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Drinking Water Resources in Western Kenya

The aim of this study was to investigate and characterize existing drinking water resources in the Khwisero sub-county area of western Kenya, with the goal of informing future water resource decisions made by the Montana State University chapter of Engineers without Borders (EWB@MSU), local stakeholders, and government officials. Data collection was performed using handheld GPS systems, and scope was narrowed during the study period to an area surrounding the Eshibinga community. Data collected included recording of location, condition, perceived potability, and accessibility of existing surface and groundwater drinking water sources (excluding rainwater catchment systems). The collected information was analyzed using GIS systems to create maps which provide visual and quantitative understanding of local conditions. These tools can be used to increase understanding of spatial distribution and functionality of local systems, and to influence decision making for future water supply projects. Research results will be shared with the EWB@MSU water development team and relevant stakeholders in Khwisero. These findings may be used to reduce redundancy in local water supply projects and to increase collaboration and understanding between Khwiseran community and government entities and EWB@MSU project teams in future water development projects and decision making.