

Catastrophic failure of a beaver dam at Chudnuslida Lake, east central British Columbia

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Beaver dams are common, transitory features along many Canadian streams. These dams can fail suddenly and cause significant downstream flooding. We report on a recent beaver dam failure on Chudnuslida Lake (54° 54' N; 122° 34' W) in east central British Columbia. Prior to the event, the level of Chudnuslida Lake was controlled by a beaver dam, but between July and August 2000, a beaver blocked a culvert 100 m downstream and raised the level of the lake by 3 m and caused the dam to fail. Over $2 \times 10^6 \text{ m}^3$ of water was released during the event and caused up to 4 m of channel scour over a distance of 4 km. The flood also caused substantial bank erosion and slope failure along the stream channel. Over 80,000 m³ of sediment was deposited in bars in the lower, wider portion of the channel, and as a fan into a higher order stream and its floodplain.