

Improving Public Health Preparedness and Response to Drought through the Assessment of Current Knowledge, Practices, and Gaps

OSTLTS Generic Information Collection Request
OMB No. 0920-0879

Supporting Statement – Section A

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- **Purpose of the data collection:** The purpose of this data collection is to describe the role of public health in drought preparedness and response within U.S. jurisdictions. The data collection will assess best practices, lessons learned, knowledge gaps, and barriers to including public health in drought preparedness and response activities.
- **Intended use of the resulting data:** The information collected will be used to inform future activities and education efforts to help state, tribal, local, and territorial jurisdictions better prepare for and respond to the public health threats of drought.
- **Methods to be used to collect data:** Data will be collected via online assessment using EpiInfo.

Respondent Universe: The respondent universe includes a total of 3,440 (50 state, 3000 local, 380 tribal, and 10 territorial) health departments. Respondents acting in their official capacities include individuals designated as “preparedness coordinators” within their agencies.

- **How data will be analyzed:** Data will be analyzed using Microsoft Excel and EpiInfo to create summary reports showing the frequency and counts of responses for each question of the online assessment. Descriptive statistical analyses will be conducted on responses to multiple-choice questions and qualitative analyses on responses to open-ended questions.

Section A – Justification

1. Circumstances Making the Collection of Information Necessary

Background

This information collection is being conducted by the Centers for Disease Control Prevention (CDC), National Center for Environmental Health (NCEH), Division of Environmental Health Science and Practice (DEHSP), Emergency Management, Radiation, and Chemical Branch (EMRCB) 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 a total of 3,440 (50 state, 3000 local, 380 tribal, and 10 territorial) health departments. Respondents acting in their official capacities include individuals designated as “preparedness coordinators” within their agencies.

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 service(s) of

- 1. Monitoring health status to identify community health problems
- 2. Diagnosing and investigating health problems and health hazards in the community
- 3. Informing, educating, and empowering people about health issues

- 4. Mobilizing community partnerships to identify and solve health problems
- 5. Development of policies and plans that support individual and community health efforts
- 6. Enforcement of laws and regulations that protect health and ensure safety
- 7. Linking people to needed personal health services and assure the provision of health care when otherwise unavailable
- 8. Assuring a competent public health and personal health care workforce
- 9. Evaluating effectiveness, accessibility, and quality of personal and population-based health services
- 10. Research for new insights and innovative solutions to health problems ¹

The health implications of drought are numerous and far reaching. Health impacts of drought largely depend upon duration of the drought and the demographic characteristics, location, and vulnerabilities of affected populations. In addition, at-risk groups, defined based on certain social and demographic factors, have a higher degree of vulnerability, and are more likely to be adversely affected by drought and drought-related disasters. Because of the far reaching effects of drought, groups considered at-risk during drought are defined more broadly and include people whose water sources are highly susceptible to environmental change (e.g., agricultural businesses).

From 2000 to 2015, at least 20% of the nation was in drought, and in some of those years that increased to as much as 70% according to the U.S. Drought Monitor. During the latter part of 2012, more than half of the U.S. experienced moderate or worse drought (U.S. Environmental Protection Agency, n.d.). This was the worst drought in the U.S., measured by moderate to extreme drought coverage, since the 1950s (Rippey, 2015). For most of 2000 to 2016, the U.S. West endured the most persistent drought ever recorded (National Oceanic and Atmospheric Administration, 2017). California experienced its third driest year on record in 2014, resulting in more than 17,000 full- and part-time jobs lost and over \$2 billion in damage, economic loss, and mitigation and recovery costs (Howitt et al., 2014).

In 2010, CDC published “When Every Drop Counts: Protecting Public Health during Drought Conditions — A Guide for Public Health Professionals” (WEDC). WEDC advocated inclusion of public health in drought preparedness and response and highlighted the many potential effects of drought on human health (e.g., increased incidence of certain infectious diseases, exacerbation of some chronic diseases caused by decreased air quality, stress caused by livelihood instability). Since publication of WEDC, little is known about the progress made by STLT health departments regarding integration of public health into drought preparedness and response.

EMRCB, previously Health Studies Branch, held a contract to conduct a systematic literature review for drought-related research projects and initiatives conducted since release of WEDC. EMRCB also held a contract to record, transcribe, analyze, interpret, and summarize nine semi-structured interviews about drought-related preparedness and response with public health professionals, to develop a resource guide based on results for STLT public health jurisdictions. The guide provides information about drought programs and preparing for and responding to

drought. The previously conducted literature review and analysis of interviews revealed that there is a need for a more nationally comprehensive look at how drought is being addressed across states and across sectors.

Therefore, the purpose of this data collection is to describe the role of public health in drought preparedness and response within U.S. jurisdictions. The data collection will assess best practices, lessons learned, knowledge gaps, and barriers to including public health in drought preparedness and response activities.

The information collected will be used to inform future activities and education efforts to help state, tribal, local, and territorial jurisdictions better prepare for and respond to the public health threats of drought.

CDC will be assisted by contractor organizations in conducting this data collection. Westat developed the data collection instrument and data analysis plan, and has programmed the online instrument in EpiInfo. Another contractor organization (not yet awarded) will administer the data collection and analyze the data. CDC will provide oversight of all contractor activities and ensure completion of the data collection. In addition to these organizations, seven subject matter experts were consulted on the development of the data collection instrument. These individuals volunteered their support.

Overview of the Information Collection System

Data will be collected from 3,440 (50 state, 3000 local, 380 tribal, and 10 territorial) health departments via online assessment (**see Attachment A—Instrument: Word Version and Attachment B—Instrument: Web Version**). The instrument will be used to gather information from STLT health department preparedness coordinators who are responsible for planning for and/or responding to drought within their agencies, regarding best practices, lessons learned, knowledge gaps, and barriers to including public health in drought preparedness and response activities.

The information collection instrument was pilot tested by five public health professionals. 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 data collection instrument consists of 27 main questions of various types including multiple response and open-ended questions. The instrument will collect data on the following:

- Background on respondent's organization and experience with drought
- Health effects and vulnerable populations
- Feedback on CDC's *When Every Drop Counts* guide
- Organizations involved in drought preparedness and response
- Role of public health in drought preparedness and response

- Barriers and gaps in drought preparedness and response
- Resources needed and questions to address regarding drought preparedness and response
- Best practices in drought preparedness and response

2. Purpose and Use of the Information Collection

The purpose of this data collection is to describe the role of public health in drought preparedness and response within U.S. jurisdictions. The data collection will assess best practices, lessons learned, knowledge gaps, and barriers to including public health in drought preparedness and response activities.

The information collected will be used to inform future activities and education efforts to help state, tribal, local, and territorial jurisdictions better prepare for and respond to the public health threats of drought

3. Use of Improved Information Technology and Burden Reduction

Data will be collected via online assessment. This method was chosen to reduce the overall burden on respondents. The data 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

This information collection is the first attempt to take a nationally comprehensive look at how drought is being addressed across jurisdictions. Similar data was previously collected through nine in-depth interviews with public health professionals, but that data is qualitative and represents the experiences of only nine states. (It was used, however, to inform the design of the current survey.) Prior to developing this information collection, EMRBC conducted a literature review to confirm no similar reports or assessments of information existed and that this effort is not duplicative.

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 data collection. There are no legal obstacles to reduce the burden. If no data are collected, CDC will be unable to:

- Gain insight and understanding of best practices, knowledge gaps, and barriers to including public health in drought preparedness and response activities in the United States.

- Use the information gained from the assessment to inform future activities and education efforts to help STLT jurisdictions better prepare for and respond to the public health threats of drought.
- Improve existing and develop new educational materials and resources for STLT public health partners specific to drought preparedness and response.

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

There are no special circumstances with this data 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 data 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 April 27, 2017, Vol. 82, No. 80, pp 19371-19373. One non-substantive comment was received. CDC sent forward the standard CDC response.

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.

9. Explanation of Any Payment or Gift to Respondents

CDC will not provide payments or gifts to respondents.

10. Protection of the Privacy and Confidentiality of Information Provided by Respondents

The Privacy Act does not apply to this data collection. STLT governmental staff and / or delegates will be speaking from their official roles.

This data collection is not research involving human subjects.

11. Institutional Review Board (IRB) and Justification for Sensitive Questions

No information will be collected that are of 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 data collection instrument by five public health professionals. 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 15 minutes (range: 10-20). For the purposes of estimating burden hours, the upper limit of this range (i.e., 20 minutes) is used.

Estimates for the average hourly wage for respondents are based on the Department of Labor (DOL) Bureau of Labor Statistics for occupational employment for Community and Social Service Specialists found at <https://www.bls.gov/oes/current/oes211099.htm>. Based on DOL data updated in May 2017, an average hourly wage of \$21.53 is estimated for all 3,440 respondents. Table A-12 shows estimated burden and cost information.

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

| Data 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 |
|---|-------------------------------------|--------------------|---------------------------------|--|--------------------|------------------|------------------------|
| Drought Preparedness and Response Online Assessment | State Health Department Staff | 50 | 1 | 20 / 60 | 17 | \$21.53 | \$366 |
| | Local Health Department Staff | 3,000 | 1 | 20 / 60 | 1,000 | \$21.53 | \$21,530 |
| | Tribal Health Department Staff | 380 | 1 | 20 / 60 | 127 | \$21.53 | \$2,734 |
| | Territorial Health Department Staff | 10 | 1 | 20 / 60 | 3 | \$21.53 | \$65 |
| | TOTALS | 3,440 | 1 | | 1,147 | | \$24,695 |

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 each data 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 CDC staff and contractors to develop the data collection instrument, collect data, and perform data analysis. Westat developed the data collection instrument and data analysis plan, and has programmed the online instrument in Epi Info. Another contractor organization (not yet awarded) will administer the data collection and analyze the data. The total estimated cost to the federal government is \$216,188. 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 | Total Average Cost |
|--|------------------------------|------------------------------------|--------------------|
| CDC Staff | | | |
| Public Health Advisor – GS-13, Step 10; Responsible for oversight and execution of the data collection activity. | 120 | \$57.00 /hour | \$6,840 |
| Contractors and Other Non-CDC Staff | | | |
| Westat – Assessment tool development and testing, EpiInfo programming, OMB package preparation | 751 | Contractor Sub-total: \$99,348 | |
| [TBD/Organization]- Delivery of the assessment tool to STLT health departments. | TBD | Contractor Sub-total: \$110,000 | |
| Estimated Total Cost of Information Collection | | | \$216,188 |

15. Explanation for Program Changes or Adjustments

This is a new data collection.

16. Plans for Tabulation and Publication and Project Time Schedule

Quality control and data cleaning procedures will be conducted throughout the 4-week data collection period. After the data collection period has closed, respondent data will be downloaded and exported to an Excel spreadsheet and subsequently cleaned and coded for analysis. Univariate analysis will be conducted for each question of the online assessment. Descriptive statistical analyses (counts and frequencies) will be conducted using Microsoft Excel and EpiInfo on responses to dichotomous and multiple-choice questions. Qualitative analyses will be conducted on responses to open-ended questions.

Additional analysis could include cross-tabulation of responses by variables such as jurisdiction type (e.g., state vs. local), region (e.g., West vs. South), or recent drought conditions (e.g., <3 years vs. 6+ years) to examine patterns in responses and explore why jurisdictions may differ in the inclusion of public health in drought preparedness and response activities.

All information will be kept on secure, password protected CDC network accessible only to project team members. Data collected during the assessment will be shared only in aggregate form.

Project Time Schedule

- ✓ Design instrument (COMPLETE)
- ✓ Develop protocol, instructions, and analysis plan (COMPLETE)
- ✓ Pilot test instrument (COMPLETE)
- ✓ Prepare OMB package (COMPLETE)
- ✓ Submit OMB package (COMPLETE)
- OMB approval (TBD)
- Conduct data collection (Open 4 weeks)
- Code data, conduct quality control, and analyze data..... (January 2019)
- Prepare summary report(s) (July 2019)
- Disseminate results/reports (December 2019)

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. Attachment A – Instrument: Word Version**
- B. Attachment B – 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. Howitt R, Medellín-Azuara J, MacEwan D, Lund JR, Sumner D. UC Davis Center for Watershed Sciences. 2014. Economic analysis of the 2014 drought for California agriculture Available from: <https://watershed.ucdavis.edu/2014-drought-report>[accessed 2017 November 9].
3. National Oceanic and Atmospheric Administration. (2017.) National Centers for Environmental Information. State of the climate. Drought – annual 2016 Available from: <https://www.ncdc.noaa.gov/sotc/drought/201613>. [accessed 2017 November 9].
4. Rippey B. 2015. The U.S. drought of 2012. Weather Clim Extrem 10(A):57-64.

5. U.S. Environmental Protection Agency. (n.d.) Climate change indicators. Available from: <https://www.epa.gov/climate-indicators/climate-change-indicators-drought>. [accessed 2017 November 9].