Several African American communities on the outskirts of cities and towns in Wake County, North Carolina, lack access to community water supply and sanitation services. Instead, private well water is used for drinking water in these communities. However, potential well water contamination events may trigger a higher public health risk for individuals in these communities. In this report, I analyze four technical options for ensuring the drinking water quality in one such community, located on Pheiffer Drive. The four options are no action; household well water filter system installation plus well water testing; well maintenance and repair plus well water disinfection plus well water testing; and connection to a neighboring municipal water system. I compared the options on the basis of costs, health risks, and ease of operation and maintenance for homeowners. Considering my findings regarding the long-term costs and health risks associated with each option, I recommend the option of connecting to the municipal water system.

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