Detailed geological mapping at 1:24,000 scale has been initiated in a six-quadrangle area of the Antioch quadrangle. The Wadsworth till is predominantly a dark grayish brown, silty clay to silty clay loam diamicton (a mixture of gravel, sand, clay, and organic material) that melted out near the ice margin or on top of the glacier and was reworked by slope processes and water. Only the uppermost till (Wadsworth Formation) is present at the surface in the Antioch quadrangle where they constitute a major aquifer supplying potable water to municipal and private wells.

As the Wadsworth ice was generally melting back toward the Lake Michigan basin, glacially transported sediments and water were deposited in a variety of environments. These environments included terminal proglacial lakes (Wadsworth and Fox Lakes), meltwater lakes associated with the glacier's retreat, and terrestrial environments further away from the overlying glacier. The sediments and water were sorted and reworked over a period of time, and the resulting deposits are now referred to as Quaternary deposits.

Quadrangle-scale mapping in support of 3-D modeling of Quaternary deposits in northeastern Illinois was conducted to provide information on geologic materials to better understand the aquifer system and its potential for supplying potable water. Transects and interpretations were courtesy of Andre Pugin and Tim Larson, Illinois State Geological Survey. Boreholes on transects C-C' and D-D' do, however, contain formation colors/patterns referenced in the legend.