

# Potentiometric Surface of the Deep Consolidated Aquifers in Geauga County

by  
Kathy Sprows  
Ohio Department of Natural Resources  
Division of Water



This map shows the elevation of the ground water level that was measured from individual water wells completed in the deep consolidated (bedrock) aquifers within Geauga County. These aquifers consist primarily of the Mississippian Berea and Cussewago sandstone formations, but may also include some of the shale formations that lie above and below the sandstones.

Ground water potentiometric surface (water level) maps indicate the elevation and general direction of ground water flow. Ground water flows from areas of higher head elevations to lower head elevations in a direction perpendicular to the contour lines. This map only depicts the horizontal gradient.

These maps could be used to determine ground water recharge and discharge areas, as input data into ground water modeling programs, and to locate monitoring wells in the correct locations to satisfy compliance monitoring. These maps could also be used to assist in preparing water resource plans, to assist in preparing technical studies, the mapping of stress areas, and in possible ground water diversion issues. Since these maps were created from existing data collected over a fifty-year period, field verification of the ground water flow direction should be conducted before any site specific work is conducted.

**Legend**

- 800 - Ground Water Elevation, in feet
- Roads
- Streams
- Lakes
- Townships

Contour interval is 50 feet. Contour elevations are measured from Mean Sea Level.

Black grid represents the State Plane South Coordinate System (NAD27, feet).



### Disclaimer

This map was created using static water level readings from water well records collected over a 50 (+/-) year period. The Division of Water was technically reviewed this map but disclaims any responsibility or liability for interpretations or decisions based thereon. In no event shall the Division of Water have any liability whatsoever for payment of any kind, including but not limited to, any loss of profits arising out of use of or reliance on the maps.



Ohio Department of Natural Resources\*  
Division of Water  
Ground Water Resources Section  
1939 Fountain Square  
Columbus Ohio 43224  
www.dnr.state.oh.us  
June 2005

