

**1SUPPORTING STATEMENT A
FOR PAPERWORK REDUCTION ACT SUBMISSION**

**USGS Water Use Data and Research Program
OMB Control Number 1028-0118**

Terms of Clearance: None

Justification

1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection.

The SECURE Water Act of 2009 (42 USC 10361-10368) authorizes the U. S. Geological Survey (USGS) to support water use research and data collection activities through assistance (grants and cooperative agreements) to State water resource agencies. The USGS Water Availability and Use Science Program (WAUSP) fulfills the Water Resources Mission Area's objectives to provide comprehensive water availability and use science to the Nation by advancing the understanding of processes that determine water availability. The WAUSP includes the USGS National Water Use Science Project and is responsible for compiling and disseminating the nation's water-use data, working in cooperation with local, State, and Federal environmental agencies to collect water-use information. USGS compiles these data to produce water-use information aggregated at the county, state, and national levels. The assistance application instructions, specific objectives, and reporting requirements are identified in program announcements posted to Grants.gov.

Information collected and compiled by the USGS WAUSP reveals major gaps in water-use data across all main categories, especially site-specific data, which are critically needed for comprehensive understanding of National water supply and demand and to support the ongoing USGS national water modeling efforts. Consistent and comprehensive information is lacking about ways the State and Territory water resource agencies use the water-use data for the state- or regional-level water resources planning and management and what challenges they face with regard to water-use data availability and quality. Knowledge is also lacking on how the water-use information exchange between local, State, and Federal agencies can be improved and what institutional barriers to sharing site-specific water use can be addressed and how.

More recently, the USGS has placed a greater emphasis on collecting site-specific water use data that includes locational information such as latitude and longitude. Part of the goal for the site-specific data is to meet the Tier 2 and Tier 3 baseline standards for water-use data (<https://www.usgs.gov/mission-areas/water-resources/science/summary-baseline-standards-water-use-data>). To achieve these goals and to ensure that strategies are developed to address gaps in water-use data across the Nation, data collection via semi-structured interviews and a survey is necessary to collect comprehensive and consistent data from State and Territory environmental agencies. This data collection will investigate the water use data availability and identify barriers that may prevent State and Territory agencies from sharing water use data, in particular site-specific water use data.

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection. Be specific. If this collection is a form or a questionnaire, every question needs to be justified.

State Water Resources and environmental agencies are eligible to submit proposals to acquire funding to support research related to water use data collection, development of estimation techniques and methods, and data delivery. The Water Use Data and Research (WUDR) program uses the requested information to determine the eligibility of the applicants and as the basis for approval or disapproval of proposed data collection activities and research. This collection ensures that sufficient and relevant information is available to evaluate and select applications for funding. Financial assistance is awarded following the evaluation and ranking of applications by a review panel familiar with the objectives of the WUDR.

The technical narrative of the proposal for assistance support is used to help the WUDR program manager understand the proposed research or data collection activities and is also used by the technical review panel to evaluate the research or operations against established WUDR evaluation criteria. The application's uniform appearance and assembly minimizes the time required by the bureau to determine applicant eligibility and for review and oversight. Reporting requirements are the minimum required by the OMB Circulars. Final technical reports and annual progress reports are used for technical monitoring of the projects to assure consistency with the objectives of the program's legislation. The technical reports have only general format requirements. Re-prints of peer-reviewed articles submitted for publication in journals will be accepted as final technical reports.

The maximum length of the application is 15 pages. The final technical reports will be available upon request from the WUDR program coordinator, with contact information available on the WUDR website, part of the USGS website. Data collected are stored in USGS databases, a requirement of SECURE Water Act of 2009 (42 USC 10361-10368) which requires datasets be integrated into the appropriate USGS database(s).

To fill the gap in knowledge how water use data and information is used in 55 States and Territories and how the water use data and knowledge exchange can be improved between State, and Federal agencies, a mixed-method research design will be used. A semi-structured interview, consisting of approximately 16 questions with several follow up or clarifying questions if needed, will be conducted first, followed by a 10-question survey. Interview will be conducted via Zoom or phone, based on the study participant preference and Internet availability. A survey will be hosted as a Web-based survey online survey platform Google Forms. An email with the project and data collection description will be sent to approximately 90 study participants. The email will include links to Zoom (if interviews are conducted via Zoom) and to the online survey. Respondents will not have the option to provide responses in a different mode.

The study participants will include approximately 90 representatives from State and Territory agencies and organizations that either (1) were identified by USGS Water Science Center representatives as water-use data providers (to USGS) or collectors of state water-use data or (2) past or current participants in the USGS WUDR program. Approximately 37 of the interviews will be with representatives from State and Territory water-focused agencies and organizations,

including Departments/Divisions of Water Resources and Water Resources Boards, Water management districts, State Water Surveys, Water Conservation districts/boards, and irrigation districts. Approximately 18 will be with State and Territory Departments of Natural Resources. Approximately 15 will be with State and Territory Departments of Environmental Quality Protection or Ecology. The remaining include power/electric authorities, State Departments of Agriculture, State Geological Surveys, State Engineers, and River Basin or Regional Water Commissions. The interviewees from those agencies and organizations are anticipated to be state engineers, heads of water resources/water planning, or managers with expertise in water use/demand for the State/Territory. All interviewees will be asked the same questions, with the option to skip any they do not wish to answer.

USGS Water Mission Area contracted the National Center for Atmospheric Research (NCAR) to conduct water use data sharing feasibility study in the US. The study Principal Investigator (PI) or Co-Investigator (Co-I) will serve as the survey point-of-contact for the collection process. The point-of-contact will email the survey and interview descriptions and link to the study participants. Up to three reminders will be emailed, depending on the response rate.

The questions asked are designed to better understand the role of environmental agencies in various aspects of water use data management, role of water use information in the State's broader goals with regard to water management, sustainability, and planning, water-related information exchange, water and water use data governance structures and steps taken to ensure water data is open, accessible, and standardized. In addition, the interview questions will help understand and contextualize water data sensitivities, data sharing restrictions, existing local, State and Federal agencies relationships, processes of data sharing, risks, benefits, and barriers for sharing data with USGS and potential ways to address these risks and enhance/streamline knowledge exchange. Several introductory questions about the participants' professional roles and length of employment in their current organization, will provide context for the answers related to organizational and water use data knowledge. Structured survey questions are designed to better understand what water use are available in the States and Territories and what are main barriers to water use data sharing between the agencies and the USGS. Answers to survey and interview questions will be requested but not required, which will be explained in the informed consent.

There are multiple USGS-relevant policies and reports that motivate this type of data collection. The USGS Water Availability and Use Science Program (WAUSP) supports improving estimates of water budget components nationally, including estimates of the human component of the water budget, water use. Increasing the number of States reporting Tier 1 data will improve the accuracy of both ground and surface water models in predicting the long-term effects of Water Use on water availability as well as providing decision makers a baseline set of information, they need to manage water resources effectively in the future. The increased spatial and temporal resolution achieved by increasing water use reporting to the Tier 3 level nationally would improve model accuracy dramatically and allow water managers to make near-real time management decisions in regards to water availability. NOTE: Tier 1 is considered a minimally acceptable level of reporting and has great limitations versus a desired level of Tier 3 reporting; Tier 3 requires monthly reporting of site-specific water and consumptive use and would allow for near-real time reporting of water availability nationally (more information on USGS Tiers of water use reporting can be found at <http://water.usgs.gov/watercensus/wudr/baseline->

[summary.html](#)). Additionally, the SECURE Water Act is a law that directs the Secretary of the Interior to assess and address the impacts of climate change on water resources and ecological resiliency in areas with federal reclamation projects. The law also authorizes grants and agreements for water conservation, efficiency, management, and treatment projects. More specifically, the SECURE Water Act authorized the Department of Interior to provide grants to State water resource agencies to assist State water resource agencies in: (A) developing water use and availability datasets that are integrated with each appropriate dataset developed or maintained by the Secretary; (B) integrating any water use or water availability dataset of the State water resource agency into each appropriate dataset developed or maintained by the Secretary. By complying with the above Tier-level structure, this helps demonstrate that the State water resource agency is in compliance with the Department of Interior standard [as set forward by the U.S. Geological Survey] and that the water use and availability dataset(s) will enhance the ability of the officials of the State water resource agency to carry out each water management and regulatory responsibility of the State in accordance with each applicable law of the State.

Results from the interviews and survey will be used to determine what and how water use data collection and sharing among the agencies can be improved and incorporated in the future USGS engagement with the State and Territory agencies, with the goal of strengthening the local, State and Federal partnerships and advancing water science and management across the United States.

Results may be shared throughout the USGS in various forms, including formal presentations as part of webinars, conferences, or other meetings. Data also will be shared with National Center for Atmospheric Research scientists for analysis and may be used in scientific publications, future research, and professional conferences. The data collected will be anonymous; no identifiable information will be collected.

Data collection will occur one time for the length of the approved interview guide and survey.

Explanation of the purpose of the questions being asked are presented in the Table below:

For Form 1-2345 we ask...	So that we can...
<ul style="list-style-type: none"> • What is your job title and what are your main responsibilities? • How long have you worked at this agency? • How would you describe the mission of your organization and its main functions, especially concerning water resources? 	<p><i>Develop context for interviewee’s responses and provide insight about each agency/organization’s overall role in water-use data governance, resources and priorities, and relationship with USGS.</i></p>
<ul style="list-style-type: none"> • How would you describe your agency’s role in the collection, compiling, management or dissemination of water use <i>data</i> in this State/Territory? • Does your agency rely on water use information for any of its goals or functions and if so, could you describe how the water use information is being used? 	<p><i>Understand the agency’s role in various aspects (collection, management, compilation, regulation, etc.) of water-use data and information, if and how water-use information/data is used, and what data quality issues or data gaps are apparent.</i></p>

<ul style="list-style-type: none"> • What can you say about comprehensiveness and quality of water use data that your agency manages or uses? • Does available water use data and their quality adequately support your agency's goals <ul style="list-style-type: none"> o If yes, could you describe how it was achieved? o If not, what aspects need to be improved? 	
<ul style="list-style-type: none"> • Are you familiar with any other water management and/or planning efforts in this ST that rely on or would benefit from water use data and especially site-specific water use data? • Does your agency have any formal or informal agreements with local, state or federal agencies to share water use data or exchange information about water use? • Thinking about water use data or information exchange in this ST, are there any past or ongoing efforts to make water data more open, accessible and standardized? • Are there any water use data or information that would be considered sensitive and would have certain restrictions on how it can be shared? 	<p><i>Understand water-related information exchange in States and Territories, including what other actors may be involved, and any institutional norms that have been established with exchanging data.</i></p>
<ul style="list-style-type: none"> • Could you tell me about your organization's cooperation or collaboration with the USGS Water Science Center with regard to water-use data or information? • Could you describe what types of site-specific water-use data, if any, your agency shares with the USGS WSC (or publicly)? • Are there any known or perceived risks associated with sharing site-specific water use data with agencies, such as USGS? • Could you describe some of the benefits of water use information exchange and data sharing between your agency and the USGS? • Can you think of anything that could further enable or streamline water use data sharing and water use information exchange with USGS? 	<p><i>Update understanding of data restrictions, existing agency/USGS relationships, and processes of data sharing. These questions will also improve understanding of risks, benefits and barriers for sharing data with USGS to inform potential ways to address these risks and enhance/streamline sharing.</i></p>
<ul style="list-style-type: none"> • Optional: Thinking of the entire water system, how is water-use data used in 	

<p>broader assessments of basin- or state- level water budgets/management decisions/sustainability planning?</p>	
<ul style="list-style-type: none"> • What categories of water-use data are currently collected or compiled by your agency? [Select all that apply] • For which categories is water-use reporting mandated (by law)? [Select all that apply] • What are some of the reasons that site-specific water use data cannot be shared with the USGS (or must be aggregated before sharing)? [Select all that apply] • What are some of the reasons that site-specific crop irrigation data cannot be shared with the USGS (or must be aggregated before sharing)? [Select all that apply] • What water-use data are available to your agency? [For crop irrigation, livestock, industrial, public supply, and thermoelectric water use categories in a “check all that apply format” where choices include USGS Tier 2 and 3 water-use information types.] • What is the temporal resolution* of withdrawal data available to your agency for each of the main water-use categories? [The respondent will check responses such as daily, monthly, and annually for the main water-use categories compiled by USGS.] 	<p><i>Understand what types of water-use data and information are available in States and Territories, reasons that site-specific water-use data cannot be shared, and what categories of water-use have mandated reporting.</i></p>

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also describe any consideration of using information technology to reduce burden and specifically how this collection meets GPEA requirements.

All applications must be submitted electronically via Grants.gov (<http://www.grants.gov>). The progress and final reports will be submitted directly to the program coordinator via e-mail (wudr-coordinator@usgs.gov) and are posted for public use at <http://water.usgs.gov/wausp/wudr/index.html>.

A portion of the water use data feasibility study data collection will be conducted electronically as an Internet-based survey. Respondents will be invited via email, and they will be provided with a link to respond to the Web-based survey that will use the online survey platform Google Forms. The interview portion of the data collection will be conducted via Zoom. We have provided an option to conduct interviews over the phone if the interviewee is more comfortable participating over the phone. The interview will be audio-recorded. No in-person or paper-based methods will be used. The results from this data collection will be made available through a peer-reviewed publications published in open access journals with free access over the Internet.

4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purposes described in Item 2 above.

The application and report information is used solely for this program and is not duplicated. The subject matter of each application and report are unique to each applicant each year. There is no similar information available which could be used or modified for this purpose.

We have conducted a literature review, including peer-reviewed literature and the USGS WUDR program reports. There have been prior studies identifying issues with limited water use information availability, water use data quality, and water use data information dissemination (Marston et al. (2022), Josset et al. (2019), Colohan and Onda (2022), Aspen Institute (2017)). A few studies identified institutional barriers to water use data sharing (Sugg (2022), Western States Water Council (2022) and Colohan and Onda (2022)). The data collection proposed here builds on this prior research by asking questions about site-specific data across major water use categories from agencies in all 55 States and Territories. A mixed-methods research design (combining interviews with surveys) helps to quantify Tier 2 and Tier 3 water use data availability to the State and Territory agencies and rank reasons for data sharing limitations, while interviews help to understand the local context, including water governance, and provide meaning to the survey data, which add depth and breadth to the study.

Given the findings of our literature review, we are confident that this work represents a new area of research that is nonduplicative in the realm of water use data and information. Additionally, communications with the subject matter experts across the USGS-Water Resources Mission Area, have been conducted to ensure duplicative efforts have not been done or planned elsewhere.

5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.

This information collection does not impact small businesses or other small entities.

6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.

Funding for the WUDR is appropriated on a fiscal year basis as part of the USGS annual appropriation. The program priorities may change each year as directed by Congress. Consequently, the issuance of announcements and submission of applications must be scheduled no less frequently than annually.

If the collection is not conducted annually, then the federal government will not have systematic data-gathering needed to ensure the necessary water resources are available in sufficient quantities to support (A) increasing populations; (B) economic growth; (C) irrigated agriculture; (D) energy production; and (E) the protection of aquatic ecosystems (42 USC 10361-10368). Sufficient information may not be available to protect the water resources of the United States due to changes in precipitation throughout the nation. This collection also supports the States in

carrying out data collection and monitoring of water resources (42 USC 10361-10368). Without this collection vital information to understand the impacts of human activity on water and ecological resources cannot be collected, and water resource managers will not have the necessary information to assess whether surface and groundwater will be available to meet the future needs of the United States (42 USC 10361-10368).

Without direct input from State or Territory water resources and environmental agencies, the USGS will have geographically fragmented and incomplete understanding of water use data as well as pathways for improving knowledge exchange among the USGS Water Science Centers and the State and Territory agencies. Having limited information on how water is used across the Nation can have major consequences for water resource management and generate uncertainties in national water modeling efforts. Collecting this information will inform how USGS can better achieve USGS goals to show improvements in the number of states that adhere to at least Tier-1 status for public supply, thermoelectric, and irrigation and to directly address goals of the SECURE Water Act (Section 9508).

7. Explain any special circumstances that would cause an information collection to be conducted in a manner:

- * requiring respondents to report information to the agency more often than quarterly;**
- * requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;**
- * requiring respondents to submit more than an original and two copies of any document;**
- * requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records, for more than three years;**
- * in connection with a statistical survey that is not designed to produce valid and reliable results that can be generalized to the universe of study;**
- * requiring the use of a statistical data classification that has not been reviewed and approved by OMB;**
- * that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or**
- * requiring respondents to submit proprietary trade secrets, or other confidential information, unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.**

There are no circumstances that require us to collect the information in a manner inconsistent with OMB guidelines.

8. If applicable, provide a copy and identify the date and page number of publication in the *Federal Register* of the agency's notice, required by 5 CFR 1320.8(d), soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and in response to the PRA statement associated with the collection over the past three years, and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and

hour burden.

Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every three years — even if the collection of information activity is the same as in prior periods. There may be circumstances that may preclude consultation in a specific situation. These circumstances should be explained.

On April 7, 2023, we published a 60-Day *Federal Register* notice 88 FR 20902. We did not receive any comments in response to that notice.

USGS is collaborating on this data collection effort with NCAR scientists Dr. Olga Wilhelmi, Kimberly Fewless, Kevin Sampson, Dr. Mari Tye, and Dr. David Yates. These researchers have expert knowledge of water systems, water use data and information, as well as expertise in quantitative social science methods, and have participated in the development of the questionnaire for the mixed-method data collection.

We consulted with a wide variety of subject matter experts across the US Geological Survey to ensure the completeness, understandability, and conciseness of the data collection instruments. The titles of those individuals and summary of feedback received is provided in the table below.

Table 1 Commenters on the survey or announcement

U.S. Geological Survey Water Mission Area Program Manager and Geographer Norcross, Georgia Reviewed interview questions. Expressed that they did not have any policy or science concerns. Suggested change to wording of one question, which was accepted.	U.S. Geological Survey Maryland-Delaware-Washington D.C. Water Science Center Hydrologist Baltimore, Maryland Reviewed interview questions. Suggest one question be removed, which was accepted.
U.S. Geological Survey New York Water Science Center Hydrologist Troy, New York Reviewed interview questions. No additional comments were made.	U.S. Geological Survey Water Mission Area Research Hydrologist Denver, Colorado Reviewed interview questions. No additional comments were made.

9. Explain any decision to provide any payment or gift to respondents, other than

remuneration of contractors or grantees.

Except for the remuneration of grantees, no payments or gifts are provided to the respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

The USGS does not provide an assurance of confidentiality. However, respondents will remain anonymous beyond the research team. Assurance will be provided in the form of an informed consent document presented to respondents before information is collected as well as display of the Privacy Act Statement and System of Records notice identified as [DOI Social Networks (Interior/USGS-8) published at 76 FR 44033, 7/22/2011] on all written materials (questionnaire and informed consent document) and stated verbally as part of interviews.

The interview and survey data will be collected by Olga Wilhelmi, Kimberly Fewless and Mari Tye at NCAR. These researchers will have access to raw data for qualitative and quantitative analysis. NCAR researchers additionally obtained an IRB approval (OHRP IRB Number: IRB00006222 (U Corp. for Atmospheric Research), Assurance Number: FWA00012567; HSC Memo #2023-2) for this study and will adhere to the study protocols to ensure privacy of study participants. All data will be stored on password-protected computers and de-identified for quantitative and quantitative analyses. Anonymized and aggregated survey and interview results will be shared with and within USGS through a report and presentations and with broader research community through conference presentations and a peer-reviewed publication.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.

We do not ask questions of a sensitive nature.

12. Provide estimates of the hour burden of the collection of information. The statement should:

- * **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. Unless directed to do so, agencies should not conduct special surveys to obtain information on which to base hour burden estimates. Consultation with a sample (fewer than 10) of potential respondents is desirable. If the hour burden on respondents is expected to vary widely because of differences in activity, size, or complexity, show the range of estimated hour burden, and explain the reasons for the variance. Generally, estimates should not include burden hours for customary and usual business practices.**
- * **If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens.**
- * **Provide estimates of annualized cost to respondents for the hour burdens for**

collections of information, identifying and using appropriate wage rate categories. The cost of contracting out or paying outside parties for information collection activities should not be included here.

Our estimates, in Table 2 below, are based on our own knowledge with the past 3 years of the grant program, plus the water use data sharing feasibility study described in item 8.

State Water Resource Agencies read instructions: We estimate that it will take each agency’s personnel approximately 1 hour to read the instructions (totaling 30 hours).

Narrative/Proposal Preparation: We anticipate that it will take each applicant approximately 40 hours to complete the project narrative and to provide any other relevant supporting documents as a proposal for assistance support (totaling 480 hours). Based on previous years, we anticipate that 12 respondents will submit applications.

Semi-annual Progress Reports and Final Report Preparation: We anticipate awarding an average of 10 grants per year. The 10 award recipients are required to submit progress reports 2 times per year (20 total responses) and a final technical report. We estimate that it will take an average of 32 hours to complete reports, 4 hours for each of semi-annual progress report and 24 hours for the final technical report (totaling 320 hours).

Water Use Data Feasibility Study: We anticipate approximately 90 respondents to the water use data feasibility study described in item 2. We estimate that the total burden for this collection will be 135 hours, as shown in Table 2 below.

We estimate that the total burden for this collection will be 965 hours, as shown in Table 2 below.

To estimate the dollar values of burden hours in Table 2, we used data from Bureau of Labor Statistics USDL-18-1451, Employer Costs for Employee Compensation, dated March 17, 2023, average wage for State and Local government mean hourly wages (\$57.60) to account for individuals from State Water Resource agencies. These values include benefits and overtime.

Table 2. Responder Burden

Respondent	Activity	Annual No. of Respondents	Avg. Time per Response (hours)	Annual Number of Activity	Total Annual Burden Hours*	Hourly Labor Costs Incl. Benefits	Dollar Value of Annual Burden Hours
State Water Resource Agency Personnel	Reads Announcement	30	1	1	30	\$ 57.60	\$ 1,728
State Water Resource Agency Personnel	Submit Application	12	40	1	480	\$ 57.60	\$ 27,648
State Water Resource Agency Personnel	Semi-annual Progress Report	20	4	2	80	\$ 57.60	\$ 4,608
State Water Resource Agency Personnel	Final Technical Report	10	24	1	240	\$ 57.60	\$ 13,824
State Water Resource Agency Personnel	Water Use Data Feasibility Study Response (email communication)	90	1.5	1	135	\$ 57.60	\$ 7,776

	to set up interview time and interview and survey participation)						
Totals		162			965		\$ 55,584

13. Provide an estimate of the total annual non-hour cost burden to respondents or recordkeepers resulting from the collection of information. (Do not include the cost of any hour burden already reflected in item 12.)

- * The cost estimate should be split into two components: (a) a total capital and start-up cost component (annualized over its expected useful life) and (b) a total operation, maintenance, and purchase of services component. The estimates should take into account costs associated with generating, maintaining, and disclosing or providing the information (including filing fees paid for form processing). Include descriptions of methods used to estimate major cost factors including system and technology acquisition, expected useful life of capital equipment, the discount rate(s), and the time period over which costs will be incurred. Capital and start-up costs include, among other items, preparations for collecting information such as purchasing computers and software; monitoring, sampling, drilling and testing equipment; and record storage facilities.
- * If cost estimates are expected to vary widely, agencies should present ranges of cost burdens and explain the reasons for the variance. The cost of purchasing or contracting out information collection services should be a part of this cost burden estimate. In developing cost burden estimates, agencies may consult with a sample of respondents (fewer than 10), utilize the 60-day pre-OMB submission public comment process and use existing economic or regulatory impact analysis associated with the rulemaking containing the information collection, as appropriate.
- * Generally, estimates should not include purchases of equipment or services, or portions thereof, made: (1) prior to October 1, 1995, (2) to achieve regulatory compliance with requirements not associated with the information collection, (3) for reasons other than to provide information or keep records for the Government, or (4) as part of customary and usual business or private practices.

We have not identified any non-hour cost burden associated with this collection.

14. Provide estimates of annualized cost to the Federal Government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense that would not have been incurred without this collection of information.

The estimated annual cost to the Federal Government is \$249,689 as itemized in Table 3, below. The table shows Federal Staff and grade level performing various tasks associated with this collection of information and time spent processing and reviewing information received as a result of this collection. Primary USGS staff involved are the Contracting Officer, Staff Support, and Program Coordinator for developing the program announcement, organizing the proposals, completing all logistics for the peer panel meetings to review proposals, notifying recipients of

awards, preparing requisitions, making awards, and requesting and reviewing required reports. Grade levels, time, and annual costs for each of the three individuals are provided below. Several USGS scientific staff also serves as panel members; these panel members spend 80 hours on average per person for reviews, meeting participation, and travel. We have provided an aggregated grade level and annual cost below for USGS panel members.

We used the Office of Personnel Management Salary Table for WASHINGTON-BALTIMORE-ARLINGTON, DC-MD-VA-WV-PA for 2023 (https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/23Tables/html/DCB_h.aspx) to determine the hourly rate. We multiplied the hourly rate by 1.6 to account for overhead costs.

In addition to the salaries and benefits, we estimate \$10,000 for the proposal review panel meeting required each fiscal year for transportation and per diem for outside peer reviewers and USGS staff (no salaries or stipends are paid to non-federal personnel that participate on the panel reviews). USGS facilities are used for panel meetings, so no room rental fees are incurred.

Additionally, we estimated \$100,000 for the administering surveys, conducting interviews, transcription services and analyzing and interpreting the resulting data as a one-time cost for the water use data feasibility study, as incurred by the contractor.

Table 3. Federal Labor Table

Action / Role	Position and Grade	Hourly Rate	Fully Burdened Hourly Rate (Incl. Benefits)	Total Annual Hours	Total Annual Cost
WUDR Program Coordinator	GS 14/5	\$ 71.88	\$ 115.01	522	\$ 60,036
Hydrologist – Staff Support	GS 12/5	\$ 51.15	\$ 81.84	522	\$ 42,721
Contracting Officer	GS 13/10	\$ 69.77	\$ 111.63	120	\$ 13,396
Application Review Panel – Federal Members Only					
2 Hydrologists (40 total annual hours each)	GS 14/5	\$ 71.88	\$ 115.01	80	\$ 9,201
2 Hydrologists (40 total annual hours each)	GS 13/5	\$ 60.83	\$ 97.33	80	\$ 7,787
2 Hydrologists (40 total annual hours each)	GS 12/5	\$ 51.15	\$ 81.84	80	\$ 6,548
Other expenses to Federal Government					
Travel and per diem for Review Panel (Fed only)					\$ 10,000
Administering surveys, conducting interviews, analyzing data, and summarizing results in a report and peer-reviewed journal article.					\$ 100,000
Total					\$ 249,689

15. Explain the reasons for any program changes or adjustments in hour or cost burden.

This is a renewal request for an annual process to solicit applications from State water resource agencies, in addition to the newly proposed water use data feasibility study. We updated our cost burden estimates based on new compensation data from the U.S. Bureau of Labor Statistics. For employee salary expenses, we updated the Grade/Step for each individual and used OPMs 2023 GS pay-scale tables.

For the water use data feasibility study, this is a request for a new data collection of this information, so the appropriate updates have been made to reflect the adjustments in hours as reflected in table 2.

16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.

We anticipate publishing the findings of this information collection as a scientific journal article, a summary report for participating stakeholders, and presentations at scientific conferences.

Interviews will be audio-recorded and professionally transcribed. All transcripts will be analyzed qualitatively in NVivo using a coding scheme that reflects both deductive and inductive concepts related to water use, water use data, and knowledge exchange. For data analysis, NCAR researchers will design a hierarchical coding scheme by integrating project-driven objectives with data-driven insights. The results will focus on the key themes derived from the data analysis.

The survey data will be analyzed primarily descriptively, with frequency distribution and measures of central tendency (i.e., mean, median, mode). Survey results will be contextualized by interview data. Results from the interviews and survey will be shared within the research team at the National Center for Atmospheric Research and with the USGS.

Collection of the information is scheduled to occur upon OMB approval, likely in Fall 2023. Data analysis will occur throughout the subsequent four to six months in 2024.

A report of the findings will be provided to USGS by August 2024. The results also will be presented at a future conference (e.g., American Water Resources Association). NCAR research scientists will analyze and synthesize portions of the interview and survey data for a peer-reviewed publication, to be submitted within six months after the data collection ends.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

We will display the OMB Control Number and expiration date on appropriate materials.

18. Explain each exception to the topics of the certification statement identified in "Certification for Paperwork Reduction Act Submissions."

There are no exceptions to the certification statement.

Literature cited within form responses above:

Abdallah, A. et al. (2022). Western State Water Program Capabilities Assessment Update Report.

The Aspen Institute. (2017). Internet of water: Sharing and integrating water data for sustainability (p. 33). <https://assets.aspeninstitute.org/content/uploads/2017/05/Internet-of-Water-Report-May-2017.pdf>.

Colohan P. and Onda K. (2022). Water data for water science and management: Advancing an Internet of Water (IoW). PLOS Water 1(3): e0000017. <https://doi.org/10.1371/journal.pwat.0000017>.

Josset, L., M. et al. (2019). The US Water Data Gap — A Survey of State-Level Water Data Platforms to Inform the Development of a National Water Portal. Earth's Future 7 (4): 433–49. <https://doi.org/10.1029/2018EF001063>.

Marston, L.T. et al. (2022). Water-Use Data in the United States: Challenges and Future Directions. Journal of the American Water Resources Association 58 (4): 485-495.

Sugg, Z. (2022). Social barriers to open (water) data. Wiley Interdisciplinary Reviews: Water, 9(1), e1564. <https://doi.org/10.1002/wat2.1564>.

Western States Water Council. (2014). Western State Water Program Capabilities Assessment Report. <https://westernstateswater.org/publications/2014/western-state-water-program-capabilities-assessment-report>.

Western States Water Council. (2022). The 2022 National Water Use Data Workshop Summary Report. https://westernstateswater.org/wp-content/uploads/2022/02/2022_National_Water_Use_Data_Workshop_Report_10_31_2022.pdf.