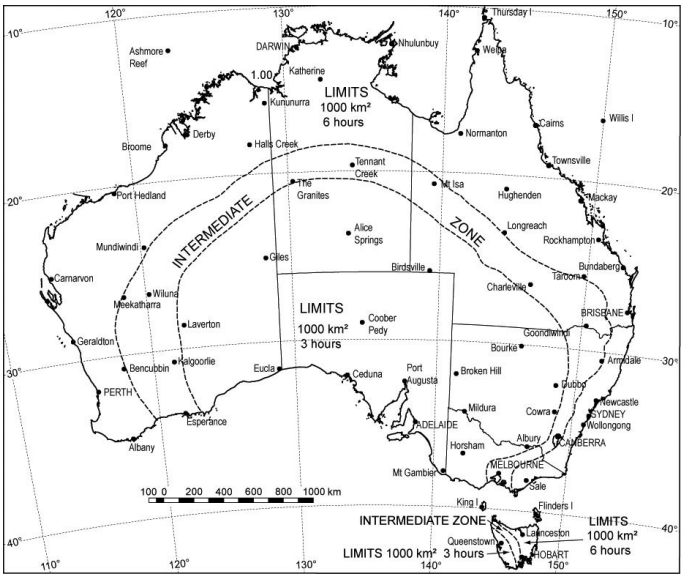

Figure 5.63. Zones for use with the generalized short-duration method (Australian Bureau of Meteorology, 2003)

5.4.3.3 Distribution of PMP in space

The design spatial distribution for convective storm PMP is given in Figure 5.67. It is based on the distribution provided by the United States Weather Bureau (1966) and the second edition of the Manual on PMP (WMO-No. 332) but has been modified in light of Australian experience. It assumes a virtually stationary storm and can be oriented in any direction with respect to the catchment. Instructions for the application of the spatial distribution are as given in Australian Bureau of Meteorology (2003). The spatial distribution diagram has no projection.

For simplicity and consistency of application, it is recommended that PMP depth be distributed using a step-function approach. This means that the depth has a constant value at all points in the interval between consecutive ellipses (or within the central ellipse), and steps to a new constant value at each new ellipse. This constant value between ellipses is the mean rainfall depth for that interval and is derived by the procedure described below. Further information on the rationale behind this method may be found in Taylor and others (1998).

5.4.3.3.1 *Instructions for the use of the spatial distribution diagram*

(a) To position the spatial distribution diagram (Figure 5.67), its size is enlarged or reduced to match the scale of the catchment outline

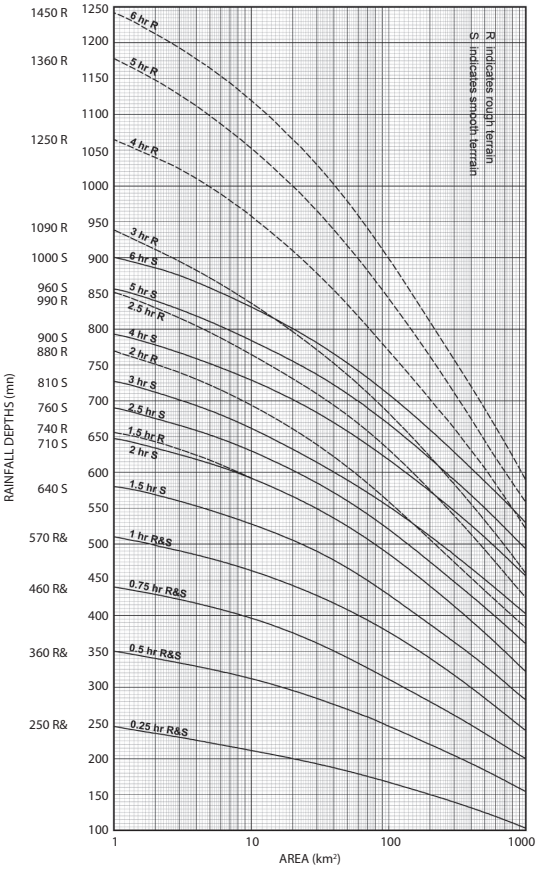

Figure 5.64. Generalized short-duration method depth–duration–area curves (Australian Bureau of Meteorology, 2003)