

The potential for flooding exists along all rivers and streams in Alberta.

Flooding can cause damage to property, hardship to people and in extreme events, loss of life. To assist Albertans in mitigating potential flood losses, Alberta Environment and Sustainable Resource Development manages the production of flood hazard studies and mapping under the provincial Flood Hazard Identification Program.

Individuals and all levels of government have a responsibility to reduce flood hazards within their areas of jurisdiction and have a role in managing flood hazard areas through appropriate land-use planning.

Program History

Flood hazard studies and mapping have been produced by the Government of Alberta since the 1970s. Alberta Environment and Sustainable Resource Development continues to produce studies and mapping under the Flood Hazard Identification Program. The maps have been available online since 2004.

Flood Hazard Mapping

Flood hazard mapping marks out flood hazard areas along streams and lakes using design flood levels. In Alberta, design floods are one per cent flood events, which are also called 100-year floods.

The Flood Hazard Map Application uses GIS technology to display flood hazard mapping prepared for Alberta communities.

Please contact Alberta Environment and Sustainable Resource Development at ESRD.Flood@gov.ab.ca for more information.

Terminology and Definitions:

Flood Hazard Area

The flood hazard area is typically divided into floodway and flood fringe zones and may also include areas of overland flow.

Floodway

The portion of the flood hazard area where flows are deepest, fastest and most destructive. The floodway typically includes the main channel of a stream and a portion of the adjacent overbank area. New development is discouraged in the floodway.

Flood Fringe

The portion of the flood hazard area outside of the floodway. Water in the flood fringe is generally shallower and flows more slowly than in the floodway. New development in the flood fringe may be permitted in some communities and should be floodproofed.

Overland Flow

Areas of overland flow are part of the flood hazard area outside of the floodway, and are typically considered special areas of the flood fringe.

Design Flood

The current design standard in Alberta is the one percent flood, defined as a flood whose magnitude has a one percent chance of being equaled or exceeded in any year. Although it can be referred to as a 100-year flood, this does not mean that it will only occur once every hundred years.

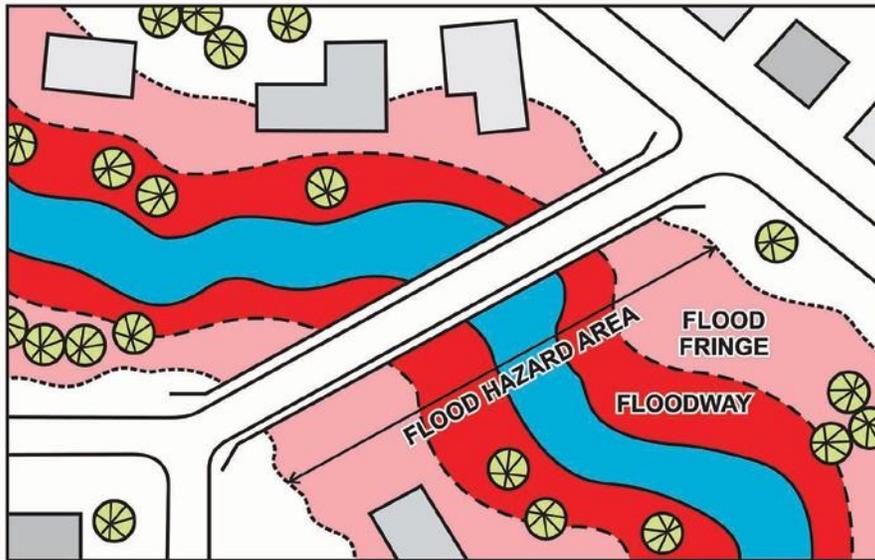
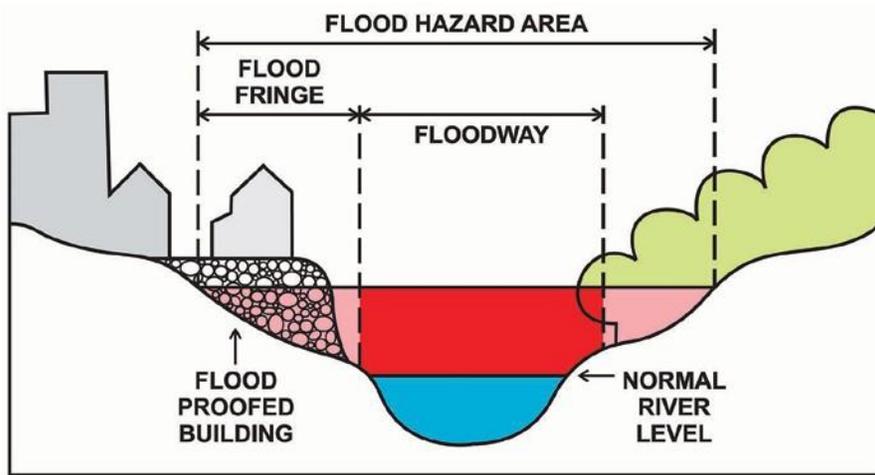
Design Flood Levels

Modelled water elevations within a flood hazard area based on a design flood (a one per cent flood). Design flood levels do not change as a result of development or obstruction of flows within the flood fringe.

Encroachment Conditions

The flood hazard design case that assumes a scenario where the flood fringe is fully developed.

Floodway and Flood Fringe Zones



Learn more and view maps online at ersd.alberta.ca/flood-hazard