Emerging Issues for Private Wells: CSTE Assessment

OSTLTS Generic Information Collection Request OMB No. 0920-0879

Supporting Statement - Section A

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- **Goal of the study:** Identify emerging public health issues facing private wells and private well owners, based on feedback from state and local epidemiologists or their designees
- **Intended use of the resulting data:** Direct future funding opportunities and design research projects to address the issues and gaps
- Methods to be used to collect: Online assessment; no sampling
- The subpopulation to be studied: 55 state and local epidemiologists or other staff (government employees) identified by the epidemiologists with responsibilities for private wells (e.g., for well construction, well water quality)
- **How data will be analyzed:** Descriptive statistics; analyses of narrative responses and appropriate findings from those responses

Section A - Justification

1. Circumstances Making the Collection of Information Necessary

Background

This information collection is being conducted using the Generic Information Collection mechanism of the OSTLTS OMB Clearance Center (O2C2) – OMB No. 0920-0879. The respondent universe for this information collection aligns with that of the O2C2. Data will be collected from 55 epidemiologists or staff identified by the epidemiologists as subject matter experts, who work in state and local health departments and who are acting in their official capacities as government employees. These respondents will come from 50 states and five (5) city health departments. (Cities: Los Angeles, CA; District of Columbia; Chicago, IL; New York City, NY; Houston, TX; and Seattle, WA).

This information collection is authorized by Section 301 of the Public Health Service Act (42 U.S.C. 241). This information collection falls under the essential public health services of informing, educating, and empowering people about health issues; mobilizing community partnerships to identify and solve health problems; and developing policies and plans that support individual and community health efforts.¹

Approximately 43 million people (about 14 percent of the U.S. population) rely on domestic wells as their source of drinking water. Unlike community water systems, which are regulated by the Safe Drinking Water Act, there is no comprehensive national program to ensure that the water is tested and is safe to drink. A study published in 2009 from the National Water-Quality Assessment Program of the U.S. Geological Survey that assessed water-quality conditions from 2,100 domestic wells within 48 states reported that more than one in five (23 percent) of the sampled wells contained one or more contaminants at a concentration greater than a human-health benchmark. In addition, there are many current circumstances (e.g., industrial activities such as resource extraction, climate change-induced drought, and changes in land use patterns) that could potentially affect the quality of the ground water source for private wells.

Within the Centers for Disease Control (CDC), the National Center for Environmental Health's (NCEH) Health Studies Branch (HSB) has the goal to reduce exposures to and disease from waterborne contaminants, with a particular focus on the very small drinking water systems, such as private wells, which are not protected by the U.S. EPA's Safe Drinking Water Act. HSB partners with organizations such as the Council of State and Territorial Epidemiologists (CSTE) to advance its goal. The mission of CSTE is to advance public health policy and epidemiologic capacity. CSTE provides information, education, and developmental support for practicing epidemiologists in a wide range of areas as well as expertise for program and surveillance efforts. HSB also leads the Private Well Community of Practice (CoP), which constitutes a group of health professionals, including CSTE members, at the federal, state, and local level dedicated to private well issues. Key activities of the CoP include informal discussions about interventions, emerging issues, and helpful tools; formal presentations; and the promotion of public health knowledge and practice that protects the health of private well owners.

Few data collections so far have focused on asking public health professionals what they perceive are emerging issues in an effort to be proactive and identify solutions to fill gaps that exist. Some assessments have been conducted to determine the knowledge, attitudes, and practices of private well owners and their water testing practices. Other assessments have focused on analyzing the quality of well water for a risk that has already been identified. For this information collection request, CDC is partnering with CSTE to identify emerging public health issues facing private wells and private well owners, based on feedback from state and local epidemiologists or other staff (government employees) identified by the epidemiologists with responsibilities for private wells (e.g., for well construction, well water quality).

CDC is partnering with CSTE for this assessment because they have the appropriate contacts to allow us to assess every state. Some state epidemiologists will have the expertise required to complete the assessment, while others will designate the assessment to another government official with the relevant expertise. The purpose of this information collection request is to gather feedback on gaps in knowledge or practice, tools and resources needed to address these gaps, and anticipated changes in policies or legislation impacting private wells and private well owners as well as information on emerging issues. The assessment will gain insight from health department professionals with responsibility for addressing private well-related public health issues such as reducing exposure to contamination and increasing well owner awareness of well stewardship programs.

This assessment builds on the work of studies with private well owners, water quality testing, and the informal Private Well CoP discussions, about emerging issues, lessons learned, and methodologies used while working with private wells. Additionally, the information collected during this assessment will be useful for members of CSTE and CDC staff in meeting their missions to protect health. The results of this assessment will provide needed data to inform future activities conducted by CDC, CSTE, and other public health partners to address private well-related public health issues through research, innovative methodologies, more effective resource allocation, and policy change.

Overview of the Information Collection System

The information collection system consists of a web-based assessment allowing respondents to complete and submit their responses electronically (see Att. A—Instrument: Word version and Att. B—Instrument: Web version). The online instrument will be used to gather information from state and local epidemiologists, or their designated experts, on emerging public health issues associated with using private wells for drinking water. This method provides the most streamlined way to conduct an assessment and was thus chosen to reduce the overall burden on respondents. CSTE will collect and store the data on a secure server only accessible to CSTE staff. The deidentified summary results will be shared with CDC staff via an Excel file.

The information collection instrument was pilot tested by two public health professionals from New Mexico and Indiana. Feedback from this group was used to refine questions as needed, ensure accurate programming and skip patterns and establish the estimated time required to complete the information collection instrument.

Items of Information to be Collected

The online data collection instrument consists of 27 questions of various types, including dichotomous (yes/no), multiple response, and 4 that are open-ended. An effort was made to limit questions requiring narrative responses from respondents whenever possible. However, it is not possible to predict the emerging issues that might be identified by government officials with responsibilities to address private well-related public health issues. The instrument will collect information on the following:

- Respondent information used for archiving and follow-up only
- Existing concerns that state health departments have for private wells
- Existing resources that health departments are using to track and mitigate private well issues
- Emerging issues affecting private well owners
- Gaps that need to be addressed to mitigate emerging private well issues
- Tools and resources that health departments need to address emerging private well issues

Information Collected	Number of questions of this type	Purpose
Respondent Information	1	Questions are only for a respondent's professional contact information; this information will be removed when the results are analyzed and will not be shared.
Existing resources	4	Establishes a baseline for what resources and actions state health departments are currently providing for private well owners.
Existing concerns	13	Identifies the contaminants of concern and emerging issues health departments are already facing in their communities.

Information Collected	Number of questions of this type	Purpose		
		Identifies the contaminants of concern and emerging		
Emerging issues	4	issues health departments foresee as major threats to		
		well owners in the next 10-20 years and rank them.		
		Outlines the recommendations and plans of health		
Gaps	2	departments to address these emerging issues and		
		identifies whether they have the resources to act.		
Tools and resources		Lists what tools and resources are needed by health		
that health	2	departments as well as private well owners to address		
departments need		emerging private well issues.		
Additional comments	1	Includes any other comments regarding emerging private		
Additional comments	1	well issues that respondents want to share.		

2. Purpose and Use of the Information Collection

The purpose of this assessment is to identify emerging public health issues and develop plans to address these issues by gathering feedback from state and local epidemiologists or their designees (government employees) with responsibilities for private wells (e.g., for well construction, well water quality). The data will be used to assess current issues, emerging issues, data gaps, plans to address emerging issues, and resources needed to implement plans.

The data will be used to inform the Health Studies Branch Strategic Plan and Research Agenda. For example, in response to emerging issues and data and policy gaps identified by this assessment, HSB could direct future funding opportunities and design research projects to address the issues and gaps.

3. Use of Improved Information Technology and Burden Reduction

Data will be collected via a web-based questionnaire allowing respondents to complete and submit their responses electronically. This method was chosen to reduce the overall burden on respondents. The information collection instrument was designed to collect the minimum information necessary for the purposes of this project (i.e., limited to 27 questions).

4. Efforts to Identify Duplication and Use of Similar Information

Prior to conducting any data collection, CDC/NCEH reviewed existing published and unpublished literature, which determined that the planned data collection efforts do not duplicate any other current or previous data collection efforts. Some assessments have been conducted to determine the knowledge, attitudes, and practices associated with private well owners and testing. ⁴⁻⁹ Other assessments have focused on analyzing the quality of well water for a risk that has already been identified. ¹⁰⁻¹³ Both of these types of data collection efforts have demonstrated the need for more

information regarding emerging issues and methodologies to address them. Other recent data collections conducted through NCEH focused on culling best practices from educational campaigns for private well owners (*Effective Educational Campaigns for Private Well Owners*, OMB 0920-0879, approved 5/29/14 and *Interventions to Prevent Exposure to Contaminants in Drinking Water*, OMB 0920-0879, currently undergoing OMB approval).

This is a new data collection effort, for which data do not exist elsewhere. Few have been in the strategic position to easily ask a group of public health professionals what they perceive are emerging issues in an effort to be proactive and identify solutions to fill gaps that exist. The membership of CSTE (state and local epidemiologists) provides a forum where information regarding health professionals' perceptions about emerging issues and solutions associated with private well drinking water use can be collected easily.

5. Impact on Small Businesses or Other Small Entities

No small businesses will be involved in this information collection.

6. Consequences of Collecting the Information Less Frequently

This request is for a one time information collection. There are no legal obstacles to reduce the burden. If no data are collected, CDC, Health Studies Branch, will be unable to:

- Collect information from public health professionals regarding emerging issues associated with the consumption of water from private wells
- Collect recommendations on how to address these issues
- Gain an understanding of methodologies and policy actions that are being undertaken by public health professionals to protect private well owners
- Share this information with public health partners to foster collaboration and increased awareness of emerging issues associated with the consumption of water from private wells

7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

There are no special circumstances with this information collection package. This request fully complies with the regulation 5 CFR 1320.5 and will be voluntary.

8.Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

This information collection is being conducted using the Generic Information Collection mechanism of the OSTLTS OMB Clearance Center (O2C2) – OMB No. 0920-0879. A 60-day Federal Register Notice was published in the Federal Register on October 31, 2013, Vol. 78, No. 211; pp. 653 25-26. No comments were received.

CDC partners with professional STLT organizations, such as the Association of State and Territorial Health Officials (ASTHO), the National Association of County and City Health Officials (NACCHO), and the National Association of Local Boards of Health (NALBOH) along with the National Center for Health Statistics (NCHS) to ensure that the collection requests under individual ICs are not in conflict with collections they have or will have in the field within the same timeframe.

Explanation of Any Payment or Gift to Respondents

CDC will not provide payments or gifts to respondents.

9.

10. Assurance of Confidentiality Provided to Respondents

The Privacy Act does not apply to this information collection. STLT governmental staff and / or delegates will be speaking from their official roles and will not be asked, nor will they provide individually identifiable information.

This information collection is not research involving human subjects.

10.1 Privacy Impact Assessment Information

No individually identifiable information (IIF) will be collected.

11. Justification for Sensitive Questions

No information will be collected that are of a personal or sensitive nature.

12. Estimates of Annualized Burden Hours and Costs

The estimate for burden hours is based on a pilot test of the information collection instrument by 2 public health professionals from the New Mexico and Indiana health departments. In the pilot test, the average time to complete the instrument including time for reviewing instructions, gathering needed information and completing the instrument, was approximately 60 minutes. Most of this time was spent gathering the appropriate information to respond to the assessment questions. Based on these results, the estimated time range for actual respondents to complete the instrument is 50 to 70 minutes. For the purposes of estimating burden hours, the average time for completion (i.e., 60 minutes) is used.

Estimates for the average hourly wage for respondents are based on the Department of Labor (DOL) National Compensation Survey estimate for environmental scientists and specialists, including health (http://www.bls.gov/ncs/ocs/sp/nctb1349.pdf). Based on DOL data, an average hourly wage of \$32.62 is estimated for all 55 respondents. Table A-12 shows estimated burden and cost information.

Table A-12: Estimated Annualized Burden Hours and Costs to Respondents

Information collection Instrument: Form Name	Type of Respondent	No. of Respondents	No. of Responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
CSTEPW Instrument	State or local epidemiologist or their designees	55	1	1.0	55	\$32.62	\$1,794.10
	TOTALS	55	1		27.5		\$1,794.10

13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers

There will be no direct costs to the respondents other than their time to participate in the information collection.

14. Annualized Cost to the Government

There are no equipment or overhead costs. The only cost to the federal government would be the salary of two CDC staff members during the data collection and analysis activities. The total estimated cost to the federal government is \$29,747. Table A-14 describes how this cost estimate was calculated.

Table A-14: Estimated Annualized Cost to the Federal Government

Staff (FTE)	Average Hours per Collection	Average Hourly Rate	Average Cost
GS-14 Team Lead	20	\$55.60	\$1,112
GS-15 Senior Scientist	40	\$65.40	\$2,616
CSTE Contract	NA	NA NA	
Estimated To	\$29,747		

15. Explanation for Program Changes or Adjustments

This is a new information collection.

16. Plans for Tabulation and Publication and Project Time Schedule

CSTE will collect and store the data for the online assessment. Upon completion of data collection and analysis, CSTE will share the de-identified summary data in a Microsoft Excel file with CDC. Additionally, CSTE will share a report with CDC and members of CSTE that summarizes the results.

Project Time Schedule

Task	Timeline
Obtain OMB Clearance for Information Collection	In Process
Conduct assessment	Assessment open within 1 week of OMB approval
Complete assessment	Within 4 weeks of OMB approval
Prepare reports	Within 2 weeks of completing assessment
Disseminate results/reports	Within 6 weeks of completing assessment

17.

Reason(s) Display of OMB Expiration Date is Inappropriate

We are requesting no exemption.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification. These activities comply with the requirements in 5 CFR 1320.9.

LIST OF ATTACHMENTS - Section A

Note: Attachments are included as separate files as instructed.

A. CSTEPW Instrument: Word VersionB. CSTEPW Instrument: Web Version

REFERENCE LIST

- 1. Centers for Disease Control and Prevention (CDC). "National Public Health Performance Standards Program (NPHPSP): 10 Essential Public Health Services." Available at http://www.cdc.gov/nphpsp/essentialservices.html. Accessed on 8/14/14.
- 2. Kenny, J.F., N.L. Barber, and S.S. Hutson. *Estimated use of water in the United States in 2005*. U.S. Geological Survey Circular 2009 [cited 2013 June 17]; Available from: http://pubs.usgs.gov/circ/1344/pdf/c1344.pdf.
- **3.** DeSimone, L.A., P.A. Hamilton, and R.J. Gilliom, *The quality of our nations waters Quality of water from domestic wells in principal aquifers of the United States, 1991-2004 Overview of major findings: U.S. Geological Survey Circular 1332. 2009: p. 48.*
- **4.** Kreutzwiser, R., et al., Understanding stewardship behavior: Factors facilitating and constraining private water well stewardship. *Journal of Environmental Management*, 2011. 92: p. 11.
- **5.** Liukkonen, B., L. Severtson, and R. Kline-Robach, Social Dimensions of Private Well Testing: Why Don't People Test their Water? 2008.
- **6.** Centers for Disease Control and Prevention, N.C.f.E.H., Division of Environmental Hazards and Health Effects, Health Studies Branch, Impact of Drought Conditions on Private Well Owners Arkansas, Indiana, Oklahoma, in Epi Aid Trip Report. 2013.
- **7.** Jones, A.Q., C.E. Dewey, and K. Dore, Public perceptions of drinking water: a postal survey of residents with private water supplies. BioMed Central Public Health, 2006. 6(94).

- **8.** Jones, A.Q., et al., Public perception of drinking water from private water supplies: focus group analyses. *BioMed Central Public Health*, 2005. 5(129).
- **9.** Flanagan, S.V., Marvinney, R.G., and Zheng, Y. Influences on domestic well water testing behavior in a Central Maine area with frequent groundwater arsenic occurrence. *Science of The Total Environment*, Available online 26 May 2014, http://www.sciencedirect.com/science/article/pii/S0048969714006755.
- **10.** Knobeloch L, Salna B, Hogan A, Postle J, Anderson H. Blue babies and nitrate-contaminated well water. *Environmental Health Perspectives*. 2000; 108(7): 675-678.
- **11.** Borchardt, M. A., Bertz, P. D., Spencer, S. K. and Battigelli, D. A. Incidence of enteric viruses in groundwater from household wells in Wisconsin. *Applied and Environmental Microbiology*. 2003; 69, 1172–1180.
- **12.** Allevi, R., Krometis, L., Hagedorn, C., Benham, B., Lawrence, A., Ling, E., and Ziegler, P. Quantitative analysis of microbial contamination in private drinking water supply systems. *Journal of Water and Health.* 2013; 11(2), 244-55.
- **13.** Sanders, A., Messier, K., Shehee, M., Rudo, K., Serre, M., and Fry, R. Arsenic in North Carolina: Public Health Implications. *Environment International.* 2012 Jan; 38(1): 10-6.