the smoothed values may differ slightly from the calculated values as shown in Table 5.11. These increments are arranged in the recommended sequence for front-loaded local-storm PMP. See Figure 5.46 for the temporal distribution relation.

(f) If the areal distribution provided by the idealized elliptical pattern in Figure 5.44 is needed, the isohyet labels are determined by reference to Table 5.8. In this example, the result from (a) of 161 mm is multiplied by each percentage in Table 5.8 to get the label values in Table 5.12.

The isohyet label values given in Table 5.12 are to be applied to the isohyetal pattern shown in Figure 5.44 for each duration. The pattern may be placed over the drainage in order to maximize the precipitation volume into the drainage, or it may be positioned so as to obtain a maximized peak runoff.

5.3.8 PMP estimation in California, United States

5.3.8.1 Profile

HMR No. 58 (Corrigan and others, 1998) and HMR No. 59 (Corrigan and others, 1999) present procedures of estimating PMP for California. The reports introduce two methods of estimation: the general storm method and the local storm method. The general storm method is used to estimate PMP for durations from 1 hour through to 72 hours (1 hour, 6 hours, 12 hours, 24 hours, 48 hours and 72 hours) for watersheds with area sizes from 26 km^2 to 26 000 km^2; the local storm method is used to estimate PMP for durations from 15 minutes to 6 hours for watersheds with area sizes under 1 300 km^2. It is recommended that both methods be employed when estimating PMP for watersheds with area sizes under 1 300 km^2 and then the larger of the two be used as the design PMP for the watershed.

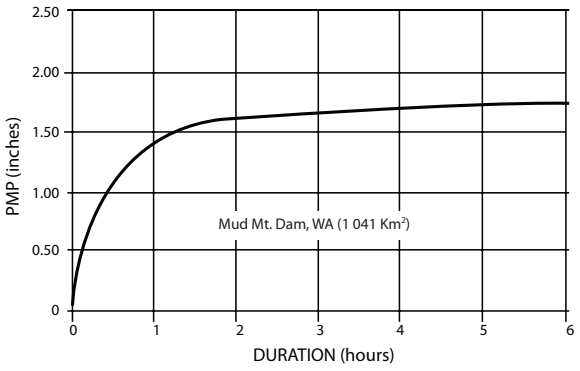

Figure 5.46. Temporal distribution relation for Mud Mountain Dam

Table 5.9. PMP values of each duration in drainage mean 2.6 km^2

	Duration (hours)								
	0.25	*0.50*	*0.75*	*1*	*2*	*3*	*4*	*5*	*6*
Percentage	50	74	90	100	110	112	114	114.5	115
PMP (mm)	81	119	145	161	178	181	184	185	185

Table 5.10. Drainage average PMP value for each duration

	Duration (hours)					
	0.25	*0.50*	*0.75*	*1*	*3*	*6*
Percentage	16.0	19.0	21.0	22.0	23.0	24.0
PMP (mm)	13	23	30	36	42	44

Table 5.11. Increments of drainage average PMP value for each duration

	Hourly intervals					
	1	*2*	*3*	*4*	*5*	*6*
PMP (mm)	35.1	39.4	41.7	4.32	4.39	4.45
Increments (mm)	35.1	4.30	2.30	1.50	0.80	0.50

The generalized DAD method is still employed for estimating the PMP of general storms. For the separation of orographic rains, Equation 5.1 is rewritten as:

$$\text{PMP} = K \# \text{FAFP} \tag{5.2}$$

where

$$K = M^2\left(1 - \frac{T}{C}\right) + \frac{T}{C} \tag{5.3}$$

The reports give isoline maps for FAFP, T/C, M and K. A 26-km^2 24-hour PMP isoline map was ultimately drawn on a 1 : 1 000 000 California map.

The PMP isoline map indicates longitudes, latitudes and some major places in addition to the boundaries of sub-regions. A generalized DAD curve is available in each of the sub-regions, so they are called DAD regions below.

If the studied watershed is located in more than one DAD region, then PMP for the sub-basin in each DAD region should be computed separately before determining PMP for the entire watershed using the area weighting method. For example, suppose a watershed whose area is 100 units includes three