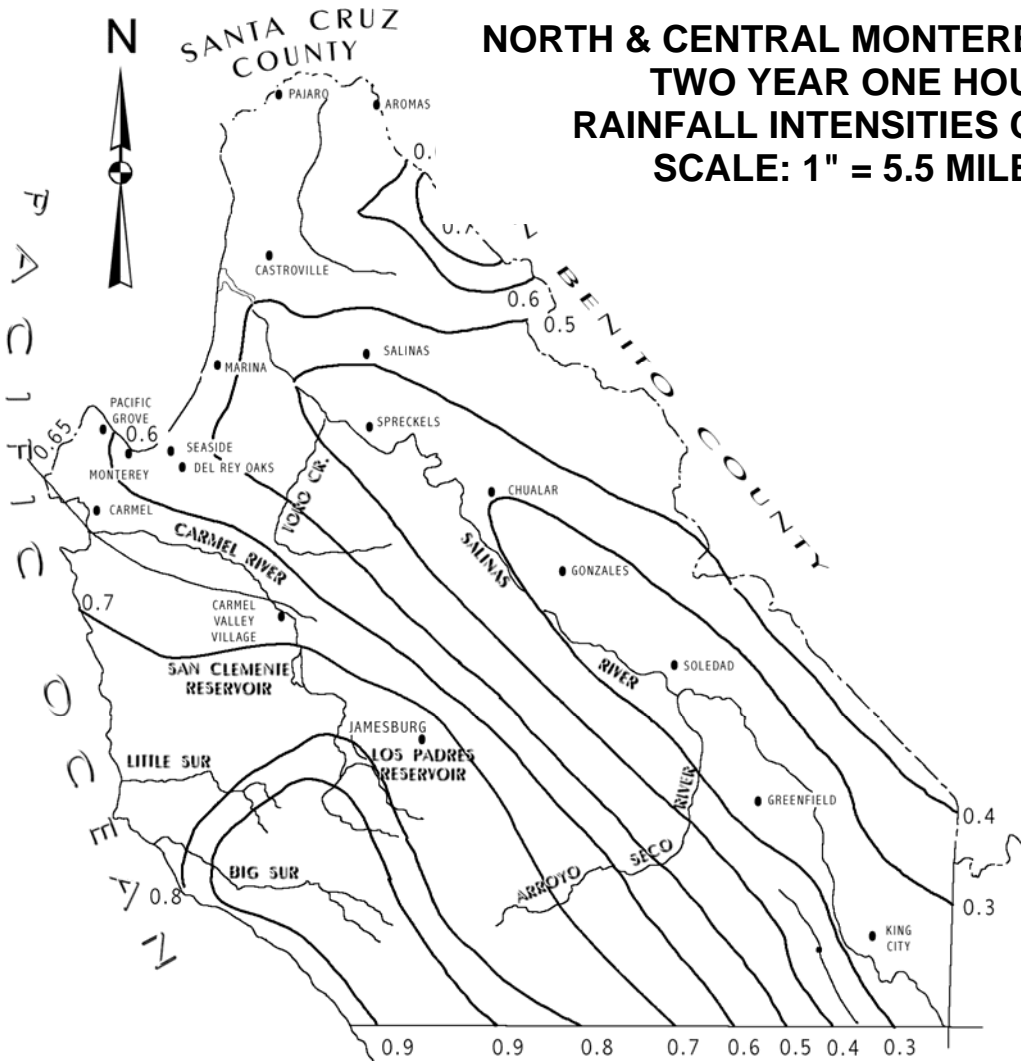


# NORTH & CENTRAL MONTEREY COUNTY TWO YEAR ONE HOUR RAINFALL INTENSITIES CHART SCALE: 1" = 5.5 MILES



**NOTE:**

1. Intensities for particular location in the Southern part of the County available from County Surveyors Office.
2. Conversion Factors:  
 Intensity of a 10-year design storm equals 2-year design storm times 1.48  
 Intensity of a 25-year design storm equals 2-year design storm times 1.73  
 Intensity of a 50-year design storm equals 2-year design storm times 1.92  
 Intensity of a 100-year design storm equals 2-year design storm times 2.22

3. The maximum intensity ( $I_t$ ) for storms of various in duration is determined by the formula:  $I_t = 7.75i / \sqrt{t}$  in which variables are as follows:

$I_t$  = maximum intensity of storm of  $t$  minutes duration  
 $i$  = one hour rainfall intensity from above chart and note 2  
 $t$  = time in minutes shortest time it takes storm runoff to flow from farthest point in the drainage area to the point in question

4. **Example:** Find maximum intensity of 20 minute storm in Chualar, expected to occur on the average of once in 25 years.

**Solution:** From chart 0.3/hr intensity for 2-year design storm.

From note 2, 0.3 times 1.73 equals 0.52"/hr the maximum intensity of a 25-year one hour design storm.

From note 3,  $I_t = 7.75i / \sqrt{t} = (7.75)(0.52) / \sqrt{20} = 0.90"/hr$ . Therefore, the maximum 20 minute intensity of a storm that on the average would occur once every 25 years would be 0.90"/hr.

MONTEREY COUNTY		DEPT. OF PUBLIC WORKS
STANDARD DETAILS RAINFALL INTENSITIES CHART		
APPROVED	<i>Russell W. Hill</i>	DATE 10-24-77
REVISED	DATE	PLATE NO. 25