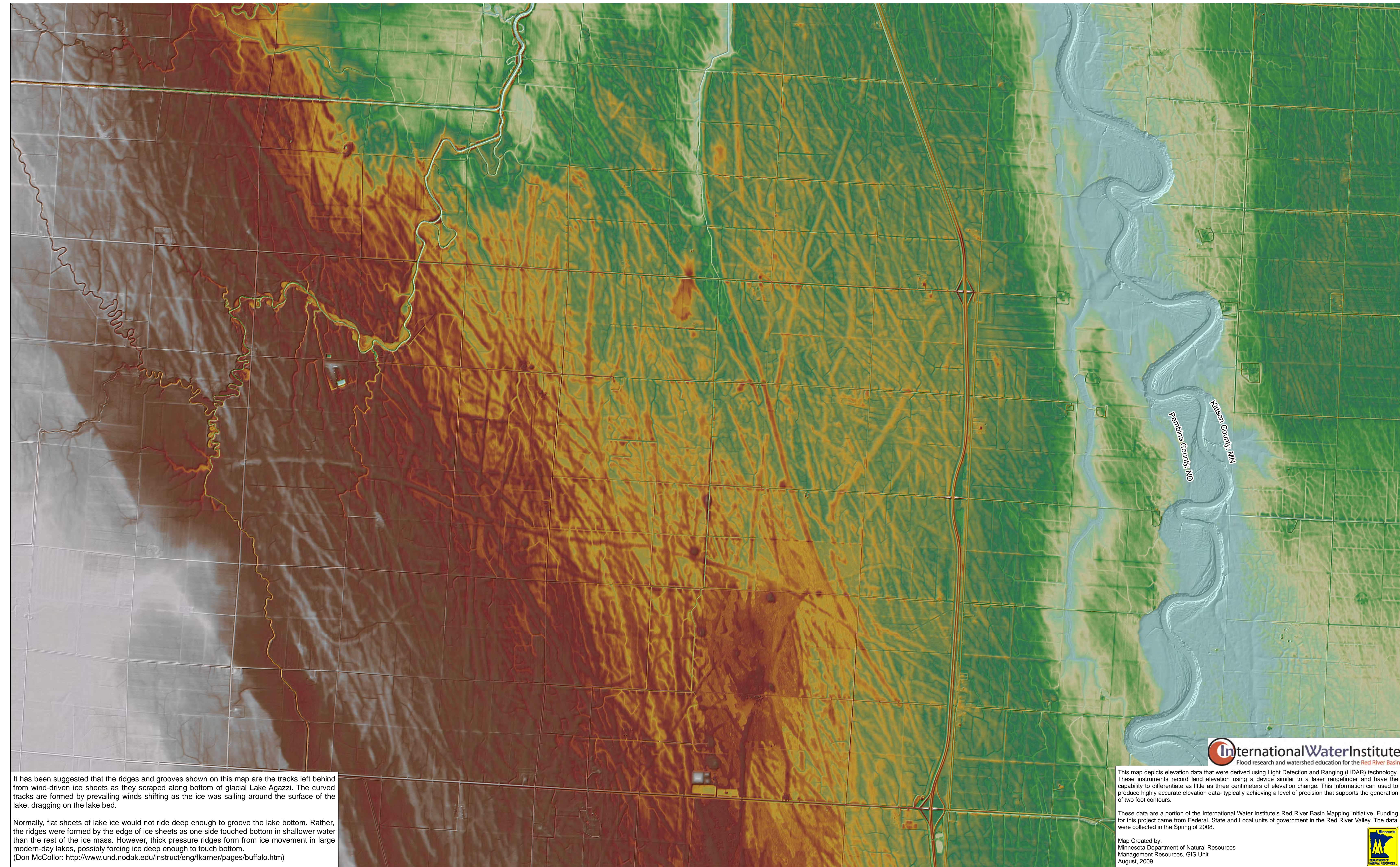


Glacial Iceberg Tracks in the Red River Valley



InternationalWaterInstitute
Flood research and watershed education for the Red River Basin

This map depicts elevation data that were derived using Light Detection and Ranging (LiDAR) technology. These instruments record land elevation using a device similar to a laser rangefinder and have the capability to differentiate as little as three centimeters of elevation change. This information can be used to produce highly accurate elevation data- typically achieving a level of precision that supports the generation of two foot contours.

These data are a portion of the International Water Institute's Red River Basin Mapping Initiative. Funding for this project came from Federal, State and Local units of government in the Red River Valley. The data were collected in the Spring of 2008.

Map Created by:
Minnesota Department of Natural Resources
Management Resources, GIS Unit
August, 2009



It has been suggested that the ridges and grooves shown on this map are the tracks left behind from wind-driven ice sheets as they scraped along bottom of glacial Lake Agazzi. The curved tracks are formed by prevailing winds shifting as the ice was sailing around the surface of the lake, dragging on the lake bed.

Normally, flat sheets of lake ice would not ride deep enough to groove the lake bottom. Rather, the ridges were formed by the edge of ice sheets as one side touched bottom in shallower water than the rest of the ice mass. However, thick pressure ridges form from ice movement in large modern-day lakes, possibly forcing ice deep enough to touch bottom.
(Don McCollor: <http://www.und.nodak.edu/instruct/eng/fkarnar/pages/buffalo.htm>)

0 0.25 0.5 1 1.5 2 2.5 3 3.5 4 4.5 Miles