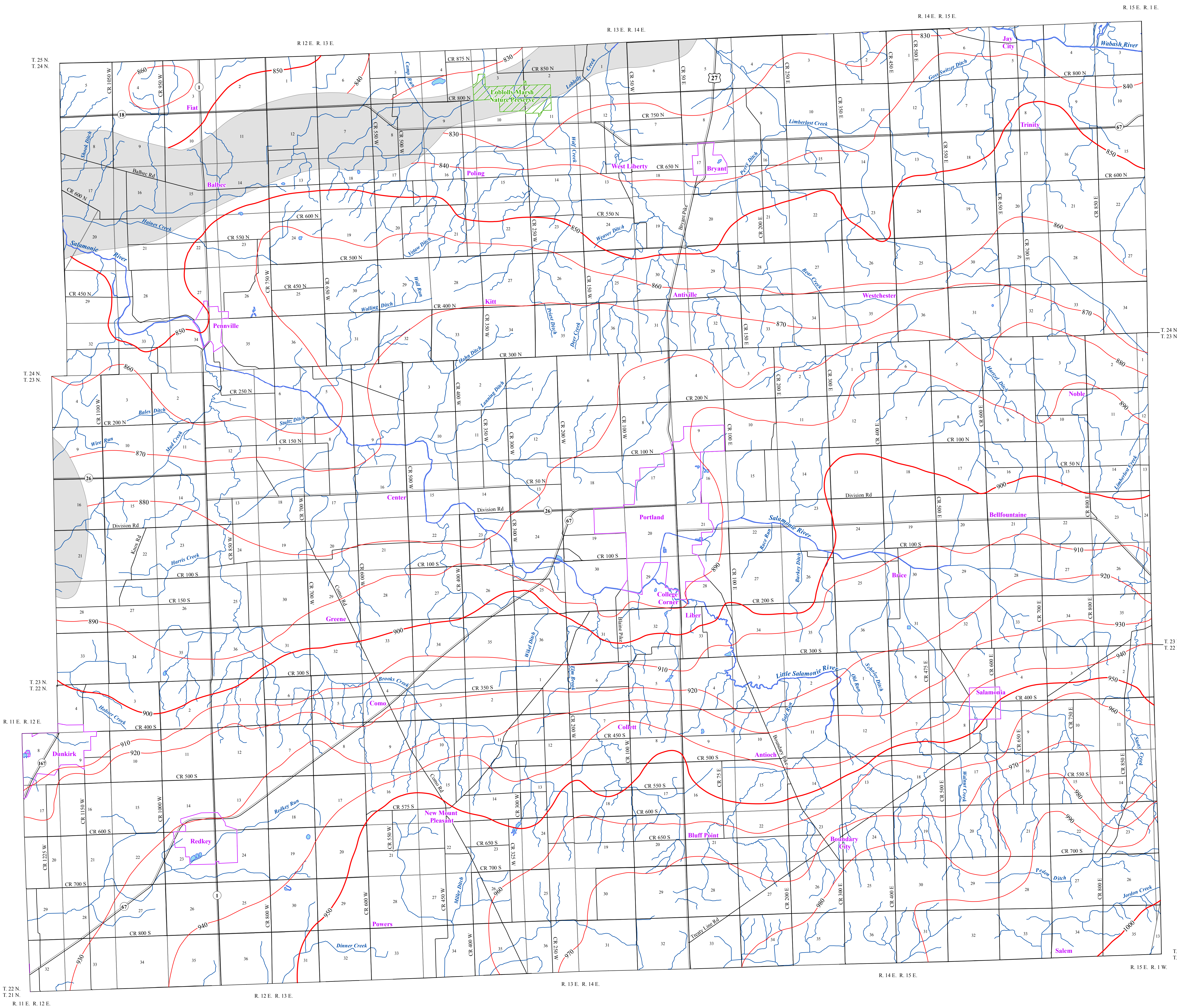


POTENTIOMETRIC SURFACE MAP OF THE BEDROCK AQUIFERS OF JAY COUNTY, INDIANA



Jay County, Indiana is located in the east-central portion of the state with all of the area extent of the county situated within the Upper Wabash River Basin.

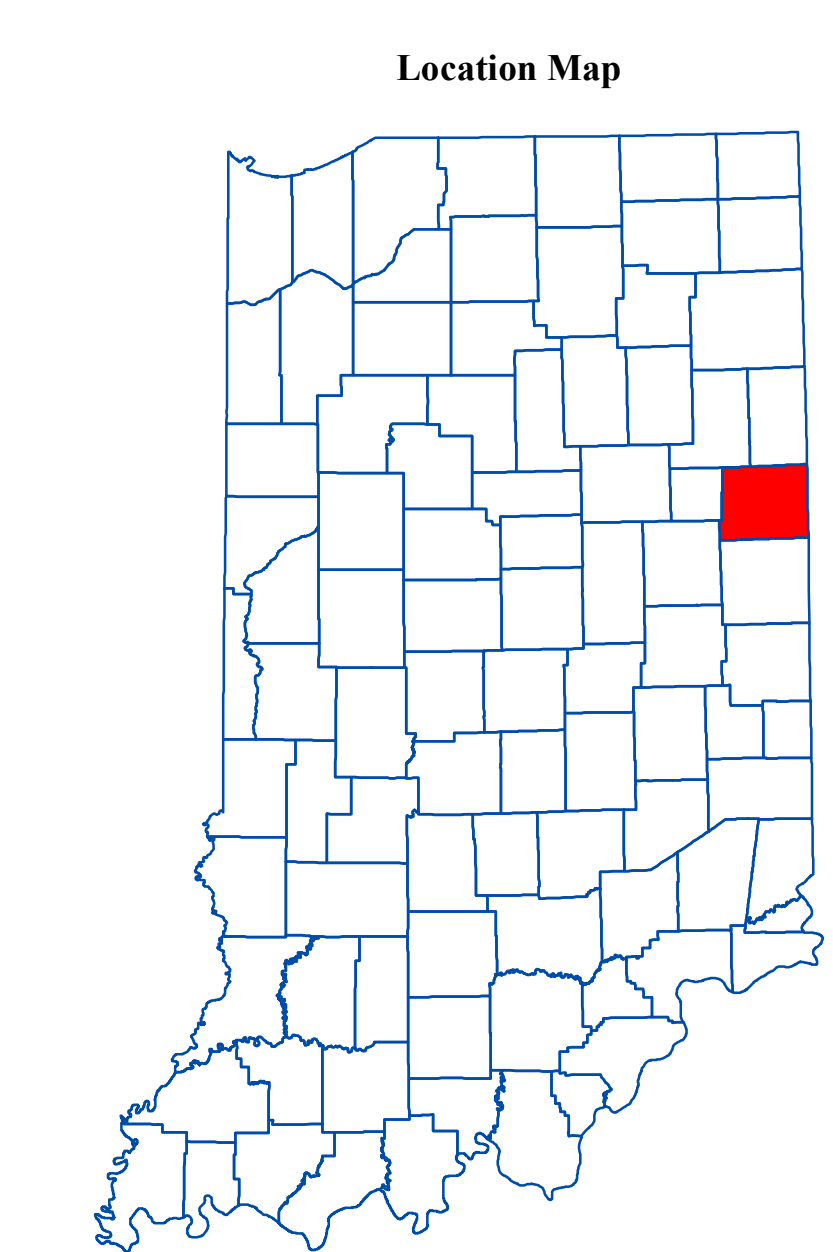
The potentiometric surface mapped (PSM) contour elevations represent lines of equal elevation relative to the measured groundwater levels in wells. In general, wells completed in a confined aquifer system are bound by impermeable layers and will have static water levels under hydrostatic pressure causing the water level to rise above the elevation of the aquifer resource. In contrast, an unconfined aquifer system is not bound by impermeable layers, therefore, the water level will not be under hydrostatic pressure and will not rise above the aquifer resource. 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 obtained from 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 Jay County depth to bedrock is generally from 50-120 feet with wells completed in carbonate deposits of the Silurian and Devonian Carbonates Aquifer System. There are approximately 962 located wells that are completed in bedrock and utilized towards the mapping of the bedrock potentiometric surface. However, the northwest and west-central portions of the county are lacking in data and/or are covered by more prolific unconsolidated deposits that limit the necessity to complete wells in bedrock. To the northwest, in particular, a deep buried bedrock valley, the Lafayette (Tays) Bedrock Valley System, is present where up to 400 feet of glacial deposits have filled the valley (Schrader, 2007). Therefore, potentiometric surface elevation contours have not been extended through these areas.

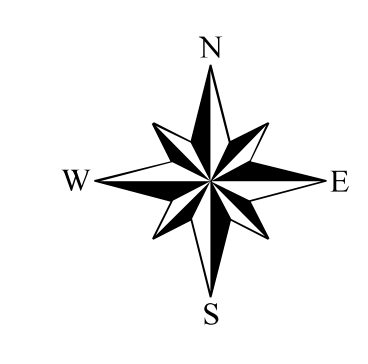
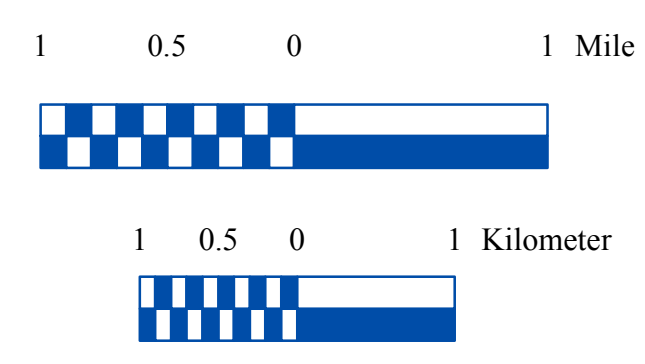
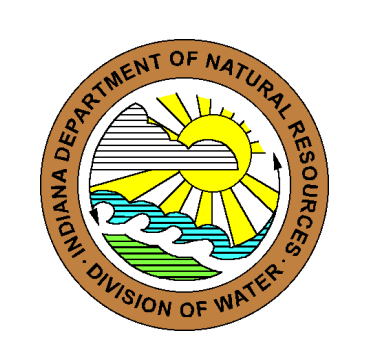
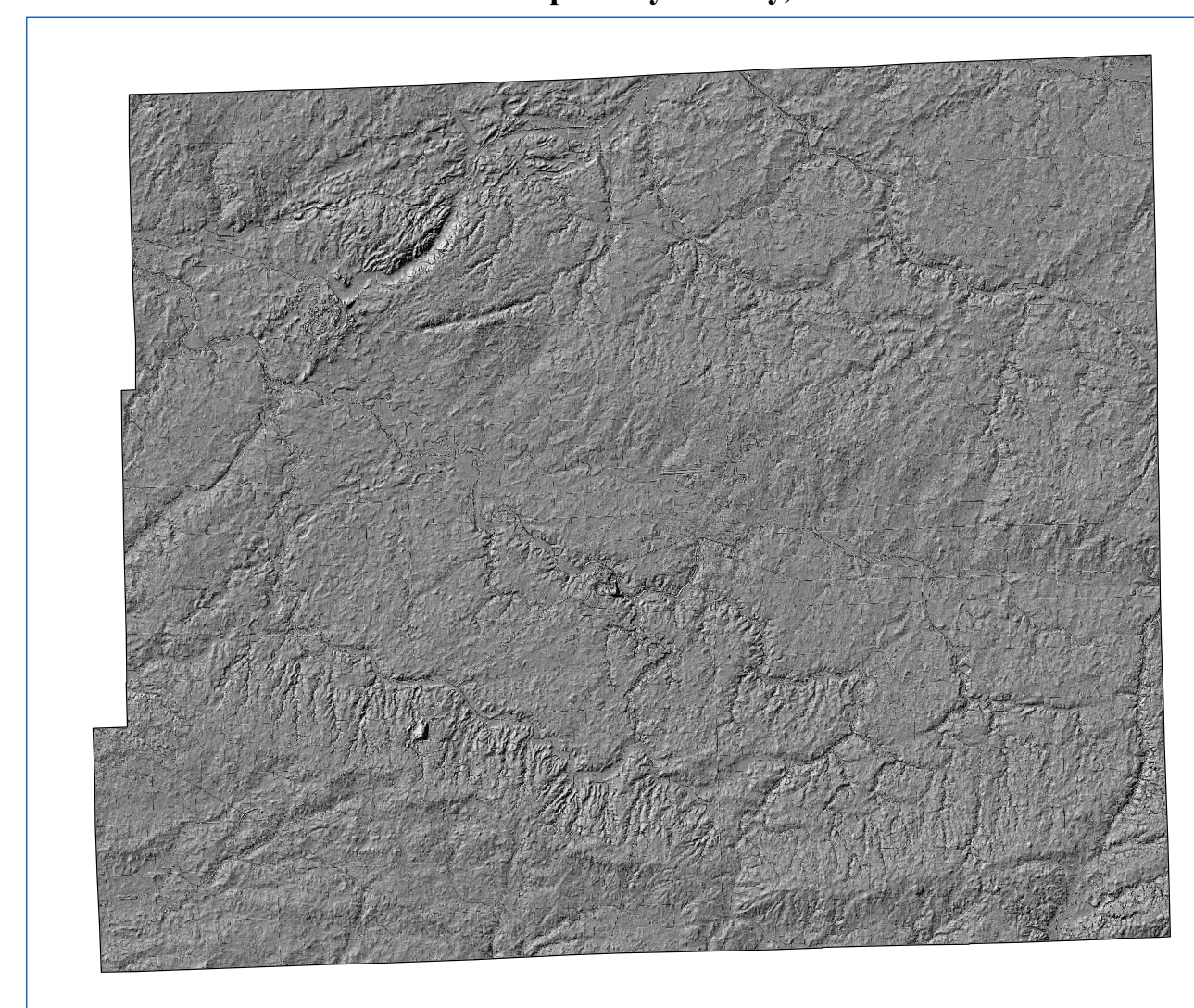
Potentiometric surface elevations range from a high of 1000 feet mean sea level (msl) in the southeast region of the county, to a low of 830 feet msl in the north-central part of the county. Generalized groundwater flow direction for Jay County is towards major drainage relevant to the basin. Therefore, groundwater flow is northwest towards the Salamone River for much of the county south of the Salamone River, and north towards the Wabash River, Loblolly Creek and Limbort Creek for the northern third of Jay County.

Schrader, 2007: Unconsolidated and Bedrock Aquifer Systems of Blackford County, Indiana, Indiana Department of Natural Resources, Division of Water, Aquifer System Maps 36-A and 36-B.



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

Hillshade Map of Jay County, Indiana



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 (line shapefile, 2003) and Roads, 2005 (INDOT_IN (line shapefiles, 2005) 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), and Lakes (NHD) (polygon shapefile, 20081218) were from the U.S. Geological Survey and the U.S. Environmental Protection Agency, and based on a 1:24,000 scale. Managed Lands (DNR) (polygon shapefile, 20100920) is from the Indiana Department of Natural Resources and based on a 1:24,000 scale. Digital Elevation Model image was derived from the Indiana OrthoLIDAR Statewide Collection Program (2011). No Aquifer Material or Limited Data (polygon shapefile, Maier, 2013) and Potentiometric Surface Map of the Bedrock Aquifers of Jay County, Indiana (line shapefile, Maier, 2013) were based on a 1:24,000 scale.

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

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