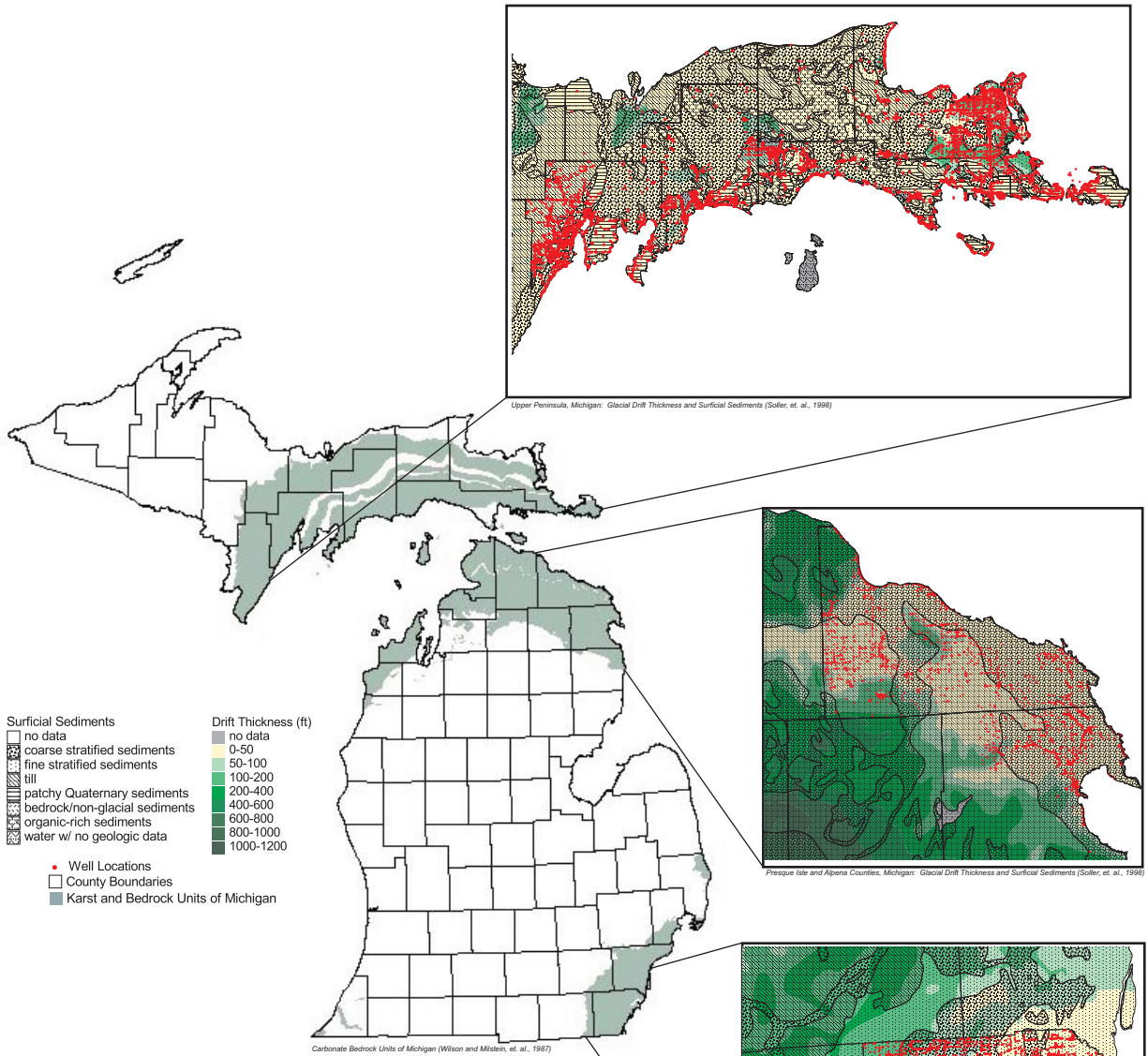


# Michigan Source Water Assessment: Ground Water in Karst Areas



Karsts are a type of geologic terrane underlain by carbonate rocks which have undergone significant solution due to the flow of ground water. Karsts that outcrop at or near the earth's surface may not provide adequate filtration of recharge water prior to entering drinking water supplies. Coverages of glacial drift thickness, surficial sediments, and bedrock lithologies are used to approximate the location of karst features in Michigan.

The sensitivity of the ground-water resources in these areas is determined by evaluating the depth to first water, recharge received from precipitation and surface waters, thickness of the confining layers, well construction, maintenance, and pumpage. The susceptibility is determined by considering the results of the sensitivity analysis with the contaminant's source and isotope data, and the accessibility of the contaminant to the ground-water source.

Current work is focused on identifying the susceptible areas and developing vulnerability maps on a countywide basis. Upon completion, these maps will be combined to make a statewide vulnerability map.