

## Physiographic Features

Minnehaha County is located in the southwestern part of the Couteau des Prairies section of the Central Lowland physiographic province. Topography is a direct result of Pleistocene Age glaciation. Of the five glacial epochs, Nebraskan, Kansan, Pre-Illinoian, Illinoian and Wisconsin, only the two most recent deposits of glacial till are exposed.

Skunk Creek marks the difference between mature, well developed drainage systems to the east and a less mature, poorly defined drainage system consisting of knobs, kettles and terminal moraine deposits in the western portion of the county. The mature development of drainage systems in the east indicates that the last lobe of the Wisconsin epoch did not cross Skunk Creek. Windblown deposits of loess occur along ancient shorelines of rivers and creeks and can be identified by the yellow color and bluff like ridges. Both glaciers brought limy shales and clays from the Canadian Prairie Provinces. The dominant soil groups are a result of degraded grass vegetation, being rich in nutrients but poor in drainage. Chernozem, humic gley, regosal and alluvium soils dominate and are susceptible to erosion. Several small, shallow glacial lakes occur in western Minnehaha County, most notably Wall Lake.

Geologically, Minnehaha County is underlain almost completely by a thick layer of sioux quartzite as a base rock, resulting from the metamorphism of sandstone. The glacial till combined with alluvial and loessal deposits provided the fertile soil for agricultural use. The natural progression of rivers deposited sand and gravel along the shorelines.