

2.2.3 Estimates of Potential Flood Damage

2.2.3.1 Approach and Assumptions

The Committee prepared estimates of the potential flood damage from selected floods in both the Red River area and the Gretna-Altona area. The approach used to estimate the potential damage was consistent with the approach used by the U.S. Corps of Engineers. In order to use this approach and to provide an estimate of damages without conducting a detailed study it was necessary to make a number of assumptions. The basic assumptions used by the Review Committee were as follows:

- (1) that the method of estimating flood damages used by the Manitoba Royal Commission on Flood Cost-Benefit 1958, is applicable to this review.
- (2) that due to similar socio-economic characteristics in the Red River area and the Gretna-Altona area, flood damage data is transferable from one area to the other on a per capita or a per acre basis.
- (3) that except for damage to farm crops, the existing levees and farm pads in the Red River flood area will prevent 80% of all agricultural damages from floods of a magnitude up to and inclusive of the 1950 flood.

Using the estimates of flood damages reported by the Royal Commission on Flood Cost Benefit, 1958, as a base, the Review Committee prepared damage estimates reflecting 1972 prices and levels of development for three historical floods in the Red River area (1852, 1947 & 1950) and two historical floods