

## 1 Supporting Statement

### **SURVEY of IRRIGATION ORGANIZATIONS**

OMB No. 0535-NEW

#### **A. JUSTIFICATION**

This is a new data request docket for a period of three years. In the Federal Register the name of this survey was initially called Irrigation Organizations Survey, which is being changed to Survey of Irrigation Organizations (SIO).

On April 4, 2017, the USDA National Agricultural Statistics Service (NASS) and the Economic Research Service (ERS), signed a Memorandum of Understanding. This agreement is for the development and implementation of a survey of irrigation organizations—defined to include irrigation districts and other entities that supply water (primarily surface water) directly to agricultural users, as well as groundwater management districts that may influence the supply of groundwater for irrigation. While USDA regularly surveys producers about their irrigation practices every five years through the Irrigation and Water Management Surveys (formerly known as Farm and Ranch Irrigation Survey), the last census of irrigation organizations was conducted in 1978 by the Census Bureau. The sector has undergone substantial change in the past forty years, with consolidation in surface water organizations, particularly among ditch companies, and many new organizations overseeing groundwater access. The new survey of irrigation organizations will collect local, district-scale information, including the adoption of alternative types of water allocation institutions and conservation policies that impact farm-level drought resilience and adaptation to long-run water scarcity. The work supports the call for Federal research and data on drought resiliency under the National Drought Resilience Partnership (NDRP) initiative, providing valuable input to Federal agencies and other stakeholders involved in resource assessment, conservation, and analysis. This work also supports initiatives authorized in the 2018 Farm Act, which extends eligibility for USDA conservation programs to irrigation organizations and directs the USDA to engage directly in water conservation and drought resilience assistance programs with these organizations. The development of this important economic agricultural database serves the best interest of USDA, the agricultural community, and the Nation.

- 1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.**

In July 2019, the interagency National Drought Resiliency Partnership (NDRP) identified priority actions to be undertaken by a range of federal agencies in support of the October 19, 2018 *Presidential Memorandum on Promoting Reliable Supply and Delivery of Water in the West* as well as a number of other ongoing federal initiatives related to water management. The Survey of Irrigation Organizations was included as one of those priority actions that addresses the goal of improving data collection and integration to “strengthen decision making to support more adaptive responses to drought and drought risk.” (See <https://www.usda.gov/sites/default/files/documents/ndrp-priority-actions.pdf> for additional details.)

In 2013, as part of the response to the devastating 2012 drought, the interagency NDRP was created to help communities better prepare for future droughts and reduce the impact of drought events on livelihoods and the economy. Responding to requests from communities, businesses, and farmers and ranchers, the NDRP will make it easier to access Federal drought resources, and will help link information such as monitoring, forecasts, outlooks, and early warnings with longer-term drought resilience strategies in critical sectors such as agriculture, municipal water systems, energy, recreation, tourism, and manufacturing.

Within the irrigated agricultural sector, one of the most important avenues through which federal policy can improve drought resilience is investment in irrigation delivery infrastructure and management. The Agricultural Improvement Act of 2018 (the “2018 Farm Act”) implemented important changes to USDA conservation programs that expands the domain of these investments to include organizations that are “an irrigation district, groundwater management district, acequia, land-grant mercedes, or similar organization” and directs USDA to direct assistance toward practices that may include “irrigation-related structural or other measures that conserve surface water or groundwater, including managed aquifer recovery practices” (16 USC 3829aa 2 (h)). The Survey of Irrigation Organizations will provide USDA with up-to-date information about the numbers, types, and functions of these organizations and as well as summary information on their current investments in water conservation practices and drought preparedness.

Congress has emphasized the important role of water infrastructure in promoting development and economic prosperity. In October 2018, Congress passed America’s Water Infrastructure Act (Public Law No: 115-270), which authorized funding for a broad array of water conservation and development initiatives. Specifically, the bill includes several provisions to increase investment in water supply and storage infrastructure supporting irrigated agriculture. These provisions recognize the important role that irrigated agriculture, and the water

supply institutions and infrastructure that support it, play in promoting economic development.

The Nation's water supply situation is an important policy concern, particularly during periods of prolonged drought. Demand from urban and rural uses for supplies of surface and ground water traditionally used by agriculture are increasing. In 2019, the National Agricultural Statistics Service (NASS) conducted the 2018 Irrigation and Water Management Survey (IWMS). This marked 35 years of irrigation data collected on water management practices and water use in American agriculture. The data obtained by the 2019 Survey of Irrigation Organizations will complement farm-level data collection efforts, providing a more comprehensive look at the water situation and drought preparedness of the United States.

**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.**

Numerous government agencies can use these data to better estimate the availability of water and the current trends in water usage and conservation. Those agencies include the Economic Research Service (ERS), the Natural Resource Conservation Service (NRCS), the US Geological Service (USGS), the USDA Office of the Chief Economist, the Department of the Interior, the Department of Energy, the Department of Commerce, the US Forest Service and many other research organizations, irrigation industries, and land grant universities. Some additional data users are listed below in item 8.

- Both the United States Congress and State legislative bodies can use these data for formulating and assessing natural resource legislation.
- Federal and State water resource agencies can use the survey results to develop programs and prepare descriptive information.
- Planning agencies can use the survey information on water supply and water use by State and water resource area to evaluate trends in surface water allocations and ground water withdrawals, especially the depletion of ground water reserves in the major irrigation areas.

NASS will be collecting information on facilities, operation type, revenue, costs, and practices for irrigation organizations. These are organizations that either deliver water directly to farms and ranches for irrigation or directly impact the use of groundwater by farms and ranches. Some organizations serve both water delivery and groundwater management roles.

The type of data that will be collected by this survey includes.

- Organization description
  - o Do they monitor and manage groundwater quality,
  - o Do they develop and permit new wells,
- Governance Structure
- Delivery of Off-farm water
  - o Water Supply
  - o Acreage and Water Deliveries
  - o Scheduling
  - o Water Transfers
  - o Water Allocation
  - o Storage and Conveyance Facilities
  - o System Constraints
- On-farm Groundwater
  - o Number of farms served
  - o Acres irrigated
  - o Number of wells
  - o Number of recharge sites
- Measurement of Water
  - o Metering
  - o Time of Use
  - o Self Reporting
  - o Frequency of measurements
- Drought Planning and Response
- Water Conservation and Environmental Concerns
- Assets, Liabilities, and Investment
- Revenue and Price Structure
- Cost of Operation and Maintenance

The absence of these data would certainly affect irrigation policy decisions. Federal programs, legislation, and impact studies would be subject to greater uncertainty and error.

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.**

Respondents will have the option of reporting electronically through a web based data collection instrument or by standard mail. Non-respondents will be contacted by using telephone or personal interviews by trained phone and field enumerators.

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 USDA ERS has provided NASS with a comprehensive listing of all irrigation organizations in 24 states in the US. NASS has run the data through a matching program to look for any duplication of names, addresses, phone numbers, etc. to see if any respondents may be reporting for more than one area or water district. Also, NASS has looked for any comparable data from other agencies and nothing has been found other than the data collected by the US Census Bureau in 1978.

In developing the questionnaire for the 2019 Survey of Irrigation Organizations, the USDA made a number of modifications relative to the 1978 survey to avoid duplication with other federal data collection efforts. The 2019 survey will not include questions about irrigated acreage by crop or about on-field irrigation technology because these data are currently collected through a combination of the USDA Census of Agriculture, the Irrigation and Water Management Survey (formerly the Farm and Ranch Irrigation Survey), and various NASS planted acreage surveys. USDA also consulted with the Bureau of Reclamation, the Army Corps of Engineers, and the U.S. Geological Survey to ensure that this data collection effort is not duplicative with the administrative or statistical records that those agencies maintain.

5. **If the collection of information impacts small businesses or other small entities (Item 5 of OMB Form 83-I), describe any methods used to minimize burden.**

NASS has designed the Survey of Irrigation Organizations questionnaire with the goal of minimizing respondent burden on all participants. As a result of cognitive testing and the inclusion of skip patterns, respondents should be able to skip past

all sections of the questionnaire that do not pertain to their operation. A toll-free telephone number will be provided for respondents desiring help in completing the questionnaire.

Out of the estimated sample size of 6,500, approximately 4,500 or 70 percent would be considered small operations.

**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.**

In order to optimize the usefulness of the SIO data and the data collected from the IWMS, they need to be conducted as closely together as possible. Having data from farmers for 2018 and from the water providing organizations for 2019 greatly increases the potential for drawing accurate conclusions and making well informed decisions relating to drought management.

Without this data it is very difficult to make informed decisions regarding water management and distribution, conservation practices, cost effectiveness, quality and availability of water, drought prevention, and numerous other factors that have not been collected since the Census Bureau conducted this survey 40 years ago.

**7. Explain any special circumstances that would cause an information collection to be conducted in a manner inconsistent with the general information guidelines in 5 CFR 1320.5.**

There are no special circumstances associated with this information collection.

**8. 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 describe actions taken by the agency in response to these comments.**

The Notice soliciting comments was published in the Federal Register on April 11, 2019 on pages 14643 - 14644. NASS received one public comment regarding this new data collection that is based on a previously conducted survey by the Census Bureau for the year of 1978. The comment was from the Oregon Water Resources Congress and it supports the collection of irrigation information by NASS. The comment is attached to this submission.

**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 record-keeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.**

In late 2018, researchers at the USDA Economic Research Service (ERS) prepared a first draft of the SIO questionnaire, which was adapted from the *1978 Census of Irrigation Organizations* which was conducted by the U.S. Department of Commerce, Bureau of the Census. Given the broad range of topics that will be covered in the new questionnaire, ERS asked for feedback from experts with experience in these topics. About one dozen experts were approached. Detailed feedback was received from the following individuals:

- Sara Larsen, P.E., former staff member Western States Water Council
- Nick Brozovic, PhD, Director of Policy, Daugherty Water for Food Global Institute, Professor of Agricultural Economics, University of Nebraska-Lincoln
- Hamid Farahani, Water Management Engineer, USDA Natural Resources Conservation Service
- Ellen Hanak, PhD, Center Director and Senior Fellow, Public Policy Institute of California
- Andrew Ayres, PhD, formerly Environmental Defense Fund
- Molly Maupin, Hydrologist, USGS Idaho Water Science Center
- Rodney Caldwell, Hydrologist, USGS Wyoming-Montana Water Science Center

The final draft of the questionnaire reflects ERS's efforts to incorporate or address comments or concerns of these individuals. Their input does not indicate that they or their organizations endorse the final version of the questionnaire.

In addition to the detailed feedback received from the contacts listed above, ERS researchers gave briefings to stakeholders in order to gain feedback on the overall concept for the survey and the topic areas covered. These briefings are listed here:

- USDA NRCS, conference calls, May, 2018
- USDA interagency Drought and Water Team, project briefing, May 23, 2018, followed by occasional project updates during team meetings.
- Department of Interior, Office of Policy and Planning, conference call May, 2018, meeting October, 2018.
- USDA Forest Service, conference call, October, 2018
- USDA Office of the Chief Economist, Office of Environmental Markets, meeting, December, 2018

- USDA ARS, conference call, February, 2019
- USGS, conference calls, May, 2018, October, 2018, February, 2019.
- Department of Interior, Bureau of Reclamation, conference calls, May, 2018, July, 2019.
- Department of Interior, Bureau of Indian Affairs, conference call, October, 2018
- WestFAST, conference call, June, 2018, webinar, July, 26, 2018
- Department of Energy, meeting, July, 2018
- Department of Interior, Fish and Wildlife Service, WestFAST webinar
- Army Corps of Engineers, email exchanges, WestFAST webinar
- Department of Commerce, NOAA, WestFAST webinar
- NASA, WSWC meeting
- Idaho Water Users Association, conference call, February, 2019, Tri-state meeting, May, 2019
- Washington State Water Resources Association, Tri-state meeting
- Oregon Water Resources Association, Tri-state meeting
- Texas Alliance of Groundwater Districts, phone call, July, 2019
- Association of California Water Agencies, meeting, March, 2019
- National Water Resources Association, project briefing at national conference, March, 2019
- Various state departments of water resources and water engineers, phone calls during development of list frame.

Presentations, meetings, and communications with these groups do not imply that they endorse the current version of the survey.

### **Planned Outreach**

During fall 2019 and early 2020, ERS will be conducting additional outreach. This may include presenting and/or attendance at regional or national meetings for groundwater districts and irrigation districts.

#### **9. Explain any decision to provide any payment or gift to respondents.**

There are no payments or gifts to respondents.

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

All questionnaires include a statement that individual reports are kept confidential. The specific Census of Agriculture citation, Title 7 U.S. Code Section 2204(g), plus Title 18 Section 1905 and Title 7 Section 2276 provide for the confidentiality of reported information. All employees of NASS and all



enumerators hired and supervised under a cooperative agreement with the National Association of State Departments of Agriculture (NASDA) must read the regulations and sign a statement of compliance.

Additionally, NASS and NASS contractors comply with OMB Implementation Guidance, "Implementation Guidance for Title V of the E-Government Act, Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA), (Public Law 107-347). CIPSEA supports NASS' pledge of confidentiality to all respondents and facilitates the agency's efforts to reduce burden by supporting statistical activities of collaborative agencies through designation of NASS agents; subject to the limitations and penalties described in CIPSEA.

The following CIPSEA Pledge statement will appear on all NASS census and census follow-on questionnaires.

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: [www.nass.usda.gov/confidentiality](http://www.nass.usda.gov/confidentiality). Response is voluntary.

**11. Provide additional justification for any questions of a sensitive nature.**

There are no 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. If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens in Item 13 of OMB Form 83-I. Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.**

The time required to complete the Survey of Irrigation Organizations questionnaire is expected to average about 60 minutes per completed form. Total response is estimated to be approximately 5,187 which is based on using a sample size of 6,500 with an estimated response rate of 80 percent. Response burden hours are shown in the table below. The initial mailings will be a postcard announcement of the survey to confirm accurate contact and mailing addresses.

The next mailing will contain the questionnaire, a cover letter, instructions on how to access the questionnaire on-line and a return envelope. For non-respondents, NASS will be sending out a postcard reminder or possibly an email reminder. Approximately two weeks later for non-respondents there will be a follow up mailing which will contain another copy of the questionnaire, cover letter, internet instructions, and a return envelope. There will be phone and field follow up enumeration for those who do not respond to the mail requests.

Cost to the public of completing the questionnaire is assumed to be comparable to the hourly rate of those requesting the data. Reporting time of 5,644 hours are multiplied by \$47.37 per hour for a total cost to the public of \$ 267,356.28.

NASS uses the Bureau of Labor Statistics' [Occupational Employment Statistics](#) (most recently published on March 29, 2019 for the previous May) to estimate an hourly wage for the burden cost. The May 2018 mean wage for bookkeepers was \$20.25. The mean wage for administrative services manager was \$50.99. The mean wage of the two is \$35.62. To calculate the fully loaded wage rate (includes allowances for Social Security, insurance, etc.) NASS will add 33% for a total of \$47.37 per hour.

### Estimated Respondent Burden for the 2020 Survey of Irrigation Organizations

Survey	Sample Size	Freq.	Responses				Non-response				Total Burden Hours	
			Resp. Count	Freq x Count	Min./ Resp.	Burden Hours	Nonresp Count	Freq. x Count	Min./ Nonr.	Burden Hours		
<b>Questionnaires</b>												
Irrigation Organization Survey 1st Mailing	6,500	1	1,300	1,300	60	1,300	5,200	5,200	2	173	1,473	
Post Card Reminder or Email Reminder	5,200	1	520	520	2	17	4,680	4,680	1	78	95	
Irrigation Organization Survey 2nd Mailing	4,680	1	702	702	60	702	3,978	3,978	2	133	835	
Irrigation Organization Survey Non-response Enumeration	3,978	1	2,665	2,665	60	2,665	1,313	1,313	2	44	2,709	
<b>Total</b>	6,500		5,187	5,187		4,684	1,313	15,171		428	5,112	
<b>Publicity Materials for ALL surveys</b>												
Pre-Survey Post Card	6,500	1	2,275	2,275	1	38	4,225	4,225	0	0	38	
Initial Mailing <sup>1/ 2/</sup>	6,500	1	1,300	1,300	5	108	5,200	5,200	2	173	281	
Follow-up Mailing <sup>1/ 2/</sup>	4,680	1	702	702	5	59	3,978	3,978	2	133	192	
<b>Total</b>	6,500		4,277	4,277		205	13,403	13,403		306	511	
<b>Quality Control Survey (Telephone Only) - Recontact operators to verify quality of NASDA enumerators.</b>												
Quality Control Worksheet (phone only)	250	1	250	250	5	21	0	0		-	21	
<b>Total</b>	250		250	250		21	0	0		0	21	
<b>Totals</b>	<b>6,500</b>		<b>5,187</b>	<b>7,712</b>		<b>4,910</b>	<b>1,313</b>	<b>15,171</b>		<b>734</b>	<b>5,644</b>	

<sup>1/</sup> The initial and follow-up mailings will consist of the questionnaire, cover letter, EDR instruction sheet and return envelope.

<sup>2/</sup> The response rate for the: initial mailing is estimated at 20%, the postcard reminder is estimated at 10%, the second mailing is estimated at 15%, the phone and field enumeration is estimated at 67%; resulting in an overall response rate of approximately 80%.

**13. Provide an estimate of the total annual cost burden to respondents or record-keepers resulting from the collection of information.**

There are no capital/start-up or ongoing operation/maintenance costs associated with this information collection.

**14. Provide estimates of annualized cost to the Federal government; provide a description of the method used to estimate cost which should include quantification of hours, operational expenses, and any other expense that would not have been incurred without this collection of information.**

The total cost to the Federal Government for the 2019 Survey of Irrigation Organizations is approximately \$1,935,500. This amount will be spent over a 2 year period, approximately \$250,000 the year prior to data collection for testing and development, and \$1,685,500 during the collection and processing year. The approximate cost breakdown is as follows: personnel \$1,603,000 (which includes fringe benefits for Social Security, insurance, etc.); data processing \$302,500; and printing, training, and other miscellaneous costs \$30,000.

**15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-I (reasons for changes in burden).**

This is a new data collection package so all changes are due to program changes.

**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.**

Approximate time schedule for the 2019 Survey of Irrigation Organizations:

Task	Start Date	Finsh Date
Questionnaire Design	Nov 2018	Dec 2019
Systems Development	June 2019	Feb 2020
Sample Selection	Jan 2019	Sept 2019
Pre-survey Post Card Mail-out		Mid Oct 2019
Initial Mail-out of Questionnaire		Feb 2020
Follow-up Mail-out of Questionnaire		Mar 2020
Telephone Follow-up for non-response	Apr 2020	June 2020
Process and Tabulate Data	Mar 2020	Sept 2020
Review, Analysis, and Summary	June 2020	Dec 2020
Publication Date		Dec 2020

To aid telephone and field follow-up by enumerators, each will receive an Enumerator's Manual. To aid statisticians in the edit and analysis of reported data, Regional Field Offices will receive a Census Administration Manual. The "Research Plan" and "Proposed Tables and Topics for Publication" are contained in a separate document attached to this submission.

The plan is to publish data for the four multistate regions – the Western Intermountain Region (AZ, CA, CO, ID, MT, NV, NM, OR, UT, WA, and WY), the Central Plains (KS, NE, ND, OK, SD, and TX), the Lower Mississippi (AR, LA, and MS), and the Southeastern Coastal Aquifers (AL, FL, GA, NC, and SC). When possible, some State level data may also be available to publish.

- 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.**

There is no request for approval of non-display of the expiration date.

- 18. Explain each exception to the certification statement identified in Item 19, "Certification for Paperwork Reduction Act Submissions" of OMB Form 83-I.**

There are no exceptions to the certification statement.

October 2019