

This change request is in reference to ICR reference number 200610-2080-001 (OMB Control Number 2080-0077), "Residential and Commercial Awareness and Use of Rodenticides in Southern California Urban Ecosystems," which was approved on 8 February 2007. This study involved a mail survey of rodenticide use by residents in two areas of California. Following Institutional Review Board approval and final approval from the EPA Human Subjects Research Review Official, survey implementation took place September-November 2007.

A non-response follow-up is required as part of the survey process. OMB originally proposed (see Part 4 of the ICR supporting statement on page 20) that the non-response follow-up take place via telephone interview to a random sample of 50% of non-respondents. OMB proposed follow-up telephone interviews to be completed for 10% of a subsample of 50% of non-responding households and 20% of household services to assess potential non-response bias.

As of 19 December 2007, our response rate was approximately 25% for households and approximately 20% for household services. Although this response rate is slightly less than expected for households (yet double the percent expected for household services), the number of responses is large enough for statistically valid results within our pre-defined sampling error ( $\pm 3\%$ ) and desired statistical power (80% statistical power for all questions in the questionnaire; see Appendix B on page 43 of ICR supporting statement).

The EPA is requesting approval to amend the ICR such that a mail follow-up non-response survey may be used rather than a telephone survey. Reasons for this change are as follows:

Because the response rate was lower than expected for the household survey, approximately 300 completed telephone interviews will be needed to survey 10% of a subsample of 50% of household non-respondents plus approximately 160 for household services. To do this, a maximum of 3,000 phone calls may be necessary for households and 1,600 for household services (assuming up to 10 callbacks per individual number, and likely refusals to complete interview after contact is established). At a rate of (for example) 60 calls per day, it would take as many as 70 days to complete this task, which would delay the processing of the survey data substantially. Calls will have to take place at different hours, including non-regular working hours, in order to have the best opportunity to reach non-respondents and minimize bias among them. Qualified manpower to make the calls is limited, and its use for the calls would take limited time away from other critical tasks related to the survey. In addition, because numerous surveys were completed in Spanish, bilingual interviewers would be needed to minimize potential for additional bias.

The telephone method would require acquisition of additional personally identifiable material (phone numbers). The EPA National Health and Environmental Effects Laboratory and Institutional Review Board (University of North Carolina, Chapel Hill) human subjects guidelines require minimal acquisition and use of personally identifiable information. Information needed for a mail follow-up is already in possession of EPA.

A mail follow-up can include all non-respondents. Implementation can be completed in 1-2 business days during business hours and can use contractor resources already available. Because follow-up response rates typically are approximately 10% (e.g., Morzillo et al. 2007), the mail

approach is expected to result in at least twice as many responses as the telephone approach, take less time for the participant to complete than a telephone interview, and can be completed at the convenience of the individual.

We also are concerned with the inaccuracy of telephone records. Our unit of analysis is the household, and spatial distribution of respondents is of interest. Thus, using addresses (that can be referenced geographically) would be more accurate for collection of the desired information. The Principal Investigator's (PI) past experience with survey research suggests that telephone records are less reliable than mailing addresses for survey research. In the PI's most recent study (see Morzillo et al. 2007), telephone records, purchased from Survey Sampling, Inc., Fairfield, CT, were used as a contact list. More than 10% of records from this list were unusable, being incorrectly matched with household addresses or other errors. Cell phone and unlisted numbers for addresses are unattainable. This is of particular concern for apartment complexes and residences surrounding college campuses (e.g., California State University-Bakersfield is within our study area), where potential respondents may be more transient than individuals who own their homes.

The PI acknowledges that a mixed-mode approach may increase response rate for a survey, and has been recommended for survey implementation when multiple contacts are used (if resources are available; e.g., Dillman 2001; Groves and Kahn 1979). However, we are unable to find evidence in past research that that changing modes for the non-response follow-up will increase the estimated response rate drastically. In fact, Dillman (2001; the survey method adopted for this study) does not include a non-response follow-up as part of the Tailored Design Method.

Because lack of availability of in-house resources, manpower for a telephone approach is limited. We are confident that using a mail approach will neither sacrifice data quality nor will result in any additional burden for this study.

If you have further questions regarding approval of this amendment, please call Anita Morzillo at 541-754-4738.

#### References:

- Dillman, D. 2000. *Mail and Internet surveys: the tailored design method*. Second edition. John Wiley and Sons, New York.
- Groves, R.M., and R.L. Kahn. 1979. *Surveys by telephone: a national comparison with personal interviews*. Academic, New York.
- Morzillo, A. T., A. G. Mertig, N. Garner, and J. Liu. 2007. Resident attitudes toward black bears and population recovery in East Texas. *Human Dimensions of Wildlife* 12:417–428.