Results/Discussion

The surficial geology of the Benson 7.5 Minute Quadrangle consists of the Cahokia Alluvium, Henry Formation, and Lemont Formation. All of these units are Quaternary in age. The Peoria Silt, a loess deposit consisting of yellowish brown and grey silt, is present in northern areas of the Quadrangle but, it was interpreted as unmappable due to its lack of thickness and erratic presence. Cahokia is a modern alluvium stream deposit, found at low elevations, consisting of a mixture of bedded silts, clays and gravel. The Henry Formation, a coarse sand and gravel deposit, may be exposed as terraces near the Cahokia Alluvium. The Lemont Formation dominates the rest of the Quadrangle. In areas of Illinois, the Lemont Formation can be divided into the Haegar, Yorkville, and Batestown Members. However, it was unable to be differentiated by looking at well data and is therefore represented as an undivided unit.

Methodology

Soils data was provided by the Woodford County Soil Survey to be converted into formations based on the parent material. Topographic maps were used to digitize and define the boundaries in greater detail. Water well data from the Illinois State Geological Survey (ISGS) was used to confirm geologic interpretations. The glacial episode maps clarified the boundaries of the formations and members of the Wisconsin and Illinois glaciations.

References