

designate these areas as flood risk areas and stop supporting flood-vulnerable development there. The minimum criterion for defining the flood risk area is the 100-year flood, but higher values may be used at the request of the province. Flood risk areas are divided into two zones: the floodway and the flood fringe. Future development is discouraged in the floodway because of the danger to life and property there and because obstructing the floodway could increase flood levels upstream. Development is permitted in the flood fringe area, as long as it is adequately flood-proofed. Flood plain mapping is seen as the primary aspect of the Flood Damage Reduction Programme, though it has also supported the establishment of flood forecasting systems and in a few cases structural measures. However, these activities complement the flood plain mapping programme and are not the primary approach to reducing flood damage. The mapping is of course not adequate on its own, but is an essential basis for the land-use planning and development control to avoid flood damage. It is often claimed that property values decrease once a flood risk area is designated. However, in its publication, *Flooding*, Environment Canada quotes a number of United States and Canadian studies showing that this is not the case and states that the opposite effect has been found in some cases.

Both the United States National Flood Insurance Programme and the Canadian Flood Damage Reduction Programme use flood plain mapping as a central feature. Well prepared flood plain maps are an objective indicator of flood risk and provide a reliable basis for land-use planning for reducing flood losses. Any country planning a system for flood plain management would be well advised to base it on flood plain mapping as the United States and Canada have done.