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Santa Barbara County Climate

Santa Barbara County occupies more than 2,700 square miles, most of which is sparsely populated and mountainous. The county is situated among a series of transverse mountain ranges, the only ranges within the continental United States to trend in an east-westerly direction. Most of the county's developed areas are located along the coastal plain and in the inter-mountain valleys. Santa Barbara County's climate is typically warm and dry in summer and cool and wet in winter, close to that of a Mediterranean-type climate. Most of the county's rivers, creeks, and streams remain dry during the summer months. The proximity of the Pacific Ocean tends to moderate Santa Barbara's climate and temperatures near the coast, while adjacent steep mountain ranges paralleling the coast produce a significant "orographic effect." This occurs when storms approaching the county from the Pacific Ocean are forced upward against the mountains resulting in an increased precipitation release with the increased topographic elevation. This orographic effect, in conjunction with the steep, short watersheds, occasionally results in flash flooding along the county's south coast.



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Precipitation within the county varies greatly from season to season and with each location. Average annual precipitation ranges from a minimum of about 8 inches in the Cuyama Valley to over 36 inches at the apex of the Santa Ynez Mountains. Snow is common at the county's highest elevations that are in excess of 6,600 feet above sea level. Climate studies have determined that drought periods occur regularly and may last as long as a decade or more. The most recent drought lasted from 1986 to 1991, during which water storage in the county's major reservoirs was nearly depleted. Only 4.49 inches of rain were recorded in downtown Santa Barbara in 1877, the driest year of record.

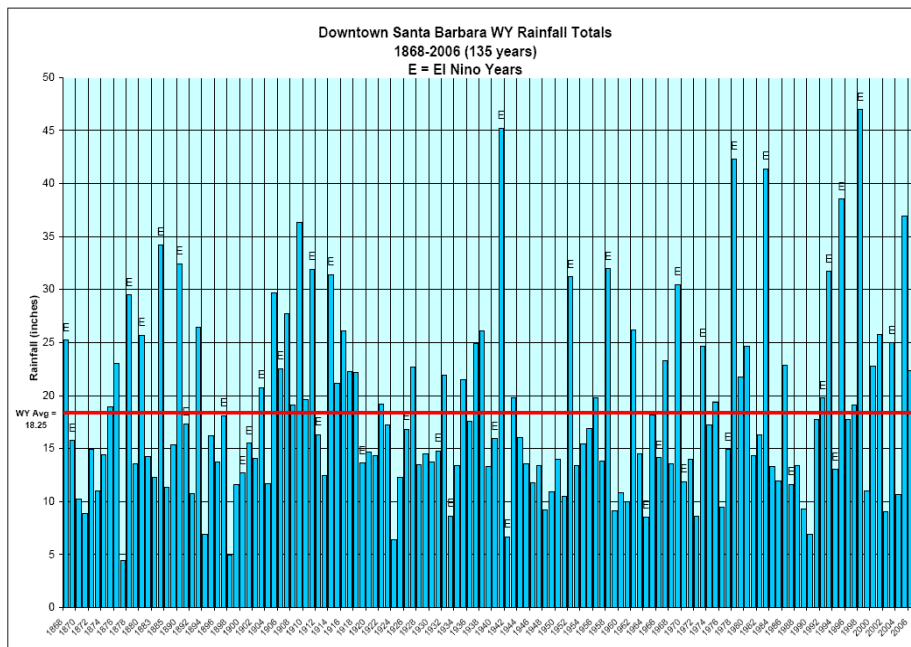
Although rainfall within the County is moderate on average, some winters yield well over twice the average. The maximum annual rainfall of 47.07 was recorded in downtown Santa Barbara in 1998. In addition, Santa Barbara County is occasionally subject to short duration rainfall of very high intensity (see table below). Due to its pronounced topography and variable rainfall, Santa Barbara County has been subject to numerous periods of flooding. Significant floods were reported by Spanish Missionaries as long ago as the late 18th Century. 20th Century flood years include 1914, 1941, 1948, 1969, 1978, 1983, 1992, 1995, and 1998.

Maximum Rainfall Depth Durations			
Duration (hours)	Location	Year	Rain (inches)
0.5	Santa Barbara Foothills	1984	1.80
1	San Marcos Pass	1998	2.51
2	Montecito Foothills	1973	4.50
3	Montecito Foothills	1973	5.99
6	Jameson Lake	1969	8.78
8	Jameson Lake	1969	10.98
12	Jameson Lake	1969	13.38
24	Jameson Lake	1969	16.31

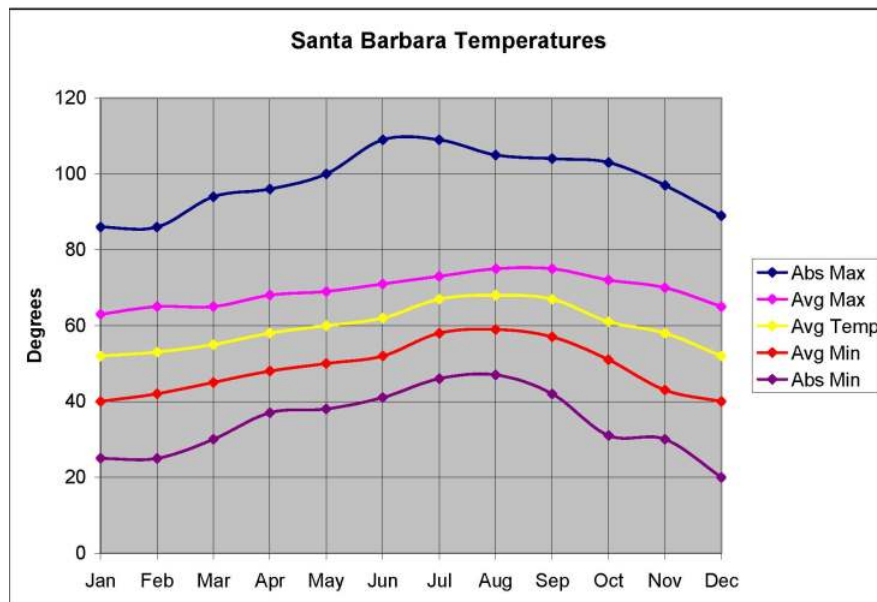
El Nino

Known to be one of the major influences on global climate, El Nino's influence in Santa Barbara County is variable. El Nino is the warming of ocean temperature in the Eastern Pacific. Locally, the phenomenon is often accompanied by warmer than normal air temperature and greater than normal rainfall. In the past, strong El Nino's have produced extreme rainfall events that caused significant flooding.

The average annual rainfall in downtown Santa Barbara during El Nino years is 23.31 inches as opposed to 18.18 inches overall. Of the 133 years of rainfall recorded locally, 39 were El Nino years. Rainfall totals for 22 of these years were above normal and 17 were below. An El Nino's strength can be categorized on a scale of one to five, with five being the strongest. The five wettest years on record are: 1941 (Cat.4), 1978 (Cat.1), 1983 (Cat.5), 1995 (Cat.2), and 1998 (Cat.5). See chart below for additional information.



Average temperatures in Santa Barbara tend to be moderate as is illustrated by the graph below. However, extreme highs and lows may also occur. Temperatures as high as 109 degrees and as low as 20 degrees Fahrenheit have been recorded at the Santa Barbara Airport within the last 60 years.



Temperature graph produced by the NWS.

Pacific High Pressure System

Santa Barbara County's climate is primarily influenced by the Pacific High Pressure System. During the dry months high pressure usually dominates the area northeast of Hawaii. In winter, it weakens and moves to the south allowing cold storm systems to enter the area from the northwest. When the region of high pressure is situated further north than normal, a "blocking high" results. The storm track is kept further north than normal and California receives little or no precipitation. The "blocking high" is responsible for most of California's droughts.

For additional information on Santa Barbara's Climate visit the [National Weather Service](http://www.nws.gov).

Contact us about this web page:

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