percent of total energy consumption.</i>													
	% of CA's annual electricity consumption used for water-related purposes: ³						19%	2005	MUNICIPAL USE:		185.0	GPCD		
	% of CA's annual natural gas consumption used for water-related purposes: ³						32%	2005			700	¢pcd		
	# of gallons of diesel fuel used annually in CA for water-related purposes: ³						88 mil	2005	Source/Year:		see note # 4 / 2007-8			

SUN	LATITUDE:	34	WINTER-SOLSTICE SHADOW RATIO:*				
	Source: Google Earth		1:1.57	^ DEGREES N or S of DUE E THE SUN RISES:			
	ELEVATION:	405 FT		^ DEGREES N or S of DUE W THE SUN SETS:			
		123 m		^ # of DEGREES SUN IS ABOVE THE SOUTHERN HORIZON AT NOON:			
				ON MAR 21	ON JUN 21	ON SEP 21	ON DEC 21
				0	29N	0	29S
				0	29N	0	29S
				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 solar 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 Laguna Beach, CA, as advised by Jim Ashby of WRCC, as Laguna Hills does not have its own weather station // 2. J. Ashby, Service Climatologist, WRCC, via phone 5/5/2010 // 3. CA Energy Commission, Final Staff Report on CA's Water-Energy Relationship, 2005. Data include energy for supply & treatment, ag use, end-users & wastewater // 4. www.fullerton.edu/cdr/profilesv14n1.pdf, data for Laguna Hills (in Moulton Niguel WD) on p 2. //

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/