Wonder Labs

Reimagining 2025: Living with Fire Design Challenge

Call for proposals

This is a call for interdisciplinary proposals to reimagine what it means to live with fire in wildland-urban interface and intermix areas across the United States.

Proposals are requested in response to the following theme:

Expanding wildfire risk management capacities and capabilities for just, inclusive, and equitable outcomes

Teams will receive up to USD 20,000 to complete projects over a period of 12 months.

Proposals will be accepted on a rolling basis until 30 September 2022.

Submit your proposal to shefali@lakhina.com

CONTEXT

Wonder Labs is a social enterprise based in San Jose, California. Our mission is to catalyze social, ecological, and technological innovations with communities on the frontlines of climate impacts. We do this by facilitating convergence research, granting seed capital for community-led innovations, and incubating and co-developing FireTech solutions.

Our work is guided by the United Nation's Agenda 2030 Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction 2015-2030. Our five-year mission is to reduce the risk of catastrophic wildfires for diverse communities in the United States.

Through our *Reimagining 2025: Living with Fire* program, we advocate for a 'Policy, People, Places' approach to achieving inclusive, just, and equitable wildfire risk reduction outcomes. As part of this program, we are pleased to enter the second year of the *Reimagining 2025: Living with Fire* Design Challenge. See key outcomes from the 2021 cohort here.

LIVING WITH FIRE DESIGN CHALLENGE

Aim

The aim of the *Living with Fire* Design Challenge is to center the voices of students and emerging scholars in current discussions on wildfire risk reduction.

Objective

The objective of the *Living with Fire* Design Challenge is to enable student-led teams to closely engage with communities in processes of reimagining inclusive, just, and equitable pathways to living with fire.

2022 Design Challenge Theme

Proposals are invited in response to the following theme: *Expanding wildfire risk management capacities and capabilities for just, inclusive, and equitable outcomes.* Communities across the country are experiencing a worsening forest health and fuel management crisis. While recently unveiled wildfire risk management strategies (for example, see USFS's *Confronting the wildfire crisis* and California's *Wildfire and forest resilience action plan*) detail ambitious plans, their effective implementation will be challenging in the absence of a diverse, sustained, and (re)skilled forestry and fire workforce.

In response to a growing capacity gap in forest and fire management, the 2022 Living with Fire Design Challenge requests proposals to pursue a reimagining of workforce capacities and capabilities for effective, equitable, and sustained wildfire risk management practices. Some examples of potential pathways include reimagining who performs fuel management work, re-envisioning how landscape treatments can be scaled, and exploring entry points for co-developing just social, ecological, and technological innovations in ways that are workforce-led and community-centered.

Methodology

The Living with Fire Design Challenge methodology is based in foresight and futures-focused thinking. It seeks to create an enabling framework for community visioning exercises to identify reimagined pathways for living with fire in inclusive, just, and equitable ways (see recommended readings).

The Living with Fire Design Challenge seeks proposals that have been co-developed with communities at high risk of wildfire impacts. Proposed projects should seek to facilitate community-led structural analysis and scenario building to identify reimagined pathways to living with fire. Projects may reflect on values, amenities, social and environmental justice goals, with due attention to other locally relevant issues.

Expected outputs will include an identification of 'projected state/s' and 'reimagined state/s' of living with fire. A 'projected state' can be defined as a 'business as usual' scenario based on the current trajectory of wildfire risk reduction efforts in a community. In contrast, a 'reimagined state' can be defined as a process of reimagining ideal or desirable future/s by collaboratively envisioning diverse new possibilities. A 'projected state' can help *forecast* how we will live with fire in 2025 if we continue to do what we're doing right now or do more of the same. A 'reimagined state' can enable a community to *back cast* how to get to reimagined future state/s by choosing new pathways, sometimes building on

past efforts. For example, read about how a 2021 cohort project from Gold Hill, Colorado, facilitated a community visioning process to identify projected and reimagined states here.

A process of reimagining can be supported through the iterative development of data-driven indicators / metrics to monitor how a community progresses along its 'projected state/s' and 'reimagined state/s'. Teams can develop 'projected state/s' and 'reimagined state/s' using indicators, maps, graphs, and other visualization tools. Indicators should be locally relevant and help monitor and track progress to achieving projected and reimagined state/s, as defined by the participating community. Maps can be geographical, statistical, conceptual, or narrative-based, and can be hand-drawn, app-based, or platform-based to represent projected and reimagined states, as defined by the participating community.

Final outputs from selected projects will be due September 2023 and showcased at an end of project webinar. It is expected these outputs will contribute to a more robust characterization of what fire adapted communities look like across social geographies, while back casting diverse pathways to get there.

2021 Design Challenge Outcomes

In 2021, our first *Living with Fire* Design Challenge cohort co-developed projects with local partners in four communities living with high risk of wildfire impacts, see highlights below:

- Reimagining community wildfire protection planning in Ventura County, California, see here.
- Reimagining defensible space in Santa Barbara County, California, see here.
- Inclusive evacuation planning for Marin County, California, see here.
- Reimagining community resilience in Gold Hill, Boulder County, Colorado, see here.

Learn more about the 2021 cohort—teams, projects, and outcomes here.

APPLICATION PROCESS

Interested in applying to the Living with Fire Design Challenge? Here's what to do next:

1. Assemble a team of at least three students from 2-3 distinct disciplinary backgrounds, one faculty advisor, and one community partner.
2. Nominate a student team lead and a community partner who will be responsible for managing the team's participation in the Design Challenge and communicating with Wonder Labs.
3. Collaboratively draft a proposal following the submission guidelines below.
4. Submit your three-part proposal to shefali@lakhina.com before 30 September 2022.

Forming a Team

Students can be at any level of study, from relevant disciplines (such as geography, sociology, engineering, environment, forestry, economics, urban planning), and must be currently registered at an academic institution in the United States. To ensure interdisciplinarity, we require teams to be comprised of students from at least two relevant disciplinary backgrounds. The faculty advisor must be a current academic advisor to at least one student on the team and should be able to provide methodological guidance to students through the course of the Design Challenge as required. The faculty advisor is expected to ensure methodological rigor and high-quality deliverables. The community partner must be currently leading wildfire risk reduction efforts in a community and should be able and willing to facilitate community-wide dialogue, participation, and coordination of local follow ups from the Design Challenge. One student team lead and one community partner representative will be responsible for co-managing the team's participation in the Design Challenge and maintaining regular communication with Wonder Labs and other partners, as relevant.

Proposal Requirements

- The proposal must address the specific context, needs, and capabilities of a community at high risk from wildfire impacts in the United States.
- The proposal must be place-based and address how the process of reimagining will be inclusive of the perspectives, experiences, and capabilities of diverse members of community.
- The proposal must seek to address the historical and cascading social, economic, public health, and environmental impacts of wildfires for the selected community.
- The proposal must demonstrate how the team will transcend disciplinary boundaries and organizational silos to adopt ethical, problem-focused, and solutions-based convergence research principles.
- The proposal will explore how a process of reimagining can bring together diverse ways of knowing, including indigenous and migrant perspectives, with 21st century technologies in respectful, just, and empowering ways.

Submission Guidelines

Design Challenge proposals are due to shefali@lakhina.com before 5 pm PST on **30 September 2022**. The email proposal should include:

1. Cover letter (250 words): concretely explain *what* your team hopes to achieve with a Design Challenge award. The cover letter must be co-signed by all team members, including at least 3 students, 1 faculty advisor, and 1 community partner.
2. Design brief (1500 words): outline *how* you will facilitate a process of reimagining with a community at high risk of wildfire impacts. Clearly describe your ethical framework, methodology, and expected outcomes. Clarify what you hope to do with the award amount, and why. Please state any prior work, publications, and outcomes between team members,

especially with the proposed community partner/s. Further details in Design Brief Template, below.

3. Provide a link to a 2-minute video pitch: the video pitch should highlight *why* your approach is novel and how it serves the community you have chosen to work with. The video pitch can be presented by one team member on behalf of the entire team, or it can be collaboratively presented by all team members. The team must consider accessibility issues when preparing the design brief and video. Videos must include captioning or a transcript.

Design Brief Template

1. **The Title page** will include a Project Title and a complete list of Team Members.
    - Include at least 3 student's details in the following format:
      First name Last name, Level of study, Course, University. Include Email id and a photo.
    - Include at least 1 faculty advisor's details in the following format:
      First name Last name, Designation, Department, University.
    - Include at least 1 community partner's details in the following format:
      First name Last name, Designation, City, County, State. Include Email id and a photo.

2. **Design Brief (1500 words)**
    i. **Context**: Provide details about the community your team will work with. You can define community at neighborhood/ subdivision, municipal, or county scale. Identify the community's Wildland-Urban Interface (WUI) designation as listed in a local Community Wildfire Protection Plan. Clarify why the process of reimagining 2025 is relevant or interesting to the participating community. In response to the 2022 theme, briefly identify the local capacity and capability challenges and opportunities your project will respond to.
    ii. **Methodology**: Provide a brief description of your proposed method of engagement. How will the team facilitate a process of reimagining with the participating community? How will you make use of any past or ongoing community-wide discussions and planning processes, such as the Fire Adapted Communities Self-Assessment, the Community Wildfire Protection Plan, and the Local Hazard Mitigation Plan, or others?
    iii. **Expected outcome/s:** What are the expected outcomes from your proposed process? How will you know when you've successfully completed an inclusive process of reimagining with diverse members of community? Will you develop indicators, graphs, maps, or other kinds of tools to present your reimagining?
    iv. **Prior work**: How will this award contribute to your ongoing/ previous work with the participating community? Has this team previously collaborated on any project/s, especially with the proposed community partner? Links/publications/ lessons to share?
    v. **Ethics Statement**: How will your team conduct ethical research in caring, respectful, and inclusive ways? How will you engage with vulnerable and marginalized members of

community? How will you represent your findings and next steps in inclusive and accessible ways?

vi. **Timeline and Major Milestones**: Provide a timeline for community consultations and the reimagining process. The timeline should include major project activities and milestones, with a budget as relevant.

vii. **Future Directions**: Describe what it would mean if this project were successful and what next steps you might build on to scale or translate the lessons and/ or priority actions of this project. How will you keep the momentum going with the community?

viii. **Budget Justification**: The proposal should include a budget justification to outline where/ to whom funds will be allocated and why. Budget fields can include stipends, equipment, food, travel, miscellaneous.

ix. **References**, if any.

Funding and Resources

The Design Challenge funds will be awarded in two equal tranches. Each tranche will be received as a grant by the community partner. The community partner will commit to distributing the grant equitably in the form of stipends to student members of the participating team and judiciously administer expenses, including equipment, workshops, travel, and similar.

In addition, Wonder Labs will provide regular access to industry, community, and academic mentors who will provide feedback and guidance throughout the period of the Design Challenge. Wonder Labs and relevant partners will also support the selected teams in obtaining future funding opportunities to implement priority actions / pathways identified through the Design Challenge, beyond 2023.

Review Criteria

The proposals will be reviewed using the following criteria:

- Eligibility criteria (no points):
    1. Proposal includes three parts: cover letter, design brief, and video pitch.
    2. Project team includes at least 3 students, 1 faculty advisor, 1 community partner.
    3. Project can be accomplished within a 12-month period.

- Proposal review (100 points):
    1. Cover letter (max. 20 points)
    2. Design brief (max. 70 points)
    3. Video pitch (max. 10 points)

Recommended reading

Baker B, Dinh Y, Oritz E, Sells A, Foxfoot I. 2021. Reimagining community wildfire planning in Ventura County, California. University of California Santa Barbara. A Wonder Labs 2021 Design Challenge project. Story map link available here: https://storymaps.arcgis.com/stories/c5edeade2126407eb58772cc5a06206d

Blundell J, Chamberlain B, McQuaide, K. 2021. Imagining 2025 in Gold Hill, Colorado: Community vision for a wildfire adapted future. University of Colorado MENV Program. A Wonder Labs 2021 Design Challenge project. Story map link available here: https://storymaps.arcgis.com/stories/a75b7bd06f214422a4fa88683a50da51

Butler WH and Goldstein BE. 2010. 'The US Fire Learning Network: springing a rigidity trap through multiscalar collaborative networks.' *Ecology and Society.* 15(3): 21. http://www.ecologyandsociety.org/vol15/iss3/art21/

Fauss K, Boving I, Fitch R, Celebreze J. 2021. Landscaping flammability in Santa Barbara's WUI. University of California Santa Barbara. A Wonder Labs 2021 Design Challenge project. Story map link available here: https://kfauss.com/reimagining_wildfire_santabarbara/

Gao A, Wong V, Zhou Y. 2021. Communities' language need-based wildfire evacuation alerts. University of California Berkeley. A Wonder Labs 2021 Design Challenge project. Story map link available here: https://livingwithfire.wixsite.com/wemap

Kennedy E and Maietta M. 2022. Strategic planning in the humanitarian sector. A manual to foresight and futures-focused thinking. Routledge. Taylor and Francis Group. London, New York.

Lakhina SJ, Sutely EJ, Wilson J. 2021. '"How do we actually do convergence" for disaster resilience? Cases from Australia and the United States.' *International Journal of Disaster Risk Science*. https://link.springer.com/article/10.1007/s13753-021-00340-y

Moritz MA, Batllori E, Bradstock RA, Gill AM, Handmer J, Hessburg PF, Leonard J, McCaffrey S, Odion DC, Schoennagel T, Syphard AD. 'Learning to coexist with wildfire.' *Nature*. 2014. 515(7525):58-66. doi: 10.1038/nature13946. PMID: 25373675.

Paveglio TB, Brenkert-Smith H, Hall TE, Smith AMS. 2015. 'Understanding social impact from wildfires: Advancing means for assessment.' *International Journal of Wildland Fire* 24: 212–224.

Peek L, Tobin J, Adams RM, Wu H and Mathews MC. 2020. 'A Framework for Convergence Research in the Hazards and Disaster Field: The Natural Hazards Engineering Research Infrastructure CONVERGE Facility.' *Frontiers. Built Environment.* 6:110. doi: 10.3389/fbuil.2020.00110

Smith AMS, Kolden CA, Paveglio TV, Cochrane MA, Bowman DMJS, Moritz, MA, Kliskey AD, Alessa L, Hudak AT, Hoffman CM, Lutz, JA, Queen LP, Goetz SJ, Higuera PE, Boschetti L, Flannigan M, Yedinak KM, Watts AC, Strand EK, van Wagtendonk JW, Anderson JW, Stocks BJ, Abatzoglou JT, 2016. 'The Science of Firescapes: Achieving Fire-Resilient Communities', *BioScience*, Volume 66, Issue 2, 01 February 2016, Pages 130–146, https://doi.org/10.1093/biosci/biv182

Wildfire Technology Funders Group. 2022. The State of FireTech: Progress, gaps, futures. Published by Wonder Labs, California, USA. Available here: https://www.wonder-labs.org/uploads/6/4/2/1/6421555/stateoffiretech_v4_3.pdf