



Nonpublic Household Water Well Recommendation #4: Develop Standardized Water Sampling and Analysis Protocol and Form

Proposed Action

1. Update the Form WWC-5 to include additional water quality data. This will include (but not be limited to): dates of water samples; water analysis results, including contaminants and their levels; dates of water analysis; and associated corrective actions and/or remediation implemented.
2. Require electronic usage of the updated WWC-5 among licensed water well contractors, and allow access to well location-specific data for potential users for data entry (e.g., for KDHE, KGS, local environmental health professionals, KDHE-certified labs that test for drinking water) and for review (e.g., for well owners, well users, potential buyers).
3. To be a drinking water KDHE-certified lab, the lab must submit electronic water quality analysis data as part of their normal practices and procedures. These data will be connected to the tested well's WWC-5 data. Drinking water KDHE-certified labs will provide the following information about the testing of nonpublic household well water:
 - specific analytical results from the water quality testing,
 - interpretation of analytical results, including potential implications (e.g., health concerns),
 - available resources for corrective action (when applicable), and
 - who to contact with questions and follow-up
4. KDHE-certified labs that test drinking water will provide the results of water sample analysis within seven business days of the completion of the water analysis. An e-mail is generated for the interested parties (e.g., water well owner, KDHE) when lab data have been entered into the electronic form. If the water quality analysis results indicate severe contamination that puts human health at risk or could create a public health emergency, analytical results must be provided within 48 hours of the completion of the water quality analysis.

Potential Funding

Funding to support this recommendation would most likely come from a combination of sources, including: state funding, permit fees, nonpublic water well users, and increased fees for water well construction.

Background Information

Kansans do not have access to well water quality data; there is no information to inform public health decisions or interventions to protect nonpublic well owners in Kansas. Access to well water quality data in Kansas could provide information to protect and inform citizens about potential exposures to contaminated well water. It would also assist environmental and public health practitioners, community members, policymakers, and others to make data-based decisions about the health of their communities regarding well water quality.

KDHE developed Form WWC-5 to obtain information from licensed well contractors about their work with nonpublic water wells. The information included on Form WWC-5 primarily focuses on the physical structure of the well construction. Two questions regarding water quality are included:

- Was a chemical/bacteriological sample submitted to KDHE?
- Was the water well disinfected?

In 2011, the WWC-5 became available for electronic data submission. As of April 2018, of the approximately 220 licensed water well contractors in Kansas, approximately 36% (n=80) submit WWC-5 data electronically. The WWC-5 data are submitted to the Kansas Department of Health and Environment, the Kansas Geologic Survey, and the well owner. Water quality analysis results from nonpublic water wells are not currently included on Form WWC-5. Water quality sampling results are provided separately to KDHE and the well owner.



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Why This Action Is Needed

Information about a well's physical structure and the water quality data are not currently connected. Including additional information regarding water quality testing, potential remediation, and basic information about the pump as part of Form WWC-5 would provide important information to KDHE, Kansas Geologic Survey, local environmental health professionals, and nonpublic water well users about the safety of the well water for household purposes. The collection of additional water quality information will also allow for the development of a nonpublic well water quality database that would be critical to preventing exposure to contaminated water.

By switching to electronic submission of Form WWC-5 and an online database, multiple stakeholders would be able to enter and/or access relevant data immediately. There are multiple stakeholders who, at different times, might need to access water quality data. For example, the drinking water KDHE-certified labs in Kansas would be able to prospectively add water quality data to the WWC-5. The well owner/user could have access to their well-specific information online immediately after the lab has entered the water quality data, which could allow for a more rapid remediation process.

