

TECHNICAL NOTES

U.S. Department of Agriculture

Natural Resources Conservation Service

TN – ENGINEERING - CA - 18

June 2009

HYDROLOGY - GEOGRAPHIC BOUNDARIES FOR SCS RAINFALL DISTRIBUTIONS FOR CALIFORNIA

Purpose: This Technical Note provides the current map of storm distributions for use with SCS hydrology procedures in California.

Background: A rainfall distribution in its simplest form describes the percentage of rain that has fallen at a particular time during a rainfall event. SCS/NRCS hydrology programs utilize several synthetic rainfall distributions for making analyses.

This map was originally a revision to the nationwide map for “SCS Rainfall Distributions” found in TR-55 Urban Hydrology for Small Watersheds and Chapter 2, Estimating Runoff and Peak Discharge, of the Engineering Field Manual. The original map included only Type II storm events. Revisions to the nationwide map in 1986 added Types IA, I and III. Edward Schmit, SCS California State Hydraulic Engineer, revised it again in 1994 to better reflect the storm patterns in California.

The rainfall types in California are as follows:

- Type IA - Pacific maritime distribution used from Washington to northern California.
- Type I - Pacific maritime distribution used in southern California, Alaska and Hawaii.
- Type II - General distribution incorporating characteristics of a thunderstorm used in most areas not defined above.

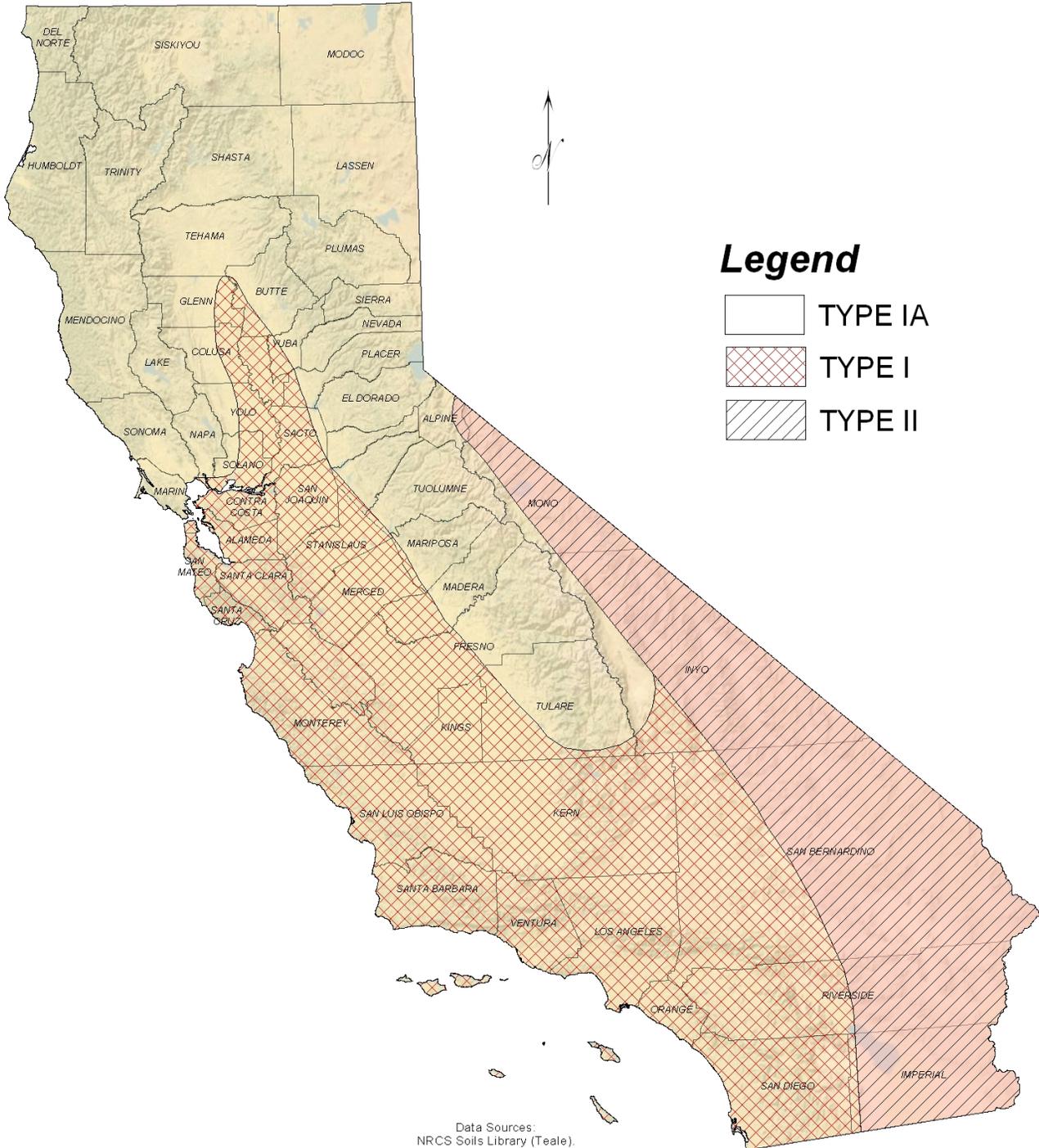
A brief review of the map shows that it is still relevant. In order to retain the information so that it can be used, it is now being re-released in this Technical Note.

When the point of interest lies close to a boundary, the following ratios of 6-hour/24-hour precipitation can be used to determine the appropriate rainfall distribution. The 100-year precipitation should be used to make this determination.

Rainfall Distribution	P_6/P_{24} (100 year)
Type IA	Less than 0.518
Type I	0.518 to 0.640
Type II	0.640 to 0.767

These geographical boundaries for SCS rainfall distributions in California shall be used with SCS/NRCS hydrology programs in California until further notice.

STORM DISTRIBUTION REGIONS, CALIFORNIA
 ORIGINALLY ADOPTED FROM EFM NOTICE - 4, DATED 5/71
 REVISED MARCH 1994
 RE-RELEASED JUNE 2009



Data Sources:
 NRCS Soils Library (Teale).
 For use with SCS/NRCS Hydrology Programs.
 Contact for further information:
 USDA-NRCS, Davis, CA.
 June 30, 2009

