Drumheller - Red Deer River, Michichi Creek and Rosebud River - Flood Hazard Study

Community Town of Drumheller
Kneehill County
Starland County
Wheatland County
Special Area No. 2

Stream Red Deer River
Rosebud River
Michichi Creek

Basin Red Deer River - 5C

This study delineates flood hazard areas and determines design flood levels along the Red Deer River, Michichi Creek and the Rosebud River through the Drumheller and surrounding area. The study area includes about 36 km of the Red Deer River and almost 2 km lengths of Michichi Creek and the Rosebud River upstream of their confluences with the Red Deer River. The Red Deer River design discharge ranges from 2290 m^3/s at the upstream study extent to 2560 m^3/s at the downstream extent. The design discharges for Michichi Creek and the Rosebud River are 68.0 m^3/s and 276 m^3/s respectively.

The headwaters of the Red Deer River are located in the Rocky Mountains. Flows in the study area have been regulated by Dickson Dam since 1983 and dykes exist along the Red Deer River through Drumheller at several locations. The selected design discharges for the Red Deer River are based on naturalized data and do not reflect the effects of regulation. Floods on the Red Deer River within the study area generally occur between May and August and most commonly in June, as a result of intense rainfall in the foothills region of the basin, either alone or in combination with mountain snowmelt runoff. The Michichi Creek and Rosebud River watersheds are located in the eastern Alberta prairie. Flooding along both streams typically occurs in between late-March and early-April as a result of spring snowmelt runoff.

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 Drumheller Flood Risk Mapping Study

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