March 25, 2025 San Rafael, California

2025 CONVENING REPORT



Written by Sarah Caldwell, Impact Program Manager, Climate & Wildfire Institute Designed by Sabrina Goodman, Communications Manager, Climate & Wildfire Institute Convening photos provided by Chris Constantine, Founder, Chris Constantine Photography Stock photos provided by Canva

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CLIMATE & WILDFIRE INSTITUTE 2025 WILDFIRE DATA WORKSHOP

ABOUT CWI

ACCELERATING SOLUTIONS TO THIS ERA'S CLIMATE & WILDFIRE CHALLENGES

The <u>Climate & Wildfire Institute</u> (CWI) is an independent nonprofit organization that accelerates solutions to climate and wildfire challenges. CWI works to speed new solutions to the frontlines and to decision-makers by building a consortium of collaborative partnerships. As a boundary organization, we operate at the intersections of research, policy, and practice, facilitating collaboration and innovation across sectors to advance climate and wildfire resilience within the Western United States.

CWI SIGNATURE CONVENINGS

CWI's Signature Convenings bring together fire experts, regional partners, industry leaders, and practitioners to accelerate solutions to this era's most pressing climate and wildfire challenges. This year's convening built on CWI's 2024 Signature Convening and was designed as a workshop format to facilitate practical planning sessions and generate actionable outcomes around the following themes: insurance & risk modeling, public health & smoke, and urban planning & policy.

SPECIAL ACKNOWLEDGEMENTS

Staff support for this convening was generously funded by the <u>Coalitions and Collaboratives (COCO)'s</u> <u>Action, Implementation & Mitigation (AIM) Grant</u>. CWI thanks the following contributors who provided planning and technical logistics, industry expertise, and photography services in support of this convening.

Mikel Robinson, Founder, Full Scope Management, Inc. Bethany Hannah, Executive Director, The American Wildfire Experience Chris Constantine, Founder, Chris Constantine Photography

2025 SPONSORS

Thank you to our incredible sponsors—<u>Western Fire & Forest Resilience Collaborative</u>, <u>Rustic Bakery</u>, <u>Marin Community Foundation</u>, and <u>Fairfax Brewery</u>—for your generous support of this year's convening. We are deeply grateful for your partnership in making this event a success.



Western Fire & MARIN Forest Resilience Collaborative

MARIN A FAIRFAX COMMUNITY BREWING FOUNDATION COMPANY



EXECUTIVE SUMMARY

The Climate & Wildfire Institute (CWI) hosted its 2025 Wildfire Data Workshop as a continuation of momentum built during its 2024 Signature Convening. Designed to be highly interactive and outcomesdriven, the workshop was organized around three thematic tracks: 1) Smoke & Public Health; 2) Urban Planning & Policy; and 3) Insurance & Risk Modeling. It supported structured networking, practical planning sessions, and cross-sector collaboration to surface actionable insights. The workshop was held in coordination with the <u>California Wildfire & Forest Resilience Task Force Spring Regional Meeting</u> to align and reinforce collective efforts toward statewide wildfire and forest resilience.

The workshop convened over <u>70 cross-sector leaders</u> (see appendix II) to strengthen the wildfire data community, emphasizing collaboration and ethical approaches to data sharing, timeliness, and use. It also advanced data-driven solutions to improve decision-making and inform policy development, identifying gaps, user needs, and opportunities for innovation. Participants worked together to develop aligned recommendations and strategies to overcome barriers and support more timely, accessible, and usable wildfire data.

KEY CROSS-CUTTING INSIGHTS

As conversations unfolded across all three workshop tracks and in the closing session, several overarching themes emerged. These cross-cutting insights reflect the shared challenges and opportunities in moving from data collection and modeling to real-world resilience outcomes. They serve as connective tissue between sessions and point to systemic shifts needed to maximize the impact of wildfire data across California and beyond.

- We have much of the wildfire data we need; the gap is in access, translation, alignment, and application.
- Risk modeling must go beyond hazard mapping to incorporate social vulnerability, structural risk, community-scale exposure, and other ecosystem-wide considerations (forest carbon loads, watershed needs, etc).
- Trust and transparency in how data is used, shared, and interpreted are essential, particularly for insurers, policymakers, and frontline communities.
- Storytelling, local voices, and community-facing communication are as important as technical tools in achieving resilience.

WORKSHOP STRUCTURE AND OVERVIEW

CWI's 2025 Convening: Wildfire Data Workshop was designed to move beyond surface-level dialogue and into structured problem-solving. Following the opening panel, participants joined one of three themed workshop tracks—Smoke & Public Health, Urban Planning & Policy, or Insurance & Risk Modeling—and stayed in that track through two consecutive working sessions. The first session focused on defining core challenges, user needs, and data gaps. The second session emphasized drafting actionable solutions, key audiences, and implementation strategies. Facilitated by CWI and topical experts, each group synthesized its findings into tangible ideas that were shared during the closing panel and informed CWI's Wildfire Data Action Plan. The following sections provide key insights and recommended actions from each topical track.



PROCESS DIAGRAM OF CWI 2025 CONVENING: WILDFIRE DATA WORKSHOP

The above process diagram provides a visual representation of the workshop structure and sequence from start to finish.

OPENING PANEL: FRAMING PERSPECTIVES - WILDFIRE DATA IN POLICY & PRACTICE

This opening panel set the stage for the day's working sessions, featuring experts from the public health, urban planning, policy, and insurance sectors to explore how wildfire data is—or isn't—supporting decision-making in their domains. Speakers reflected on persistent barriers, urgent needs, and untapped opportunities, with a shared emphasis on collaboration, transparency, and the need for outcome-driven data applications. This panel helped frame the objectives of the day and orient participants to the real-world systems their work is meant to support. Speakers included:

Marissa Christiansen (Moderator), Executive Director, Climate & Wildfire Institute Lori Moore-Merrell, DrPH, MPH, Former U.S. Fire Administrator; Executive Leadership Advisor; Public Safety Advocate

Carly Hyland, Assistant Professor of Cooperative Extension, UC Berkeley Environmental Health Sciences

Nader Afzalan, Endowed Chair of Social Justice, UC Berkeley College of Environmental Design; Founder, The Triangle

Andrew Engler, Co-Founder & CEO, RockRose Risk

Framing insights emphasized the need to shift from fragmentation to integration, from fear to trust, and from process to impact.

Across public health, urban planning, policy, and insurance, panelists emphasized a need to:

- Translate data into decision-ready formats for policymakers and the public.
- Elevate TEA—Translate, Educate, Advocate—as a framework for action.
- Stop building (and rebuilding) communities in high-risk areas, or at least require building to comply with fire-hardened codes.
- Empower planners with outcome-focused data (e.g., evacuation planning, community-level exposure).
- Include disproportionately impacted populations (e.g., farmworkers) in both data collection and governance.
- Shift away from "impact-neutral" hazard data toward risk-informed planning and community metrics.
- Address data hoarding and fear of sharing (e.g., insurance implications) with stronger incentives and anonymization.

WORKSHOP TRACK ONE: SMOKE & PUBLIC HEALTH

This track explored the intersection of wildfire smoke, beneficial fire smoke, and public health data and outcomes. Participants included atmospheric scientists, community health advocates, public agency staff, and social scientists. The group discussed how to bridge the gaps between air quality monitoring systems, public health data, and lived community experiences, especially among vulnerable populations. The session emphasized the importance of culturally-responsive communication, interagency coordination, and evidence-based policy-making that supports beneficial fire while also protecting human health.

CORE PROBLEMS IDENTIFIED	USER NEEDS & DATA GAPS	SOLUTIONS & TARGET AUDIENCES
Fragmented Monitoring & Management: There is a disconnect between air quality monitoring networks, public health datasets, and burn management systems.	 Integrated smoke monitoring Interoperability between public health and fire data systems 	 Build cross-sector smoke tradeoff models Create satellite and ground-truthed forecasting loops Audience: Air districts, CARB, burn bosses, public health researchers
Structural Equity Gaps: There are disproportionate impacts on marginalized communities—especially outdoor workers, farmworkers, and non-English speakers—who are often excluded from datasets and decision-making.	 Disaggregated health data (e.g., for workers, children, non- English speakers) Risk perception and behavior data 	 Engage local organizations (churches, schools) as messengers Develop community-centered smoke communications Audience: Local public health departments, CBOs, Tribal health organizations
Prescribed Fire Literacy & Modeling Gaps: Prescribed fire and wildfire smoke impacts are not measured or communicated equitably—models are limited, and localized health data are often missing.	 Emissions models comparing prescribed fire vs. wildfire Smoke literacy and risk communication resources 	 Integrate fire/smoke literacy in K-12 & workforce training Build tools to compare exposure tradeoffs Audience: Educators, modelers, state health departments
Data Access & Clarity: Public health guidance is not reaching vulnerable groups due to data inaccessibility, language gaps, and a lack of trusted messengers.	 Multilingual and culturally relevant info Trusted, local communication networks 	 Normalize smoke through education Involve public health clinics in burn planning Audience: Community health clinics, county health officers, fire safe councils



WORKSHOP TRACK TWO: URBAN PLANNING & POLICY

The Urban Planning & Policy track focused on how wildfire data can, and should, inform local planning, zoning, and permitting. Participants examined challenges in applying risk data to decisions around housing development, infrastructure investments, and community-scale mitigation. The conversation highlighted key disconnects between data producers and end users, and between different levels of government. Participants explored models of success and proposed new strategies for embedding wildfire risk assessment into the tools and timelines of local land use planning.

CORE PROBLEMS IDENTIFIED	USER NEEDS & DATA GAPS	SOLUTIONS & TARGET AUDIENCES
Inconsistent Risk Data Integration: Risk data is not being consistently or clearly incorporated into local zoning, permitting, or infrastructure planning.	 Risk maps that integrate structural vulnerability, community mitigation, and evacuation data Parcel-level standardization across jurisdictions 	 Scale replicable models (e.g., Marin's parcel risk scores) Develop best-practice urban planning templates Audience: Planners, county governments, MPOs
Disconnect Between Data & Decision-Making: Decisions around wildfire risk are often driven by politics rather than science, leading to a disconnect between state, county, and local levels of government and a lack of data-informed implementation.	 State-local coordination mechanisms Clear risk assessment minimums with local adaptation flexibility 	 Create state-supported planning toolkits Align with insurer data needs for land use and building codes Audience: State planning agencies, local jurisdictions, insurance regulators
Limited Data Access: Homeowners lack access to data for property-level mitigation, while industry professionals lack access to data for planning decisions.	 Tools that deliver actionable parcel-level insights Integration of AI, satellite data, and dynamic risk models 	 Build user-friendly planning dashboards with shared risk model inputs Expand homeowner access to property-level mitigation data Audience: Homeowners, developers, local planners, fire marshals



WORKSHOP TRACK THREE: INSURANCE & RISK MODELING

The Insurance & Risk Modeling track surfaced some of the most urgent and complex challenges facing the wildfire data ecosystem. With insurance markets retreating from high-risk areas, this group explored how better data transparency, structure-level insights, and validated risk models could help rebuild confidence and improve access to coverage. Participants included insurers, reinsurers, researchers, nonprofit partners, and local leaders—all seeking pathways to align insurance incentives with community mitigation efforts and long-term resilience.

CORE PROBLEMS IDENTIFIED	USER NEEDS & DATA GAPS	SOLUTIONS & TARGET AUDIENCES
Market Instability & Policy Gaps: Insurance markets are retreating from California and other states due to uncertainty in risk modeling, lack of standardization, and policy barriers.	 Evidence that mitigation reduces risk/loss Policy alignment between insurers and state resilience goals 	 Frame insurance reform as resilience strategy Link mitigation dollars to premium savings Audience: DOI, state legislators, insurers, reinsurers
Lack of Standardization & Scalable Models: Insurers need risk data aggregated at actionable levels, such as HOAs or neighborhoods, not just at the parcel or zip-code scale.	 Risk models that go beyond parcel-level Validated, scalable scoring methodologies 	 Develop neighborhood-scale risk models Pilot model zoning districts using real risk reduction metrics Audience: Insurance modelers, counties, fire safe councils, actuaries
Fragmented & Inaccessible Data: While vast data exists, it is often outdated, proprietary, or siloed. This includes structure-level building data, vegetation profiles, ember vulnerability, and real- time fire behavior.	 Standardized structural vulnerability data (e.g., roof type, ember resistance) Independent verification of mitigation actions 	 Build open, standardized data libraries (validated case studies) Create third-party verification frameworks Audience: Tech providers, local governments, insurers, CWI/Task Force partners
Opaque Decision Frameworks: There is a lack of transparency in catastrophe models, loss data, and insurer decision-making.	 Public access to catastrophe model assumptions Clear risk-reduction ROI metrics 	 Create a library of real-world case studies (e.g., Marin, Truckee) Translate models into usable public dashboards Audience: Researchers, CBOs, regulators, advocacy groups



SUMMARY RECOMMENDATIONS

The summary recommendations presented here reflect broad system-level needs identified by participants. CWI's concrete next steps in response to these discussions are outlined on page 15 in the CWI Wildfire Data Action Plan.

WORKSHOP TRACK ONE: PUBLIC HEALTH & SMOKE

- Leverage Policy: Support disclosure policies for smoke-prone areas and create public-facing dashboards.
- Improve Models: Incorporate species-level fuel data, along with satellite and on-the-ground feedback loops to improve smoke forecasting and planning.
- Quantify Tradeoffs: Build tools and models to compare smoke exposure from prescribed fire vs. wildfire, linking to health and economic outcomes.
- Improve Public Communication: Engage local institutions (e.g., churches, fire-safe councils, schools) to serve as trusted info hubs and a bridge to local health districts and local burn bosses.

WORKSHOP TRACK TWO: URBAN PLANNING & POLICY

- Leverage Policy: States set minimum expectations and provide risk modeling resources; counties tailor and adopt based on local need.
- Develop Local Protocols: Pilot a uniform wildfire risk assessment methodology for counties to meet basic compliance (with optional enhancements).
- Document, Disseminate, and Support Regional Pilots: Scaling of the Marin model and similar risk mapping innovations.
- Improve Public Communication: Institutionalize public education around wildfire risk, targeting both new developments and legacy neighborhoods.



Attendees review information, present insights, and discuss recommendations during workshop tracks one and two sessions.

SUMMARY RECOMMENDATIONS

WORKSHOP TRACK THREE: INSURANCE & RISK MODELING

CWI has prioritized the insurance track for near-term follow-up, with plans to engage participants in ongoing conversations to co-develop solutions, test data frameworks, and inform state-level efforts to improve insurance availability and wildfire risk transparency (see page 15 for CWI's Wildfire Data Action Plan).

- Leverage Policy and Partnerships: Convene insurers, modelers, and local governments to codevelop transparent, action-oriented risk models; host an Insurance Innovation Workshop to strengthen collaboration and policy design.
- Develop Retrospective Risk Protocols: Pilot reverse-engineered modeling using past fire events (e.g., Palisades, Lahaina) to identify effective mitigations and quantify the return on investment of resilience measures.
- Build Scenario Tools: Use aerial imagery, parcel data, and pre-/post-fire modeling to develop visual risk scenarios that inform underwriting, planning, and community engagement.
- Advance Data Commons and Interoperability: Promote the "wildfire commons" model to standardize, anonymize, and share data across platforms (e.g., Fire Aside, Land Tender, Marin Wildfire Prevention Authority), enabling cross-sector alignment.
- Elevate Insurance-Focused Messaging and Storytelling: Support public understanding of the insurance crisis and the role of collective mitigation in restoring access and affordability. Highlight early wins from insurance-company-backed pilots (e.g., RockRose Risk).



Attendees brainstorm ideas, take notes, and engage in dialogue during workshop track three sessions.

CROSS-CUTTING THEMES & CONVENING INSIGHTS

While each thematic track produced distinct outputs, there was alignment in the types of challenges and priorities raised across the convening sessions. This section distills the most salient cross-cutting insights and offers a consolidated lens through which to understand the broader data and decisionmaking landscape. These themes highlight where strategic investments in interoperability, communication, and equity can unlock progress across sectors.

FROM DATA AVAILABILITY TO DATA IMPACT

Participants across all tracks echoed a common sentiment: the wildfire resilience ecosystem does not suffer from a lack of data—it suffers from a lack of systems, incentives, and shared frameworks to use that data effectively.

Key insights:

- Improve interoperability of public-, private-, and community-collected data.
- Bridge hazard-based maps with dynamic, risk-informed decision tools.
- Translate complex data into accessible, actionable guidance for planners, public health practitioners, homeowners, policymakers, and insurers.
- Build metrics and models that quantify tradeoffs between different types of fire and risk.

TRUST, TRANSPARENCY, AND DATA GOVERNANCE

Mistrust of prescribed fire, insurance decisions, risk models, or public health messaging surfaced across all tracks. Addressing this requires transparency not only in data access but also in data intent and use.

Key insights:

- There is an urgent need for more transparent, standardized, and third-party-verified data systems, especially around risk scoring and insurance models.
- Trusted intermediaries can play a role in verifying, translating, and aligning data systems.
- Data equity demands the ethical use of localized data, including protocols for anonymization, informed consent, and meaningful community control.



Speakers and attendees engage in conversation during and after panel Q&A discussions at the convening workshop.

CROSS-CUTTING THEMES & CONVENING INSIGHTS

CULTURAL SHIFTS AND COMMUNITY COMMUNICATION

A core insight from the public health and smoke discussions was the need to reframe fire as part of a healthy landscape and to distinguish between "bad smoke" and "necessary smoke." Cultural, generational, and sectoral narratives all influence risk perception and public trust.

Key insights:

- Storytelling emerged as a consistent theme: "We need to be as loud about the solutions as we are about the problem."
- Partnering with trusted local messengers—schools, churches, clinics, fire safe councils—can help improve communication reach and relevance.
- Investing in public-facing education that shifts from compliance-driven messaging to benefitframed storytelling (e.g., clean air, safe homes, ecological recovery).

POLICY, PRACTICE, AND PILOTS

Participants across all tracks emphasized the need to close the implementation gap by aligning strong science and innovative tools with real-world planning, permitting, insurance, and public health action.

Key insights:

- Data-informed policy requires bridging research and implementation:
 - Smoke modeling that supports CEQA/NEPA reforms
 - Risk maps that influence general plans
 - Insurance models that reflect real-world mitigations
- Local pilots—whether in Marin, Tahoe, or Lahaina—can test, refine, and scale innovations in community mitigation, fire planning, and insurance reform.



Attendees share casual conversations during multiple networking opportunities at the convening workshop.

CLOSING PANEL: WORKSHOP REFLECTIONS & STRATEGIC TAKEAWAYS

The final session brought together each of the session facilitators to reflect on what was learned during the workshop sessions, recommended pathways forward, and key roles for CWI. The synthesis panel aimed to validate themes emerging from the breakouts (as described in the previous sections), highlight areas of alignment, and identify roles that CWI and other stakeholders can play in closing gaps. This capstone discussion reinforced the need for bold coordination, expanded data accessibility, and continued investment in trust-based partnerships. Speakers included:

Chris Anthony (Moderator), Strategic Wildfire Advisor Dr. Alex Hall, Director, Institute of the Environment and Sustainability, UCLA; Board Member, Climate & Wildfire Institute Dr. Crystal Raymond, Deputy Director of Policy and Management, Western Fire and Forest Resilience Collaborative Dr. John Battles, Professor of Forest Ecology, UC Berkeley; Board Member, Climate & Wildfire Institute

KEY CWI ROLES IDENTIFIED

- Act as a trusted, independent resource to integrate and translate wildfire data across disciplines (who's doing what, where are the gaps).
- Convene stakeholders to identify priorities, innovation opportunities, and organize collective action.
- Serve as an intermediary between science and policy—connecting universities, practitioners, and communities to advance climate adaptation and resilience.
- Elevate local voices.
- Synthesize pilots to support scalability.
- Provide retrospective storytelling and failure analysis.



Closing panel speakers reflect on recommendations and paths forwards presented during the convening workshop tracks.

CWI WILDFIRE DATA ACTION PLAN: 2025-2026

CWI will advance a coordinated, equity-centered data agenda that bridges modeling, mitigation, and market transformation. Building on the outcomes of the 2025 Wildfire Data Workshop and aligned with California Wildfire & Forest Resilience Task Force priorities, this action plan prioritizes insurance sector innovation, scalable pilot demonstrations, and statewide data standardization to improve wildfire resilience. CWI's unique role as a boundary organization enables it to connect data producers, end users, and policy-makers, filling implementation gaps and supporting durable system change.

ACCELERATE INSURANCE INNOVATION & RISK MODEL INTEGRATION

- Host a 2025 Insurance Innovation Convening to bring together reinsurers, insurers, modelers, and local governments.
- Compile a case study portfolio (e.g., Marin, Tahoe, Lahaina) that documents mitigations and informs insurer strategies.
- Document and elevate emerging models, such as RockRose Risk, to demonstrate communityaligned insurance solutions.

DELIVER ON CALIFORNIA TASK FORCE KEY 2025 DELIVERABLES

- <u>Support Task Force 2025 Deliverable 22</u>: "Develop Wildfire Data Standards and Evaluate Existing Technologies."
- Act as a neutral data validator and synthesizer, supporting both local decision-making and statelevel planning.

SCALE PILOT PROJECTS & REGIONAL DEMONSTRATIONS

- Support documentation and scaling of community pilot projects and highlight opportunities to integrate with state planning tools.
- Collaborate with universities, local entities, and insurers to demonstrate cost savings from mitigation investments.
- Ensure equity and Tribal inclusion in CWI-led pilots through targeted engagement and co-design practices.

SUPPORT CROSS-SECTOR COMMUNICATIONS & LITERACY

- Partner with trusted messengers (e.g., HOAs, Tribal leaders, educators) to improve data literacy and risk awareness on projects and pilots.
- Translate technical modeling outputs into usable materials for communities and policy-makers.

CWI WILDFIRE DATA ACTION PLAN: 2025-2026

STRENGTHEN INCLUSION & INDIGENOUS DATA GOVERNANCE

- Support Indigenous-led air quality and cultural fire efforts, including through internship and research opportunities.
- Build on 2024 recommendations to co-design data governance protocols that respect Tribal sovereignty and cultural knowledge.
- Elevate Tribal voices in policy and pilot projects where data sovereignty is critical (e.g., beneficial fire, cultural smoke).

STRENGTHEN PARTNERSHIPS & ORGANIZATIONAL CAPACITY

- Partner with the Wildfire Science & Technology Commons, universities, and working groups to scale shared priorities.
- Create a community of practice to link silos across disciplines without forcing uniformity connecting planners, health agencies, modelers, and communities.
- Support storytelling and policy translation, turning modeled data into actionable public narratives.
- Continue hosting data workshops and convenings that are hands-on, problem-focused, and codesigned with wildfire community partners.



Opening panel speakers provide overviews of each workshop track to set the stage for the convening.

CONCLUDING REMARKS

The 2025 Convening: Wildfire Data Workshop reflected a growing shift in the wildfire resilience field from diagnosing problems to implementing collaborative, data-informed solutions. It demonstrated that California's wildfire data community is ready not just to discuss the issues, but to build the tools, relationships, and governance frameworks needed to act. Participants across sectors expressed both urgency and optimism: we have enough knowledge to start doing things differently, and we know where the barriers lie. From smoke communications to insurance reform, from neighborhood risk maps to pilot project storytelling, the ideas shared at this workshop point toward a more responsive, equitable, and data-informed wildfire system. CWI will move these ideas forward by supporting pilots, catalyzing collaboration, and ensuring that the science is translated into action.

This report reflects not only the momentum from the October 2024 Signature Convening and March 2025 Convening: Wildfire Data Workshop, but also a larger movement toward aligning wildfire data with public interest, practical use, and inclusive governance. By centering problem-solving, elevating end user needs, and fostering cross-sector trust, the Climate & Wildfire Institute will continue to advance actionable wildfire and climate resilience.

The next phase of work will emphasize:

- Pilot execution and evaluation
- Insurance innovation and engagement
- Trusted data sharing and translation
- Capacity building across sectors and communities

Through these efforts, CWI will continue to serve as a durable bridge between science, policy, and community—a catalyst for collective progress in a rapidly evolving wildfire and climate risk landscape.



CWI staff and consultants summarize discussions and conclude the convening workshop with brief closing remarks.

APPENDIX 1:

AGENDA

March 25, 2025 Embassy Suites by Hilton, San Rafael, CA

- Coffee & Sign-in 8:30 AM
- 9:00 AM Welcome & Opening Remarks
 - Ken Alex, Director, Project Climate, UC Berkeley; Board President, Climate & Wildfire Institute
 - Marissa Christiansen, Executive Director, Climate & Wildfire Institute

9.10 AM Framing Perspectives: Wildfire Data in Policy & Practice Moderated by Marissa Christiansen, Executive Director, Climate & Wildfire Institute

- <u>Andrew Engler</u>, CEO, RockRose Risk
- Nader Afzalan, Endowed Chair of Social Justice, UC Berkeley College of
- Environmental Design; Founder, The Triangle <u>Lori Moore-Merrell</u>, DrPH, MPH, Former U.S. Fire Administrator; Executive Leadership Advisor; Public Safety Advocate
- Carly Hyland, Assistant Professor of Cooperative Extension, UC Berkeley Environmental Health Sciences
- 10:00 AM Morning Break
- 10:20 AM Workshop Session Introductions
- 10:30 AM Workshop Session One: Problem & User Needs Identification
 - Insurance & Risk Modeling
 - Urban Planning & Policy
 - Public Health & Smoke Modeling
- 12:00 PM Lunch
- 1:00 PM Workshop Session Two: Outputs & Action Planning
 - Insurance & Risk Modeling
 - Urban Planning & Policy
 - Public Health & Smoke Modeling
- 2.30 PM Afternoon Break

3:00 PM Panel Synthesis & Plenary Discussion

Moderated by Chris Anthony, Strategic Wildfire Advisor

- John Battles, Professor of Forest Ecology, UC Berkeley; Board Member, Climate & Wildfire Institute
- Crystal Raymond, Deputy Director of Policy and Management, Western Fire and Forest Resilience Collaborative
- Alex Hall, Director, Institute of the Environment and Sustainability, UCLA; Board Member, Climate & Wildfire Institute
- 3:50 PM Closing Remarks
- 6:00 PM CWI Host Dinner | Mill Valley Room, Embassy Suites



APPENDIX II:

- University of California, Los Angeles
- The California Department of Forestry and Fire Protection
- <u>RockRose Risk</u>
- Earth Fire Alliance
- <u>Blue Forest</u>
- American Wildfire Experience
- Environmental Defense Fund
- <u>Tahoe Fund</u>
- <u>University of California, Berkeley</u>
- Marin Wildfire Prevention Authority
- Napa Communities Firewise Foundation
- <u>Fire Aside</u>
- <u>Western Forest & Fire Resilience Collaborative</u>
- <u>University of San Francisco</u>
- <u>Planet Labs</u>
- <u>Chico State Ecological Reserves</u>
- <u>Chico State</u>
- <u>California Council on Science & Technology</u>
- Ascent Environmental, Inc.
- <u>California Wildfire & Forest Resilience Task Force</u>
- Gordon and Betty Moore Foundation
- <u>University of California, San Diego</u>
- Spatial Informatics Group
- <u>Stanford University</u>
- <u>Vibrant Planet</u>
- <u>Center for Law, Energy & the Environment</u>
- <u>MetroLab Network</u>
- <u>Mayday.ai</u>
- <u>The Triangle</u>
- <u>Washoe Tribe</u>
- University of California, Irvine
- <u>Nephila Advisors LLC</u>
- <u>Willow Labs</u>
- Desert Research Institute
- <u>Megafire Action</u>



APPENDIX III:

KEYNOTE OVERVIEW

In conjunction with the <u>California Wildfire & Forest Resilience Task Force Meeting</u> held on March 27, 2025 in San Rafael, the <u>Marin Wildfire Prevention Authority</u> (MWPA) and the <u>Climate and Wildfire</u> <u>Institute</u> (CWI) sponsored a special evening with Dr. Daniel Swain, a renowned climate scientist from the <u>University of California, Los Angeles</u>. Dr. Swain presented his research on climate and wildfire, with a special emphasis on lessons learned from the recent Los Angeles fires. The event was attended by CWI workshop participants, California Wildfire & Forest Resilience Task Force attendees, as well as the local Marin community.

This keynote event was sponsored and hosted by:











UCLA climate scientist Dr. Daniel Swain presents his research and lessons learned from the January 2025 L.A. Fires.

APPENDIX IV:

2024 SIGNATURE CONVENING: WILDFIRE DATA & TECHNOLOGY: REDUCING BARRIERS AND BUILDING RESILIENCE RECOMMENDATIONS	2025 CONVENING: WILDFIRE DATA WORKSHOP ALIGNMENT AND CWI PROGRESS/OUTPUTS CWI leverages workshop design, panel curation, and shared materials to fulfill its role as a boundary organization—bridging disciplines and sectors to foster collaboration and co-develop solutions.
Support Data Sovereignty and Indigenous-led Initiatives	CWI onboarded a new 2025 summer Indigenous Climate & Air Quality intern to support Indigenous Data Sovereignty research. CWI staff continue to coordinate The Stewardship Project to support research, outreach, and policy insights on Indigenous rights to burn and co-manage lands.
Establish Data Infrastructure, Data Integration Platforms, for Real-Time Public Access	CWI is participating in the Wildfire Science & Technology Commons (WSTC) Scale and Sustain Working Group. CWI drafted a 2025 Strategic Plan, including the development of its Data & Demonstration operational pillar that will evolve to meet convening recommendations.
Prioritize Workforce Development and Community Engagement	CWI co-developed a workforce development proposal with South Lake Tahoe agencies and academic partners to scale fuels mitigation work in the Tahoe Basin.
Scale Innovation and Technology for Universal Access	CWI's 2025 Data Workshop was structured around problem and solution design to catalyze innovation and subsequent Action Plan. Partners in the Tahoe Basin launched the Incline Firesmart Communities Pilot with efforts to overlay technology in support of community and ecosystem resilience. CWI will document these types of data/tech demonstrations and develop methodologies for scaling these types of initiatives.
Encourage Public-Private Partnerships	As a direct result of the 2025 Data Workshop, CWI will engage with insurers on mitigation strategies. The Insurance & Risk Modeling track proposed an Insuarnce-focused convening and case study to advance industry re-entry. Marin, Tahoe, Flagstaff, and LA named as candidate sites for case studies.



APPENDIX V:

DATA CONTINUUM GRAPHIC

GAPS IN DATA PRODUCTION

HOW SHOULD THIS DATA BE STRUCTURED? USER NEEDS FOR EFFECTIVE DATA USE

GOVERNMENT AGENCIES	ACCESSIBLE	GOVERNMENT
CALIFORNIA DEPARIMENT OF FORESTRY AND FIRE PROTECTION		PUBLIC HEALTH OFFICIALS
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION	USABLE	LOCAL OFFICIALS
UNITED STATES FOREST SERVICE	STANDARDIZED	URBAN PLANNERS
UTILITY COMPANIES		
NV ENERGY •	FEDERATED	
PACIFIC GAS & ELECTRIC		INCIDENT COMMANDERS
SOUTHERN CALIFORNIA EDISON		→ FIREFIGHTERS
TECH COMPANIES		FOREST ECOLOGISTS
GOOGLE •		• FEDERAL & STATE REGULATORS
		LEGISLATIVE STAFFERS
		CLIMATE POLICY ADVISORS
VIBRANT PLANET •		PUBLIC POLICY ADVOCATES TRIBAL
INSURANCE COMPANIES		TRIBAL GOVERNMENTS
STATE FARM		CULTURAL FIRE PRACTITIONERS
FARMERS INSURANCE		CULTURAL FIRE MANAGEMENT COUNCIL
LIBERTY MUTUAL		ACADEMIA
ALISTATE •		GEOSPATIAL ANALYSTS
RESEARCH INISTITUTIONS		
		BLUE FOREST
		EMBER ALLIANCE
UNIVERSITY OF CALIFORNIA FIRE SCIENCE RESEARCH CENTERS		PRESCRIBED FIRE COUNCILS
TRIBAL & INDIGENOUS COMMUNITIES		PRIVATE INDUSTRY
WESTERN KLAMATH RESTORATION PROJECT		CONSULTING FIRMS
SOUTHWEST FIRE SCIENCE CONSORTIUM		INSURANCE PROFESSIONALS
INDIGENOUS PEOPLES BURNING NETWORK		PRIVATE FIREFIGHTING
NONPROFIT ORGANIZATIONS		TIMBER
THE NATURE CONSERVANCY		
EARTH FIRE ALLIANCE		
HEADWATERS ECONOMICS		

CLIMATE & WILDFIRE INSTITUTE DATA CONTINUUM



DATA PRODUCERS

APPENDIX VI:

The following resources and coalitions provided valuable insights that shaped the themes, panelist selection, and program design of CWI's 2025 Wildfire Data Workshop. While not all are directly cited in the main report, they reflect the broader context of knowledge and collaboration that informed our work. This list is not exhaustive but offers a starting point for further exploration.

- <u>2025 Key Deliverables</u>. CA Task Force, 2025.
- <u>2023 CWI Convening Report</u>. CWI, 2023.
- <u>Climate & Wildfire Institute Convening Report: Wildfire Data & Technology Reducing Barriers &</u> <u>Building Resilience</u>. CWI, 2024.
- <u>Wildland Fire Community Miro Board</u>. Scott R. Kaplan, 2024.
- <u>CWI Wildfire Data Landscape Snapshot</u>. CWI, 2025.
- <u>Wildfire Science & Technology Commons</u>. UCSD, Working Groups launched February 2025.
- <u>Scoping the Public Health Impacts of Wildfire</u>. Berkeley Center for Law, Energy, and the Environment, 2023.
- <u>The State of FireTech 2024 Annual Update</u>. Wonder Labs, December 2024.
- Earth Fire Alliance. EFA, 2025.
- <u>Western Fire & Forest Resilience Collaborative Resources</u>. WFFRC, 2024.
- <u>Exposure to Smoke From Wildfire, Prescribed, and Agricultural Burns Among At-Risk Populations</u> <u>Across Washington, Oregon, and California</u>. C. L. Schollaert et al., GeoHealth, 2024.
- <u>Quantifying the smoke-related public health trade-offs of forest management</u>. C. L. Schollaert et al., Nature Sustainability, 2023.
- <u>Wildfire Resilience Initiative Grantee Convening Report</u>. Gordon and Betty Moore Foundation, 2024.
- <u>WUI Data Commons Discussion: Wildfire Resilience via Data Transparency</u>. CalPoly WUI FIRE Institute, 2024.
- <u>Wildfire Intelligence Collaboration and Coordination Act</u>. Padilla Senate Office, 2025.
- <u>Climate & Wildfire Research Initiative | Sustainable LA Grand Challenge</u>. UCLA, 2025.
- <u>The Triangle</u>. Dr. Nader Afzalan, 2025.
- Dr. Lori Moore-Merrell reflects on tenure as U.S. Fire Administrator. Fire & Safety Journal, 2025.
- <u>Innovative Pilot Project to Create Tahoe's Most Wildfire-Ready Community Launches</u>. Tahoe Fund, 2025.

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- X : ClimateWildfire
- O : climateandwildfireinstitute
- in : Climate & Wildfire Institute
- f : ClimateandWildfireInstitute
- $\textcircled{\ }: www.climateandwildfire.org$
- 🖂 : info@climateandwildfire.org