

California Climate

Zone 11

Reference City: Red Bluff
 Latitude: 40.09 N
 Longitude: 122.15 W
 Elevation: 342 ft



Basic Climate Conditions

	(F)
Summer Temperature Range	32
Record High Temperature (1978)	119
Record Low Temperature (1975)	20

Design Day Data

Winter	99%	29		
	97.5%	31		
Summer				
	1%:	105	MCWB	68
	2.5%:	102	MCWB	67

Climatic Design Priorities

Winter: Insulate
 Reduce Infiltration
 Passive Solar

Summer: Shade
 Use Evaporative Cooling
 Use High Thermal Mass with
 Night Ventilation

Title 24 Requirements

Package	C	D
Ceiling Insulation	R49	R38
Wood Frame Walls	R29	R19
Glazing U-Value	0.38	0.57
Maximum Total Area	16%	20%

Climate

Climate Zone 11 is the northern California valley, south of the mountainous Shasta Region, east of the Coastal Range, and west of the Sierra Cascades.

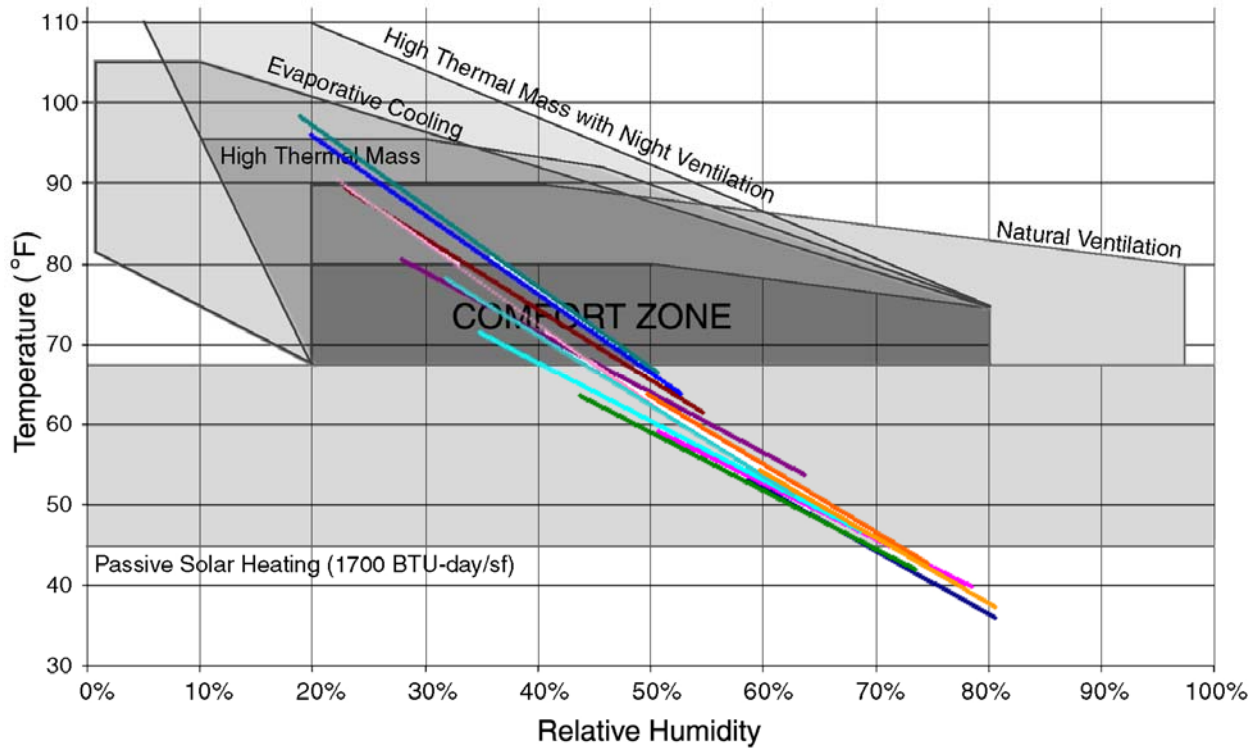
Seasons are sharply defined. Summer daytime temperatures are high, sunshine is almost constant, and the air dry. Winters are very cold with piercing north winds, possibility of snow and thick Tule fog. Cold air rolls off the hillsides on winter nights and pools in the colder flatlands. Quite a bit of rain falls between October and March, as much as 4.75" per month.

	Red Bluff	Auburn	Grass Valley	Marysville
HDD	2688	3095	4287	2524
CDD	1904	1292	612	1607

HDD = Heating Degree Days (base 65F)
 CDD = Cooling Degree Days

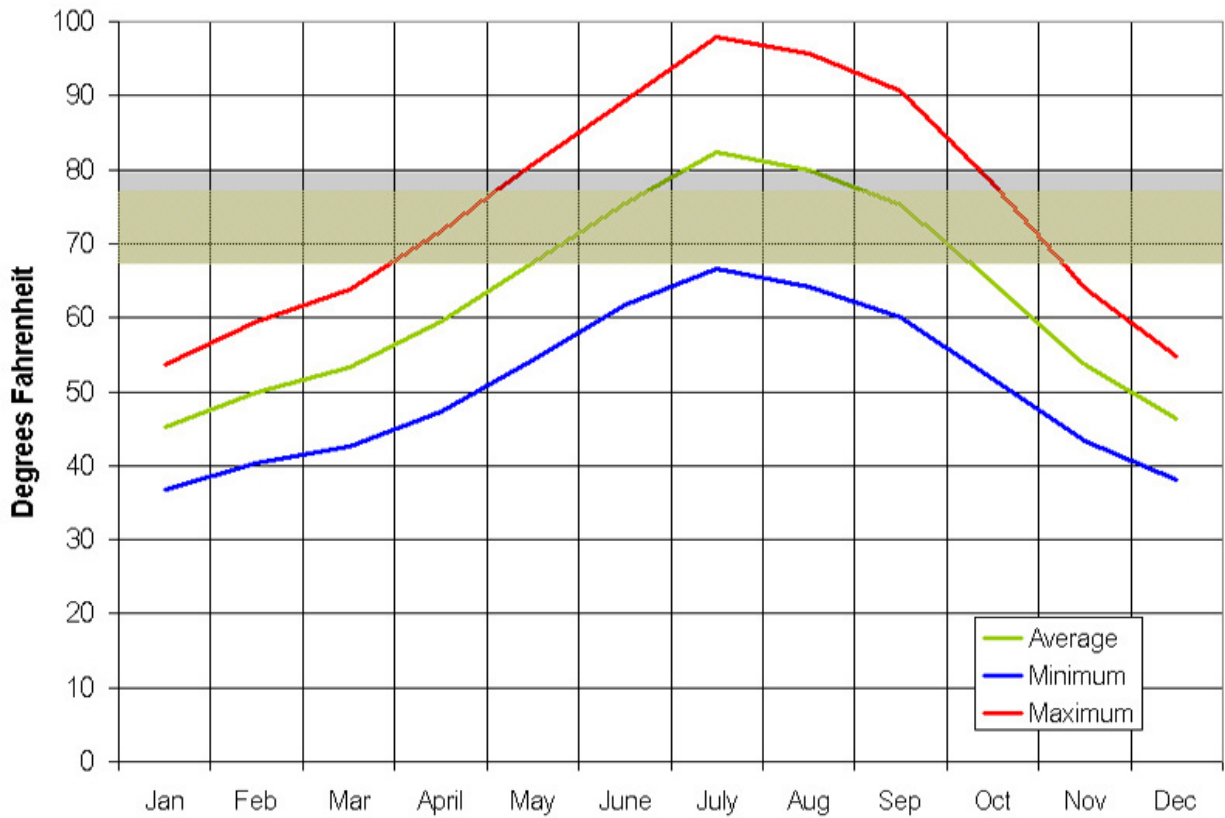
Because there is extreme weather, cooling and heating is necessary. Climate Zone 11 consumes a lot of energy consumption to meet comfort standards.

Bioclimatic Chart

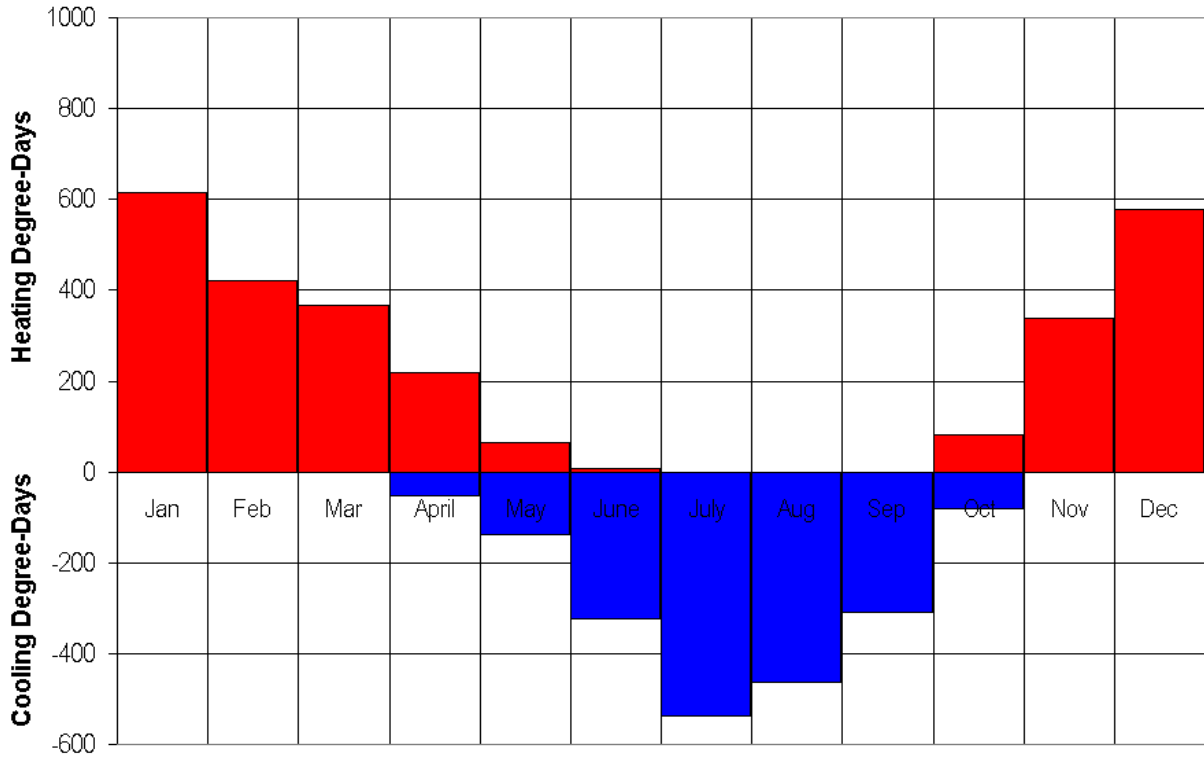


Temperature

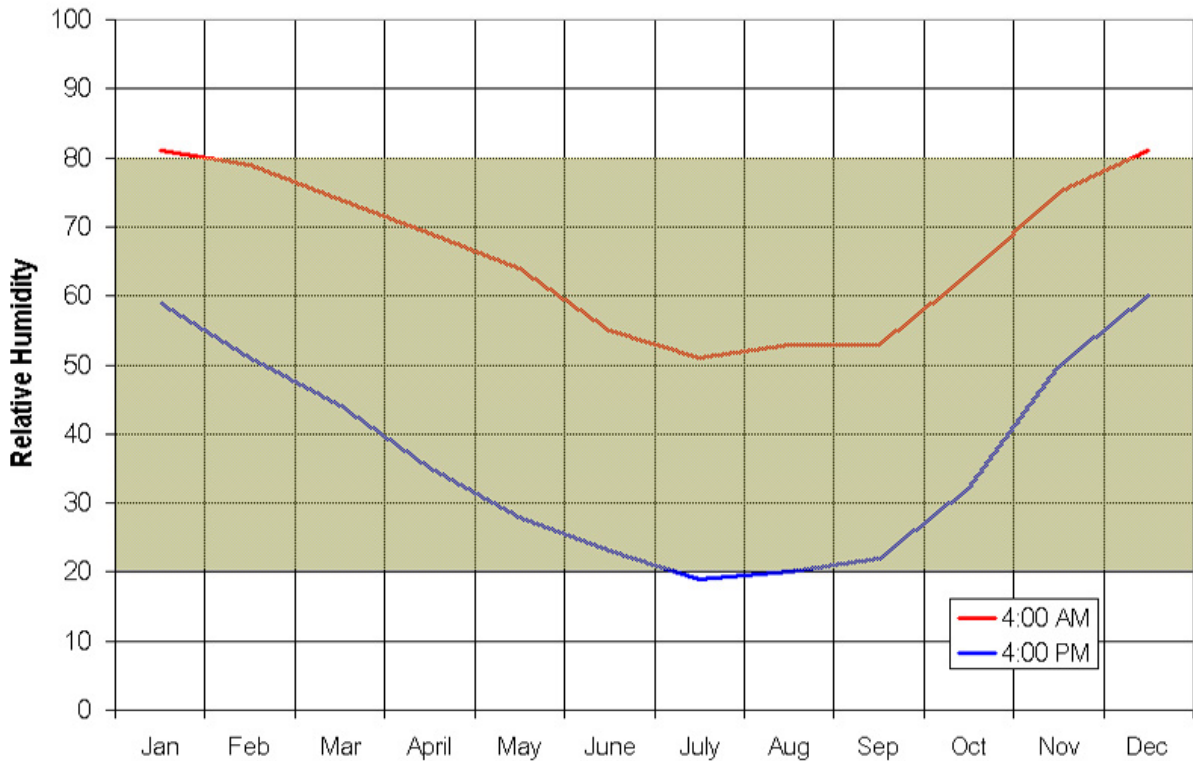
(Typical Comfort Zone: 68-80°F)



Degree Day
(Base 65°)

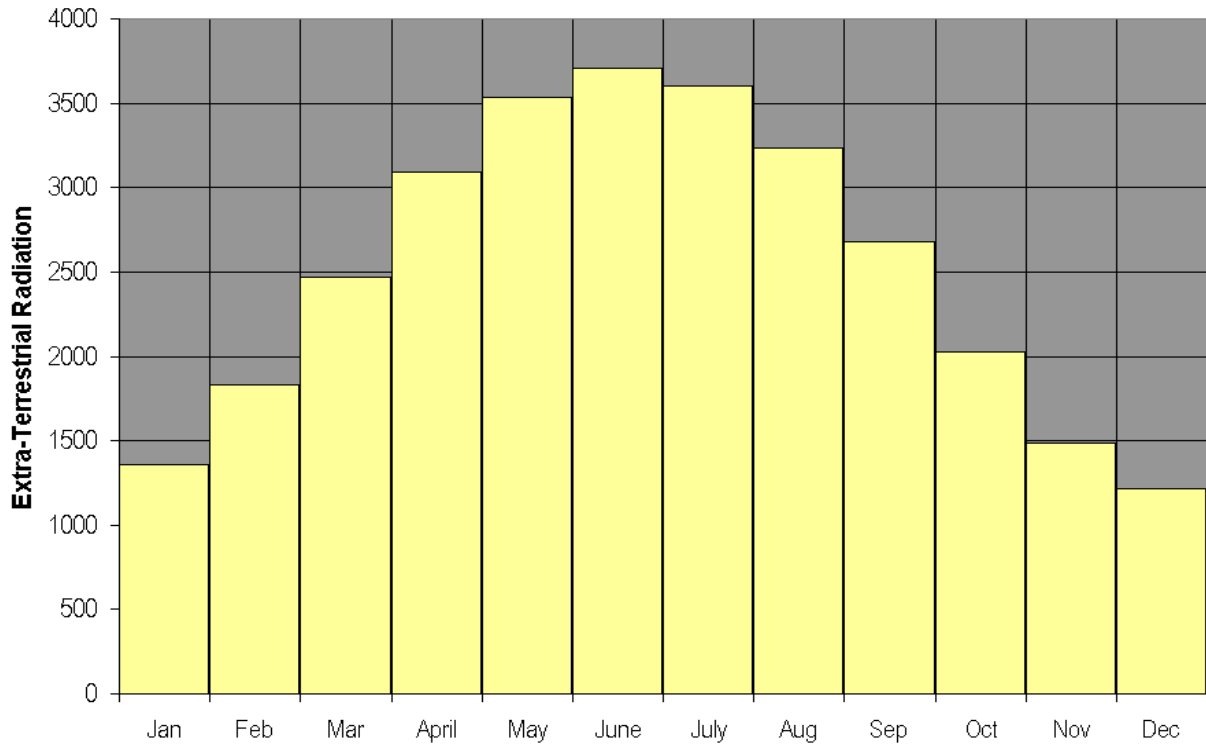


Relative Humidity
(Typical Comfort Zone: 20-80%)

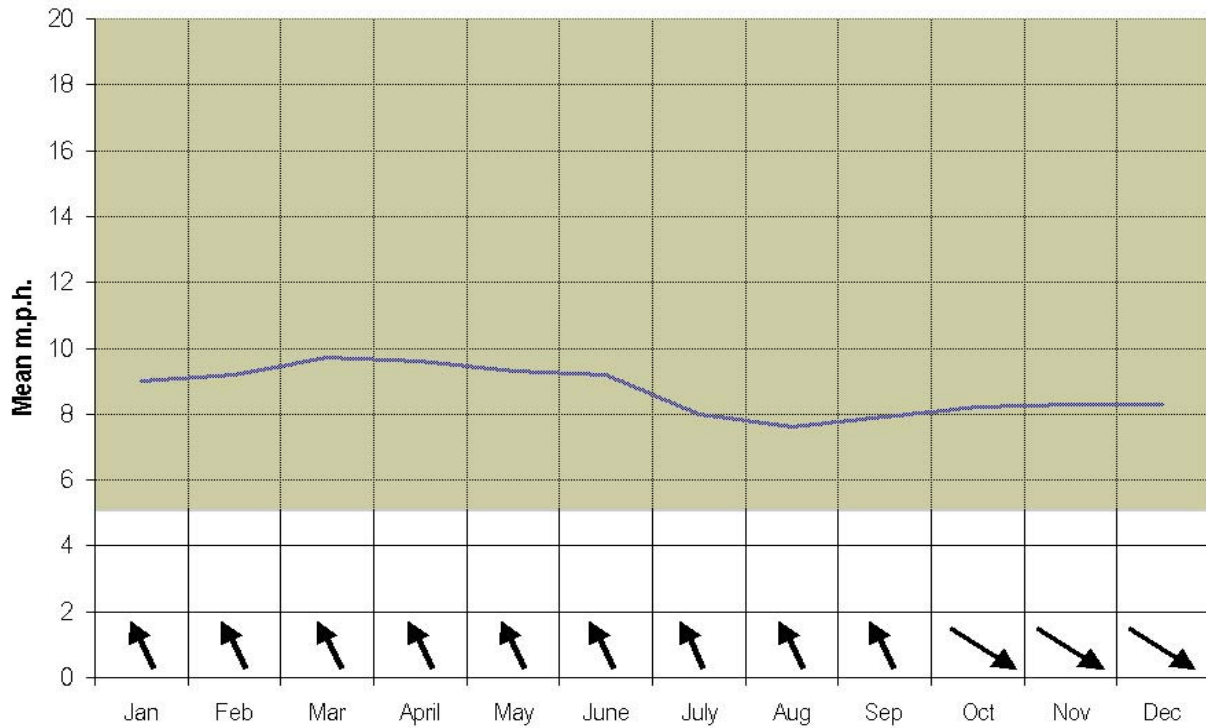


Extra-Terrestrial Radiation

Daily Mean ETR: 2519



Wind Speed



Prevailing Wind Direction

Summer: SSE
Winter: NW

Natural Ventilation is most effective when wind speed is 5 mph or greater.