

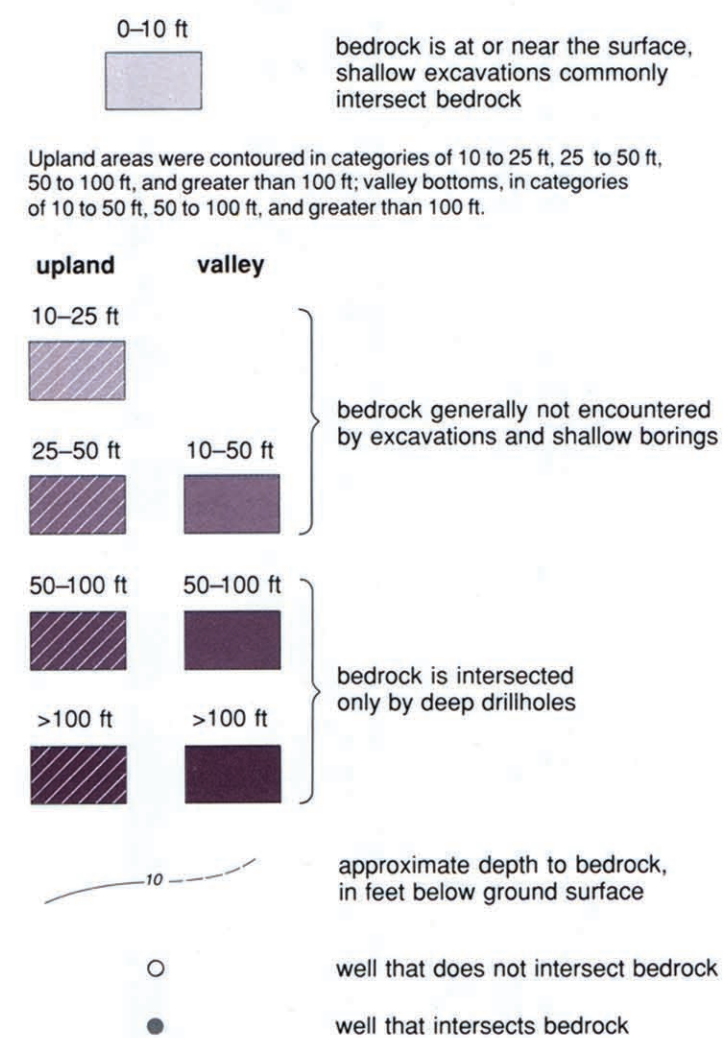
Depth to Bedrock Map of Pierce County, Wisconsin

Bruce A. Brown
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Miscellaneous Map 34

A product of the Pierce County Groundwater Resource Investigation, a joint project of the Wisconsin Geological and Natural History Survey and the Pierce County Board of Supervisors.

Depth to bedrock categories



Most of Pierce County is underlain by dolomite of the Ordovician Prairie du Chien Group (fig. 1). Underlying Cambrian sandstone of the Jordan Formation and Tunnel City Group occurs at the bedrock surface along the Mississippi and St. Croix Rivers and in deeply incised tributary streams (fig. 2). In western Pierce County Prairie du Chien dolomite is overlain in places by sandstone of the St. Peter Formation and dolomite of the Platteville Formation (fig. 1).

The Pleistocene Epoch deposits of Pierce County have not been mapped in detail. Pierce County was not glaciated during the most recent Pleistocene glaciation, the Wisconsin, but was covered by earlier glaciers. Surficial materials (which include glacial deposits and material derived from bedrock weathering) consist of a complex of pre-Wisconsin till, outwash, lacustrine deposits, loess, and hillslope deposits. Uplands are covered in places by up to 150 ft of glacial deposits; eroded valley slopes contain rock that is exposed or covered by slope wash and mass-movement deposits; valley bottoms are filled with stream deposits (fig. 2).

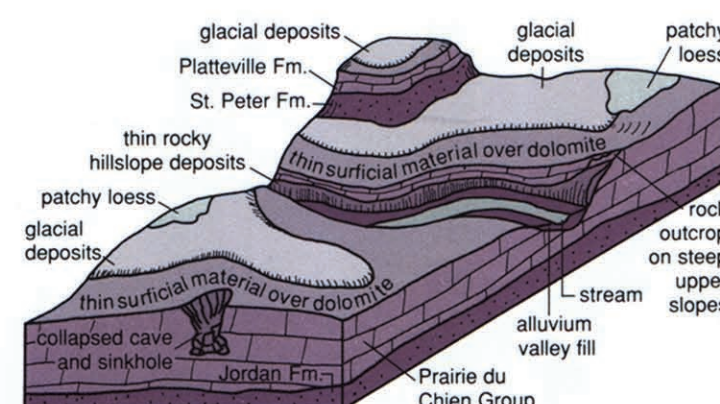


Figure 1. Physiographic block diagram

The depth to bedrock map presented here provides a general guide to the distribution and thickness of surficial materials. It is based on water-well records, soil surveys, and field observations. Available descriptions of the Pleistocene deposits of Pierce County (Baker, 1984) show that these deposits are complex and likely to vary significantly in character and thickness over short distances. Because of this local complexity, this map should be used only as a guide to the general thickness of these materials. Detailed site-specific investigations, including test drilling, are necessary to verify local conditions.

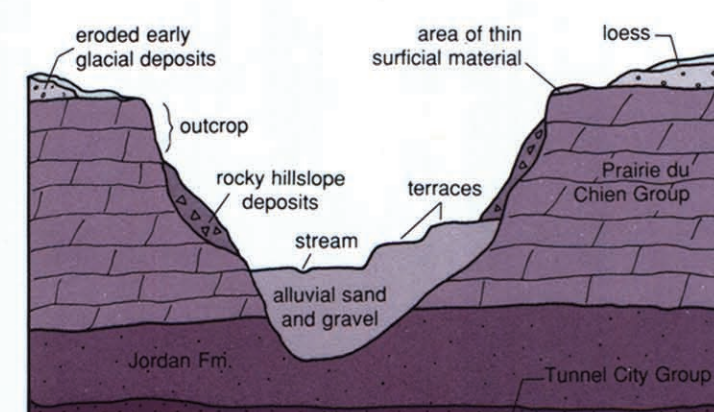


Figure 2. Cross section of typical stream valley

Sources of data

Baker, R.W., 1984. Pleistocene history of west-central Wisconsin: Wisconsin Geological and Natural History Survey, Field Trip Guide Book 11, 76 p.

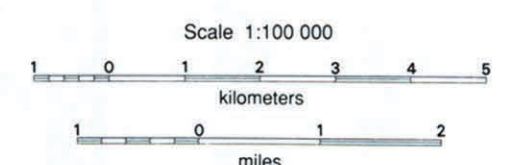
Sutherland, A.W., Leigh, C.C., and Madison, F.W., 1987. Soils of Pierce County and their ability to attenuate contaminants: Wisconsin Geological and Natural History Survey Map 87-9, scale 1:100,000.

Wisconsin Department of Natural Resources well constructor's reports (1936-87).

Wisconsin Geological and Natural History Survey published and unpublished geologic logs (1896-1989).



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