



ARIZONA WILDLAND INTERFACE SUMMIT:

PARTNERING TO BUILD WILDFIRE RESILIENT COMMUNITIES





Purpose

Address wildfire risk, community resilience, policy, and innovation in WUI management

Themes

Wildfire adaptation, insurance challenges, data-driven decision-making, grants and funding, and community engagement.

About the Summit

The Arizona Wildland Urban Interface (WUI) Summit, held in Tucson on **December 4-6, 2024**, was a statewide wildfire preparedness, planning, and postfire recovery event.

Participants discussed emergent strategies for landscape-scale wildfire planning and implementation, accessed professional networking opportunities, and left with renewed confidence on collaboratively addressing and managing wildfire concerns – before, during, and after the fire. The event focused on creating a cohesive framework devised by leaders across the wildland-urban interface. Participants shared best practices, current efforts, and specific projects in the WUI and offered tools and techniques for collective improvement in these efforts.

Presented by:

ARIZONA WILDFIRE INITIATIVE
NAU SCHOOL OF FORESTRY
SOUTHWEST FIRE SCIENCE CONSORTIUM

Sponsors:

ARIZONA WILDFIRE INITIATIVE
FIRE ASIDE
FOREST STEWARDS GUILD
INTERNATIONAL ASSOCIATION OF WILDLAND FIRE
NATIONAL FOREST FOUNDATION
SWCA ENVIRONMENTAL CONSULTANTS
SALT RIVER PROJECT
SOUTHWEST FIRE SCIENCE CONSORTIUM
USDA-NRCS
VERISK
WESTERN FIRE CHIEFS ASSOCIATION

[YOUTUBE - ALL PRESENTATIONS AND PANELS](#)

Many “Key Takeaways” for this summary were generated with the assistance of large language models, then reviewed and edited by our human editorial team.

TABLE OF CONTENTS

FOUNDATIONS AND POLICY PERSPECTIVES.....	3
STRENGTHENING ARIZONA THROUGH GRANTS & PARTNERSHIPS: A GUIDE TO AGENCY PROGRAMS.....	6
INTERACTIVE BREAKOUT SESSIONS	10
SHOWCASING COMPETITIVE GRANTS & FUNDED PROJECTS.....	14
CASE STUDIES OF WORK IN THE WUI ACROSS ARIZONA	17
FIELD TOURS.....	24

FOUNDATIONS AND POLICY PERSPECTIVES

WELCOME TO TUCSON ADDRESS

Nicole Gillett - City of Tucson Urban Forestry Program Manager

"If we all move together to tackle these things, we will grow stronger solutions, we won't feel as alone, isolated, or as though some challenges are insurmountable."

Learn More:

[LINK TO RECORDING](#)

NICOLE.GILLETT@TUCSONAZ.GOV

[TUCSON URBAN FORESTRY ACTION PLAN](#)

[HTTPS://WWW.TREEEQUITYSCORE.ORG/](https://www.treeequityscore.org/)

PERSPECTIVES ON THE WILDLAND FIRE SITUATION

Neil Chapman - City of Flagstaff Wildland Fire Captain, Federal Wildland Fire Mitigation and Management Commission Member

"Where's the uncontrollable wildfire risk? It's where all the roofs are! For landscape restoration work, we have policies, social license, and support from the timber industry ready to do the work. We have none of that at that scale for the work we must do in our communities."

KEY TAKEAWAYS

- Forest restoration alone won't stop devastating wildfires. Communities must become fire-adapted through better policies, home hardening, defensible space, local fire service training, and financial incentives.
- Urban areas remain highly vulnerable to fire, necessitating homeowners, local governments, and policymakers to prioritize fire resilience in neighborhoods and treat built environments as part of the wildfire landscape.
- Thinning and prescribed burns reduce catastrophic fire risk but don't eliminate wildfire, making home hardening and defensible space crucial for survival. Local governments need more resources to support fire-safe community planning.
- The Wildland Fire Mitigation and Management Commission's top recommendation is a federally coordinated Community Wildfire Risk Reduction Program involving FEMA, the US Fire Administration, the Forest Service, and DOI agencies. This would address the current lack of a unified, large-scale effort to harden communities against fire.
- Local fire departments and volunteers (comprising 1.2 million firefighters) respond to 62% of wildfires, playing a larger role than federal agencies. This increases the need for wildfire-specific training, resources, and funding for local fire services.
- A system of financial incentives, including insurance discounts, tax credits, and grants, should be established to reward homeowners who create defensible space and use fire-resistant materials, as insurance rates are rising for everyone, even those reducing their risk.
- Expanding prescribed fire on private lands is crucial for wildfire mitigation, but private landowners face obstacles such as lack of insurance coverage, liability concerns, and complex permitting processes.
- Community Wildfire Protection (CWPPs) must be updated and actionable, serving as living documents that actively guide community actions. Fire codes and zoning laws must reflect modern wildfire realities, especially in new wildland-urban interface developments.

Learn More:

[LINK TO RECORDING](#)

NEIL.CHAPMAN@FLAGSTAFFAZ.GOV

[WILDFIRE CRISIS STRATEGY IMPLEMENTATION PLAN](#)

[ALLIANCE FOR WILDFIRE RESILIENCE POLICY ACTION](#)

ARIZONA STATE FORESTER PERSPECTIVE

Tom Torres - Arizona State Forester, Department of Forestry and Fire Management

"The Sonoran Desert is not a fire-adapted landscape, and with all that invasive grass, fire regimes are changing. That means more active fire, extreme fire, and impacts to WUI communities."

KEY TAKEAWAYS

- Effective fire mitigation in Arizona requires cross-agency collaboration because most land (82%) is federally, tribally, or state-owned. New shared stewardship agreements enhancing federal and state alignment are needed.
- The framework put in place by the federal government impacts everything we do downstream, whether at the state, county, neighborhood, or city level.
- The WUI has expanded significantly in Arizona since 1990 (50% in size, 124% in housing units), with high-growth counties like Pinal and Pima becoming more vulnerable due to the grassification of the Sonoran Desert, increasing fire risk in traditionally fire-resistant areas.
- Rising insurance costs and limited coverage make property protection challenging, prompting the new Resilience and Mitigation Insurance Council to seek solutions without promoting risky development.
- Arizona's Healthy Forest Initiative aims to treat 40,000 acres by 2026. It provides \$10 million for fire equipment grants to boost local firefighting and emphasizes GIS-tracked CWPPs integrated with federal and state plans.
- WUI development is outpacing available resources for protection, while climate change and changing fire regimes complicate risk prediction.
- We need insurance companies to be involved in these discussions. If they're not successful, nobody will be successful.
- Success in wildfire mitigation planning, supported by AZWRAP's geospatial data, hinges on collaboration, particularly with insurance companies.

Learn More:

[LINK TO RECORDING](#)

TTORRES@DFFM.AZ.GOV

[FIRE IN THE SONORAN DESERT: AN OVERVIEW OF A CHANGING LANDSCAPE](#)

[SYLVIS MAPS](#)

[AZ WRAP RISK ASSESSMENT PORTAL. UNDER RECONSTRUCTION](#)

FOSTERING FIRE-ADAPTED COMMUNITIES IN ARIZONA

Dr. Cat Edgeley - Assistant Professor of Natural Resource Sociology, School of Forestry, Northern Arizona University

"Community is not just a stagnant thing; it's a process that's always changing. For example, we probably all know someone who is 80 and will be driving a tractor around in the middle of a fire doing who knows what but doing a good job. We also probably know someone under 30 who has never used a shovel. This highlights how community dynamics and individual experiences evolve, influencing how they adapt to fire and other challenges."

KEY TAKEAWAYS

- Fire adaptation is a pillar of the Cohesive Strategy, but scale and definition vary across household, community, and landscape levels.
- The definition of "Community" evolves through interactions between people and places.
- "Fire-Adapted Communities" broadly means: 1) Community collaboration to plan for, respond to, and recover from risks that fires pose to humans. 2) Allowing fires to occur with minimal human impacts. 3) Recognizing the role of natural fire in healthy ecosystems.

- There are two approaches to a “Fire-adapted” community: Policy-based and Process-based.
- Policy-based approaches are characterized by linear goals and actions to accomplish measurable successes.
- Process-based approaches are characterized by a non-linear approach, taking actions to evolve across fires. They involve formal and informal methods and adaptive capacity (scientific knowledge, relationships, place-based knowledge).
- While the “Ready, Set, Go” system is important, some communities expect to be notified in person. Despite public resistance, clear communication and practical preparedness measures are needed.
- To motivate the public, we should consider emphasizing the values that matter most, such as healthy watersheds from healthy ecosystems and the risk of being underinsured for wildfires, rather than reiterating that fires are beneficial.
- Prioritizing risk reduction efforts requires an equitable distribution of funding and program support.
- Recognizing the risks associated with tourism adds complexity to the importance of tailored communication strategies for visitors.
- People want less telling and more showing. For example, behavior change stems from demonstrating context-specific communication strategies. (Ex: HEPA filters may work, but communicating how they work is key).
- When people ask, “What can I do to prevent my insurance company from dropping me?” is a great time to ask questions about what people are willing to do versus what insurance companies are willing to cover.

Learn More:

[LINK TO RECORDING](#)

CATRIN.EDGELEY@NAU.EDU

[LINK TO PRESENTATION](#)

[READY, SET, GO!](#)

[FACT SHEET FROM SOME OF DR.EDGELEY'S FINDINGS](#)



Neil Chapman, City of Flagstaff Wildland Fire Captain



STRENGTHENING ARIZONA THROUGH GRANTS & PARTNERSHIPS:

A GUIDE TO AGENCY PROGRAMS

ARIZONA DEPARTMENT OF FORESTRY & FIRE MANAGEMENT

John Richardson – Forestry Program, Grants Director

Christine Mares – Good Neighbor Authority Program Manager

"We want to know your priorities. We're receptive to understanding what that is and, in many instances, adopting that as our priority too so we can better collaborate and find the best piece of ground to do work on."

- John Richardson

"At the heart of a Good Neighbor agreement or Good Neighbor partnership is a leap of faith; a partner says, 'Here is a lot of money, please go treat the land.'" - Christine Mares

KEY TAKEAWAYS

CHRISTINE MARES

- Arizona successfully directed funding and resources to treat 40,000 acres in 2024, including 16,000 acres on private land in high-priority WUI.
- Cross-boundary, collaborative wildland fuels reduction projects involving state agencies, NGOs, and private contractors are occurring throughout Arizona.
- Administrators are seeking public input on the top priorities for wildfire mitigation.
- Arizona offers robust grant programs: Healthy Forest Initiative, Invasive Plant Management, Rural Fire Capacity, Community Challenge Grants, TREE grants, and Community Wildfire Defense Grants (CWDG).
- Cost-share program example: The Bark Beetle Reduction Cost Share Program allows homeowners a 50% cost-share mechanism to respond to beetle infestation on their land rapidly.
- Good Neighbor Authority (GNA) revenues remain in the state. The program started in 2016 and received a significant funding influx in 2021 via the AZ Healthy Forest Initiative.
- Bipartisan Infrastructure Law/Inflation Reduction Act funding boosted GNA capacity further in 2023/44, resulting in ~90K acres treated at the end of the project.
- GNA allows states, counties, and tribes to work on federal land and allows states to retain the revenue resulting from any timber sales that take place on this federal land, provided that the revenue is reinvested into the land. This arrangement offers substantial benefits to federal agencies.
- Importance of Partnerships: Successful GNA projects rely on strong partnerships, trust, and clear communication, enabling expedited procurement and increased pace and scale of work.
- Productive partnerships result from cultivating trust, communicating clear roles and responsibilities, providing autonomy, and accepting that "perfection" is not the goal.

KEY TAKEAWAYS

JOHN RICHARDSON

- Las Sendas became a Firewise community in 2021, making it the first community association in Mesa to receive the Firewise USA designation.
- The manual removal of fountain grass and buffelgrass in areas like First Water Road and Weekes Wash, especially early, has been effective due to significant volunteer work, resulting in reduced invasive species.
- Utilizing tools like the Esri Field Maps app for monitoring and mapping can enhance these efforts, though manual removal and herbicide treatments are necessary, and challenges persist with certain species like Stinknet.

- Community involvement lies at the heart of invasive species removal. For example, partnerships with the AZ Wilderness Coalition and local public works have facilitated extensive invasive plant removal leading to fire mitigation efforts.

Learn More:

[LINK TO RECORDING](#)

JOHN.RICHARDSON@DFFM.AZ.GOV

CHRISTINE.MARES@DFFM.AZ.GOV

GRANTS.MANAGER@DFFM.AZ.GOV

[HTTPS://DFFM.AZ.GOV/](https://dffm.az.gov/)

BIA: TRIBAL CLIMATE RESILIENCE (TCR) ANNUAL AWARDS PROGRAM

Shaina Tallas (Diné) - Southwest Regional Climate Resilience Coordinator, Bureau of Indian Affairs

KEY TAKEAWAYS

- Tribal Nations manage some of Arizona's most wildfire-prone forests.
- The Branch of Tribal Community Resilience (TCR) provides financial support for federally recognized Tribal Nations and authorized Tribal organizations.
- The TCR can partner with State and Local Governments. Example projects include regenerative agriculture, food sovereignty, conservation, infrastructure projects, and contributions to health and human safety. NEPA can also be covered.
- Tribal Nations must apply for funding directly, but they can collaborate with state and local agencies. These are Tribally led programs, and partnerships depend on individual Tribes' decisions.
- 121 million is available for three funding categories: 1) Planning, 2) Implementation, 3) Relocation (managed retreat, protect-in-place).

Learn More:

[LINK TO PRESENTATION](#)

SHAINA.TALLAS@BIA.GOV

RESILIENCE.FUNDING@BIA.GOV

[BIA TRIBAL COMMUNITY RESILIENCE AWARDS PROGRAM](#)

[TCR ANNUAL AWARDS DASHBOARD](#)

ARIZONA DEPARTMENT OF EMERGENCY AND MILITARY AFFAIRS

Nicholas Smith - Disaster Program Manager, Arizona Department of Emergency and Military Affairs

"We have \$50 million available today for fire-related projects; come talk to me because I could probably get that funded for you."

KEY TAKEAWAYS

- Hazard Mitigation is any sustainable action that reduces/eliminates long-term risk to people/property from future disasters.
- Grants are available to state, local, and Tribal governments; however, an active mitigation plan is required to be eligible for hazard and disaster mitigation funding. Assistance is available to update or reactivate plans.
- Seventy percent of Arizona counties have received FEMA funding. Additionally, \$1.8 billion is available through FEMA's Building Resiliency Infrastructure & Communities (BRIC) and Flood Mitigation Assistance grants, which have a more straightforward application process.





GRANT TYPES:

- Annual Mitigation Grants, BRIC
- Flood Mitigation Assistance for projects that reduce or eliminate the risk of repetitive flood damage to structures under the National Flood Insurance Program.
- Disaster Mitigation Grants, Hazard Mitigation Program, available after disaster declaration in state. Example: [DR-4620 Arizona Severe Storms and Flooding](#),
- Some eligibility requirements for BRIC funding state that projects enhance resilience against natural hazards and reduce risk to people and property, be cost-effective, cannot involve replacement, reconstruction, or restoration, and must not be related to response activities.
- Eligible projects for Flood Mitigation Assistance include developing and updating mitigation plans, acquisition/demolition, post-disaster code enforcement, flood control, retrofitting/elevating structures, drainage improvement, and stormwater management.
- FEMA – Hazard Mitigation Assistance Job Aids may expedite Hazard Mitigation Assistance Program completion.
- The typical timeline of a mitigation project is ~ 6 yrs.
- Funded projects must adhere to federal and state environmental standards and undergo reviews.

Learn More:

[LINK TO RECORDING](#)
MITIGATION@AZDEMA.GOV
WWW.AZDEMA.GOV

USFS SOUTHWESTERN REGION

Matt Brown - Cooperative Fire Specialist, Region 3, USFS

"There are a lot of funds available. I encourage you to take a look. I manage about \$100 million between Arizona and New Mexico, with roughly \$50 million flowing into Arizona alone. A billion dollars are allocated for the standalone CWPP grant program."

KEY TAKEAWAYS

- Arizona receives approximately \$50 million in federal fire grants annually, which support hazardous fuels reduction, Community Wildfire Protection Plans (CWPPs), and fire capacity building.
- The Arizona Department of Forestry and Fire Management (DFFM) is central in distributing federal funds to municipalities, volunteer fire departments, and other wildfire response organizations.
- Support for Hazardous Fuels Reduction includes allocating a portion of the funds to mitigate fire risk through vegetation management and hazardous fuels treatment.
- Encouragement to seek funding is emphasized, as communities should actively pursue the \$1 billion allocated for CWDG grants nationally to improve fire resilience. The application process and eligibility requirements are clearly outlined online, making it easier for organizations to apply.

Learn More:

[LINK TO RECORDING](#)
[US FOREST SERVICE SW REGION](#)

INSURANCE RESOURCES AND INITIATIVES IN ARIZONA

Lori Munn - Deputy Director, Arizona Insurance and Financial Institutions (DIFI)

"Consumer education is a big piece of this. People need to talk to their agents or insurance companies before purchasing insurance because many don't know what's in their policy until they have a claim, and then it's too late."

KEY TAKEAWAYS

- Cumulative average homeowners' rate changes in Arizona (up 9%) are on par with the national average, and some homeowners (even in urban centers such as Phoenix) are facing nonrenewal of their policies.
- Homeowner rates are changing due to increased fire severity, the volume of natural disasters nationally, inflation, higher home/auto values and claims, underwriting restrictions, coverage type, limits, and decreasing deductibles.
- National construction costs increased 30% from 2019 to 2024. From 2022 to 2023, average residential reconstruction costs increased 6%.
- Construction costs vary by residence type, building materials, local climate, building codes, and regulations.
- Arizona homeowners' issues include insurance premiums increasing statewide (not just in wildfire-prone areas), nonrenewal and difficulty finding coverage. However, insurers are not leaving the state.
- Homeowners lack education about what is included in their homeowner's insurance policy. Due to fear of policy cancellations, many hesitate to communicate with their insurer about what is covered and how they might decrease rates.
- Wildfire risk to homes is impacted by WUI encroachment, non-fire-resilient building codes, and inadequate support from local fire protection services.
- Wildfire risk in Arizona is high due to high concentrations of structures in "high to extreme risk zones" (Gila 41%, Navajo 33%, Apache 25%, Coconino 22%).
- Baseline data on homeowner insurance premiums and non-renewals are needed, prompting state and national efforts to collect this data.
- DIFI assists homeowners in finding insurance carriers, understanding the home insurance market, and learning about mitigation measures.
- DIFI Resiliency and Mitigation Council is a solutions-based group seeking input from diverse audiences to inform sustainable solutions for Arizona homeowners.

Learn More:

[LINK TO RECORDING](#)

LORI.MUNN@DIFI.AZ.GOV

[ARIZONA DEPARTMENT OF INSURANCE WEBSITE](#)

[HOMEOWNER INSURANCE RESOURCES](#)

[ARIZONA DIFI RESILIENCY AND MITIGATION COUNCIL](#)



Mogollon Rim Ranger District logging operations
Credit: R.Shaffer

INTERACTIVE BREAKOUT SESSIONS

UNPACKING COMMUNITY WILDFIRE PROTECTION PLANS: PLANNING, PROCESS, AND PUTTING THEM TO USE!

Emily Troisi - Fire Adapted Communities Network Director

KEY TAKEAWAYS

- Fire Adapted Communities Network is looking to change people's relationships with fire through empowering leaders and communities as they develop tools for increasing local wildfire resilience.
- Community Navigators (made up of USFS employees and partner organizations) work directly with targeted communities to provide multifaceted support to complete wildfire resilience projects.
- When successful, Community Wildfire Protection Plans (CWPPs) help get work done, improve partnerships, facilitate prioritization, and provide additional funding access.
- The Healthy Forest Restoration Act requires CWPPs to be collaborative, prioritize fuel treatments, and recommend measures to reduce structure ignitions.
- Planning Team & Community Engagement: To be successful, the CWPP development process needs participation from a diverse group of people who are committed to collaboration and compromise.
- Successful public engagement requires a diversity of outlets for connecting with the community (online surveys, open house events), zoom and in-person meetings, hub websites, and [project trackers](#).
- All-hazard plans and CWPPs can be leveraged together to amplify and improve outcomes.
- Action tables ([example from Coal Creek CWPP](#)) provide a summarized timeline outline for projects from start to finish.
- CWPPs are customizable to each group. Outcomes can be improved by including diverse community representation (i.e., utilities, chamber of commerce, businesses).
- Sample CWPPs include [Ember Alliance 2024 Coal Creek Canyon CWPP](#) and [Estes Valley Fire Protection District Resident Action Plan](#).
- Post-fire recovery should include planning for impacts from flash flooding, sediment delivery, debris flow, and erosion ([see example from Coal Creek Canyon](#)).
- SmokeWise/Community Response plans should include information for vulnerable populations ([see example from Multnomah County CWPP](#) and [Aspen Global Change Institute](#)).
- Evacuation modeling, analysis, and scenario building are key components of successful CWPPs ([see the example from the Coal Creek CWPP](#)).
- Urban Conflagration should be a part of CWPP planning ([see example from Boulder County CWPP](#)).
- High-scoring CWPP applications and [funded projects](#) can be reviewed to assist with future applications.
- CWPP funding support can be accessed via WUI Grant Programs.
- FireNetworks provides support for groups submitting [Community Wildfire Defense Grants](#). See the training on CWPPs [here](#).
- Ember Alliance offers free workshops that are open to the public.

Learn More:

[LINK TO PRESENTATION](#)

INFO@FIREADAPTEDNETWORK.ORG

[HTTPS://WWW.FIREADAPTEDWASHINGTON.ORG/](https://www.fireadaptedwashington.org/)

[HTTPS://EMBERALLIANCE.ORG/](https://emberalliance.org/)

[HTTPS://FIREADAPTEDNETWORK.ORG](https://fireadaptednetwork.org)

[HTTPS://FIREADAPTEDNETWORK.ORG/SUBSCRIBE](https://fireadaptednetwork.org/subscribe)

[HTTPS://FIREADAPTEDMONTANA.ORG/CWPP](https://fireadaptedmontana.org/cwpp)

DEVELOPING A WILDFIRE AND INSURANCE WORKING GROUP NATIONAL ASSOCIATION OF FIRE CHIEFS

Matthew Portteus - Western Fire Chiefs Association

Paul Oltrogge - Arizona Fire Chiefs Association

"The time for admiring and watching what's going on is over. The threat has now become internal. The natural environment is no longer the fuel threat. The built environment is the fuel threat. It's time for all of us in the Western states to act." - Matthew Portteus

"You cannot suppress or regulate or price our way out of this. It's not going to happen. We are not just talking; we are here to collaborate and make the data work for everyone." - Matthew Portteus

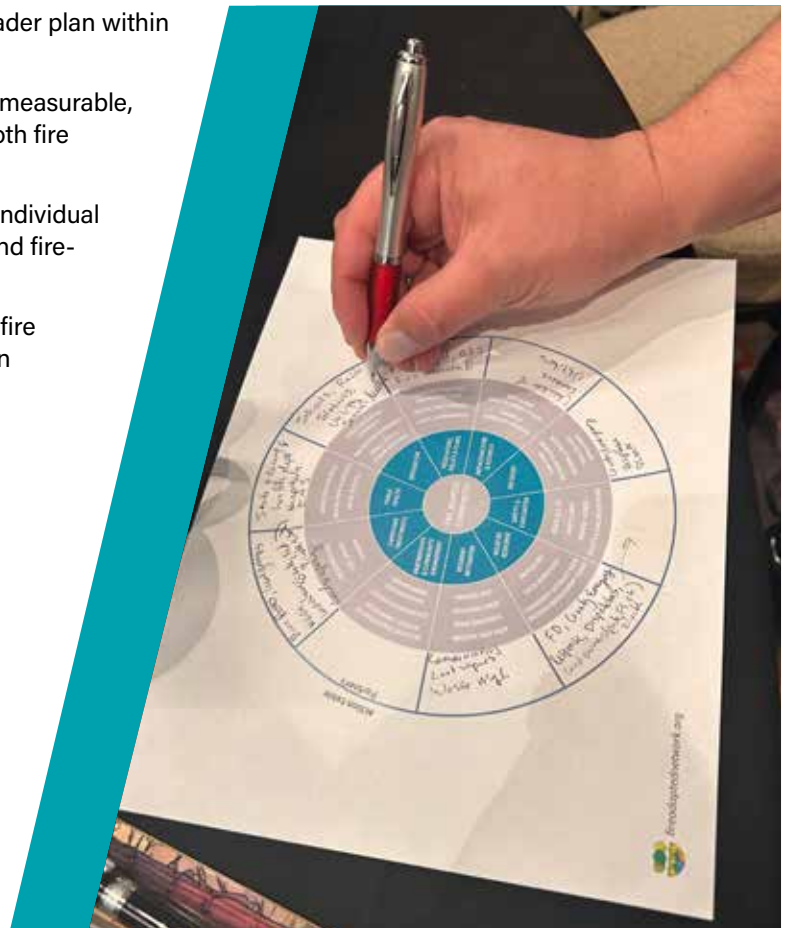
KEY TAKEAWAYS

- Two Major Crises: Climate change (increased vapor pressure deficit and more intense wildfires) and economic impacts (insurance crisis, reinsurance market, municipal bonds, lending).
- Data Gaps & Misalignment: Insurance companies and fire agencies use outdated, disconnected systems, leading to ineffective policies and misunderstood risk evaluations.
- Built Environment as Fuel: As the wildland-urban interface (WUI) grows, structures themselves become the fuel for wildfires, especially when mitigation is not applied.
- Outdated Risk Models: Insurance companies rely on outdated models that do not accurately assess real-time mitigation efforts or actual fire risk.
- Establishing a centralized Data Commons for storing and sharing mitigation data is essential. Collaboration among fire agencies, insurance companies, policymakers, and researchers is crucial to enhance fire resilience, develop reliable risk models, and adopt effective mitigation strategies across the Western United States.
- Arizona's Roadmap: Arizona aims to identify and agree upon effective mitigations within the next six months and establish a broader plan within the following eight months.
- Mitigations That Matter: A critical approach that identifies measurable, effective actions that reduce wildfire risk, recognized by both fire agencies and insurance companies.
- Community-Level Solutions: Efforts should move beyond individual properties to include community-scale defensible space and fire-resistant landscaping.
- Fire-Dependent Ecosystems: Recognizing how policies of fire suppression have disrupted natural fire cycles, especially in ecosystems like ponderosa pine forests.
- Arizona's Unique Challenges: Lack of a single insurance association in Arizona makes coordination more complex, requiring collaboration across multiple entities.

Learn more:

[LINK TO RECORDING](#)

PAUL.OLTROGGE@FLAGSTAFFAZ.GOV



Fire Adapted Community (FAC)
Credit: M.Rangel-Lynch

MODELING AND TRACKING SYSTEMS TO SUPPORT IMPLEMENTATION: INNOVATIONS AROUND NEW MODELS AND TOOLS THAT INCREASE COMMUNITY ENGAGEMENT WHILE MEASURABLY REDUCING WILDFIRE RISK

Jason Brooks - Fire Aside

KEY TAKEAWAYS

- Fire Aside is leveraging new models to increase community engagement and reduce wildfire risk by creating unique “Wildfire Portals” for each resident where targeted mitigation actions can be advised, recorded, and tracked.
- Fire Aside creates a customized wildfire report after the property evaluation where residents can identify risks, understand priorities, and see recommended resolutions via the Wildfire Portal.
- Wildfire Portals send customized messages to each resident to encourage specific actions to reduce wildfire risk.
- Connecting on a targeted, personal level is key to creating a successful model for encouraging engagement and mitigation work by individuals.
- Dynamic and customized messaging is vital for creating urgency around mitigation actions, along with next steps for hardening residents’ homes from wildfire.
- Visualizing a parcel’s Structure Exposure Score motivates residents to take the steps that will put them on the map as green (indicating low wildfire vulnerability).

Learn More:

[LINK TO PRESENTATION](#)

[HTTPS://WWW.FIREASIDE.COM/](https://www.fireaside.com/)

COUP D’OEIL — (STROKE OF THE EYE): DATA INFORMED DECISION MAKING

Gabe Lavine - Director, Arizona Division of Emergency Management

Tynan Heller - Senior Product Manager, Genasys Inc.

"Our challenge was that we had a lot of data but weren't using it effectively. So, we asked ourselves: How do we make fast, informed decisions based on the data we have? This led us to phrase Coup d'œil' - a French term meaning 'stroke of the eye'—which refers to the ability to assess a situation and see all its connections quickly. The key to enabling this decision-making is data aggregation—pulling together multiple data sources into one clear, accessible format."

KEY TAKEAWAYS

- Consider data as a compass, not a GPS: Emergency decision-making cannot rely on perfect real-time data, but data can guide direction when combined with expertise and experience.
- Critical information is often fragmented across different sources, and overly restrictive security policies can hinder emergency response more than the risk of sharing imperfect data.
- Research shows the brain processes images faster than text; using visual representations like color-coded indicators improves situational awareness and data comprehension.
- Categorizing Essential Elements of Information (EELs) into “Commander’s Critical EELs,” “Priority EELs,” and “Background EELs” ensures that leaders receive the most urgent information first.
- Built on ArcGIS and Esri, Arizona’s Common Operational Picture (COP) tool consolidates data from multiple sources into a single, shareable, mobile-friendly platform.

- The system tracks real-time damage assessments, resource availability, and costs to meet federal disaster funding thresholds and optimize emergency response.

Learn More:

GABE LAVINE GABRIEL.LAVINE@AZDEMA.GOV | [ARIZONA DIVISION OF EMERGENCY MANAGEMENT](#)
 TYNAN HELLER [HTTPS://GENASYS.COM/](https://GENASYS.COM/)

OPTIMIZING LANDSCAPE STRATEGY THROUGH REMOTE SENSING AND FORESTRY PROJECT TRACKING

Alexander Spannuth - Fire Ecologist, USFS Southwestern Region

KEY TAKEAWAYS

- Airborne lidar is now used to generate forest structure mapping in the wildland-urban interface.
- Arizona has nearly complete coverage for lidar, providing significant improvements to the standard imagery that has been traditionally available in the state.
- Building footprints are being used with individual tree detection models to quantify forest structure quantification for WUI applications.

Learn More:

[LINK TO PRESENTATION](#)
ALEXANDER.SPANNUTH@USDA.GOV
[BUILDING FOOTPRINT GITHUB LINK](#)

FORESTRY INFORMATION TRACKING SYSTEM (FITS): USING GOOGLE MAPS WITH FORESTRY PROJECT INFORMATION

John Richardson - Forestry Program, Grants Director, Arizona Department of Forestry and Fire Management

Wolfgang Grunberg - GIS Manager, Arizona Department of Forestry and Fire Management

KEY TAKEAWAYS

- FITS is a way to visualize, manage, track, and produce reports (in seconds) on vegetation projects throughout the state as part of the Governor's Healthy Forest Initiative.
- Using the FITS data hub, users can access forestry project data from as far back as 2013
- Ideally the fuel treatment data housed in the FITS data hub could be ingested by LANDFIRE to streamline and update datasets across platforms.

Learn More:

JRICHARDSON@DFFM.AZ.GOV
 PUBLIC PORTAL: [HTTPS://GIS-DFFM.HUB.ARCGIS.COM](https://GIS-DFFM.HUB.ARCGIS.COM)

House in WUI (Wildland Urban Interface)
 Credit: M.McCormick



SHOWCASING COMPETITIVE GRANTS & FUNDED PROJECTS

STATE GRANTS IN ACTION: INSPIRING CASE STUDIES OF FUNDED PROJECTS

Don Pike - Friends of The Tonto, Eva Depa - Superstition Foothills HOA, Gold Canyon, AZ

“The challenge lies in the fact that once you disturb the desert ecosystem, it becomes a breeding ground for invasive species, which can only be managed through continuous and targeted efforts involving both manual removal and herbicide treatments.” - Don Pike

KEY TAKEAWAYS

- HOAs can play a major role in fire risk reduction, but it requires persistent advocacy. Our HOA in Mesa initially resisted enforcement of prohibited plants like fountain grass, but we pushed the community to become Mesa’s first Firewise-recognized community.
- Volunteer engagement is essential for invasive species management. Friends of the Tonto now has ~300 volunteers, with ~50 active participants and 15–20 returning regularly, contributing to significant match funding for grants.
- Invasive grass species are outpacing control efforts. While efforts to manually remove fountain grass, buffelgrass, and stinknet have been partially successful, large infestations near high-use public lands continue to spread.
- Data and mapping support strategic action. They use Esri Field Maps, photo documentation, and color-coded flags to track presence and follow-up in treatment zones across 11,000 acres of high-use Tonto National Forest land.
- Regulatory hurdles are slowing progress. Promising new herbicides like Esplanade are not yet approved for use in the Tonto National Forest, limiting effectiveness in treating fast-spreading threats like stinknet.

“Experiencing multiple fires, including the Woodbury and Telegraph fires, made me realize the urgent need for fire mitigation in our community.” - Eva Depa

KEY TAKEAWAYS

- Despite encountering initial resistance from residents, the HOA in Gold Canyon, Arizona successfully engaged its community to achieve Firewise certification by educating residents about fire risks and the benefits of fire mitigation practices.
- The expertise of the local Fire Department Chief and the Department of Forestry and Fire Management guided the HOA through the Firewise application process, grant acquisition, and implementation of fire mitigation practices, highlighting the importance of professional collaboration in community fire safety initiatives.
- Detailed planning, including topography and vegetation analysis, ensured effective fire mitigation tailored to community risks.
- The HOA identified and addressed specific fire-prone vegetation, such as buffelgrass and fountain grass, through herbicide application. This targeted approach was essential in reducing fire risk and maintaining compliance with environmental regulations, such as the Clean Water Act.

Learn More

DON PIKE | [FRIENDS OF THE TONTO](#) | [JUMP TO HIS TALK](#)
EVA DEPA | [SUPERSTITION FOOTHILLS](#) | [JUMP TO HER TALK](#)

Sonoran WUI
Credit: M.McCormick



NAVIGATING CWDG SUCCESS: TUCSON AUDUBON SOCIETY'S APPROACH AND STATE GUIDANCE FOR THE NEXT ROUND OF FUNDING

Jay Snowdon - Program Manager, Tucson Audubon Society

Karl Gehrke - Community Wildfire Defense Grant Program Manager, AZ DFFM

"Navigating the federal grant system is complicated, but staying updated through webinars and utilizing tools like the Wildfire Risk Tool can make the difference between success and failure."

"Make sure that the actions listed in your grant application are things you can actually do. Make sure they're things you can quantify. This is crucial because grant administrators, like those at the Department of Forestry and Fire Management, expect detailed, measurable deliverables in quarterly reports." - Jay Snowdon

KEY TAKEAWAYS

- Navigating the Community Wildfire Defense Grant (CWDG) application involves understanding federal requirements, utilizing resources like the Council for Western State Foresters newsletter, and attending webinars and office hours for critical updates.
- Ensure a thorough understanding of the Notice of Funding Opportunity (NOFO) and scoring rubric and attend office hours to ask clarifying questions of funders.
- Effective grant writing demands significant time and expertise, utilizing tools like the Wildfire Risk Tool for eligibility checks, and streamlining the application process by drafting in word processors before transferring to the portal.
- When preparing the budget for a grant application, use tools like Excel to build background equations for labor and materials to ensure accuracy and provide a clear budget explanation in the application.
- Obtain a specific link for each grant application through forestrygrants.org and ensure you follow the USDA Forest System Program portal instructions.
- Write your application in a word processor to easily share with colleagues and ensure proper formatting before transferring it to the online portal, make sure to check word counts, and watch character limits to avoid truncation.
- Ensure all deliverables in your grant application are quantifiable and clearly explained, as this is crucial for meeting the expectations of grant administrators and securing funding.

Learn More:

[RECORDING LINK](#)

JSNOWDON@TUCSONAUDUBON.ORG

[CWSF NEWSLETTER](#)

[COMMUNITY WILDFIRE DEFENSE GRANT PROGRAM](#)

"Be sure to mention that you're doing things within the Forest Action Plan in your application. When I grade people, that's what I look for." - Karl Gehrke

KEY TAKEAWAYS

- The Community Wildfire Defense Grant (CWDG) is highly competitive due to its national scope; however, reviewing previous successful applications and filling out all character limits can significantly improve your chances of securing funding.
- CWDGs allow for project requests up to \$10 million for implementation of a project described within a Community Wildfire Protection Plan. \$250,000 can be applied for to develop or revise a CWPP.
- Review previous successful applications to understand what elements scored highly and incorporate similar strategies into your own application. Include all relevant plans and documents, such as the Forest Action Plan and Hazard Mitigation Plans and ensure you fill out all character limits to maximize your chances of scoring.
- Once funded, grant money can be shifted around as needed, with modifications required for changes over 10%. This flexibility allows for adjustments based on evolving project needs.

- Applicants can request match waivers to avoid providing matching funds, simplifying the application process and potentially increasing the likelihood of securing funding.
- Utilize the Community Navigators program for assistance in writing grants, especially for communities at risk and low-income areas.
- The Community Navigator program provides valuable support and resources to enhance the quality of grant applications.

Learn More:

[RECORDING LINK](#)

KGEHRKE@DFFM.AZ.GOV

[COMMUNITY WILDFIRE DEFENSE GRANT PROGRAM](#)

TRIBAL LANDS AND COLLABORATIVE WUI TREATMENTS

Melvin Hunter Jr. - BIA Western Regional Office

Raven Honga - Hualapai Tribe

Ashton Lynch - Environmental Program Manager, Gila River Indian Community

"If we don't get funding right away, we keep proposals ready, so when funding does come through, we can act immediately instead of scrambling." - Raven Honga (Hualapai Tribe)

"The lack of funding for defensible space programs is a major challenge—community members don't even know what it is, and when we explain, they ask, 'Are you going to do it for me?'" - Ashton Lynch (Gila River Indian Community)

KEY TAKEAWAYS

- Tribes have multiple funding mechanisms for fire management.
- Direct service, self-determination contracts, and grants all play a role in tribal fire programs, but funding allocation depends on each tribe's capacity and governance approach.
- Tribal sovereignty is central to effective land management.
- Tribes are increasingly contracting fire and fuels programs through the 638 Authority process ensuring they can manage lands in alignment with cultural and ecological priorities.
- Salt Cedar (also called tamarisk) is an extreme fire hazard. Following a fire, it comes back with a vengeance, often replacing native mesquite forests that communities depend upon.
- Invasive species management is essential for wildfire risk reduction. Salt Cedar fuels high intensity fires and prevents native vegetation recovery, making strategic removal a top priority.
- Community education on defensible space is critically underfunded, and while fire breaks are being implemented, more outreach is needed to help residents understand their role in wildfire preparedness.
- The 638 mechanism allows tribes to dictate their own priorities for wildland-urban interface projects, ensuring decisions align with cultural and ecological needs, not just fire suppression goals.
- Proactive project planning is key to securing funding. Tribes should develop project proposals in advance so that when funds become available, they can move forward without delays.
- Tribal WUI projects balance fire protection with cultural preservation by protecting homes and infrastructure while safeguarding culturally significant sites and natural resources.

Learn More:

[LINK TO RECORDING](#)

[MELVIN HUNTER](#) | MHUNTER@HUALAPAI-NSN.GOV | [JUMP TO HIS TALK](#)

[RAVEN HONGA](#) | [HUALAPAI TRIBE](#) | [JUMP TO HIS TALK](#)

[ASHTON LYNCH](#) | ASHTON.LYNCH.DEQ@GRIC.NSN.US | [GILA RIVER INDIAN COMMUNITY](#) | [JUMP TO HER TALK](#)

CASE STUDIES OF WORK IN THE WUI ACROSS ARIZONA

USFS PRESCRIBED FIRE CASE STUDY: HOW DID PREVIOUS TREATMENTS IMPACT THE SEVERITY OF THE 2022 BLACK FIRE?

Alexander Spannuth - Fire Ecologist, USFS Southwestern Region

"Previous treatments were the most important variable for predicting high severity fire, even more than weather variables. Burn severity decreased when it encountered a treated area, usually by one severity category."

KEY TAKEAWAYS

- The Black Fire, which occurred in a heavily treated area, showed significantly less high severity fire than other fires with fewer treatments.
- Treatments became significantly effective at reducing fire severity when 37-57% of the landscape was treated, providing a clear target for management strategies.
- Treatments provide operational opportunities to mitigate fire effects, allowing for better management and containment of fires.
- Burn severity decreased when the wildfire encountered treated areas, with reductions ranging from 21% to 55%.

Learn More:

[LINK TO RECORDING](#)

ALEXANDER.SPANNUTH@USDA.GOV

SANTA CATALINA INVASIVES SPECIES PARTNERSHIP: PANEL DISCUSSION

Kim Franklin - Associate Director of Conservation, Arizona Sonoran Desert Museum

Tony Figueroa - Invasive Plant Program Senior Manager, Tucson Audubon Society

Hannah Lee - Botanist, USFS

Christina Pearson - Rangeland Management Specialist & Invasive Species Coordinator, USFS, Coronado National Forest

John Goraj - Southern Arizona Program Coordinator, National Forest Foundation

Jeny Davis - National Forest Foundation

"Buffelgrass treatment is hard. There's nothing cutesy about it. It's a really difficult task from a treatment and management perspective. Working closely together with people is extremely important."

- John Goraj

"You put in the work, you do it wisely, and you're going to see those results, but you've got to come back and keep chipping away at it to create a more resilient landscape."

- Tony Figueroa

"The ruggedness of the landscape really cannot be understated and having that big picture through aerial imagery could really be a game-changer for us with the buffelgrass issue."

- Kim Franklin



Conference Attendees
Credit: M.Brown

"The contractors who do this work are so tough. The determination they bring to these projects is incredible. The thing that keeps me up the most at night is that subsequent generations are not going to see the beauty of the desert for what we know it is today." - John Goraj

KEY TAKEAWAYS

- Buffelgrass, an invasive species from South Africa, poses significant ecologic and fire risks in the Sonoran Desert and effective treatment requires favorable weather conditions and timely interventions.
- The success in Finger Rock Canyon and Cobblestone units demonstrates the importance of back-to-back treatments, the use of large crews, and strong partnerships.
- Buffelgrass increases fire risk, impacts property values and tourism and threatens keystone species such as the Saguaro cactus.
- From 2023-2024 755 treatments were conducted across five distinct units at a cost of nearly one million dollars.
- Through the deployment of large crews and consecutive treatments, the efforts in Finger Rock Canyon exemplify the effective partnerships that have been utilized to accomplish the work, with a total expenditure of \$309,000.
- The Cobblestone Unit, treated continuously since 2022 (involving Tucson Audubon and the local HOA), has successfully treated 70 acres and now aims to restore native plants and fill in the gaps created by the buffelgrass removal.
- The Cobblestone treatment project underscores the necessity of continuous, targeted efforts and consistent follow-up to effectively manage invasive species and ensure long-term success.
- The use of high-resolution aerial imagery and potential machine learning applications represents significant advancements in mapping invasive species, offering more efficient and accurate methods compared to traditional ground-based approaches.
- The increasing fire risk posed by invasive grasses (as seen in the Big Horn Fire) has heightened the awareness of invasive grasses, emphasizing the critical need for targeted treatments and leveraging hazardous fuels funding to reduce wildfire hazards.
- Invasive species management (i.e. buffelgrass) is heavily impacted by budget constraints and the need for consistent funding, necessitating innovative funding solutions and partnerships to sustain treatment efforts amidst increasing contractor costs and the lack of earmarked funds.

Learn More:

[JOHN GORAJ CONTACT](#) | [NATIONAL FOREST FOUNDATION](#) | [JUMP TO HIS TALK](#)

[PANEL DISCUSSION LINK TO RECORDING](#)

[KIM FRANKLIN KFRANKLIN@DESERTMUSEUM.ORG](#) | [ARIZONA SONORA DESERT MUSEUM](#)

[TONY FIGUEROA TFIGUEROA@TUCSONAUDUBON.ORG](#) | [TUCSON AUDUBON](#)

[CHRISTINA PEARSON](#) | [CORONADO NATIONAL FOREST](#)



Bushfire aftermath
Credit: M.McCormick

BUILDING A FIREWISE COMMUNITY

Sally Crum - Mt. Lemmon Firewise Community

"The Governor credited our Firewise efforts with protecting the community and saving all the structures during the Big Horn fire."

"It's essential to remind people that it's not if but when. We live in the WUI. Wildfire is part of the landscape. What will you do to help?"

KEY TAKEAWAYS

- Implementing Firewise activities, such as creating defensible spaces and conducting prescribed burns, is crucial for protecting communities like Mount Lemmon from wildfires.
- By coordinating efforts between the Mount Lemmon community, the Forest Service, and Trico Electric, they successfully cleared under the power lines which is critical for reducing wildfire risk in the area.
- A summary of the fires that have occurred in the area:
 - 2002 - Bullock Fire burned almost 30,000 acres and was stopped just before it could jump the highway, saving the community due to a shift in the wind.
 - 2003 - Aspen Fire destroyed over 300 structures and much of the community's infrastructure.
 - 2015 - Burro Fire was a smaller fire that still required evacuations, burning on the east side of the highway.
 - 2020 - Big Horn Fire burned 120,000 acres but resulted in no structures lost, with Firewise activities credited for protecting the community.
- Building strong collaborative relationships with stakeholders, including the Forest Service and local government, is vital for effective wildfire management and securing necessary resources.
- Engaging the community through events like block parties, HOA meetings, and educational videos is crucial for promoting Firewise practices, educating homeowners on Firewise measures, and encouraging participation in mitigation efforts.
- Overcoming resistance to Firewise assessments is challenging because people fear being told to cut down all their trees or worry that their information will be shared with insurance companies.
- Recruiting volunteers remains challenging, but breaking tasks into smaller, manageable pieces and leveraging passionate individuals can help maintain momentum.
- Effective volunteer coordination/data collection are essential for maintaining Firewise community certification, with programs like neighborhood captains and Firewise assessors helping to gather data and ensure ongoing community involvement in mitigation activities (chipper days, block parties, HOA meetings, Community Wildfire Preparedness Day).
- One of our future plans is to develop measurable metrics to evaluate the effectiveness of Firewise assessments and ensure homeowners understand the necessary actions to protect their properties.

Learn More:

[LINK TO RECORDING](#)

SBC602@GMAIL.COM

[YOUR HOME CAN SURVIVE A WILDFIRE](#)



PRE-FIRE PLANNING FOR POST-FIRE RECOVERY CHALLENGES/OPPORTUNITIES

Mick Lane - Arizona Program Manager, Emergency Watershed Protection Program, USDA NRCS

Carl Melford - Emergency Manager, Gila County Division of Emergency Management

Rose Beaton - Post-fire Recovery Program, Forest Resilience Division at Washington Department of Natural Resources

Nicholas Smith - Disaster Program Manager, Arizona Department of Emergency and Military Affairs

"The reality completely changes. There is the flood control plan from when structures were originally built, then after a fire you have a whole different flood regime, and it takes a lot of work." - Mick Lane

KEY TAKEAWAYS

- The Emergency Watershed Protection Program (EWP) assists with both immediate post-fire recovery and long-term planning for future flood risks.
- Significant post-fire flooding risk exists for decades after the initial fire, especially where tree cover is drastically reduced.
- Major projects have been implemented around Flagstaff, including subsurface drainage systems and detention basins to mitigate post-fire flooding.
- NRCS provides financial and technical assistance, including support for hiring engineering firms for flood assessment and planning.
- Post-fire flood response efforts often blend recovery and future flood mitigation planning.
- Long-term solutions involve both structural and vegetative approaches.

"We see a lot of burnout. We're working to streamline the process to ease the administrative burden." - Nicholas Smith

KEY TAKEAWAYS

- The agency is expanding from a team of one to a team of nine to improve response and coordination.
- Significant issues include outdated contact information, turnover in local organizations, and slow grant processing.
- Challenges include communities struggling to meet the 25% local match requirement for federal funding.
- There's high administrative burnout after the fire response, making communities less willing to engage in long-term recovery.
- Speeding up the process from incident to grant submission is crucial for effective recovery.
- Outreach and building local capacity are essential to ensure funding reaches affected communities.

"We must plan for what's next before it's next. In Washinton's east side, once a fire gets established, it will burn all season." - Rose Beaton

KEY TAKEAWAYS

- Washington DNR is developing community toolkits for recovery, including debris abatement, reforestation, and sagebrush restoration.
- Reforestation efforts are critical but seed stock shortages pose significant challenges.
- Post-fire response strategies are tailored to community needs, with different approaches required for forested vs. suburban areas.
- Establishing clear communication and tailored outreach for different community types is essential for successful recovery.
- Partnerships with local groups, conservation districts, and nurseries are vital for building capacity.
- Post-fire planning must address debris, infrastructure damage, and ongoing flood risks.

"This is Jack-Of-All-Trades work. That's the most significant thing that helps you as an Emergency Manager? Building that network so you have someone for everything" - Carl Melford

KEY TAKEAWAYS

- Evacuation planning during fires must consider post-fire flood risks and plan accordingly.
- Recovering from fire is preparing for post-fire flooding.
- The 2021 Telegraph Fire and resulting floods showed the importance of proactive evacuation planning.
- Successful recovery involved creative solutions, collaboration with various agencies, and community outreach.
- Clear communication and preparation led to avoiding casualties during severe flooding events.
- The coordinated response included hiring contractors for debris removal and installing rain gauges and cameras for monitoring.
- Partnerships with state and federal agencies were essential in securing funding and resources for recovery.

Learn More:

[LINK TO RECORDING](#)

MONTY.LANE@USDA.GOV | [JUMP TO HIS TALK](#)

CMELFORD@GILACOUNTYAZ.GOV | [JUMP TO HIS TALK](#)

ROSE.BEATON@DNR.WA.GOV | [JUMP TO HER TALK](#)

NICHOLAS SMITH WWW.AZDEMA.GOV

EQUITY-DRIVEN APPROACHES TO WILDFIRE RESILIENCE: PANEL DISCUSSION:

Christina Greene - Research Scientist CLIMAS, University of Arizona

Stephanie Miller - Emergency Preparedness Equity Educator, Arizona Statewide Independent Living Council (AZSILC)

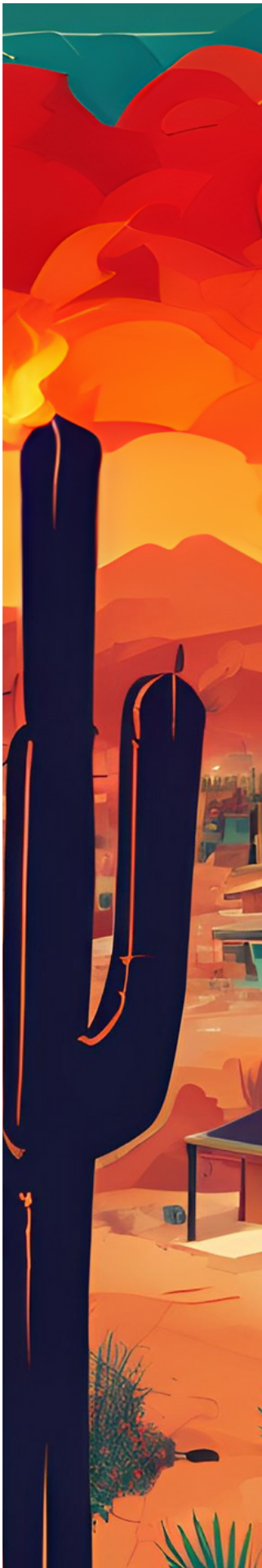
Vicky Cuscino - Executive Director, Direct Advocacy & Resource Center

"Registries don't work. They create a false sense of security that someone will come to save you. The best approach is personal preparedness combined with community-wide planning." - Vicky Cuscino

"Disasters amplify existing societal inequities—people who were already struggling are often the ones hit hardest by wildfire and face the toughest recovery." - Christina Greene

KEY TAKEAWAYS

- Vulnerable populations face systemic barriers in wildfire response and recovery
- Renters, low-income households, and non-English speakers often lack access to preparedness resources and face disproportionate challenges in evacuating, securing aid, and rebuilding after wildfires.
- Equitable Disaster Planning Requires Intentional Inclusion: Traditional wildfire planning often excludes marginalized groups. Efforts must go beyond one-size-fits-all approaches by involving diverse community voices, ensuring accessible materials, and tailoring outreach to non-English speakers and those with disabilities.
- Universal Design Prevents Future Barriers: Instead of retrofitting disaster response efforts to accommodate underserved communities, designing emergency systems to be inclusive from the start eliminates unnecessary obstacles and costs
- Power Safety Shutoffs disproportionately impact people with disabilities.
- Many individuals rely on electricity for life-sustaining medical devices. Utilities and emergency planners must consider this in risk assessments and response plans, ensuring backup solutions exist before a crisis.
- Communication saves lives.
- Wildfire alerts and preparedness messages must be accessible to all residents, including those with disabilities, non-English speakers, and people without reliable internet or mobile access. Providing multiple formats, languages, and trusted messengers is essential.
- Building community trust and partnerships is crucial for preparedness.
- Disaster planning is more effective when emergency managers partner with disability advocates, social service organizations, and local leaders before a crisis occurs. Investing in these relationships strengthens resilience across the community.



Learn More:

[RECORDING LINK](#)

CGREENE@ARIZONA.EDU | [CLIMAS WEBSITE](#)

STEPHANIE@AZSILC.ORG | [ARIZONA STATEWIDE INDEPENDENT LIVING COUNCIL](#)

VICKIC@DIRECTAZ.ORG | [DIRECT ADVOCACY & RESOURCE CENTER WEBSITE](#)

EMBRACING COMPLEX CHALLENGES

Gabe Kohler - Forest Stewards Guild

Holger Durre - Fire Chief, Prescott Fire Department

KP Maxwell - Wildland Coordinator, Tucson Fire Department

"My challenge for you all is not to let it end here, with good relationships and good times, but also build it into your plan going forward. Use the next three months to take what you learn here and plug it in. Integrate it into your work plans. Capture the relationship-building that has taken place and maintain these connections." - Gabe Kohler

KEY TAKEAWAYS:

- Participants are encouraged to scan a QR code to provide feedback on the summit, which is crucial for improving future events, and to email photos to document the event and capture the relationship-building that occurred.
- He highlighted the value of professional connections made during the summit and noted that these relationships can lead to more effective work and collaboration.
- The summit emphasizes the importance of building professional relationships and using the quieter period after the New Year for strategic planning, encouraging attendees to integrate what they've learned into their work plans and maintain the connections made during the event.

Learn More:

[LINK TO RECORDING](#)

GKOHLE509@GMAIL.COM

[TAKE THE SURVEY](#)

"I see excitement from people in this space who have never been in this space before. Suddenly they're sitting at our tables, they're sitting at our conferences, and they're building relationships with us." - Holger Durre

KEY TAKEAWAYS

- Preparedness and adaptability are key when facing these complex challenges.
- To solve seemingly unsolvable problems, it is essential to change the approach and think differently about the issues at hand.
- We need to broaden our thinking. We cannot continue to face these problems with the same approach.
- We need innovation in this space, intimately linked to clear targets and metrics.
- We must find moments of joy in the frustration of this work.
- As you seek creative solutions to difficult problems, think outside the box and stay invigorated by the work rather than letting the problems take over.

Learn More:

[LINK TO RECORDING](#)

HOLGER.DURRE@PRESCOTT-AZ.GOV

"The risk of not sharing information is far greater than the risk of sharing it." - KP Maxwell

KEY TAKEAWAYS

- Data transparency plays a critical role in emergency response and wildfire mitigation.
- Wildfire risk is expanding beyond traditional boundaries: Urban and desert environments are increasingly threatened by wildfire due to invasive fuels, changing climate conditions, and development in fire-prone areas.
- While real-time data informs emergency response, human experience and expertise remain crucial in interpreting and applying that information effectively.
- Education campaigns should be hyper-local, multilingual, and structured around behavioral science to drive action. One-time outreach efforts are insufficient.
- Fire adaptation requires collaboration: Success depends on coordination between fire agencies, land managers, local governments, HOAs, and individual homeowners. No single entity can do it alone.
- Insurance and wildfire mitigation are intertwined. Home hardening and defensible space improvements can lower insurance premiums in some cases, but policies remain inconsistent across providers.
- Overloading homeowners with information leads to inaction. Prioritizing small, achievable steps first increases long-term engagement and follow-through.

Learn More:

[TUCSON FIRE DEPARTMENT CONTACT FORM](#)



Credit: M.McCormick

FIELD TOURS

TUCSON LA MARIPOSA RESORT REGION

SAFE AND EFFECTIVE WILDFIRE RESPONSE: MULTIJURISDICTIONAL COMMAND AND CONTROL AND DIFFICULTIES IN THE WUI

Dan Huber - Golder Ranch Fire District,

Eric Huddleston - Arizona Department of Forestry and Fire Management,

Andy Skaggs - Tucson Fire Department

"One of the incidents that reshaped our approach occurred right here in the preserve behind you... We had to coordinate with multiple agencies, including the U.S. Forest Service and state fire resources, but their response times were significant. The fire burned 26 acres and started at approximately 8:00 AM." - Andy Skaggs

"In urgent situations, help is not immediate. The minimum response time for our first truck is about an hour and a half, and additional resources can take two to three hours to arrive. This places a significant burden on the first arriving units." - Dan Huber

KEY TAKEAWAYS

- Increasing call volume & resource demand: Tucson Fire Department has seen a 65% increase in call volume over 16 years, from 62,000 calls in 2007 to 103,000 calls in 2023. This significant growth strains existing resources and highlights the need for improved coordination and additional capacity.
- Limited water supply for fire response: Tucson Fire's Type 1 engines cannot draft water from alternative sources. During the fire incident in Castle Rock, the department quickly exhausted their water supply, necessitating requests for additional resources and reallocation of units across the city.
- Coordination challenges between agencies: Fires impacting the Tucson area often require coordination among multiple agencies, including local, state, and federal entities. Response times from external agencies can be lengthy, making local preparedness and quick decision-making essential.
- Delayed response due to geographic barriers: The Golder Ranch Fire District, responsible for the northwestern side of the local mountain range, has a lengthy response depending on the availability of resources and distance to the incident. This delay underscores the need for improved communication and faster resource mobilization.
- Declaration of Need process: When local resources are exhausted or the incident escalates beyond their capabilities, a Declaration of Need allows for state and federal support. This process involves establishing a Unified Command to integrate additional resources effectively.
- Importance of partnerships and unified command: The Arizona Department of Forestry & Fire Management collaborates with various federal agencies and local departments to manage incidents more efficiently. This partnership approach ensures quicker access to resources like aerial reconnaissance and suppression tools, which can be critical in containing fires before they escalate.

Learn more

[GOLDER RANCH FIRE DISTRICT](#)

[ARIZONA DEPARTMENT OF FORESTRY AND FIRE MANAGEMENT](#)

[TUCSON FIRE DEPARTMENT](#)

FUELS AND INVASIVE SPECIES: FUEL BREAKS AND FUEL REDUCTION IN THE SONORAN DESERT - CURRENT AND FUTURE ISSUES WITH INVASIVE PLANTS

Arizona-Sonora Desert Museum, Siphon Draw Environmental Services, Tucson Audubon Society

"We are losing the desert. Fire is one tool to help protect it. If we understand what good fire looks like, we can scale up strategic burning while minimizing damage. Right now, we're focused on protecting infrastructure and communities. But in the future, we may need to identify defensible landscapes and slow fire down until we fully understand how fire functions in the desert under these new conditions."

KEY TAKEAWAYS

- Invasive species are fueling fire risk in the Sonoran Desert. Stinknet and buffelgrass are dramatically altering fire behavior in Arizona, turning historically fire-resistant landscapes into highly flammable ones. The spread of these invasives is accelerating, requiring proactive management before they reach crisis levels.
- Cross-jurisdictional collaboration is essential for effective management. Arizona lacks a formal system of cooperative weed management areas, making coordination across city, county, state, and federal lands even more critical. Efforts like the Desert Cooperative Weed Management Area are filling this gap, demonstrating the importance of unified strategies.
- Traditional fire management tactics must be adapted for the desert. Unlike forested areas, the desert's issue isn't fire suppression but the presence of fine fuels. Strategies should focus on enhancing the natural patchiness of the Sonoran Desert to create firebreaks rather than large-scale vegetation removal, which can encourage further invasive growth.
- A multi-tool approach is necessary for long-term control. Manual removal, herbicides, and controlled burns all have a role in invasive species management. While fire can be an effective tool, it must be carefully timed and executed to minimize ecological damage. The focus should be on protecting key habitats and communities rather than complete eradication.

Learn more:

[ARIZONA-SONORA DESERT MUSEUM](#)
[SIPHON DRAW ENVIRONMENTAL SERVICES](#)
[TUCSON AUDUBON SOCIETY](#)

BUILDING FIRE ADAPTED COMMUNITIES: THE FIREWISE APPROACH TO RISK MITIGATION AND COLLABORATION

Arizona Department of Forestry and Fire Management, Tucson Fire Department

This field tour was an engaging, conversational, and interactive experience that emphasized group dialogue and exploration. Instead of a formal presentation, the session revolved around open-ended questions about how firewise—or not—the area appeared, prompting participants to identify risks such as narrow roads, old wooden structures, limited egress, dry vegetation, and challenges with large animal evacuation. Attendees then split into small groups to tour a fire-adapted property, identifying both strengths and remaining vulnerabilities. The tour concluded with a collaborative discussion of findings, fostering meaningful peer-to-peer learning. A memorable quote captured the urgency of the situation: "On the drive in here, did the hair on the back of your neck stand up a little bit?"



