

Supporting Statement for OMB 0596-0189

UNDERSTANDING VALUE TRADE-OFFS REGARDING FIRE HAZARD REDUCTION PROGRAMS IN THE WILDLAND-URBAN INTERFACE June 2012

A. Justification

- 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.**

Laws, Statutes, and Regulations

- PL-108-148, Healthy Forests Restoration Act

Public Law 108-148, the Health Forests Restoration Act, improves the ability of the Secretary of Agriculture and the Secretary of the Interior to plan and conduct hazardous fuels reduction projects on National Forest System and Bureau of Land Management lands. Such fuels reduction projects protect communities, watersheds, and other at-risk lands from catastrophic wildfire, enhancing efforts to protect watersheds and addressing threats to forest and rangeland health.

The HFRA does not mandate collection of specific information, but provides for collection of information that would help managers inform their decision-making process in establishing fuels reduction programs and actions. See Sec 2 Article 4:

SEC. 2. PURPOSES.

The purposes of this Act are—

4) to promote systematic gathering of information to address the impact of insect and disease infestations and other damaging agents on forest and rangeland health;

Federal agencies assigned wildland-fire protection responsibilities have undertaken a very ambitious and expensive forest fuels reduction program. As recent as June 15, 2012 in an article in the Press-Enterprise, Riverside, CA, the Forest Service Chief announced the need to increase fuel reduction programs nationwide to reduce wildfire risks and to bring National Forests to a more sustainable and healthy state. The Chief also expressed the need to bring forests closer to historical fire conditions before the successful aggressive fire suppression strategy altered the natural burning cycle.

An increase in fuel reduction programs would result in an increase in legal challenges to fuel reduction programs implementation. Understanding why people support or not these programs and specific different types of fuel reduction activities help managers identify potential pitfalls in programs design reducing the probability of legal challenges and improving programs acceptability. The purpose of this study is to provide credible information to fire managers, allowing these managers to develop fuels reduction treatment programs acceptable to residential communities.

Additionally, because of the large Hispanic populations in CA and CO it would benefit fire managers to know if these populations behave differently in their acceptability of different fuel reduction programs to reduce wildfire risks. If there is no difference in population behavior across states, race, and ethnic groups, fire managers would not need to produce different materials explaining the fuel reduction programs, which would result in costs savings. In additions, we can then use benefit transfer estimates for informing managers in other states without having to conduct additional research projects.

Collection of these data supports the following FS foundational program(s) problem area(s) Determine the relationships among human uses, human values, ecosystem services, and management; ascertain the roles of changing demographics, urbanization, socioeconomics, and technology on use and sustainability of natural resources; examine the impacts of public policies on ecological and social patterns and processes for rural-to-urban gradients.

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.

Findings have been directly presented to fire managers in the San Bernardino National Forest, San Bernardino, CA to discuss the findings of prior research results and they have expressed interest and desirability of conducting this type of work in CA for the possibility to help them inform their design of fuel treatment programs. Although we don't have specific examples of how the research results have been used, fire managers have indicated the use of this kind of information to identify those areas viewed as potentially high risk by communities to plan implementation of fuels reduction programs with less challenges, and therefore, less costly.

Information from prior work presented at 1) III International Symposium on fire economics, planning, and policy: Common problems and approaches; Carolina, Puerto Rico, April 29 - May 2, 2008; 2) Fourth World Congress of Environmental and Resource Economists, June 28 to July 2, 2010, Montreal, Canada; 3) USFS Resource Policy Values and Economics workshop, Portland State University, April 2011, April 2010 (joint University of Georgia and Portland State University course); and 4) Fire Economics for Managers course in January 2009, and 2010 (Colorado State University); 5) Accepted for oral presentation at the IV International symposium on fire economics, planning, and policy: Climate change and wildfires to be held in Mexico City, 5-11 November 2012

Publications:

Thomas P. Holmes, John Loomis, and Armando González-Cabán.. 2009. Mixed Logit Model of Homeowner Preferences for Wildfire Hazard Reduction, *in* González-Cabán, Armando. 2009. Proceedings of the third international symposium on fire economics, planning, and policy: common problems and approaches. Gen. Tech. Rep. PSW-GTR-227 (English). Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 395 p.
(http://www.fs.fed.us/psw/publications/documents/psw_gtr227en/psw_gtr227_en.)

pdf)

Thomas P. Holmes, Armando González-Cabán, John Loomis, José Sánchez. 2012 The Role of Personal Experience on Choice-Based Preferences for Wildfire Protection Programs. International Journal of Wildland Fire (accepted for publication 6/2012).

a. What information will be collected - reported or recorded? (If there are pieces of information that are especially burdensome in the collection, a specific explanation should be provided.)

Two questionnaires are associated with this Supporting Statement. These documents are available in both English and Spanish.

The first, an initial contact script, consisting of eleven questions is used to determine if the respondent is willing to participate in a longer telephone survey, and to ascertain base knowledge of fuels reduction alternatives. Those respondents agreeing to participate are asked for the following:

- Postal address (used to mail questionnaire)
- Future date and time for an in-depth telephone interview based on questionnaire

Those agreeing to participate in the study will receive a Survey Questionnaire (CA Survey or CO Survey) in English or Spanish. The Survey Questionnaire will prepare respondents for an in-depth telephone interview scheduled for a later date. Respondents are not to return the survey questionnaire; completion of questionnaire occurs during the telephone interview.

Respondents are asked:

- To assess the wildland fire risk condition of their residential area
- To describe the losses they would expect in their community and residences from wildland fire
- Their preference for different fuel reduction options
- Their socio-economic information

b. From whom will the information be collected? If there are different respondent categories (e.g., loan applicant versus a bank versus an appraiser), each should be described along with the type of collection activity that applies.

Information collected from individual heads of households. The interviewer will ask for the head of household when making initial contact.

c. What will this information be used for - provide ALL uses?

The collected information is used to evaluate change in knowledge from initial contact (short telephone interview) to the in-depth interview, to

determine which combination of fuel reduction alternatives respondents believe are most effective and the amount the respondents would be willing to pay to implement such alternatives. Findings are reported in one or more presentations to scientific and management audiences, and reports to fire managers in California and Colorado. (See item 2 above.)

d. How will the information be collected (e.g., forms, non-forms, electronically, face-to-face, over the phone, over the Internet)? Does the respondent have multiple options for providing the information? If so, what are they?

Collection of information occurs **only** over the telephone.

e. How frequently will the information be collected?

Each respondent contacted (head of household or designated member of household) will provide information once for a short survey and a second time if they decide to participate in the longer in-depth interview. After the in-depth interview, no further contact occurs with respondents and they do not participate in further surveys.

f. Will the information be shared with any other organizations inside or outside USDA or the government?

The collected information is included in reports and manuscripts, in scientific journals, with scientists and others through presentations.

g. If this is an ongoing collection, how have the collection requirements changed over time?

Collection requirements have not changed over time. This is the last proposed data collection efforts.

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.

The sample selection is through an initial random digit dialing procedure. Random digit dialing is a comprehensive method, and ensures inclusion in the survey of a wide range of households.

At present the way the survey is designed does not lend itself to electronic response by participants. In addition, because the original work was done based on a phone-paper survey-phone format, changing the survey format would render results comparison difficult to interpret.

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 economic value of changes in risk can be estimated using “stated preference” techniques. In this research, the proponents are using a relatively new stated preference technique, known as “discrete choice experiment,” to evaluate economic trade-offs associated with wildfire risk mitigation in the wildland-urban interface. Discrete choice experiment is a marketing research technique used by the business sector and environmental economists to understand the value of characteristics associated with a good or service. Unlike other valuation techniques that focus attention on the holistic value of changes in a good or service, discrete choice experiments decomposes total value into its component parts. The sum of the “part-worth,” or marginal willingness to pay, is then the estimate of the total value.

Within the context of this study, attention focuses on identifying a set of salient attributes that influence homeowner and community decisions to invest in activities that reduce wildfire hazard in the wildland-urban interface. Respondents select a set of attributes from the variety of potential changes in structural (e.g., home characteristics) and non-structural (e.g., domestic and community landscapes) attributes that can affect wildfire hazard. Risk changes are also included as an attribute. Including the cost of wildfire hazard mitigation in a choice problem allows calculation of estimates in the economic value of changes in risk and the economic value of changes in structural and non-structural hazard mitigation activities.

Previously, the discrete choice experiment method has provided estimates in the value of changes in various forests attributes. The previous version of this work produced choice experiment estimates for head of households’ behavior towards fuel reduction treatment programs in Florida. Results showed the applicability of the methodology and usefulness of the results in identifying reason why people may accept certain types of fuel reduction programs better than others and how much they are willing to pay to implement such programs.

The current study constitutes an extension of this stated preference methodology to evaluate people’s behavior in response to different fuel reduction treatment programs in California and Colorado. In addition, this work will be applied to both English and Spanish speaking head of households in both states to ascertain if there any differences in populations behavior towards different fuel reduction treatment programs. The proposed work provides a mechanism to compare results between these two states and prior work in Florida. If findings are similar and consistent we can use the information to perform benefit transfer analysis instead of conducting new research on the topic.

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

The information collection does not directly or indirectly impacts small businesses.

- 5. 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.**

Information from this work will help agencies with fire protection responsibilities evaluate public understanding of both proposed fuels reduction projects and programs, and the public's willingness to pay for implementing such programs. Without this information management officials would have difficulty identifying salient attributes that influence decisions by homeowners and communities to invest in activities that reduce wildfire hazard. Lack of this type of information, would affect fire managers' ability to plan better accepted fuels reduction programs, increasing the possibility that Federal fuels reduction programs would not be effectively targeted. Understanding which fuels reduction programs have public support reduces the probability of lawsuits and appeals that may delay implementation of the Healthy Forest Restoration Act mandates.

6. 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;**

Respondents are contacted possibly twice, once during the initial contact, and if they decide to participate, again for the in-depth interview. After the in-depth interview no other contact will occur with respondents.

- **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;**

Sampling will involve approximately 3000 households, 1500 each in California and Colorado. A stratified random sampling procedure is used. The three fire level strata are High, Medium and Low fire risk. We are using the term community broadly to include areas with similar characteristics like exposure to certain level of fire risk, are in the wildland-urban interface, have similar vegetation type, etc.

Communities selected to participate represent varying levels of historical wildfire damage, including communities that experienced catastrophic loss from the 2007 California and Colorado wildfires. Communities not experiencing catastrophic wildfire loss in the recent past will serve as a control. Risk gradient is based on the total annual number of fires in the areas and the presence of flammable vegetation. Both CA and CO have developed risk index maps for all communities. We will use these risk indexes maps in selecting communities in high, medium and low fire risk index as

defined by the states. CA Risk maps can be seen at:

<http://frap.cdf.ca.gov/data/frapgismaps/download.asp>. For a copy CO wildland fire assessment methodology visit:

<http://csfs.colostate.edu/pages/documents/ColoradoWUIHazardAssessmentFinal.pdf>; maps can be seen at: <http://csfd.springsgov.com/>

- **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**

While confidentiality cannot be assured, proponents are informed that information collected will not be attached to any personally identifiable information. All possible steps are taken to secure the information (restricted access, locked offices, etc.). Such steps do not decrease the quality of information shared with others.

- **Requiring respondents to submit proprietary trade secret, 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.**

No proprietary information is requested, and identifying information is stored separately from the data. Identifying information is not reported in any manuscripts, reports, or presentations. Temporary tracking will be necessary to ensure participating respondents receive the questionnaire and go through the in-depth interview; however, control identification numbers will be applied to the data in lieu of a direct link between personal identifiable information and responses.

There are no other special circumstances. The collection of information is conducted in a manner consistent with the guidelines in 5 CFR 1320.6.

- 7. 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 describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.**

The announcement of the renewal of this information collection package and request for comment appeared in the Federal Register on November 14, 2011 (Volume 76, page 70408).

Two comments as part of one email conversation were received from one individual. The comments received were a blanket disapproval of all work done

by Forest Service, and suggested that Forest Service force local jurisdictions to enact zoning ordinances. The comments received did not address the methodology and assumptions used, or accuracy of the estimated cost and hour burden to respondents, and did not offer ways to enhance the quality, clarity, or utility of the information, or to reduce burden through electronic means.

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.

The following reviewed this information collection:

- Dr. Juan Marcos González Sepulveda, RTI Health Solutions, 200 Park Offices Drive PO Box 12194, RTP, NC 27709-2194; Phone: 919-541-6817

Dr. González Sepulveda is an expert in the field of discrete choice analysis specializing in the field measuring people's response to real or perceived health threats. He has reviewed the proposed survey and found it to be clear, and questions easy to understand and answer. Overall he feels the survey construction will provide the correct information, and it is about the right length to lead to completion.

- Dr. Donald MacGregor, MacGregor-Bates, Inc., PO Box 276, Cottage Grove OR 97424; Phone: 541-942-5727

Dr. MacGregor is nationally recognized for his expertise on risk management and human behavior under conditions of risk and stress, like large wildfires. He has conducted many surveys to explain Forest Service managers' behavior and risk posture under large wildfire situations. He reviewed the survey paying particular attention to our definition and measurement of risk. He found the proposed approach correct and believes the responses will provide valid information. -

Consultation with representatives of those from whom information is to be obtained or those who must compile records should occur at least once every 3 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.

The proposed survey instrument for the study was revised by three heads of household in California:

Mr. Omar González Valentino, San Jose, CA 95120,

Mr. Francisco Solá, Riverside, CA 92506, and

Ms. Aliana López de Victoria, Riverside, CA 92507.

They all agreed that the survey questionnaire was clear and questions were easy to understand. In particular, they were asked about the Risk Ladder and the

annual risk grid to ensure understanding. All three mentioned that they understood the risk grid computational process. No concerns were raised during their review.

8. Explain any decision to provide any payment or gift to respondents, other than re-enumeration of contractors or grantees.

No incentive (cash or gift) will be provided for this data acquisition effort.

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

Proponents informed that the information collected is not attached to any personally identifiable information. The collected information is secured via control identification numbers, restricted access, locked offices, etc.). Personally identifiable information is stored separately from data and is not included in any manuscripts, reports, or presentations. Temporary tracking is used to ensure participating respondents receive the questionnaire and go through the in-depth interview; however, control identification numbers are applied to the data in lieu of a direct link between personal identifiable information and responses.

10. Provide additional justification for any questions of a sensitive nature, such as sexual behavior or 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.

Questions about ethnicity, race, and income are included in the survey for purposes of demographics. Interviewers tell respondents that they may decline to answer any questions.

11. Provide estimates of the hour burden of the collection of information. Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated.

- **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.**

a) Description of the collection activity

b) Corresponding form number (if applicable)

c) Number of respondents

d) Number of responses annually per respondent,

e) Total annual responses (columns c x d)

f) Estimated hours per response

g) Total annual burden hours (columns e x f)

Burden was estimated based on prior data acquisition experience on how long it took respondents to complete survey. Contractor provided us information to that effect. In prior focus groups and pretests performed on original work we estimated how long it took participants to complete survey. This was further corroborated with information from contractor's experience. **No** new focus groups or pretests are scheduled for this new proposal.

Table 1 - Annual Burden

(a) Description of the Collection Activity	(b) Form Number	(c) Number of Respondents	(d) Number of responses annually per Respondent	(e) Total annual responses (c x d)	(f) Estimate of Burden Hours per response	(g) Total Annual Burden Hours (e x f)
Initial Telephone Contact-Agreeing to Participate	N/A	700	1	700	15 Minutes (.25 Hours)	175 hours
Initial telephone contact - declining to participate	N/A	300	1	300	5 minutes (.083 hour)	25 hours
Reading Mailed Questionnaire and Participating in In-depth interview	N/A	700	1	700	25 minutes (.42 hour)	294 hours
Totals	---	1000	---	1000	---	494 hours

Respondents

Initial telephone contact with 3000 households to obtain 2,100 completed interviews.

Telephone Contact - Declining to participate

Spread over the 3-year life of this OMB renewal request, the estimated **annual** number of respondents declining to participate is 300.

$3,000 \text{ households} - 2,100 \text{ participants} = 900 \text{ non-respondents} \div 3 \text{ years} = 300 \text{ non-respondents per year.}$

Initial Telephone Contact - Agreeing to participate, Reading Mailed Questionnaire, and Participating In-Depth Interview

Of the 3,000 households contacted over 3 years, approximately 2,100 will agree to participate in the survey. Spread over the 3-year life of this OMB renewal request, the estimated **annual** number of individuals who agree to participate via initial telephone contact, receive and read the mailed survey/questionnaire, and participate in the in-depth interview is 700.

$2,100 \text{ individuals} \div 3 \text{ years} = 700 \text{ individuals per year}$

Total annual respondents

$300 \text{ non-responding respondents} + 700 \text{ respondents} = 1,000 \text{ respondents per year.}$

Total annual responses

$300 \text{ non-responses} + 700 \text{ initial responses} + \text{in-depth responses} = 1,000 \text{ responses per year}$

Burden Hours: The annual burden for each activity associated with this Information Collection Request calculated as follows:

Initial Telephone Contact - Agreeing to Participate

700 respondents per years x 15 minutes (.25 hour) per response = 175 hours

Initial Telephone Contact - Declining to Participate

300 respondents per year x 5 minutes (.083 hour) per response = 25 hours

Telephone Contact - Agreeing to participate, Reading Mailed Questionnaire, and Participating In-Depth Interview

700 respondents per year x 25 minutes (.42 hour) per response = 294 hours

Total annual burden hours

175 hours + 25 hour + 294 hours = 494 hours per year

- **Record keeping burden should be addressed separately and should include columns for:**
 - a) **Description of record keeping activity:**
 - b) **Number of record keepers:**
 - c) **Annual hours per record keeper:**
 - d) **Total annual record keeping hours (columns b x c):**

There is no record keeping requirement of any source for respondents.

- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.**

Table 2 - Estimated Annualized Cost to Respondents

(a) Description of the Collection Activity	(b) Estimated Total Annual Burden on Respondents (Hours)	(c)* Estimated Average Income per Hour	(d) Estimated Cost to Respondents
Initial telephone Contact-agreeing to participate	175	\$23.09	\$ 4,041
Initial telephone contact - declining to participate	25	\$23.09	\$ 577
Initial telephone contact - agree to participate, Read Mailed Questionnaire and respond to In-depth interview	294	\$23.09	\$6,788
Totals	494	---	\$11,406

The estimated cost for information collection is based on the average mean national rate for all salaries, \$23.09 per hour, from the Bureau of Labor News Release for the month of August 2011, <http://www.bls.gov/news.release/pdf/realer.pdf>.

12. Provide estimates of the total annual cost burden to respondents or

record keepers resulting from the collection of information, (do not include the cost of any hour burden shown in items 12 and 14). The cost estimates 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 and maintenance and purchase of services component.

There are no capital operation and/or maintenance costs to respondents. Respondents don't have to gather any information prior to or during survey interview. They don't have to keep files or records for participation on this research.

13. Provide estimates of annualized cost to the Federal government. Provide a description of the method used to estimate cost and any other expense that would not have been incurred without this collection of information.

The response to this question covers the actual costs the agency will incur as a result of implementing the information collection. The estimate should cover the entire life cycle of the collection and include costs, if applicable, for:

- **Employee labor and materials for developing, printing, storing forms**
- **Employee labor and materials for developing computer systems, screens, or reports to support the collection**
- **Employee travel costs**
- **Cost of contractor services or other reimbursements to individuals or organizations assisting in the collection of information**
- **Employee labor and materials for collecting the information**
- **Employee labor and materials for analyzing, evaluating, summarizing, and/or reporting on the collected information**
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- Table 3 - Estimated Cost to the Government

ACTION ITEM	PERSONNEL	GS LEVEL	HOURLY RATE¹	HOURS	Total
Developing, printing, storing forms: Labor	1	14	\$65.00	10	\$650 ²
Developing, printing, storing forms - Materials	1	14	\$65.00	6	\$390 ³
Travel – Employees					\$2,000
Contractor Services					\$45,000 ⁴
Collecting information – Labor	1	14	\$65.00	10	\$650.
Collecting information – materials					\$324
Analyzing, evaluating,	1	14	\$65.00	20	\$1300

ACTION ITEM	PERSONNEL	GS LEVEL	HOURLY RATE¹	HOURS	Total
summarizing, and/or reporting – labor					
Analyzing, evaluating, summarizing, and/or reporting – materials					\$351
Totals					\$50,665

¹ Taken from: <http://www.opm.gov/oca/11tables/index.asp>, Cost to Government calculated at hourly wage multiplied by 1.3

² Most of the costs of developing, printing and storing the necessary materials have been incurred, as this is an extension of the research collection effort and all materials are already available. There is a minimal cost during the first year to reproduce needed materials.

³ Due to budget issues and reorganizational changes GS-14 scientists have to perform many of the clerical activities involved in this study.

⁴ a survey research center perform all necessary activities to complete the job, including but not limited to printing survey, mailing it, calling participants to secure participation, conduct actual interviews, secure English and Spanish participants sample, produce a clean data set, etc.

Costs based on estimates split across the various functions and responsibilities for the Research Economist, support staff, and Federal cooperators involved in this project.

Total annual cost to the Government: **\$50,665**

14. Explain the reasons for any program changes or adjustments reported in items 13 or 14 of OMB form 83-I.

The annual respondent’s increase, 500 to 1,000, is a result of a change in the sample size to survey two States, California and Colorado (500 per state) versus only Florida in the last submission, plus conducting the survey in English and Spanish. The increase in burden hours, 317 to 494, is due to the increase in respondents and to account for the 700 respondents’ time to complete the initial interview and agreeing to participate in the in-depth interview.

The following formula was used to determine the sample size needed to make population estimates (Dillman, D. 2007, Mail and internet surveys, 2nd Edition, John Wiley & Sons, Inc.):

$$N_s = \frac{(N_p)(p)(1-p)}{(Np-1)\left(\frac{B}{C}\right)^2 + (p)(1-p)}$$

Where N_s = completed sample size needed for desired level of precision

N_p = size of population

p = proportion of population expected to choose one of the two response categories

B = acceptable amount of sampling error, $.05 = \pm 5\%$ of the true population value

C = Z statistic associated with the confidence level; 1.96 corresponds to the 95% level

A population of 1 million or more, the required sample size is 384 for the following parameters:

$N_p = 1,000,000$

$p = .5$ (set at the most conservative value possible)

$B = .05$

$C = 1.96$

$$N_s = \frac{(1,000,000)(.5)(1-.5)}{(1,000,000 - 1)\left(\frac{.05}{1.96}\right)^2 + (.5)(1-.5)} = 384$$

If we sample 500 individuals per state and there is a 70% response rate, the sample size will be 350 ($500 \times .70$).

15. For collections of information whose results are planned to be published, outline plans for tabulation and publication.

One or more manuscripts will be submitted to peer-reviewed journals interested in fire management and natural resources economic issues. Presentations will be made to Forest Supervisors, fire and fuels managers, and community FireWise Councils to explain the findings and their implications.

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

The OMB control number and expiration date will be displayed on all Information Collection instruments and will be told to participants during the telephone interview.

17. Explain each exception to the certification statement identified in item 19, "Certification Requirement for Paperwork Reduction Act."

There are no exceptions to the certification statement identified in item 19 of form 83-I, "Certification Requirement for Paperwork Reduction Act."