

**Supporting Statement  
Understanding Knowledge and Beliefs about Translocation of Wild Pigs Study  
OMB Control Number 0579-XXXX**

**Part B**

**B. Collections of Information Employing Statistical Methods**

**1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g., establishments, state and local government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.**

The potential respondent universe of the Understanding Knowledge and Beliefs about Translocation of Wild Pigs study consists of members of the public and the hunters in five southeastern states (Mississippi, Missouri, North Carolina, Oklahoma, and Tennessee), with the goal of obtaining 400 completed responses from members of the public and 400 completed responses from hunters from each state. Animal and Plant Health Inspection Service (APHIS) has contracted Qualtrics Panel Services (Qualtrics) to administer the Wild Pigs in Your State Questionnaire to respondents who meet these criteria with an expected response rate of 60% or higher for a total of 4,000 responses.

**2. Describe the procedures for the collection of information including:**

**Statistical methodology for stratification and sample selection:**

Qualtrics is expected to administer the Wild Pigs in Your State Questionnaire to approximately 6,667 respondents through a private company they work with (M. Sheehan, personal communication, November 7, 2023). Their goal is to obtain 400 completed responses from members of the public and 400 completed responses from hunters from each state (Mississippi, Missouri, North Carolina, Oklahoma, and Tennessee). Respondents will receive the Wild Pigs in Your State Questionnaire sometime between Fall 2024 and Spring 2025.

**Estimation procedure:**

The Understanding Knowledge and Beliefs about Translocation of Wild Pigs study will be conducted using an online questionnaire. A sample of consenting respondents will be recruited from the target audience and asked to respond to questions regarding their knowledge and beliefs about translocating and releasing wild pigs.

**Degree of precision needed for the purpose described in the justification:**

APHIS' goals are to produce peer-review publications using descriptive statistics, significance testing, correlations, and regression. Based on these statistical calculations and tests, we will be able to summarize findings for members of the public and hunters for each of the five southeastern states (Mississippi, Missouri, North Carolina, Oklahoma, and Tennessee). APHIS has contracted Qualtrics to attain 4,000 responses for our survey sample, a sampling strategy that is becoming more common and accepted in the social science research field (Niemic et al., 2020). As the respondents consist of individuals who have indicated a willingness to take online surveys, they may differ slightly from members of the public more broadly; though, Keeter & McGeeney (2015) suggest that the differences are likely small. To minimize any bias and ensure that our results have a high degree of validity, respondents will be recruited independently of their interest in and knowledge of the survey topic (Niemic et al., 2020). In addition, if the demographic characteristics of our respondents differ from those of the study population, we will weigh the data appropriately (Wang et al., 2015).

**Unusual problems requiring specialized sampling procedures and data collection cycles:**

There are no unusual problems requiring specialized sampling procedures and data collection cycles.

**Any use of periodic (less frequent than annual) data collection cycles to reduce burden:**

The data collection described is not planned to be carried out on an annual or less than annual frequency basis.

**3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.**

**Questionnaire Design:**

1. The study minimizes collection of data to that which is necessary to meet the stated objectives. The questionnaire was extensively reviewed by APHIS Wildlife Services (WS) staff.
2. The Understanding Knowledge and Beliefs about Translocation of Wild Pigs principal investigator has made numerous efforts to identify the information needs of the APHIS WS National Feral Swine Damage Management Program and the best way to attain that information via questionnaire.

3. Skip logic is used in the questionnaire to guide respondents to sections relative to their knowledge and avoid sections that would not be applicable or meaningful for the respondent.
4. Respondents will receive incentives (e.g., airline mileage, loyalty rewards with retailers) to maximize response rates and to compensate respondents for their time.

#### **Contacting Respondents:**

A private company working with Qualtrics is expected to email the Wild Pigs in Your State Questionnaire to approximately 6,667 respondents. Qualtrics' goal is to obtain 400 completed responses from members of the public and 400 completed responses from hunters from each state (Mississippi, Missouri, North Carolina, Oklahoma, and Tennessee). If a respondent declines participation in the Understanding Knowledge and Beliefs about Translocation of Wild Pigs study, a link will be provided for them to decline the survey. No follow-up emails will be sent to respondents who decline to participate in the survey, nor will APHIS know the identities of the respondents who decline to participate in the Understanding Knowledge and Beliefs about Translocation of Wild Pigs study. Respondents will receive the Wild Pigs in Your State Questionnaire sometime between Fall 2024 and Spring 2025.

#### **Nonresponse adjustment:**

Due to lack of access to nonrespondents, APHIS will not be conducting nonresponse bias checks once the Understanding Knowledge and Beliefs about Translocation of Wild Pigs study is completed. Instead, APHIS will be using the recommendations of Lindner et al. (2001) to compare early respondents with later respondents to test for nonresponse bias. This method is grounded in the assumption that late respondents are likely to be similar to nonrespondents (Pace, 1939). Based on Lindner et al. (2001), APHIS will define late respondents as the later 50% of respondents and select a minimum of 30 late respondents to compare to early respondents using a t-test. If there are no differences in responses to a selection of key survey questions between early and late responders, there is no apparent evidence of nonresponse bias. If differences are found, however, those differences will be described, and limitations will be noted.

#### **Weight adjustment:**

If necessary, APHIS will apply weights to the data based on hunter and public demographics by state. Hunter demographics will be obtained by contacting the states' fish and wildlife agencies and requesting general demographic information for their resident hunters or use the demographic information provided by the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation conducted by US Fish & Wildlife Service. Meanwhile, public demographics will be obtained through the US Census Bureau's Information for Respondents.

### **Sampling and design strategies:**

APHIS has contracted Qualtrics to administer the Wild Pigs in Your State Questionnaire to respondents with an expected response rate of 60% or higher for a total of 4,000 responses. Online panel services, such as Qualtrics, work with private companies to maintain databases of individuals who have agreed to participate in online surveys in exchange for compensation through financial incentives (e.g., air mileage, gift cards, direct payments) (M. Sheehan, personal communication, November 7, 2023; Callegaro et al., 2014). Basic demographic, behavioral, and lifestyle profiles of respondents provide an opportunity to target respondents who meet certain sampling criteria that can be specified in pre-defined quotas (Vaske et al., 2022). In the case of the Understanding Knowledge and Beliefs about Translocation of Wild Pigs study, APHIS goals are to receive approximately 800 responses per state with approximately 400 responses from members of the public and 400 responses from hunters.

**4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately or in combination with the main collection of information.**

APHIS pretested the questionnaire with fewer than 10 respondents from members of the public and used the results of the pretest to refine the questionnaire to reduce respondent burden and improve the accuracy and usefulness of the information. The final questionnaire has been reviewed by the APHIS WS National Wildlife Research Center (NWRC) Human Dimensions Unit, and after the 60-day Federal Register public comment period closed, it was internally retested for estimated questionnaire response time.

**5. Provide the name and telephone number of individuals consulted on statistical aspects of the design and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.**

The survey design and methodology as well as statistical aspects of the design were coordinated by:

- Dr. Keith Carlisle, Supervisory Social Scientist / Human Dimensions Unit Leader, NWRC, USDA, APHIS, WS, Fort Collins, CO (970-266-6047).
- Dr. Megan Cross, Social Scientist, NWRC, USDA, APHIS, WS, Fort Collins, CO (970-266-6366).
- Ms. Hailey Ellis, Research Social Scientist, NWRC, USDA, APHIS, WS, Fort Collins, CO (970-266-6148).

- Ms. Merrill Cook, Human Dimensions Specialist, NWRC, USDA, APHIS, WS, Fort Collins, CO (970-266-6044).

The data collection will be conducted by Qualtrics. Contact person for data collection is:

- Mr. Michael Sheehan, Qualtrics (msheehan@qualtrics.com).

Analysis of the data will be accomplished by APHIS WS NWRC Human Dimensions Unit personnel reporting to:

- Dr. Keith Carlisle, Supervisory Social Scientist / Human Dimensions Unit Leader, NWRC, USDA, APHIS, WS, Fort Collins, CO (970-266-6047).

## References:

Keeter, S., & McGeeney, K. (2015). Coverage error in internet surveys: who web-only surveys miss and how that affects results. Washington, D.C.: Pew Research Center.

Lindner, J.R., Murphy, T.H., & Briers, G.E. (2001). Handling nonresponse in social science research. *Journal of Agriculture Education*, 42(4), 43-53. <https://doi.org/10.5032/jae.2001.04043>

Niemiec, R., Berl, R.E.W., Gonzalez, M., Teel, T., Camara, C., Collins, M., Salerno, J., Crooks, K., Schultz, C., Breck, S., & Hoag, D. (2020). Public perspectives and media reporting of wolf reintroduction in Colorado. *PeerJ*, 8, Article e9074. <https://doi.org/10.7717/peerj.9074>

Pace, C.R. (1939). Factors influencing questionnaire returns from former university students. *Journal of Applied Psychology*, 23(3), 388-397. <https://doi.org/10.1037/h0063286>

Vaske, J.J., Don Carlos, A.W., Manfredo, M.J., & Teel, T.L. (2022). Evaluating alternative survey methodologies in human dimensions of wildlife research. *Human Dimensions of Wildlife*, 28(4), 320-334. <https://doi.org/10.1080/10871209.2022.2057622>

Wang, W., Rothschild, D., Goel, S., & Gelman, A. (2015). Forecasting elections with non-representative polls. *International Journal of Forecasting*, 31(3), 980-991. <https://doi.org/10.1016/j.ijforecast.2014.06.001>