Rocky Mountain House Flood Study
Study notice

The Rocky Mountain House Flood Study will assess and identify flood hazards along 13 km of the North Saskatchewan River and 5 km of the Clearwater River through Rocky Mountain House and Clearwater County.

The new flood study will be completed under the provincial Flood Hazard Identification Program, the goals of which include enhancement of public safety and reduction of future flood damages through the identification of river and flood hazards.

Hydraulic modelling, flood inundation mapping, and flood hazard mapping along the North Saskatchewan and Clearwater Rivers are the primary deliverables of the new study, but the study also includes foundational survey and base data collection and hydrology assessment components.

The study began in October 2020 and is expected to be complete by spring 2022. The river survey is expected to be completed before winter 2020 and work on other components is in early stages.

We recognize there will be tremendous interest in any new flood mapping. Our study finalization process includes municipal review and public engagement for major components, as appropriate. Our goal is to provide useful tools to communities and the public as soon as possible.

More information about the Alberta Flood Hazard Identification Program can be found at:
- [www.floodhazard.alberta.ca](http://www.floodhazard.alberta.ca)

If you have any questions regarding this work, the project engagement and education specialist, Julia Frohlich, can be contacted at:
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Project background and study progress

The Rocky Mountain House Flood Study will assess and identify flood hazards along 13 km of the North Saskatchewan River and 5 km of the Clearwater River through Rocky Mountain House and Clearwater County.

The main study components outlined below include new hydraulic modelling and flood mapping, but all deliverables support local emergency response and land-use planning needs.

- **Survey and base data collection** – Early stages
  Hydraulic models and flood maps require high-accuracy base data. Field surveys and LiDAR remote sensing are used to collect river and floodplain elevations, channel cross section data, bridge and culvert information, and dedicated flood control structure details.

- **Hydrology assessment** – Early stages
  The hydrology assessment estimates flows for a wide range of possible floods along the North Saskatchewan and Clearwater Rivers, including the 1:2, 1:5, 1:10, 1:20, 1:35, 1:50, 1:75, 1:100, 1:200, 1:350, 1:500, 1:750, and 1:1000 floods.

- **Hydraulic river modelling** – Early stages
  A new hydraulic computer model of the river system will be created using new survey data and modern tools. The model will be calibrated using surveyed highwater marks from past floods to ensure that results for different floods are reasonable.

- **Flood inundation mapping** – Early stages
  Flood maps for thirteen different sized floods, based on the hydraulic model results and the hydrology assessment, will be produced. Flood inundation maps can be used for emergency response planning and to inform local infrastructure design. These maps identify areas of direct flooding and areas that could be flooded if local berms fail.

- **Flood hazard mapping** – Early stages
  Flood hazard mapping divides the 1:100 floodplain into floodway and flood fringe zones, to identify where flooding is deepest and most destructive. These maps can be used to help guide long-term development planning.