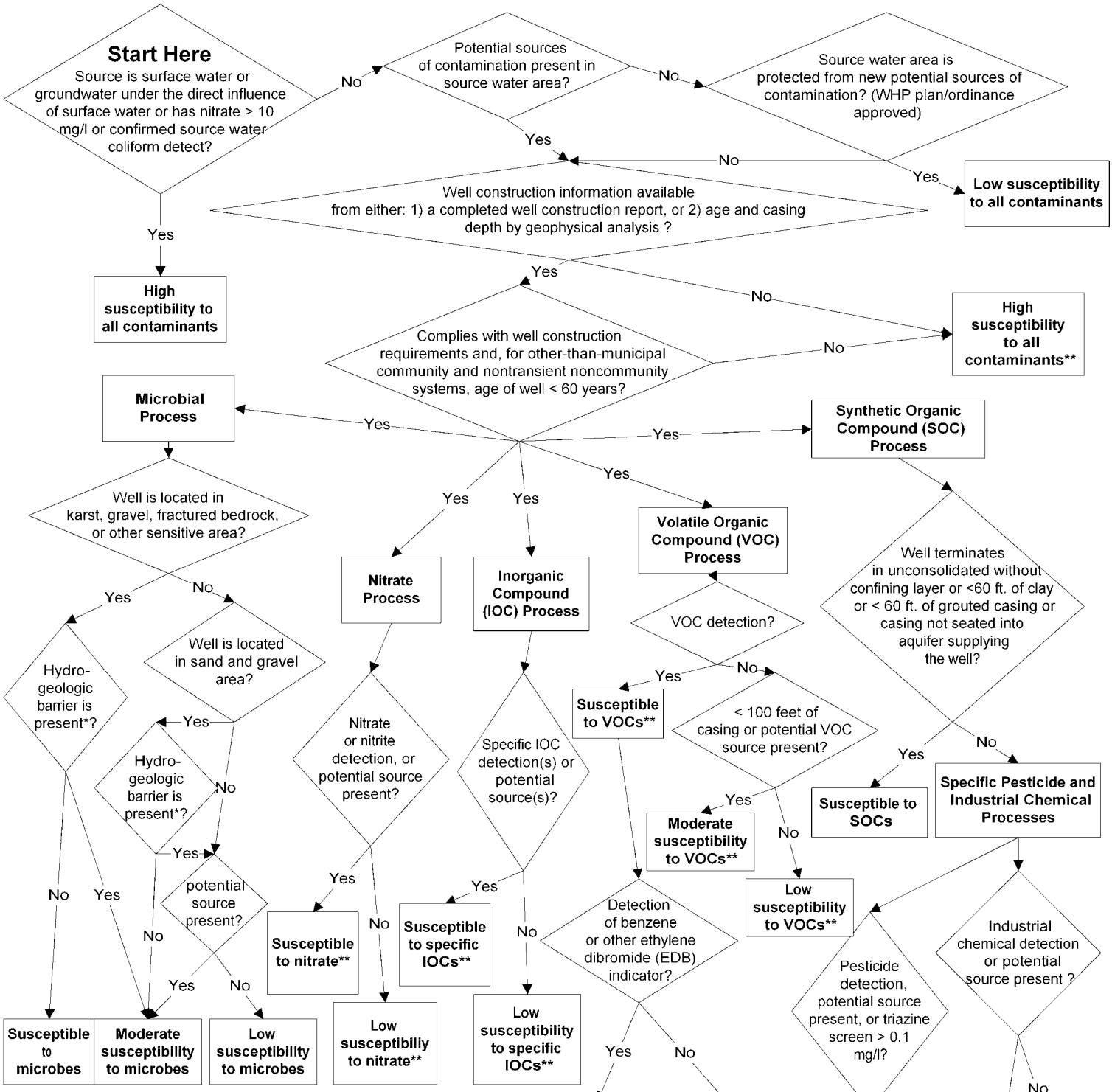
WDNR Source Water Susceptibility Determination Process for Community and Nontransient Noncommunity Public Wells



* Hydrogeological barriers that offer protection from flow from the water table to underlying aquifers may include the Miller Creek, Kewaunee, and Oak Creek Pleistocene Formations and the Maquoketa Shale. Other hydrogeologic barriers may be considered case-by-case and must be shown to be laterally continuous and protective based on one or more of the following mechanisms: 1) a vertical thickness of a geologic material based on the hydraulic head difference between the surface water and the aquifer, the vertical hydraulic conductivity, and the effective porosity of the geologic material believed to be the barrier; 2) the hydrologic regime does not permit flow from the land surface to the screened or non-cased interval within the source water protection area. Other factors that may be considered include the type of bedrock and the depth to water table. Well construction reports from similar, nearby wells may be used to help make this determination.

Susceptibility to nitrate, inorganic compounds, pesticides and industrial chemicals is reported as "moderately susceptible**" if sources are present but there are no detects of these substances. If monitoring results are not available, susceptibility is reported as "susceptible" to those substances.