

Potentiometric Surface Map of the Unconsolidated Aquifers of Boone County, Indiana

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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 well depths 100 feet or less were a priority in mapping the potentiometric surface. However, portions of western Boone County are lacking in data and/or are covered by deposits that have limited to non-existent aquifer potential. Therefore, potentiometric surface elevations contours have not been extended through these areas. There are approximately 914 unconsolidated water well records in the county located that are within the priority depth range.

Potentiometric surface elevations range from a high of 950 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 northwest part of the county and 810 msl in the southeast 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 northwest towards Sugar Creek for the Middle Wabash River Basin.