

Red Deer (County) and Markerville - Red Deer, Little Red Deer and Medicine Rivers - Flood Hazard Study

Community Hamlet of Markerville
Red Deer County

Stream Red Deer River
Little Red Deer River
Medicine River

Basin Red Deer River - 5C

This study delineates flood hazard areas and determines design flood levels along the Red Deer, Little Red Deer and the Medicine Rivers through Red Deer County, including Markerville. The study area includes an approximate 50 km reach of the Red Deer River, an approximate 12 km reach of the Little Red Deer River and an approximate 17 km reach of the Medicine River. The Red Deer River design discharge ranges from 1450 m³/s at the upstream study extent to 1750 m³/s at the downstream extent. The design discharges for the Little Red Deer and Medicine Rivers are 419 m³/s and 283 m³/s respectively.

The headwaters of the Red Deer River are located in the Rocky Mountains and flows in the study area have been regulated by Dickson Dam since 1983. The selected design discharges for the Red Deer River are based on naturalized data and do not reflect the effects of regulation.

Flooding along the Red Deer River generally occurs during the open water season as a result of intense rainfall events, either alone or in combination with snowmelt runoff. The Little Red Deer River has its origins in the foothills and the Medicine River flows out of Medicine Lake in a prairies. Flooding along both tributary rivers generally occurs between April and July, but high water levels along the Medicine River can be driven by ice jam activity. Open water flooding is the design case for this study.

A digital representation of the flood hazard maps prepared as part of this study can be viewed using the [Flood Hazard Map Application](#). For more information regarding specific flood hazards in your community, please contact Alberta Environment by email at aenv-flood.risk-maps@gov.ab.ca.

Flood Hazard Study Details

Study Status Final

Study Name Red Deer River, Dickson Dam to Red Deer Including Markerville, Flood Risk Mapping Study

Study Author AMEC Earth & Environmental, Calgary, Alberta

Study Date March 2007

Flood information available after study completion may not be reflected in the current study report or flood hazard mapping.

Provincial Designation Details

Designation Status Pending