# **SUPPORTING STATEMENT**

**U.S. Department of Commerce**

**National Oceanic & Atmospheric Administration**

**NWS Fire Weather Social and Behavioral Sciences Research**

**OMB Control No. 0648-XXXX**

# **Abstract**

This is a request for a new collection of information. Wildfires represent a clear and escalating threat to life and property in the United States. Since 1991, wildfires have accounted for an annual average of $14 billion in damages, 2,800 homes destroyed, and 30 fatalities. With an interdependency on weather, vegetative fuels, topography, and human behavior, wildland fire is a non-deterministic natural phenomenon*.* Yet today, National Weather Service (NWS) fire weather forecasts and warnings remain highly deterministic in how they convey hazard information. With an estimated 46 million residences at risk from wildfire across the nation, it is essential for the NWS to become better equipped to deploy fire weather (including smoke) predictive tools and technologies, products, services and information that range timescales of minutes, to hours, to months prior to dangerous wildfires. With the assistance of appropriate National Wildfire Coordination Group (NWCG) Committees and Subcommittees, this requirement employs social, behavioral, and economic science (SBES) support to engage with forecasters, incident meteorologists (IMETs), and stakeholders in the co-development of a framework for warning services, data collection, archival, analysis and visualization of probabilistic fire risk communications. Developing these capabilities will enable the NWS to better provide a more comprehensive suite of information for enhanced decision-making for the public and fire/land/emergency management communities.

# **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.**

Wildfires represent a clear and escalating threat to life and property in the United States. Since 1991, wildfires have accounted for an annual average of $14 billion in damages, 2,800 homes destroyed, and 30 fatalities. As such, NOAA requires a more complete understanding of the needs, risks, and vulnerabilities of communities, and the capacity to develop integrated decision support tools to aid wildland fire managers and vulnerable communities in planning for and responding to wildfires.

This study will support the Weather Research and Forecasting Innovation Act of 2017 which calls on NOAA to “improve the understanding of how the public receives, interprets, and responds to warnings and forecasts of high impact weather events that endanger life and property.” It also addresses Executive Order 13985, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government. NWS has articulated a priority to enhance services for these historically underinvested and underserved communities that are at greater risk for experiencing adverse impacts related to wildfire. This collection meets the NWS mission to “Provide weather, water and climate data, forecasts, warnings, and impact-based decision support services for the protection of life and property and enhancement of the national economy.” In addition, this study supports the intent of the Hurricane and Fire Disaster Supplemental OMB approved spend plan to improve NOAA fire weather services for the wildland fire enterprise.

# **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.**

This is a one-time collection. The information gleaned collectively from the focus groups and survey will provide the NWS with an initial, broad understanding of fire weather information needs and perceptions across the general public, Public Information Officers (PIOs), and fire weather practitioners. These exploratory results will inform how probabilistic weather information can most effectively influence fire-related decision-making to protect lives and property and enhance the economy. Results will also inform integrated decision support tools to aid wildland fire managers and vulnerable communities in planning for and responding to wildfires.

**Survey**

Information about experience with wildfires, information received during wildfires, preferences for future information, information about perceptions of risk related to wildfires, and opinions and attitudes about probabilistic forecasts will be collected.

The general population survey will be stratified into three major regions: Western states, the Southern Plains, and the Southeastern United States. In other words, surveying will target regions that are specifically at risk for fire weather issues and will therefore likely have more relevant opinions to share. Western states will include Arizona, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming. Southern Plain states will include Texas, Kansas, Oklahoma, Nebraska, and Colorado. Southeastern states will include Mississippi, Alabama, South Carolina, Florida, Georgia, Tennessee, Kentucky, West Virginia, North Carolina, Virginia, Louisiana, and Arkansas. All survey respondents will be over the age of 18 years old. The sample will be obtained from and maintained by Marketing Systems Group.

Respondents will take the survey via a web-based survey platform, but a phone number will be provided to respondents. If respondents need assistance completing the survey, a trained interviewer will work with them directly.

**Focus Groups**The focus groups will be conducted with PIOs and fire weather practitioners at the national, regional, state, and local levels, including emergency managers, and fire behavior analysts.

Information collected in the focus groups will include information about risk assessment and decision-making by fire weather practitioners, information about decision-making timing and thresholds, and attitudes toward and opinions on the usefulness of deterministic and probabilistic information. The Public Information Officer focus group will also collect information about their role as a communicator with the public and with practitioners, challenges in communication and the sharing of information, needs related to communicating and being an intermediary, and opinions and attitudes about probabilistic forecasts.

Focus groups will be conducted virtually in order to include participants from different states and regions. Focus group audio will be recorded and used for later transcription and analysis. The survey will be conducted online (electronically) via a web-based survey platform.

1. **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.**

Surveys will be conducted through a web-based survey platform. The reason for this decision is that the platform will include coding for branching and skipping as needed. Respondents will also be asked to look at several images, which will be featured in the web-based survey.

A phone number will also be provided to all respondents so that they can receive any needed technical assistance. No in-person or paper-based methods will be used. Using an electronic survey reduces the burden on the general public taking the survey.

1. **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 Question 2**

The NWS searched its own collections, those occurring at NOAA, and those occurring at other Federal agencies, and in the private sector. The NWS does not have a duplicate collection among its collections. No other Line Office at NOAA is conducting a similar collection. No collections by other Federal agencies and in the private sector are relevant to this proposed effort.

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

The collection of this information will not impact small businesses or other small entities.

1. **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.**

The NWS needs to bridge the gap between physical science information and how it is received and acted upon by its public and partners. As such, this collection is critical in expanding NWS knowledge of public and partner needs, perception, and understanding of fire weather information. Without this collection, advancement of NWS fire weather forecasting, warning, and impact-based decision support services will be limited and potentially ineffective.

1. **Explain any special circumstances that would cause an information collection to be conducted in a manner inconsistent with OMB guidelines.**

All the information will be collected according to OMB Guidelines.

1. **If applicable, provide a copy and identify the date and page number of publications 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 60-day Federal Register Notice that solicited public comment on this request was published on February 15, 2024 (Document Number 2024-03190).

1. **Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.**

No incentives are planned for in exchange for participation in this project’s data collection.

1. **Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy. If the collection requires a systems of records notice (SORN) or privacy impact assessment (PIA), those should be cited and described here.**

No personally identifiable information (PII) will be collected so response will be attributable to any specific individual.

1. **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.**

## Some people could be sensitive to the questions in the survey related to age, gender, race, zip code, highest level of education, and income. These questions are asked to ensure that the survey meets the quotas set to reach a naturally representative sample.

1. **Provide estimates of the hour burden of the collection of information.**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Information Collection** | **Type of Respondent (e.g., Occupational Title)** | **# of Respondents/year(a)** | **Annual # of Responses / Respondent(b)** |  **Total # of Annual Responses(c) = (a) x (b)** | **Burden Hrs / Response(d)** | **Total Annual Burden Hrs(e) = (c) x (d)** | **Hourly Wage Rate (for Type of Respondent)(f)** | **Total Annual Wage Burden Costs(g) = (e) x (f)** |
| Survey1 |  General Public | 2100  | 1 |  2100 | 0.25 | 525  |  $31.54 | $ 16,558.50 |
| Focus Group2 | Public Information Officer  |  10 | 1  |  10 |  2 |  20 | $45.05  | $901.00  |
| Focus Group3 | Fire Weather Practitioner |  30 | 1 | 30  | 2  |  60 | $29.37 | $1,762.20  |
| **Totals** |  |  |  | **2140** |  | **605** |  | **$19,221.70** |

100-0000 code used for the general population given the variety of potential occupations among the respondents

211-9161 Emergency Management Directors code used for Public Information Officers

333-2022 Forest Fire Inspectors and Prevention Specialists code used for Fire Weather Practitioner

1. **Provide an estimate for 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 already reflected on the burden worksheet).**

There are no capital costs or operating and maintenance costs associated with this information collection.

1. **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.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cost Descriptions** | **Grade/Step** | **Loaded Salary /Cost** | **% of Effort** | **Fringe (if Applicable)** | **Total Cost to Government** |
| Physical Scientist  |  GS-1340-14 | $207,738  |  5% |   | $ 10,386.90  |
| Physical Scientist  |  GS-1340-13 | $175,797  | 5%  |   | $ 8,789.85  |
| Social Scientist |  GS-0101-14 | $207,738  |  5% |   | $ 10,386.90  |
| **Contractor Cost** |   |   |   |   |  $ 312,868.10  |
| **Travel** |   |   |   |   |   |
| **Other Costs:**  |   |   |   |   |   |
| **TOTAL** |   |   |   |   | **$ 342,431.75** |

The loaded salary was calculated using the Rest of U.S. locality rate for a Step 5 for each grade. A multiplier of 1.5 was used to obtain the loaded salary.

1. **Explain the reasons for any program changes or adjustments reported in ROCIS.**

This is a new information collection.

1. **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.**

No peer-reviewed publications from this collection are planned. However, a final report that aggregates the results will be posted on the NWS website as required for research funded by the government.

1. **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 agency plans to display the expiration date for OMB approval of the information collection on all instruments.

1. **Explain each exception to the certification statement identified in “Certification for Paperwork Reduction Act Submissions."**

The agency certifies compliance with [5 CFR 1320.9](http://www.gpo.gov/fdsys/pkg/CFR-2014-title5-vol3/pdf/CFR-2014-title5-vol3-sec1320-9.pdf) and the related provisions of [5 CFR](http://www.gpo.gov/fdsys/pkg/CFR-2014-title5-vol3/pdf/CFR-2014-title5-vol3-sec1320-8.pdf) [1320.8(b)(3)](http://www.gpo.gov/fdsys/pkg/CFR-2014-title5-vol3/pdf/CFR-2014-title5-vol3-sec1320-8.pdf).