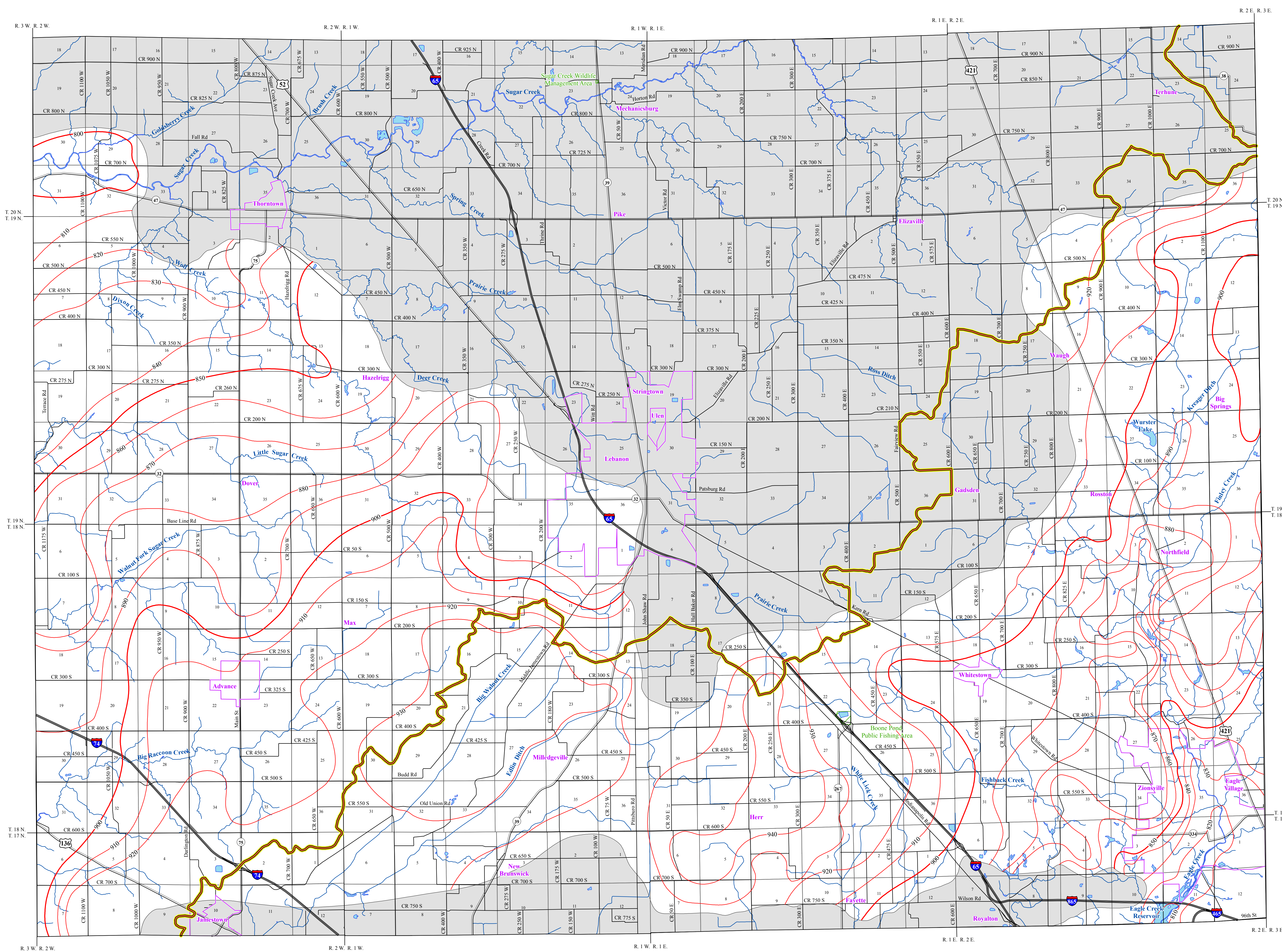


POTENTIOMETRIC SURFACE MAP OF THE BEDROCK AQUIFERS OF BOONE COUNTY, INDIANA



Boone County, Indiana is located in the central portion of the state and is situated within two major drainage basins, the Middle Wabash River Basin to the northwest and the White and West Fork White River Basin to the southeast.

The generalized potentiometric surface map (PSM) contour elevations represent lines of equal elevation relative to the measured groundwater levels in wells. Static water level measurements in individual wells used to construct the potentiometric surface map are indicative of the water level at the time of well completion. Therefore, current site-specific conditions may differ due to local or seasonal variations in measured static water levels.

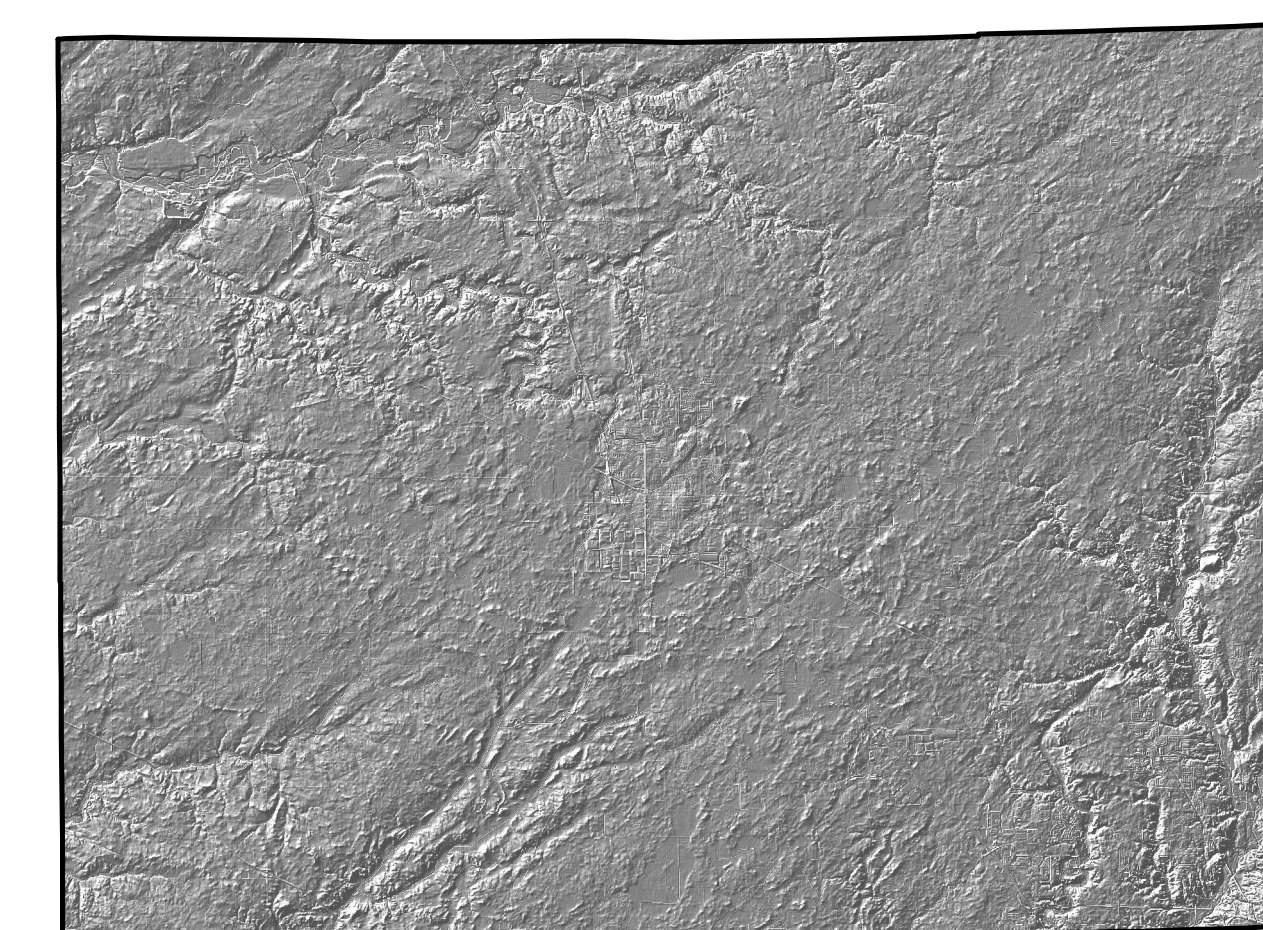
Coordinate locations of water well records were physically obtained in the field, determined through address geocoding, or reported on water well records. Elevation data were either obtained from topographic maps or a digital elevation model (DEM). Elevation and location quality control/quality assurance procedures were utilized to refine or remove data where errors were readily apparent.

In Boone County depth to bedrock varies from outcropping along sections of Sugar Creek in the western part of the county, to 350 feet in the north-central area (Grove, 2008). Wells are generally completed in shale and siltstone bedrock deposits of the Mississippian Borden Group, the Devonian and Mississippian New Albany Shale or carbonate deposits of the Silurian and Devonian Carbonates. There are approximately 273 located wells that are completed in bedrock and utilized towards the mapping of the bedrock potentiometric surface. However, much of the central and northern portions of Boone County are lacking in data and/or covered by more prolific unconsolidated deposits that limit the necessity to complete wells in bedrock. Therefore, potentiometric surface elevations contours have not been extended through these areas.

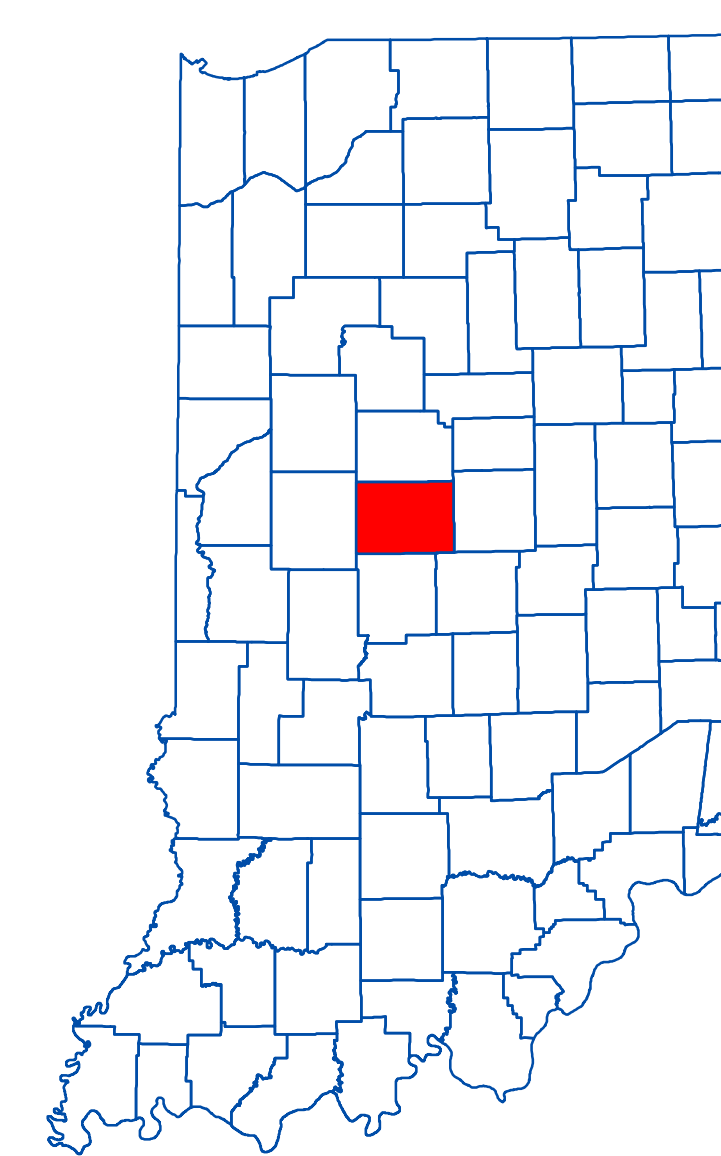
Potentiometric surface elevations range from a high of 940 feet mean sea level (msl) in the south-central region of the county near the basin divide, to a low of 800 feet msl in the northeast part of the county. Generalized groundwater flow direction for Boone County is towards major drainage relevant to the basin. Therefore, in the White and West Fork White River Basin, groundwater flow is southeast towards Eagle Creek, and northeast towards Sugar Creek for the Middle Wabash River Basin.

Grove, 2008. Bedrock Aquifer Systems of Boone County, Indiana. Indiana Department of Natural Resources, Division of Water, Aquifer System Map 14-8.

Hillshade Map of Boone County, Indiana

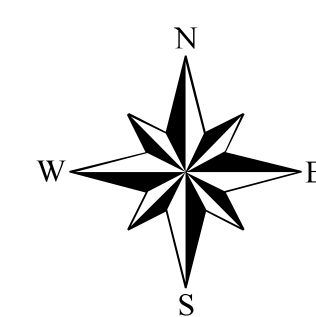


Location Map



EXPLANATION

- Line of equal elevation, in feet above mean sea level
- Potentiometric Contour interval 10 feet
- Stream
- County Road
- State Road
- US Highway
- Interstate
- Basin Boundary
- Municipal Boundary
- State Managed Property
- Lake & River
- No Aquifer Material or Limited Data



1 0.5 0 1 Mile



1 0.5 0 1 Kilometer



Map Use and Disclaimer Statement

We request that the following agency be acknowledged in products derived from this map: Indiana Department of Natural Resources, Division of Water. This map was compiled by staff of the Indiana Department of Natural Resources, Division of Water using data believed to be reasonably accurate. However, a degree of error is inherent in all maps. This product is distributed "as is" without warranties of any kind, either expressed or implied. This map is intended for use only at the published scale.

This map was created from several existing shapefiles: Township and Range Lines of Indiana (line shapefile, 20020621), Land Survey Lines of Indiana (polygon shapefile, 20020621), and County Boundaries of Indiana (polygon shapefile, 20020621), were all from the Indiana Geological Survey and based on a 1:24,000 scale. Draft road shapefiles, System1 and System2 (line shapefiles, 2003), were from the Indiana Department of Transportation and based on a 1:24,000 scale. Populated Areas in Indiana 2000 (polygon shapefile, 20021000) was from the U.S. Census Bureau and based on a 1:100,000 scale. Hydrography, Streams (NHD) (line shapefile, 20081218), Rivers (NHD) (polygon shapefile, 20081218), Lakes (NHD) (polygon shapefile, 20081218) was from the U.S. Geological Survey and the U.S. Environmental Protection Agency and based on a 1:24,000 scale. Managed Lands DNR IN (polygon shapefile, 20100920) was from DNR and based on a 1:24,000 scale. County Hillshade (img) was from the U.S. Geological Survey National Elevation Dataset (raster image, 20100224). No Aquifer Material and Limited Data (red limited data, polygon shapefile, Boone County, Indiana, 2012). Potentiometric Surface Map of the Bedrock Aquifers of Boone County, Indiana (line shapefiles, Maier, 2012) was based on a 1:24,000 scale.

Potentiometric Surface Map of the
Bedrock Aquifers of Boone County, Indiana
by
Randal D. Maier
Division of Water, Resource Assessment Section

March 2013