STATEMENT CONCERNING CONTAMINATION SUSCEPTIBILITY OF MONROE COUNTY KARST TOPOGRAPHY

Since Monroe County does not have streams with the capacity to provide for public water supply sources, almost all residents rely on groundwater for their water consumption needs. The public supplies available, which provide for about half of the county usage, primarily rely on springs or wells for their intake.
Due to the karst topography which underlies much of the county, underground streams, as indicated by numerous dye tracing activities conducted over the years, may travel for several miles. Further, unlike in other subsurface environments such as sandstone wherein natural filtration takes place, karst aquifers do not receive this benefit. This lack of filtration and substantial migration is, in the opinions of most authorities, the primary reason that about half of the water samples taken by the Monroe County Health Department over the last decade have been found unsatisfactory due to bacteriological contamination. Thus a localized contamination event, such as might occur from a drilling error, has the potential to effect a hundred or more wells over a large area. Although, as mentioned above, a number of dye tests have been undertaken at various locales throughout the county, there is still a substantial lack of information related to our underground aquifer system. Much more testing and cataloging of results into a coordinated framework is needed to establish flow patterns and contamination potentials before we may understand the full potential of a contamination event.

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