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## **Request for Proposals (Part 2)**

### **Engineering Risk Consultant for FEMA-Funded WUI Project**

***Beyond Parcel-Level Risk Assessment & Mitigation:  
Engaging Fire Service & Community Stakeholders***

**Deadline Extended – Proposals Due: 11:59 pm ET on Monday, February 12, 2024**

### **Project Background & Description**

The SFPE Foundation currently holds a FEMA Fire Prevention & Safety Grant (FY2022) to create an expanded [WUI Virtual Handbook](#) with updated and new content, a template for risk assessment based on best practices, and a robust suite of supporting materials to help fire service personnel communicate with property owners and community leaders about fire risks and parcel-level and community-level mitigation strategies to reduce wildland-urban interface (WUI) fire losses.

As WUI communities grow, and WUI fires proliferate, more fire departments with very little experience in WUI fires and/or a shortage of personnel and resources will be called on to protect their communities. Adopting strategies now to prioritize mitigation that slows or prevents fire spread is critical. At the same time, research increasingly shows that mitigation strategies focused on parcel-level structural hardening alone are insufficient; we need to factor in community-level exposure possibilities and local context and get individual and community buy-in to make important changes. The fire engineering community can help meet these needs by providing fire departments with more persuasive materials—grounded in science-based engineering methods—to convince property owners, developers, and community leaders to make the changes needed to better protect against WUI fire threats. When paired with communications tools targeting property owners, developers, businesses, and community leaders, this guidance can be an essential resource for fire departments to demonstrate the value of investment in WUI fire safety.

To that end, this project will expand and revise the existing SFPE Foundation *WUI Virtual Handbook* to make it a more flexible tool that can be utilized for a wider range of needs, including (1) training property inspectors, (2) conducting WUI property assessments, (3) engaging with homeowners regarding WUI risks and mitigation activities, and (4) engaging community leaders in understanding WUI fire risks and potential mitigation activities. It will be designed to meet the needs of more- and less-experienced departments and to empower fire service personnel to reduce community risk while raising awareness of complementary tools, resources, and training available through organizations operating in this space.

In this request for proposals (part 2 of 3), we are seeking an experienced **Engineering Risk Consultant (ERC)** to formally evaluate the risk reduction potential of implementing the revised handbook in WUI communities across the US. The ERC will attend all four pilot implementations of the revised handbook, and they will work closely with the Engineering Technical Consultant, the Web Developer and Creative Consultant (WDCC), the Project Advisory



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Panel, and SFPE Foundation staff. They are expected to develop a plan for evaluating the impact of utilizing the revised handbook with target audiences and estimating the potential for WUI property fire risk reduction as a result of implementation (including quantitative and qualitative approaches); recommendations for areas of improvement with respect to the handbook's content (including recommending case study examples that show how engineering-based guidance can improve outcomes); and guidance on where (and with whom) we should prioritize implementing the use of the revised handbook to have the greatest impact.

*\*Note: We are soliciting proposals for all three consultants that will be contracted under this grant simultaneously. Applicants may submit proposals for multiple open consulting positions, but we will not select the same consultant for more than one contract. Applicants will not be advantaged by submitting "team" proposals that propose to take on two or three of the consulting contracts as a group. Each consultant wishing to be considered must submit their proposal independently to the relevant opening: Engineering Technical Consultant, Engineering Risk Consultant, or Web Developer and Creative Consultant.*

## Tasks & Deliverables

The list in this section describes our minimum expectations for the project. Respondents are welcome to elaborate on these ideas or make additional suggestions to improve upon the project and/or our approach.

1. Develop and conduct a formal evaluation of the difference in property risk assessments and mitigation strategies identified by users of the revised handbook compared to those identified without the assistance of the revised handbook content. Where possible, the ERC will also evaluate the effect of utilizing the revised handbook on the marginal increase in mitigation recommendations actually adopted and implemented by the property owner. The evaluation plan must include analysis of the effectiveness of the new communication tools with respect to how they improve fire service members' efforts to conduct outreach to property owners and community leaders in the WUI.
  - a. Present a draft of the proposed plan for evaluation to SFPE Foundation staff and the Project Advisory Panel prior to the first pilot for input and feedback. The plan should incorporate both qualitative and quantitative methods. Revise as needed prior to the first pilot.
  - b. Utilize the results of this assessment to calculate the risk reduction potential of rolling out the revised handbook to various audiences through the fire service more broadly. Special attention should be paid to whether the revised handbook has a positive impact on fire department WUI fire preparedness conditional on prior level of experience with WUI fires, size, and resource levels.
  - c. Make use of interviews with key stakeholders and desk review where needed; including contacting the four pilot departments to collect any necessary information before, after, or during the pilots.
  - d. Will participate in developing an evaluation plan for the two virtual workshops where the revised handbook will be presented for feedback by the Engineering Technical Consultant in collaboration with SFPE Foundation.
  - e. Must attend and observe the two national virtual workshops—hosted by SFPE Foundation with support from the Engineering Technical Consultant—where the revised content will be presented for feedback, and incorporate any learnings in the formal evaluation and recommendations.



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- f. Must attend and observe all four pilot implementations of the handbook (1 full day each), to be held by mutual agreement with the Engineering Technical Consultant and SFPE Foundation staff in CO, ID, KY, and one other US state (to be named); and to utilizing those pilot trainings as an opportunity to gather data to inform the formal evaluation of risk reduction potential.
    - g. Meet with SFPE Foundation staff and the Project Advisory Panel after the first two pilots are completed to advise on whether any changes to the evaluation process are needed.
2. Produce a formal report that details your findings from the formal evaluation of the risk reduction potential of implementing the revised handbook at various scales that covers all items specified in (1) above, as well as the following:
  - a. The report should describe your approach to the evaluation, including justification for that approach. It should also describe, gather, and analyze all relevant information collected during the evaluation process, including both quantitative and qualitative data and analysis.
  - b. It should include recommendations for how to improve the handbook to have an even greater impact on risk reduction potential, where applicable. This should include making additional suggestions for where visuals (e.g., graphics, videos, factsheets) or case studies (with specific examples) could be added or refined to improve the handbook's focus on engineering methods and approaches for the fire service operating in the WUI.
  - c. It should also include guidance on where (and with whom) we should prioritize targeting the revised handbook to have the greatest impact, with quantitative measures to help illustrate the potential of implementing the training with various audiences. We anticipate that fire department personnel will be the ones conducting outreach in their communities, but additional specificity as to who the most effective targets are (beyond individual homeowners) and why is expected.
  - d. The formal report is due by the end of January 2025. If changes are requested to the report, then the final version will be due no later than the end of February 2025.
3. Throughout the project, provide feedback to the Engineering Technical Consultant, the Web Developer & Design Consultant, SFPE Foundation staff, and the Advisory Panel regarding the production of illustrative videos, infographics, and other communications materials that will enhance the effectiveness of the tool.
  - a. Provide examples from your evaluation of the workshops and pilots to illustrate the potential impact of the revised handbook on WUI fire risk reduction potential.
  - b. Provide feedback on any communications or training materials developed to support the handbook content or its dissemination.

## Project Timeline

January - February 2024	SFPE Foundation contracts with an Engineering Technical Consultant (ETC), an Engineering Risk Consultant (ERC), and a Web Developer and Design Consultant (WDDC); project kick-off meeting held with Advisory Panel.
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Feb. – June 2024	<p>The ETC will review and update existing technical content in the handbook; develop a new section on community-level vulnerabilities and mitigation tactics; and create a basic checklist template that's integrated with the handbook's sections. The WDCC will work with the ETC to source images, create graphics, and develop one-page flyers to accompany existing and new content; they will also advance functional improvements to the handbook in both web-based and PDF formats. The ERC will provide feedback and input throughout. A draft revised version with accompanying visuals will be due by the end of June 2024.</p> <p>The ERC, in consultation with the ETC and WDCC, will develop and present a draft plan to the AP for how to engage participants in evaluating the revised handbook during the two national virtual workshops with fire personnel and engineers planned for July. The plan must be approved by the AP and SFPE Foundation staff by the end of June 2024.</p>
July 2024	<p>With the ETC, the SFPE Foundation will host two half-day national virtual workshops for feedback to ensure the revised handbook meets the needs of users and communicates the latest in engineering expertise. At the first workshop, 20+ fire personnel will be invited to test and review the expanded tool and accompanying communications materials for outreach to property owners and community leaders. Departments with varying levels of experience in WUI property fire risk assessment and mitigation will be invited to ensure the tool meets the needs of a wide range of communities. At the second, 20+ insurance and fire engineering professionals will be invited to give feedback on the tool and help identify any additional guidance that needs to be incorporated, as well as potential challenges to implementation in the field; review will focus in particular on the new checklist template and scoring methodology.</p> <p>The ERC must attend and observe these workshops and incorporate any learnings into their final report and recommendations for revision. Learnings and recommendations must be presented to the AP and other two consultants no later than mid-August 2024.</p>
August - October 2024	<p>The ETC and WDCC will revise the handbook and supporting materials based on workshop feedback and ERC recommendations.</p> <p>Planning for the pilot visits begins; the ETC and ERC work together with the host fire departments to coordinate. All four in-person pilots should be planned for November and/or December 2024.</p> <p>The ERC will present their plan for formal evaluation of the risk reduction potential of the handbook to the Advisory Panel and Foundation Staff for feedback and approval; this will include collecting qualitative and quantitative data during the four pilot visits that will be analyzed as part of their formal report. The final evaluation plan must be approved by the AP no later than 5 business days prior to the first pilot site visit.</p>
Nov. – Dec. 2024	<p>The four pilot visits take place with ETC and ERC representatives in attendance. The Colorado Springs and Boise Fire Departments, and a small department in Kentucky, will</p>



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	serve as 3 of the pilot departments. The other pilot department (located in the US) is yet to be determined.
January 2025	<p>The ERC completes their assessment of all data gathered through the workshops, pilots, and desk review, and presents a draft report to the AP and SFPE Foundation staff by the end of January 2025.</p> <p>A final report incorporating any feedback from the AP or staff is due no later than the end of February 2025.</p>
Feb. – May 2025	<p>The ETC and WDDC take the feedback from the ERC and AP and make any final revisions to the handbook and supporting materials.</p> <p>With oversight from the AP and SFPE Foundation staff, the ETC and the WDDC develop four brief videos providing guidance on how to use the handbook (1) as a training tool, (2) to conduct property assessments, (3) to engage with property owners, and (4) to engage with community leaders.</p> <p>The ERC provides feedback on the videos to ensure they address needs identified in the evaluation of risk reduction potential.</p>
June – Aug 2025	<p>The videos and handbook will be made available online and announced via SFPE Foundation press release; SFPE Foundation staff and other project personnel conduct community outreach and dissemination exercises targeting the U.S. fire service and other stakeholders.</p> <p>The ERC assists in sharing promotional materials meant to raise awareness of the revised handbook and its value.</p>

## Cost and Duration

As outlined above, the project is expected to run from February 2024 – August 2025. As this project is primarily externally funded, we have strict cost requirements. **Successful proposals may not exceed \$35,000 USD total.**

This total cost should be inclusive of all project deliverables described above, except for those items noted below:

- Respondents do not need to budget for travel expenses for the four pilot site visits, which will be covered by the SFPE Foundation following mutual agreement with the selected contractor. One individual from the Engineering Risk Consultant team will be supported to travel to each pilot location.
- If supplies are needed to conduct the evaluation, some modest funding may be available by mutual prior written agreement with the SFPE Foundation.



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## How to Respond

Applicants should submit a single proposal (in PDF format) *no longer than 6 pages single-spaced* outlining:

- 1. Qualifications and experience for all relevant team members (1 page max)**
  - a. This must include evidence of prior experience relevant to this project.
  - b. Preference is for respondents with experience applying engineering-based knowledge, tools, or resources to fire departments operating in the WUI in the United States.
  - c. Include a description that advises on which team members named in the proposal will be responsible for which tasks identified in the proposal.
- 2. Proposed approach to evaluating the risk reduction potential of the revised handbook (3 pages max)**
  - a. This must account for all project deliverables described in this request for proposals.
- 3. Commitment to project timeline and deadlines for completion of deliverables (1 page max)**
  - a. The successful respondent must be able to meet the deadlines and deliverables as described in this request for proposals. Include an affirmative acknowledgment of these deadlines and assurance that you will be able to meet them on time and on budget.
- 4. Budget & Reporting Requirements (1 page max)**
  - a. Respondents should indicate that they can provide all project deliverables within the maximum cost allowed for this project of \$35,000 USD.
  - b. Once a proposal is selected, SFPE Foundation staff will determine the timeline for payment as part of the contracting process with the selected respondent.
  - c. The successful respondent must be able to keep detailed records (including receipts) for all expenses incurred under the scope of this project and will be required to abide by federal contracting guidelines.
- 5. Completed “Conflict of Interest Disclosure Form for Contractors & Grant Recipients” available on the SFPE Foundation [website](#)**
  - a. All team members named in the proposal are required to complete a copy of this form.
  - b. Note: This form should be included at the end of the proposal document, but it does *not* count towards the six-page limit.

We welcome applications from groups or individuals.

Proposals will be reviewed and evaluated based on the following criteria:

- *Team Qualifications (25%)*
- *Scientific Merit of Proposed Approach (25%)*
- *Ability to Meet Project Deadlines / Achievability (25%)*
- *Ability to Deliver within Budget / Project Value (25%)*

**Extended Deadline for Submittals: 11:59 pm ET on Monday, February 12, 2024.**

Direct submissions and inquiries to Dr. Leslie Marshall, SFPE Foundation Director, at [foundation@sfpe.org](mailto:foundation@sfpe.org). No phone calls, please.



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## Contractor Selection

Proposals will be evaluated by SFPE Foundation Staff and the Project Advisory Panel based on the proposal elements listed above. The selected contractor will be required to abide by all applicable guidelines for federal award recipients and will be asked to complete additional forms to ensure compliance with federal, state, and local guidelines, as well as any policy and regulatory guidelines required by the SFPE Foundation.

## Intellectual Property

The SFPE Foundation will retain the rights to the final deliverables and any tools, documents, or other materials produced under the scope of this project. The SFPE Foundation will utilize these items to the extent required by the terms and conditions of the SFPE Foundation's grant agreement with the funding agency, FEMA.