



National Association of
Conservation Districts

DESK GUIDE TO ACCELERATING IMPLEMENTATION OF THE NATIONAL COHESIVE WILDLAND FIRE MANAGEMENT STRATEGY





National Association of
Conservation Districts

About the National Association of Conservation Districts:

The National Association of Conservation Districts is the nonprofit organization that represents the nation's 3,000 conservation districts, their state and territory associations and the 17,000 men and women who serve on their governing boards. For more than 70 years, local conservation districts have worked with cooperating landowners and managers of private working lands to help them plan and apply effective conservation practices.

For more information about NACD, visit: www.nacdnet.org.

Through a grant from the United States Department of Agriculture (USDA) Forest Service, the National Association of Conservation Districts (NACD) hired Ann Walker Consulting, LLC to work with the organization's many conservation districts and stakeholder groups to guide the development and participation of three regional, virtual wildfire summits and this desk guide to provide guidance on accelerating implementation of the National Cohesive Wildland Fire Management Strategy.

Leadership for the Cohesive Strategy continues to be provided by the Wildland Fire Leadership Council. Implementation, including fostering new partnerships, broadening communications, and expanding community assistance, will be promoted and coordinated by regional strategy committees and conservation districts.

This report was completed in August 2021 and can be found online at:
<https://www.nacdnet.org/membership-resources/nacd-reports/>.

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LEADERSHIP LETTER

America's conservation districts have a long, successful history of improving America's lands and waters for future generations. For more than 75 years, conservation districts have provided technical assistance and other resources to help farmers, ranchers, and forest landowners implement meaningful conservation practices on their land. Since 2002, the National Association of Conservation Districts (NACD) has been working in partnership with the U.S. Department of the Interior and the U.S. Forest Service to implement the National Fire Plan and other efforts to help reduce hazardous fuels and mitigate wildfires.

Over the years, NACD has published several booklets highlighting the important role conservation districts play in implementing the National Fire Plan. These publications and other efforts have helped conservation districts become more actively involved in fire prevention and rehabilitation activities in communities across the United States. This guide is intended to help conservation districts understand the National Cohesive Wildland Fire Management Strategy and provide resources to support locally-led natural resource management and disaster preparedness. Recent wildfires have devastated natural resources and communities across the country. As rising temperatures and more severe droughts continue to fuel wildfires, we believe conservation districts have the expertise and local relationships necessary to help communities mitigate and respond to them.

Sincerely,

A handwritten signature in blue ink that reads "Michael Crowder". The signature is fluid and cursive, with the first name "Michael" and last name "Crowder" clearly legible.

Michael Crowder

President, National Association of Conservation Districts

LEADERSHIP LETTER



This has been a challenging past year – our decision-makers, our responders, and our communities were faced with responding to the COVID pandemic while managing a record setting wildfire year. We commend the interagency approach to both disasters. As your national representatives on wildland fire through the Wildland Fire Leadership Council (WFLC), we wanted to reach out to our fellow members, communities, and all those that work with state, tribal and local governments. WFLC is an intergovernmental committee of federal, state, tribal, and local officials dedicated to promoting consistent wildland fire policies, goals, and management activities and implementing the National Cohesive Wildland Fire Management Strategy. The members of WFLC understand the commitment it takes to achieve success and join the efforts with our partners to promote another safe and effective wildland fire year.

To our responders – we respect you to the fullest. In addition to your normal responsibilities, state, tribal, and local responders make up much of the surge and reserve capacity of this country, for both wildland fire and all emergency response. You make yourselves available in every way possible to protect our communities against catastrophic loss due to wildfire at the national level. We support your physical and mental health and safety and promote a positive work and interagency environment with our federal, state, tribal and local partners.

Communities – we are in it with you. You have encountered many challenges across the country relating to wildland and wildland urban interface fires. From helping to create resilient landscapes to building fire adapted communities including seeking opportunities for additional fuels mitigation, you have worked hard to help your communities live with wildland fire. Wildland fire will always be a part of many of our communities, but how we deal with it has created challenges. We stand together to continue strengthening our communities and protecting our states and communities from loss.

Along with our federal partners, we continue to utilize the National Cohesive Wildland Fire Management Strategy as the framework to addresses these challenges. By closely coordinating and assisting one another for a seamless wildfire response network, regardless of who owns the land, we strive to keep our firefighters and communities safe. We work in and with communities through programs intended to help them live with fire, through home hardening and reducing risk from wildland fire. And we work across governmental boundaries throughout the landscape to help build resiliency that not only minimizes hazards, but enhances benefits coming from forests and rangelands.

As a collective, we will continue to work together to help build fire adapted communities, contribute to resilient landscapes, and collectively work to protect communities through efficient and effective wildfire response. But above all else, we are committed to doing all we can to promote responder and public safety, despite all the challenges that come our way. For more on existing and future efforts by members of WFLC and other partners, visit the following:

International Association of Fire Chiefs

National Association of State Foresters

Intertribal Timber Council

National League of Cities

National Association of Counties

Governor from the West

EXECUTIVE SUMMARY



The National Association of Conservation Districts, in coordination with the United States Department of Agriculture (USDA) Forest Service, have worked to identify where conservation districts are already engaged in reducing the risk of catastrophic wildfire and can contribute to landscape-scale forestland management. NACD has hosted webinars and coordinated with the three Regional Strategy Committees of the Wildland Fire Leadership Council (WFLC) to introduce conservation districts to the extensive network of organizations and agencies implementing the National Cohesive Wildland Fire Management Strategy.

The purpose of this desk guide is to help conservation districts understand the National Cohesive Wildland Fire Management Strategy and to provide a solid foundation of resource information about the goal areas: Fire Adapted Communities, Resilient Landscapes and Wildfire Response. Community wildfire planning and emergency preparedness assistance is needed within local communities and with private landowners. Locally-led natural resource management and disaster preparedness can and does start with conservation districts in many parts of the United States.

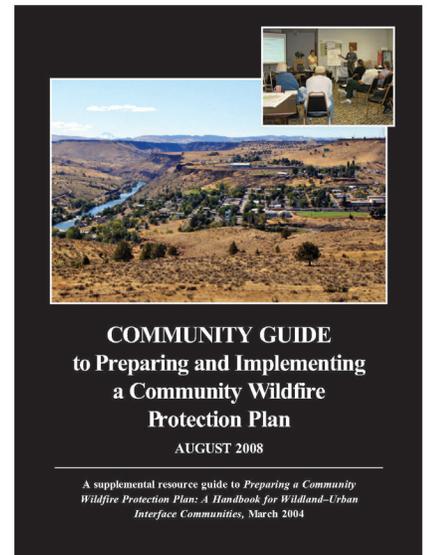
There are now nearly 3,000 conservation districts across the country, including conservation districts in all U.S. territories, and a number of tribal conservation districts, all governed by a local board of supervisors. Conservation districts have grown and evolved. Originally created to be the local partner for conservation, districts now are charged with convening and managing local work groups. These groups bring together local stakeholders to set priorities for conservation programs within the conservation district based on input from the citizenry.

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Locally-led conservation is a process that brings the local voice to conservation programs. Their input directly impacts the criteria used to rank conservation program applications, and ultimately, which applications are funded. Similarly, under the Healthy Forest Restoration Act, locally-led efforts to create and implement a Community Wildfire Protection Plan (CWPP) were established to collaboratively identify the wildland urban interface (WUI) boundary around their community and prioritized hazardous fuels reduction projects on federally-managed lands designed to protect communities at risk from wildfire. Initial information on CWPPs was included in the first NACD Community Wildfire desk guide.

Although created because of the Dust Bowl, conservation districts, as well as USDA, now have a much broader focus and address water quality, water quantity, wildlife habitat, forestry, emergency response to all hazard events on the landscape, and other natural resource concerns. State agencies have a direct administrative role with conservation districts, but many are more aware of their role with local and federal agencies, such as the Natural Resources Conservation Service (NRCS). **Conservation districts are uniquely able to bring all of these partners together to address a range of resource concerns on both private and public lands.**

We all must actively commit to implementation of actions identified in the National Cohesive Wildland Fire Management Strategy. Conservation districts should integrate the goal areas within their program planning and coordinate with local governmental agencies responsible for evacuation and activities involving residents/landowners. Build upon the trust of conservation district staff: neighbors trust neighbors, so seek opportunities to engage with communities within your district.



One of the most successful tools for collaboratively addressing wildfire risk in the community is the "Community Guide to Preparing and Implementing A Community Wildfire Protection Plan," from August 2008.

This was a supplemental guide to the "Preparing a CWPP: A Handbook for WUI Communities," from March 2004. Many CWPPs are now the Wildfire Chapter of the county all hazard mitigation plan and get updated on a five-year basis.

These foundational documents can be found at: www.nfpa.org/-/media/Files/Training/certification/CWMS/CWPP_Report_Aug2008.ashx

EXECUTIVE SUMMARY



Often, landowners need technical assistance as much as or more than financial assistance provided by farm bill conservation programs. The conservation delivery partnership between conservation districts, state conservation agencies and NRCS has existed for decades and is trusted by landowners across the country. Forest and range management agencies within state governments are often not administered within the agriculture departments, but fall under the administration of the state forestry, state department of natural resources, or sometimes the state agricultural college. There lies a vast difference between states on how coordination with conservation districts and conservation organizations are networked and funded.

The following actions were identified by participants and speakers of the three regional NACD-hosted Winds, Water, and Wildfires Summits as most-needed to implement Cohesive Strategy. These actions will be referenced in future planning of projects and actions to support accelerated implementation of the Cohesive Strategy. Within the desk guide, there are additional actions listed by region of the WFLC Regional Strategy Committees and by Cohesive Strategy goal areas.

EXECUTIVE SUMMARY



Key Action - Fire-Adapted Community Goal: Actively engage with local community groups working on emergency preparedness, such as Community Wildfire Protection Plans and county hazard mitigation plans.

Key Action - Restore and Maintain Resilient Landscapes: Collaborate on landscape risk reduction and continue to provide assistance on post-disaster event recovery, such as burned area analysis and restoration projects.



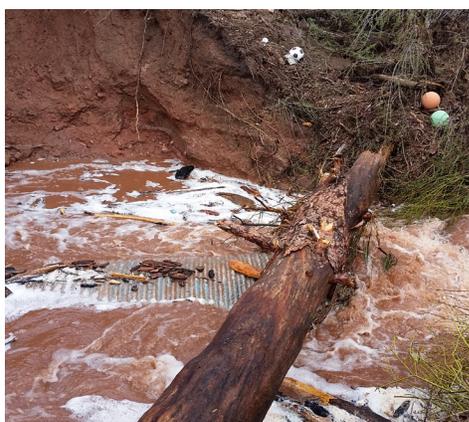
Key Action - Wildfire Response: Access training and provide support to emergency response organizations, share your skillsets, such as GIS expertise, local logistics, stream gauge monitoring, and locating heavy equipment/tractor-plows, water tanks/sources, and aerial spray applicators.

Key Action - Overarching: Expand and advance partnerships to accelerate implementation of the Cohesive Strategy, such as routine attendance and networking with the Regional Strategy Committees, National Wild Turkey Federation and The Nature Conservancy.



Coordinating and communicating local effectiveness is key to replicating these efforts across the country. Share successful activities with local officials as well as throughout the Regional Strategy Committees and social media.

The desk guide is organized to provide the reader with a brief background of the development of the Cohesive Strategy and provides detailed information about partnerships, resources and science available to assist conservation districts in achieving every one of the above actions. The leadership members of the WFLC encourage conservation districts to reach out and engage to meet our country's complex wildfire situation and climate challenges.



NACD stands ready to support our private landowners and our partners in meeting these challenges.



СОК

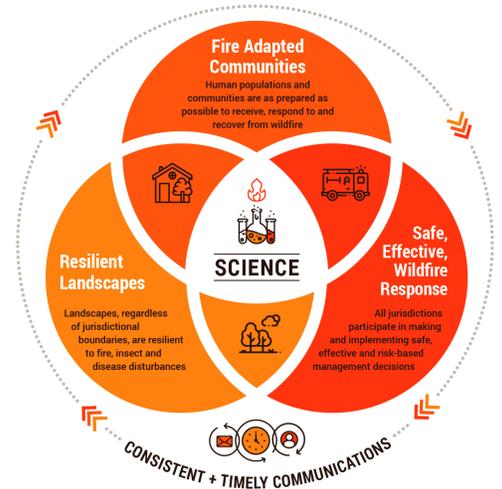
A large fire is burning in a field, with thick smoke rising into the sky. In the foreground, two firefighters are visible, one on the left and one on the right, both wearing helmets and gear. The fire is intense, with bright orange and yellow flames. The text is overlaid on the image in a bold, white, sans-serif font with a black outline.

**UNDERSTANDING
THE NEED FOR A
COHESIVE STRATEGY**

CHAPTER ONE

Recognizing Wildland Fires and Local Disasters Affect Everyone – There is a Dire Need for More Local Education and Coordination

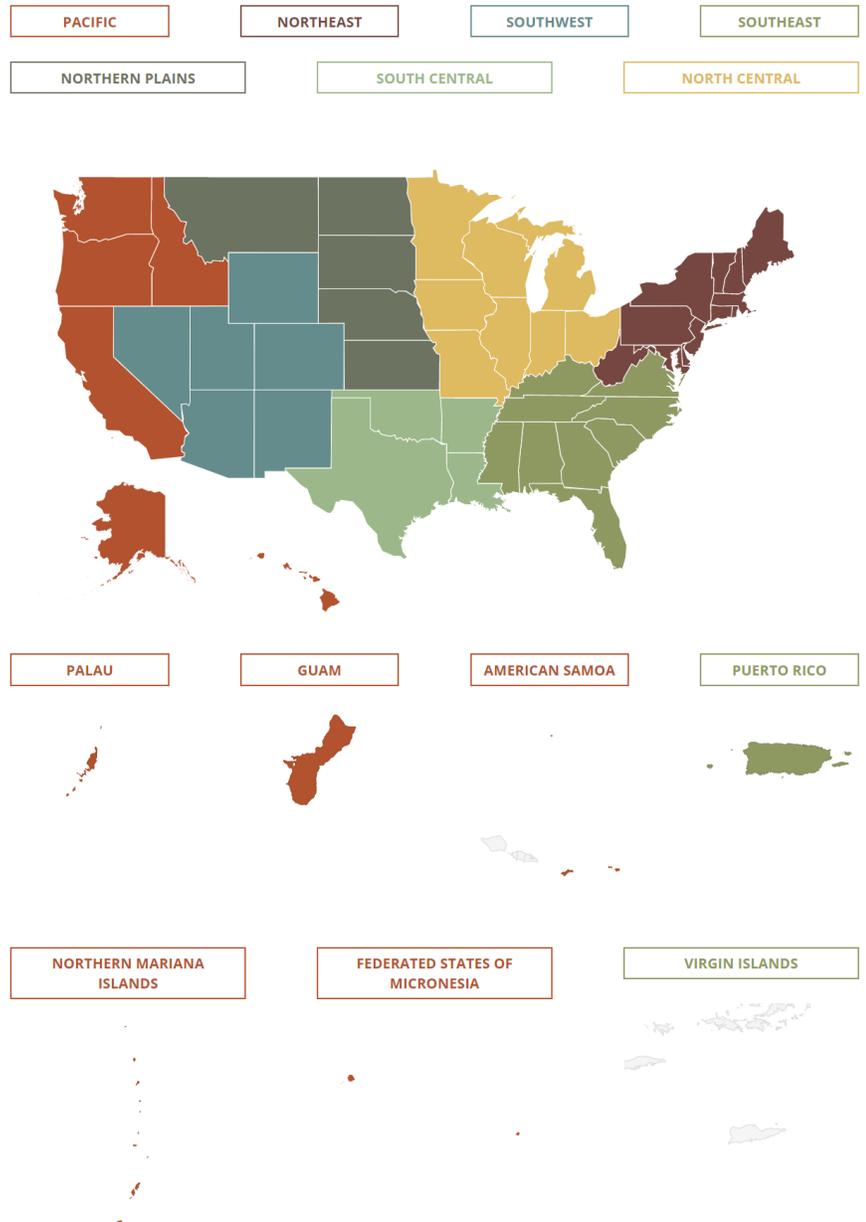
Experience proves communities come together during events such as natural disasters, acts of terrorism and pandemics. Why do we need to be struck by these hazards to become cohesive and learn how to get coordinated? Everyone—not just the government—needs to be involved in a coordinated effort to be safe from harm and maintain a resilient community.



Interagency disaster response involves community members, which may also be local, state and federal agency employees. It takes all hands on deck to help in the storm and a lot of federal disaster aid. Between 2010 and 2020, eight wildfires, nine droughts, 15 tropical cyclones, 79 severe storms, 18 floods, five winter storms and one freeze were all billion-dollar disaster events that affected communities across the United States.

Shown here are the regions of the National Association of Conservation Districts (NACD). Across the country, conservation district staff are playing key roles as trusted neighbors and local land managers before, during and post-disaster.

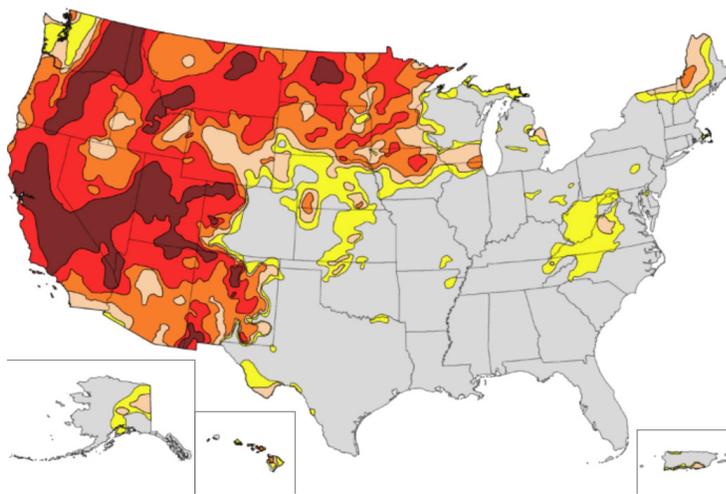
The United States Department of Agriculture (USDA) Forest Service (FS) awarded NACD with a grant to develop this desk guide to help conservation districts implement the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy), which focuses on promoting emergency preparedness by communities, improving local response, and providing education and resources to establish and maintain resilient landscapes.



CHAPTER ONE

Personnel and equipment are brought in to assist with disaster management from a variety of agencies, including the USDA–United States Forest Service (USFS), the Natural Resources Conservation Service (NRCS) and the Federal Emergency Management Agency (FEMA), to assist with planning for evacuation, event/fire mitigation/suppression and post recovery efforts. Many state and local agencies are involved with response and recovery. Often these local government agencies, along with faith-based organizations, are the only places for assistance after an event has occurred and emergency responders have gone home. The complexity of disaster response is as extreme as the disasters themselves.

Current Conditions and Outlooks: U.S. Drought Monitor



U.S. Drought Monitor Category

D0 - Abnormally Dry	49.1%
D1 - Moderate Drought	39.9%
D2 - Severe Drought	32.6%
D3 - Extreme Drought	21.7%
D4 - Exceptional Drought	7.4%

Source(s): NDMC, NOAA, USDA
Updates Weekly - 08/03/21

[Drought.gov](https://drought.gov)

Cohesive Strategy vision for the next century: "To safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire."

A powerful derecho traveled from southeast South Dakota to Ohio, a path of 770 miles in 14 hours producing widespread winds greater than 100 mph. The states most affected included Iowa, Illinois, Minnesota, Indiana, and Ohio. This derecho caused widespread damage to millions of acres of corn and soybean crops across central Iowa. There was also severe damage to homes, businesses, and vehicles particularly in Cedar Rapids, Iowa. In addition, there were 15 tornadoes across northeastern Illinois, several affecting the Chicago metropolitan area.

OAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2020). <https://www.ncdc.noaa.gov/billions/>, DOI: [10.25921/stkw-7w73](https://doi.org/10.25921/stkw-7w73)

Graphic at left generated by NOAA/ESRI. Drought conditions in the spring of 2021 were evident in southwest Oklahoma and areas of the Northeast U.S. This graphic is a snapshot from August 9, 2021. For current drought conditions, go to: drought.gov

Disasters such as high winds, wildfires and flooding cause significant damage to all our natural resources in the South, North, East and West. More than 70,000 communities are near or within fire prone ecosystems. Drought conditions are linked to many of these events. Between 1960 and 1990, acres burned by wildfire exceeded seven million only one time. Since the year 2000, more than seven million acres have burned in 11 years. And in 2015, 2017 and 2020, each year exceeded 10 million acres burned.

As witnessed in the Willamette Valley of Oregon during the Labor Day Fires of 2020, conservation districts became the first agency mentioned when local government officials were looking for assistance to restore their lands. County lands were growing

CHAPTER ONE

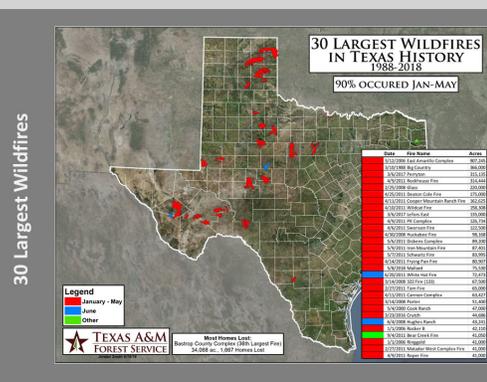
timber with the expectation that timber investment would provide revenue in the future to fund schools and health/human services in a growing county. Reforesting or replanting the ground with trees is often a partnership between the county land managers and conservation district program managers. Every taxpayer in that county was going to benefit from those trees and their harvest to build county budget revenues. The key partner for restoration efforts and to secure federal financial assistance became the local conservation district. During a disaster, all hands come together to help one another in their time of need, and like most humble landowners, conservation districts rarely tout their involvement or successful partnerships. This cohesive response that is respectful of each other's jurisdiction and needs is the foundation of the Cohesive Strategy.

Addressing wildland fire is also about the need for fire prevention, reducing human-caused ignitions, increasing the pace and scale of land management operations, and implementing mitigation measures to reduce risk to homes in areas that don't have adequate resources to address their emergency response needs. Local homeowners, landowners and multi-family structures have to take adequate measures to reduce risk to prevent fires as well as assist with mitigation of hazardous fuels in and around their buildings. It is a much larger and more complex problem, compounded by changing climate conditions, than the general public and public officials often understand. Each agency and organization represented by the Wildland Fire Leadership Council (WFLC) has the authority, responsibility and autonomy to implement their policies. However, each member does not set policy for the other member-agencies: several association representatives from tribes, states, counties and cities do not set policies over all of the jurisdictions they represent.

Long-term success has to start and can be achieved through a unified, collaborative and focused effort by all stakeholders across all lands. For many years, there has been an awareness by the members of the WFLC of an urgency for increasing pace and scale of management on federal lands. There is a long list of efforts that resulted in great reports that have called for urgent action, such as the America Burning report, Healthy Forest Initiative, the 10-Year Comprehensive Strategy, the National Fire Plan and multiple wildfire and forest policies developed by the non-partisan Western Governors' Association. Local communities need assistance and resources for mitigating hazards, responding adequately to protect lives and property, and for the federal lands surrounding rural communities to be managed without allowing fire to burn down the town.

Widespread, continuous drought and record heat affected more than a dozen western and central states for much of the summer and early fall in 2020 and continued into 2021. Record heat in Salem, Oregon, reached 117 degrees Fahrenheit; nearly 100 people died. In that part of the country, often people do not have air conditioning. Continuing heat 'domes' have prompted local government to open cooling stations to provide respite for those that need it.

In mid-August 2020, more than 4 million acres burned across California, breaking the statewide burn record set in 2018 by more than 2 million acres. The August Complex was the largest California wildfire, which began as 37 separate wildfires within the Mendocino National Forest, set off after storms caused >10,000 lightning strikes across Northern California in 2020. These records are continually being broken. These wildfires have spread rapidly and destroyed several small towns, not just in California. Many states are dealing with communities being completely burned off the map. Dense wildfire smoke has also produced hazardous air quality, affecting millions of people, including major cities on the East Coast.



CHAPTER ONE



The WFLC recognizes that strategic input and progress within the context of one goal can have meaningful contribution to the other two goals and contributes to the overall Cohesive Strategy vision. A broad network at the national level is in place guiding implementation at all levels and keeping the conversation at the forefront. The most critical point of accelerating the implementation of the goals of the Cohesive Strategy is at the local level, where conservation districts are already in place and working with private landowners.

Strategically located close to the resources needing their expertise, many states have over 50 conservation districts within their borders and have staff with a wealth of knowledge. Conservation districts in remote or outer-lying areas are often the go-to office for assistance with natural resource management, disaster mitigation and recovery. Conservation districts play a critical role in implementing the goals of the Cohesive Strategy primarily with post-fire recovery. Below are some additional areas they are currently providing or can provide expertise:

- Leadership with extensive understanding of local values at risk;
- Soil surveys for restoring damaged lands, historical and updated soils maps;
- Develop and update community wildfire protection plans or other locally developed fire/all hazard mitigation plans, including irrigation and water management;
- Securing financial assistance to implement conservation practices, aid in post-fire/event recovery, and actions to stabilize soils, such as tree planting;
- Invasive species control;
- Conservation education, programs and information;
- And education, such as wildfire preparedness, i.e., Firewise USA, post-event/recovery funding needs and prioritization for treatments.

CHAPTER TWO

National Cohesive Strategy and WFLC Priorities

It was time to take a hard look at the way we live with wildland fire in this country, and all must assume the mantle of leadership and make some new choices that determine our own outcome.

More people living on fire-prone landscapes, more frequent and larger wildland fires, a warming climate and unhealthy landscapes have created a wildland fire situation that overwhelms traditional fire management efforts, creates tension and conflict between fire management entities, and results in billions of dollars in suppression costs each year. These issues are conspiring against cooperative wildfire management and eroding a shared understanding of roles and responsibilities. The future is expected to bring more of the same. If nothing changes, more people will die and their communities will disappear, resources will be at risk, fire-prone landscapes will spiral further into decline, and budgets will be overwhelmed. We must also understand that the true costs of wildland fires are estimated to be as high as 30 times the suppression costs due to economic, resource and environmental losses.

Congress answered the call and passed the Federal Land Assistance, Management and Enhancement Act (FLAME Act), which directed USDA and the Department of the Interior (DOI) to develop a national cohesive wildland fire management strategy to comprehensively address wildland fire management in the United States. Under the direction of the intergovernmental Wildland Fire Leadership Council (WFLC), the Cohesive Strategy framework was developed and expanded into a three-phased approach to intergovernmental planning, risk analysis and collaboration by federal, state, local and tribal governments and non-governmental partners and public stakeholders. The three-phased approach allowed systematic and thorough engagement by stakeholders throughout the effort:

- Strategic alignment, where all parties agree to the same goals, principles and strategic course of action;
- Collaborative engagement, which includes governance, shared information and resources, communications and monitoring and accountability; and
- Programmatic alignment, where individual agency or organization objectives are explicitly supportive of the Cohesive Strategy goals.

Access the full text of H.R. 1404, the FLAME Act, here: <https://www.congress.gov/bill/111th-congress/house-bill/1404>.

This framework was built to address the urgent need for:

- *creating resilient landscapes;*
- *improving wildfire response; and*
- *assisting communities to become fire-adapted/prepared for disaster-related events.*

These goal areas have a foundational component: science.

The National Science and Assessment Team was established to assist with the development of the strategy and informed by regional committees.

CHAPTER TWO

Each phase included milestones that serve as the building blocks for subsequent steps. This Cohesive Strategy now forms the foundation for wildland fire in the country.

The WFLC required the best available science to be at the centerpoint of the Cohesive Strategy. This unique team developed the Science Analysis of the National Cohesive Wildland Fire Management Strategy report, the National Wildland Fire Management Risk Analysis and the Cohesive Strategy, which represents the culmination of all three phases of the Cohesive Strategy effort. Links to this information can be found in the Assessment and Science Section.

The Cohesive Strategy establishes broad, strategic and national-level direction as a foundation for implementing actions and activities across the nation and at all levels. Three components, intended to be conducted concurrently, are necessary for implementation:

Cohesive Strategy Goals:

1. Resilient Landscapes;
2. Fire Adapted Communities; and
3. Safe and Effective Wildfire Response.

The WFLC is an intergovernmental committee of federal, state, tribal, county and municipal government officials convened by the Secretaries of the Interior, Agriculture, Homeland Security and Defense dedicated to promoting consistent wildland fire policies, goals and management activities. These relationships, especially between federal and non-federal members, are critical for continuous coordination in planning and implementing key policies impacting activity on the ground. Nationally, NACD staff have engaged in high level discussions with most all members of the Council and work closely with representatives from all of the member-agencies. Historic and foundational documents on the WFLC and the Cohesive Strategy can be found at the regional strategy committee websites and at www.forestsandrangelands.gov. If you have questions about the WFLC, the WFLC Regional Strategy Committees, or the WFLC, the WFLC regional committees and executive director are your best contacts.

Conservation districts are encouraged to get involved at all levels of implementing the goals of the Cohesive Strategy. More information about how to integrate the Cohesive Strategy goals within your work plans is in this desk guide. The WFLC has issued annual documents identifying timely, key issues facing the wildland fire systems and explaining their mission and updated priorities. WFLC's August 2021 mission and priorities are listed on the following pages.

“Through their connections on the ground and throughout their communities, conservation districts are uniquely positioned to facilitate all three goals of the Cohesive Strategy. Implementation of all three goals of the Cohesive Strategy also helps reach the mission of local conservation districts by being good stewards and conserving the land we love through locally-driven solutions.” – WFLC Executive Director Mike Zupko

CHAPTER TWO



WFLC MISSION: Established in 2002, the Council provides strategic direction to ensure policy coordination, accountability and effective implementation of Federal Wildland Fire Management Policy and related long-term strategies. This collaborative environment helps to ensure effective and efficient wildland fire management, promote fire-adapted communities, and create resilient landscapes to achieve long-range benefits for society and nature.

KEY ISSUES FACING THE WILDLAND FIRE SYSTEM: *The yearly number of acres burned is on the rise along with an increase in severe impacts to communities and landscapes. These key issues must be addressed to alter these trends:*

Impacts of climate on forests and rangelands – A changing climate has lengthened fire seasons into fire years. Drought persists and species distribution across landscapes show signs of altered ecological states.

Fire adaptation in communities and engagement at the local level – Communities across the country need education and assistance to prepare for, respond to and recover from wildland fire.

Forest and range management and restoration – Cross-boundary, collaborative pre-fire fuels management and post-fire rehabilitation and restoration are crucial to landscape health and resiliency.

Firefighter Workforce Challenges – Resources, training, pay parity and workplace environment issues continue to be a challenge across the entire wildland fire management system.

Public understanding and acceptance of land and wildland fire management – Today’s fire and fuels management are complex as are many of the issues facing our nation’s forests and rangelands. The general public does not understand these complexities or their solutions.

WFLC STRATEGIC PRIORITIES:

Changing the Trajectory of Wildland Fire / Accelerating Implementation of the Cohesive Strategy – Due to many factors, wildland fire continues to present challenges. The National Cohesive Wildland Fire Management Strategy is a solid framework pulling together a multitude of partners and approaches. Expand those approaches and accelerate implementation across the nation.

Mitigating Post Fire Impacts – Develop opportunities to increase the pace and scale of pre- and post-fire activities that mitigate wildfire impacts to landscapes and communities. Overcome challenges related to emergency stabilization, rehabilitation, and restoration of impacted lands.

Enhancing Smoke Management and Air Quality - Minimize air quality impacts from wildland fire over the long-term, improve the resiliency of landscapes to wildfire, and increase the health and safety of communities, firefighters, and the public by using fire as a land management tool.

Elevating a Forest, Rangeland and Wildland Fire Climate Resilience Strategy – Build a whole-of-government strategy that connects the influence climate is having on wildland fire and landscape resiliency and the positive contributions that forests and rangelands make to slowing climate impacts.

Increasing Equity and Environmental Justice – Ensure access to programs and activities, and reduce barriers and burdens related to creating resilient landscapes and resilient communities to lessen the impacts of fire.

Improving Workplace and Workforce Issues – Foster safe, positive work environments including addressing harassment in all forms across all interagency land management and wildland fire agencies. Additionally, address capacity, capability, recruitment, retention, and consistency across the workforce.

CHAPTER TWO



WFLC Priorities cont.

Increasing Use of Prescribed Fire as a Management Tool – Prescribed fire is a traditional, effective, and cost-efficient way to restore landscapes and reduce the risk of wildfire. Most landscapes are fire adapted or fire dependent and the ecological benefits of prescribed fire are innumerable. Continue to understand the challenges associated with utilizing this management tool and overcome barriers to further its use.

Building Resilient Communities by Reducing Hazards and Risk - Build a suite of enabling conditions for the creation and enhancement of fire adapted communities while increasing management activities across all lands to reduce hazards that contribute to the risk of catastrophic wildfire to communities.

Integrating Technology and Data Across the Wildland Fire System - Better integrate and develop systems to share information, data, and tools across agencies and with partners.

Expanding Large Landscape, Cross-Boundary Collaboration and Sharing Stewardship – Through collaboration and joint prioritization, increase the pace and scale of collective investments and management actions that reduce risk of catastrophic wildfire across landscapes that when threatened, also threaten adjacent watersheds, communities, economies, and other natural resources.

Aligning Invasive Species and Wildfire Management – Integrate coordinated fire and invasive species management strategies and actions.

WFLC MEMBERSHIP: The Wildland Fire Leadership Council (Council) is an intergovernmental committee of federal, state, tribal, county, and municipal government officials convened by the Secretaries of the Interior, Agriculture, Homeland Security, and Defense dedicated to promoting consistent wildland fire policies, goals, and management activities. *These relationships, especially between federal and non-federal members, are critical for continuous coordination in planning and implementing key policies impacting activity on the ground.*

Membership on the Council includes the following federal officials:

- **U.S. Department of Agriculture** – the Under Secretary for Natural Resources and Environment, the Deputy Under Secretary for Natural Resources and Environment, and the Chief of the Forest Service;
- **U.S. Department of the Interior** – the Assistant Secretary for Policy, Management and Budget and the Directors of the National Park Service, the U.S. Fish and Wildlife Service, the Bureau of Land Management, the Bureau of Indian Affairs, and the U.S. Geological Survey;
- **U.S. Department of Homeland Security** – the Administrator of the U.S. Fire Administration; and
- **U.S. Department of Defense** – the Assistant Secretary for Energy, Installations and Environment and the Deputy Assistant Secretary for Homeland Defense Integration and Defense Support for Civilian Agencies.

The Council includes seven non-federal members comprised primarily of senior elected officials of state, tribal, county, and municipal governments. These members, acting in their official capacities, include:

- **State Governor** who is a member of the National Governors' Association;
- **State Governor** who is from the Western United States;
- President of the **Intertribal Timber Council** acting in his or her official capacity as an elected representative of a federally-recognized tribe;
- **County Commissioner** who is a member of the National Association of Counties;
- **Mayor** who is a member of the National League of Cities;
- **State Forester** at the request of his or her Senior Elected Official; and
- **Fire Chief** of a State or any political subdivision thereof, at the request of his or her Senior Elected Official.

WFLC is supported by an executive director at the national level and three chartered regional committees that facilitate on-the-ground implementation of strategies and strategic engagement with a multitude of partners at the regional, tribal, state, and local levels.





***PARTNERSHIPS
AND ACTIONS***

CHAPTER THREE

Unique Boundaries & Regions

To the right is a map showing the National Cohesive Wildland Fire Management Strategy Regional Strategy Committee boundaries.

These boundaries are used by the regions of the National Association of State Foresters. Note, these boundaries are NOT those of the federal agencies.

Foundational documentation specific to the Regional Strategy Committees can be found at: https://www.forestsandangelands.gov/strategy/Regional_Strategy_Committees/



The three Cohesive Strategy Regions match those of the National Association of State Foresters and are composed of the following states, islands and territories:

Northeast Region: Connecticut, Delaware, District of Columbia, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia and Wisconsin.

Southeast Region: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, Virgin Islands and Virginia.

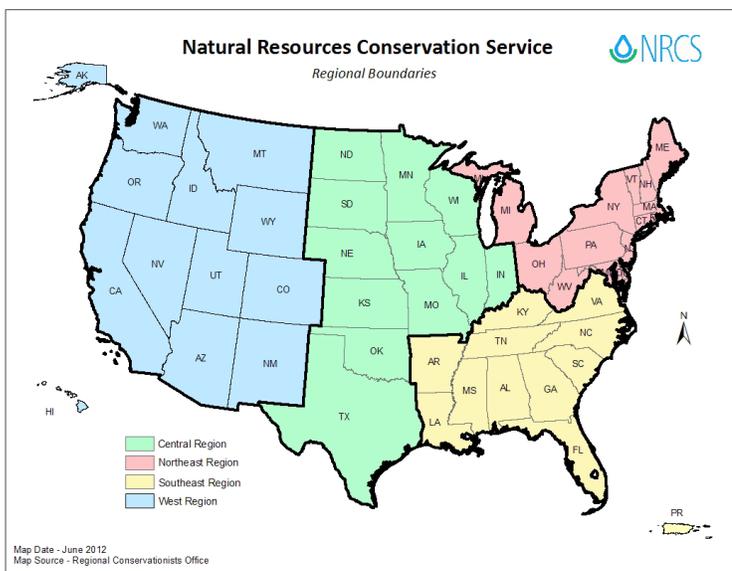
Western Region: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, the western Pacific islands and Wyoming.

Throughout the United States, there are multiple jurisdictional boundaries. Land management agencies and emergency service organizations are often funded by residents living within them.

To provide an example of these boundaries, the graphics on the following page show agency boundaries of a few key wildland fire response agencies.

If you've ever been involved in an emergency wildfire response, you know you may not always have enough resources, people and equipment to mitigate the damaging event. Most agencies work well together and have developed plans for sharing resources. When a disaster happens and exhausts local resources, many find a way to reach across boundaries for help.

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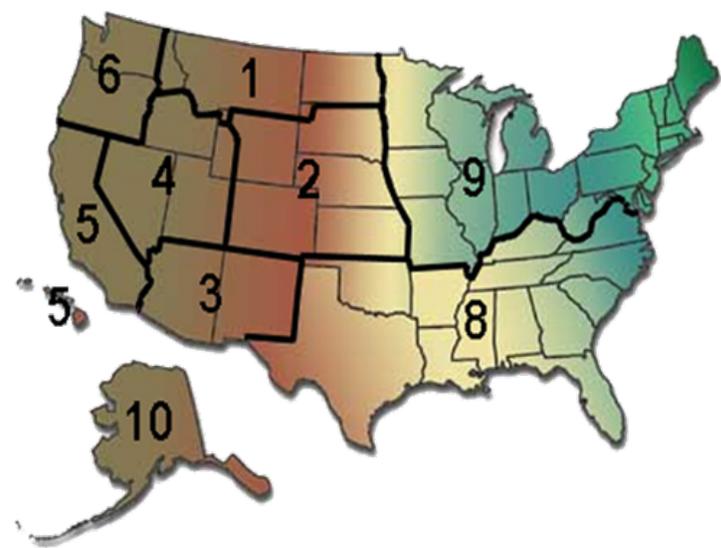
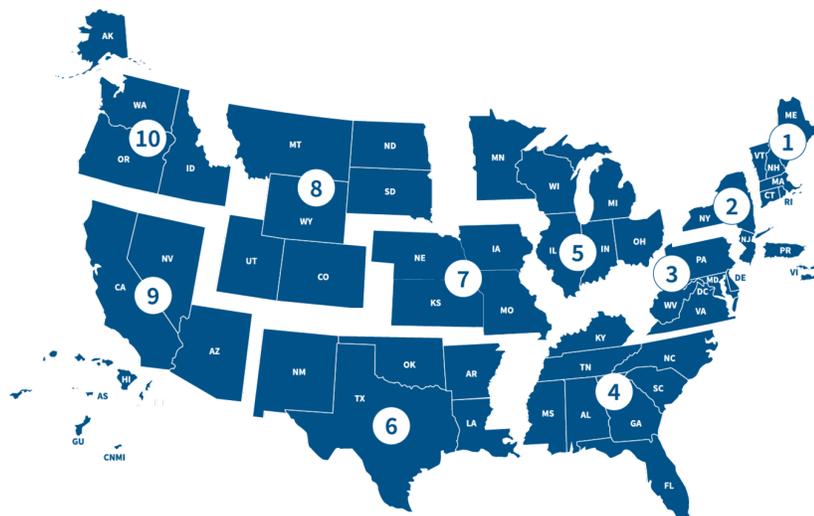
The map to the left indicates the boundaries of the Natural Resources Conservation Service (NRCS). This agency provides a great deal of guidance and coordination, including possible funding sources for pre- and post-fire preparedness and recovery.

More information about the NRCS can be found at: <https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/>.

The map to the right indicates the regions of the U.S. Fire Administration, Federal Emergency Management Agency.

Pre-Disaster Mitigation grant funding and post-disaster funding, such as Individual Assistance and Disaster Assistance grant funds, are administered by FEMA.

More information about FEMA regions can be found at: <https://www.fema.gov/about/organization/regions>.



This map indicates nine regions of the USDA Forest Service National Forest System lands, totaling 191 million acres. Currently, the Alaska Region 10 and Oregon and Washington Region 6 are managed out of the same regional office in Portland, Oregon.

More information about US Forest Service regions can be found here: <https://www.fs.usda.gov/about-agency/contact-us/regional-offices>

CHAPTER FOUR

Coordinating Priorities and Resources

Each conservation district has specific strengths honed to meet the needs of the local community. When community members share concerns with each other, such as overgrown invasive species in their fields, neighbors help neighbors by sharing resources, which include contact information for local soil and water conservation district staff.

Conservation districts have or can identify their level of wildfire risk by participating in local collaborative groups working on emergency preparedness and also by accessing the state forest action plans, an assessment depicting hazards and future projects and priorities. In several states, state forestry and natural resource departments work cooperatively with conservation district representatives on project planning and updates of their 2020 state forest action plan. Check out the National Association of State Foresters' (NASF) website for all state forest action plans: www.stateforesters.org.

During devastating events, such as flooding, high winds, wildfires and rapid drought, neighbors seek assistance from local conservation districts. Conservation districts and state foresters work closely with post-event recovery efforts by sharing expertise and information about funding mechanisms for replanting and prevention for post-fire flooding. It is strongly recommended to establish a good working relationship between conservation districts and state, county and federal foresters. Building a foundation between emergency response groups and non-traditional partners before a catastrophic event occurs will make recovery much easier.

In his 2020 Congressional testimony, George Geissler, Washington State Forester and Fire Committee Chair for the NASF said, "State foresters work closely with conservation districts, mayors, local and county governments, tribal and federal partners across the U.S. to deliver forestry programs and wildfire protection on a national scale." State forestry agencies provide emergency response resources to multiple organizations. Conservation districts, which partner with landowners, counties and state/federal agencies, can play a significant role in improving the local level of fire protection and collaboration as recommended in the Cohesive Strategy.

Conservation districts can provide some of the best local knowledge regarding values and resources. Consider what strengths your conservation district has and how they can be leveraged to bolster this network.

Shared leadership in Teton County, Wyoming, exists in a collaborative group formed to work with communities to prevent large devastating wildfires such as the 1988 Yellowstone wildfires, which spanned three states.

Wildfire Preparedness in Wyoming - Teton Conservation District: <https://www.nacdnet.org/2020/09/17/shared-leadership-for-wildfire-protection-in-teton-county/>

Once a drought develops, ranchers must make decisions in rapid succession to prevent problems from compounding. Do you cull cows or send home contracted grazers from other operations? Do you purchase more feed to make up for the herd's lack of grazing options? Do you graze fall or winter pastures earlier than you previously planned?

To manage not only the operation but also the stress of running it when water is lacking, many ranchers are developing drought plans in advance. Based on research by Tonya Haigh, a rural sociologist with the National Drought Mitigation Center, those plans allow ranchers to make decisions based on specific "if-then" circumstances and triggers. The journal "Rangeland and Ecological Management" recently published an article by Haigh detailing the results of a survey of ranchers. She led a team that surveyed a collection of Northern Plains ranchers who endured a 2016 flash drought that significantly altered forage production in the area. Some had drought plans on file. Others did not.

Geissler testified before the U.S. Senate Committee on Energy and Natural Resources on June 5, 2020. His testimony can be accessed in full here: <https://curtis.house.gov/wp-content/uploads/2020/06/NASF-Testimony-.pdf>

CHAPTER FOUR



WILDFIRE IN THE SOUTHEAST

A wildfire threatened Dollywood Theme Park in Gatlinburg, Tennessee, one day after the National Park Service sent out a Smokey Bear-style video ad that Dolly Parton made urging her fans to help protect public lands throughout the Southeast by observing burn bans and reporting fires when they see them.

"I love these Smoky Mountains that I call home, and I know you do, too. Help protect their beauty and prevent human-caused wildfires," Parton says in the ad.

NASF is a key partner in the implementation of the Cohesive Strategy. This roadmap for interagency wildland fire management across the country allows diverse stakeholders to work together using the best science to achieve resilient landscapes, fire-adapted communities and effective wildfire response.

Catastrophic-scale disasters are occurring more often. These are not regional problems as they were in the past. These types of events are becoming more common in all parts of the country, such as the arson-caused 2016 Great Smoky Mountains wildfires in Gatlinburg, Tennessee. The fire tragically killed 14 people and destroyed nearly 2,500 buildings. Wildfires are burning such large swaths of land that in recent years, they've burned across multiple counties and states, such as between Texas/Oklahoma and Oregon/California. Conservation districts currently play an important role when local communities, counties and states are short of resources. Support for establishing policies and protocols for continued engagement from all partners is needed across the country.

After a devastating fire in Oklahoma, Dewey County Conservation District helped their local community to work with farmers and ranchers on immediate needs. Several conservation districts in the area came together to donate hay, feed and fencing supplies for those in need. Jimmy Emmons stated, "It's very important for the district to be there, because of the local interest in the people. They know everybody."

Conservation districts in states such as Colorado and Wyoming help amplify their states' forest work by offering tree seedlings for purchase. The Natrona County Conservation District (NCCD), located in Casper, Wyoming, created a Seedling Tree and Shrub Program to offer "affordable yet quality tree and shrub stock for planting effective living windbreaks and erosion control barriers in rural areas and small acreages." In 2019, NCCD sold over 8,000 seedling trees and shrubs.

<http://www.natronacountyconservationdistrict.com/seedlingtrees.html>

CHAPTER FIVE

Promoting Local Knowledge Found in Conservation Districts

Conservation districts provide a great amount of information to local landowners and community organizations about a large variety of landscape vegetation management. They also are engaged with local emergency response organizations. Many areas are already developing local conservation district plans for community engagement and evaluating the level of communication that has already been done with local emergency response organizations. If there hasn't been any engagement, reach out now! After conducting the evaluation, it is best to identify where staff and stakeholders can enhance or create a communication plan. Consider if staff or professionally trained fire/emergency response individuals want to participate in emergency situations. Encourage them by highlighting the benefits of a well coordinated communication plan.

“Conservation districts fill a unique niche as voluntary, non-regulatory, incentive-based organizations geared to the goals of the landowner. Landowners can trust conservation districts to offer free advice on best practices, technical advice, and, often, cost-share funding.”
– Doug Rushton, Washington State

Many conservation districts have found success with Firewise USA, a voluntary program that helps local communities by providing a framework for organizing increased fire resistance for homes and communities.

The Central Klickitat Conservation District assisted the Washington Department of Natural Resources in developing two Firewise communities — High Prairie and Keystone Acres. Forty-two people attended two workshops. Staff completed 32 individual Firewise assessments, and 22 people participated in a conservation district-sponsored mobile chipping program that treated 59 acres for wildfire fuels reduction.

The Tahoe Resource Conservation District (RCD) in California works with community members to help prepare for wildfires. The conservation district's Fire Adapted Communities Coordinator Carlie Murphy said, “One of the most effective tools for bringing a neighborhood-wide program into your community is ensuring there are plenty of opportunities for individuals to ask questions and get involved in the process.” Conservation districts across the country can use the Firewise program to help keep their local communities safe.

Read about more examples of Firewise USA success here: <https://www.nacdnet.org/2019/07/22/washington-conservation-districts-are-chipping-away-at-the-threat-of-catastrophic-wildfire/> and here: <https://tahoercd.org/category/fire/>.

Watch a Minnesota soil and water conservation district's video on resources and projects available to help landowners and communities on YouTube: <https://www.youtube.com/watch?v=iwRfcPa4DGO>.

In some states, conservation districts have been leaders within Fire Safe Councils, like California's San Diego County RCD. More information on their program can be found at: <http://firesafesdcounty.org/> and <http://rcdsandiego.org/programs/fire-safe-council/>.

CHAPTER FIVE



At the regional level, state agriculture and forestry agencies, as well as many other groups, are coordinating landscape resiliency, watershed sustainability and wildfire preparedness. Cohesive Strategy and Regional Strategy Committees meet on a monthly basis, and each has an extensive website or blog to keep their members and the public up to date on their activities.

These groups are a great starting place to develop and enhance your network for success. Multiple tools and funding opportunities are shared through these groups. Engagement with the group can be beneficial for education on wildfire and emergency response, as well as provide you with the most up-to-date information.

Connect with RSCs for regional awareness and network sharing of conservation district activities. Each Regional Strategy Committee holds a monthly meeting, and you are encouraged to join.

More information on their social media can be found on their websites, listed below:

NE RSC - www.northeasternwildfire.net

SE RSC - www.southernwildfire.net

WEST RSC - www.wildfireinthewest.org

At the national level, sign up for electronic communications and connect with the NACD Forestry and Fire Coordinators. Seeking information on groups successfully connecting on emergency response can also be helpful. There are multiple conservation districts actively conducting community fire prevention programs, responding to community needs like participating in emergency response planning, and assisting with restabilizing landscapes after disaster-related events.

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Accelerating the Implementation of the Goals of the Cohesive Strategy

A deliverable of the U.S. Forest Service grant with NACD included identifying actions that conservation districts could take to accelerate the successful implementation of the Cohesive Strategy. To complete this task, during the three NACD-hosted wildfire webinars titled “Winds , Water and Wildfires Summits,” conservation districts, community wildfire experts and representatives from very diverse agencies and areas in the United States were provided the opportunity to share their recommendations.

An overwhelming excitement to participate and provide their expertise is reflected in the extensive list below. During all three regional summits, West, Southeast and Northeast, speakers and attendees identified actions they believe would truly help to combat our wildfire problem, as well as how conservation districts could accelerate implementation of the Cohesive Strategy at any level.

Below is a subset of actions that were identified as consistent across regions. Attendees provided recommendations to NACD with the intent of developing an urgent action plan for implementing programs to assist conservation districts as they coordinate projects and efforts within the goals of the Cohesive Strategy:

Key Action - Fire-Adapted Community Goal: Actively engage with local community groups working on emergency preparedness, such as Community Wildfire Protection Plans and county hazard mitigation plans.

Key Action - Restore and Maintain Resilient Landscapes: Collaborate on landscape risk reduction and continue to provide assistance on post-disaster event recovery, such as burned area analysis and restoration projects.

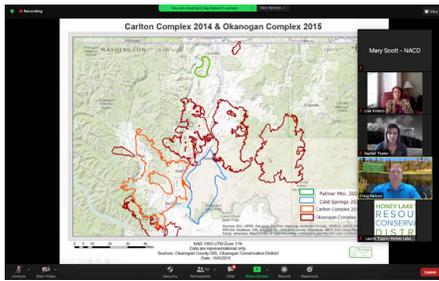
Key Action - Wildfire Response: Access training and provide support to emergency response organizations, share your skillsets, such as GIS expertise, local logistics, stream gauge monitoring, and locating heavy equipment/tractor-plows, water tanks/sources, and aerial spray applicators.

Key Action - Overarching: Expand and advance partnerships to accelerate implementation of the Cohesive Strategy, such as routine attendance and networking with the Regional Strategy Committees, National Wild Turkey Federation and The Nature Conservancy.

These Key Actions are included in the Executive Summary and will be referenced in future planning of projects and actions to support accelerated implementation of the Cohesive Strategy.

The following pages contain a compilation of recommended actions in raw data form from summit attendees, collected via an online survey following the summit. (Note: responses have been edited for grammar and clarity when needed). These are very insightful recommendations for conservation districts. There is significant value to retaining this information as a reference tool and part of the guidance for implementing the Cohesive Strategy. Actions identified are broken down by regional location and organized by goal areas of the Cohesive Strategy.

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NACD WINDS, WATER & WILDFIRES SUMMIT – WEST

The first of three summits was held virtually on Tuesday, May 6, 2021. Around 120 individuals registered for the summit, with about 86 in attendance, particularly good attendance during the early onset of wildfire activity. During the Leadership Welcome, both NACD President Michael Crowder and NACD contractor Ann Walker noted wildfire-related evacuations occurred in the previous week in their locations, Washington and Oregon, respectively.

During the summit, speakers and attendees were asked to identify actions they felt were needed to increase the awareness and likelihood of successful implementation of the goals of the National Cohesive Wildland Fire Management Strategy. These actions are organized by the Cohesive Strategy goal areas, a broader 'overarching' category, and science. Included are two additional sub-categories of training and BAER team, which sparked significant interest from both conservation districts and federal partners attending the summit.

Overarching

- Cohesive Strategy Goal Implementation & Coordination with conservation districts – Regular engagement with the regional committees of the Wildland Fire Leadership Council. Inquire to the co-chairs of the Wildland Fire Leadership Council about representation of local landowners on the Council. Coordination with conservation districts, NRCS and state forestry agency offices to share office space, like how many conservation districts are housed within the NRCS.
- Preparedness does not have a jurisdictional boundary. There is a need for more people to be sharing the message to all landowners and communities. Work together, form partnerships with colleges, local groups, the state forestry, county emergency management before you need to work with them on a disaster and they do not know who you are or that you exist.
- Landowners and renters need conservation districts to provide education about who they are and what they can do to help, especially in areas where there are no or under-protected areas. What programs are available to help conservation districts get their assistance programs out to the public and landowners, as well as agencies working in similar spaces? Definitely the Regional Strategy Committees.
- INCLUSIVE CONSERVATION – Partner definition means ACTIONS. Accelerating implementation of the Cohesive Strategy goals will take all hands on deck. All wildfire, wildlife, water, soils, farmers and producers need to include a component of preparedness when in community meetings, working on their land, and influencing others. Rural-Urban divide: Work together to bridge the gap. Because of the pandemic, more people are moving to the country that know nothing about the landscape or have a lack of capacity for emergencies.

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- Although NRCS has been represented at the department-level on the WFLC with the support of leadership, we as an agency will become versed in the Cohesive Strategy to better support private landowners, the conservation districts, and our many other partners who are well-represented on the Regional Strategy Committees. We are at the table and will be looking for ways to help serve the greater good.
- Not all state foresters (NASF/NRCS) are connected and coordinating between agencies. The NRCS and NASF state foresters do not always connect, and most of their staff will not either. Change needs to occur, and communication with the NRCS Liaison in the NASF office may be the first place to look to make headway on this effort. Educate both on how conservation districts can bridge the gap with these organizations to help all landowners, not just ones that are not in the state jurisdiction. Include the Office of Emergency Management in these discussions; all events have reported lack of coordination between them.
- Local communities look for creative solutions! More diverse partners at the table can help to bring different tools needed during post-event recovery. Collaborate early and often with interested stakeholders and even not-interested stakeholders. Education is key: fire will impact your community or district. Everyone must be at the table or aware of the local effort to clean up a neighborhood before an event like a wildfire. Over a decade ago, the Call to Action clearly stated, the fire service is at the point they do not have the capacity to respond to all the needs of the community. Public education needs to focus on individual responsibility as a highest priority action.

Training

- Conservation districts are needing required training to assist landowners with preparedness activities, incident management team positions, and as volunteers with the state or local fire agencies/departments that do not have the ability to cover all communities. Focus on populated areas that do not have any type of fire protection/emergency response. Areas include inadequate coverage due to increased development without increased operating budgets.
- Grant education and application tips, tools and assistance are needed by all entities trying to participate in post-disaster event restoration, such as FEMA, EQIP and EWP.
- Burned Area Rehabilitation and Restoration or BAER specialists require training for certification by the NWCG. Additional recognition of qualified conservation district staff under the Recognition of Prior Learning program and include conservation district staff in conversations and programs administered by the leadership at the National Wildfire Coordinating Group. Coordination and program development are needed for paving a pathway for utilizing the expertise of conservation district staff to develop post-event analysis, as well as water-related damages, such as contamination of private wells and public water systems.
- FEMA and NACD can promote more training opportunities. Agreements lead to contracts. Get information out to conservation districts about being red-carded and opportunities to go on assignment and get resources in to help the local conservation district.
- Identify FEMA training programs for conservation districts to participate in. BRIC, community assessment tools, pre-disaster planning takes many forms. Educate yourself on what is most useful in your area.
- EWP – Need a sponsor. It is all about relationships!

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BAER Teams

- What group within NACD would or could assist with connecting with NASF and Fire Committee/ George Geissler, State Forester in WA to lead the discussion about including conservation district staff to go through a red card training program? Washington has a retired military program certifying firefighters, maybe he can help with specialist type staff, such as soils analysis.
- Advance the private lands BAER program in Washington state, provide information to others about its availability and gain interest for training; once it is established, coordinate with the NWCG to create a resource order designator for listing in the federal resource ordering system.
- Identify partner organizations that already provide trained personnel to incidents, such as the National Weather Service, specialist type trained individuals. Seek out how they have been recognized by NIFC and NWCG. Promote trainee/shadow positions such as the FEMA/USFS BAER team.
- Coordinate with NWCG/NMAC, suggest reaching out to Joe Stutler/Area Commander and Katie Lighthall/West Region request WFLC to identify a path to educate IMTs about conservation districts and how they can assist as local/state government entities in the wildfire response goal area.
- IMTs bring in resources, can there be a liaison for conservation districts to the team? What about the Delegation of Authority during an event? Direct communication is needed with the IMT, perhaps through the NIFC/NMAC to identify a process to educate not only the local government and emergency response organizations, but for all coming into an area responding to a type 1 incident, maybe from New Jersey.

Safe and Effective Wildfire Response

- Increased work with developing solid coordination between the state fire marshals and local/state emergency managers and conservation districts. All are entities that are local and in communities that are needing assistance with understanding preparedness of their homes, evacuation and communications during disaster-related events. Ice storms, high wind events and other events that do not require evacuation still are placing high demands on local emergency response organizations. The capacity to manage these events is drastically low in most all areas.
- Utilize old-school communication techniques when the power is out and cell towers are down, internet notices are not an option. Direct mailing has been successful with post-event communications with landowners.
- Conservation districts can be cooperating agencies with federal agencies. One area of interest is Rural Fire Protection Associations. Community and county-led community wildfire protection plans are an area that conservation districts can engage in locally and lend their expertise to the planning and landowner education programs. Conservation districts are the 'local' go-to in many locations.

Restore and Maintain Resilient Landscapes

- Coordination between state agency forestry and fire organizations must expand. Increased involvement between conservation districts and managers for action plans focused on invasive species coordination, water protections and landscape restoration efforts for damaged lands.
- Stand up an RX fire core program that includes conservation districts. Have tools ready for conservation districts to participate without concerns for liability. Conservation districts can reach out to you to learn about a shared stewardship project/effort.
- Game and fish agencies, critter organizations, conservation groups, DOI Bureaus such as the

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BLM, NPS, USFWS, BIA, and others have multiple opportunities available to work with conservation districts. Using the shared stewardship strategy, work together to increase the amount of cross-boundary work that is occurring in the landscape. (Are there some landscapes that might lend themselves to cross boundary work, Joint Chiefs applications, etc.? Specifically, the National Wild Turkey Federation has several active stewardship projects – let us look at opportunities to increase the footprint of those projects by expanding private land efforts where appropriate.)

- Forest Restoration = resiliency. NOT pre-European man, let nature take its course.

Fire Adapted Communities

- Consider market research to collect community-specific data in your area, to then be able to develop tailored solutions in your community. This can be challenging to accomplish alone – an entity like Wildfire Research Center (WiRe) may be able to support this work or provide a template of how to accomplish this.
- Utilize old-school communication techniques when the power is out and cell towers are down, internet notices are not an option. Direct mailing has been successful with communications with landowners. Provide shared stewardship and technical assistance to local conservation districts on accessing grant funds from FEMA and other agencies providing financial resources to prepare community preparedness plans within the county, state and regional hazard mitigation plan. Conservation districts will provide improved effectiveness when needing local communication.
- Conservation districts do not need to recreate the tools; NFPA, Firewise, FEMA and CWPP templates are available resources.
- Insurance organizations need to help incentivize independent homeowner and landlord responsibilities.
- Most critical – Conservation districts need to be involved in the county and state Hazard Mitigation Plan. They are not eligible to participate in post-event recovery projects if they are not in the plan to begin with.
- The funding maze needs clarity, conservation districts need capacity to learn the maze and myriad of websites, terminology and reporting requirements. Need to expand the sharing of tools developed by conservation districts that have suffered from disaster events.

Science

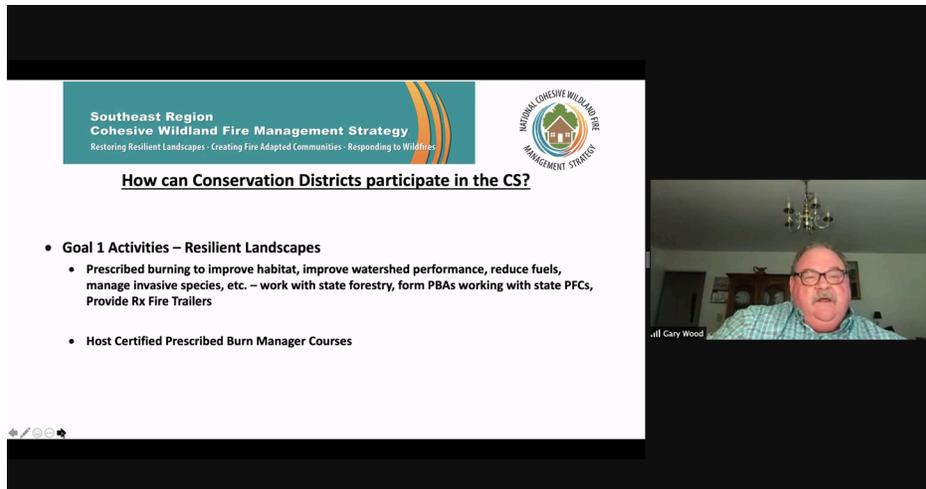
- There is a great need for data to assess risk, changing climate conditions, structural assessments, infrastructure loss and needs. Identify NIST as a partner to assist local communities and conservation districts to work with identifying a clear path for increased and informed data needs and deliverables. Work with USGS and their recent wildfire strategy.
- Data needs – science – risk assessment information is available online, need for increased understanding and education to conservation districts to share their data to inform other assessment efforts, as well as for them to access data to help them make better decisions for their lands and landowners they work with. Breaking down silos!!! Sharing data must be a priority. Collaboration takes work and money. Collaboration means calling into meetings, listening, and identifying where you can help with something. Take action to educate and inform others about what a conservation district is and does on a broad across-country scale. Regional assessment data is available but needs help. Conservation districts can have a seat at the table if they want it.

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NACD WINDS, WATER & WILDFIRES SUMMIT – SOUTHEAST

The second of three summits was held on two half-day sessions, May 11, and May 12, 2021. The following actions were identified by attendees.

These actions are organized by the Cohesive Strategy goal areas and include a category titled “overarching”.



Overarching

- Data sharing with conservation districts is important to help private landowners to utilize the SOUTHWRAP data portal. Risk assessment information is available from many sources, best to connect to the larger effort with the regional strategy committee.
- Expand outreach about the Cohesive Strategy to conservation districts. Provide information from the regional strategy committee on a regular basis. Conservation districts are invited to participate in the regional strategy committee meetings monthly and are welcome to provide information about the projects they are already working on.
- There is recognition that disaster-related events are occurring more often. Communication between conservation districts would be helpful to coordinate and successfully engage on a county-county and state-by-state regional approach to hazard mitigation planning. Focus on mitigating impacts before an event needs to be a component of planning.
- Communication is key: Find partners ahead of time, get involved in FEMA training and planning efforts. Conservation districts would benefit by learning to easily locate their state hazard mitigation office (SHMO). Sharing of the weblink to locate ‘your SHMO’ in regular communication may be helpful. Include this information when engaged in community planning efforts. Identify the point of contact for engaging with local emergency management offices in the upcoming desk guide for conservation districts implementing the goals of the Cohesive Strategy.
- Expedited authorities NRCS utilizes for restoring damaged lands would be helpful for other organizations that are also faced with restoring lands, implementing plans for disaster recovery, and bringing in qualified individuals from other conservation districts, such as Burned Area Emergency Response. Discuss and identify a procedure/process to allow for qualified conservation district staff to respond to nearby incidents. If the staff are not qualified, identify the process for training to become qualified.

Training

- Promote free prescribed fire burn training to local landowners. Continue networking with the state forestry/department of natural resources to identify additional training and qualification certifications, such as State Certified Burn Manager qualifications.
- Increase the understanding of authorizations such as the Wyden Amendment, Shared Stewardship, and other U.S. Forest Service programs.
- Share free FEMA training information to conservation districts. Provide platform and group sessions to promote shared learning within and between conservation districts.
- Conservation districts can help to educate landowners to utilize the National Weather Service

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portal for information to make better decisions about when to burn, size of burns, and timing.

- Expand participation of the National Wild Turkey Federation and state forestry/department of natural resource prescribed burn 'Field Days' and availability of rental burn trailers. Follow up – will provide a website of where to locate the burn trailers on any given day.

Restore and Maintain Resilient Landscapes

- There is a need to increase the use of prescribed fire for pest control and for restoration of the land. Severe wind and ice events have occurred across the South and have left an enormous number of limbs and damaged trees on the ground.
- Increase coordination and information sharing between conservation districts and the prescribed fire councils in the southeast.
- Advancement of authorized use of Good Neighbor Authority to conservation districts was recommended. Support was given by the Acting Deputy Under Secretary of USDA, NRE, Chris French.
- Conservation districts in some areas are already involved in the Prescribed Burn Associations. Identify where they are not and increase their opportunities for engagement.
- Create landscape projects to include a component of reducing risk to a community, while promoting homeowners to be prepared for disaster events, such as Firewise USA and Ready, Set, Go.
- Develop landscape projects to provide for multiple benefits, such as increasing wildlife habitat improvements along with ensuring water quality and quantity.
- Invite the U.S. Forest Service and other agencies, non-traditional landowners, critter/habitat organizations to your meetings to broaden the engagement and larger footprint or landscape treatment across jurisdictions.
- Provide information to conservation districts about the successful flood control devices, highlight the importance of local people solving local problems when it comes to critical infrastructure.
- Continue coordination and communications to conservation districts about the activities of the National Watershed Coalition.

Fire Adapted Communities

- In the Southeast, fire lanes or fuel breaks are installed to provide control lines for stopping a wildfire or providing a barrier to manage application of prescribed fire on the land. It was identified that more fire lanes were needed, as well as increasing the maintenance of those that are in place, because they have grown over and are not helpful in stopping a wildfire. Information about installing fire lanes is available through the Extension service, more information and assistance to private landowners to install them. Conservation districts could be the conduit for sharing this information and providing a mechanism to partner with federal agencies to install them in the most strategic locations to provide protection to communities.
- There is an obvious need for increased community preparedness for disaster planning and response. Conservation districts are uniquely placed at the local level and have the trust-based relationship with landowners to help with engagement on preparing all communities. Increased plan development and engagement with the hazard mitigation plan needs to happen so conservation districts can be a part of the planning early and a part of the recovery grant processes with FEMA.
- Expand the use and sharing of Fire Adapted Communities and Firewise USA brochures, program education within your day-to-day communications with landowners.

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- Share regionally and nationally about the successful outreach and program, Fire on the Farm, as shown by Frank Riley, GA. Utilize the pictures and concepts about equipment placement and the importance of messaging.

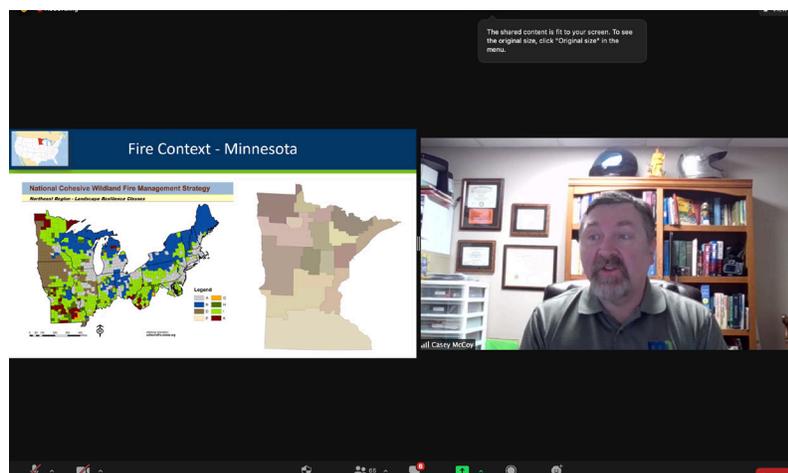
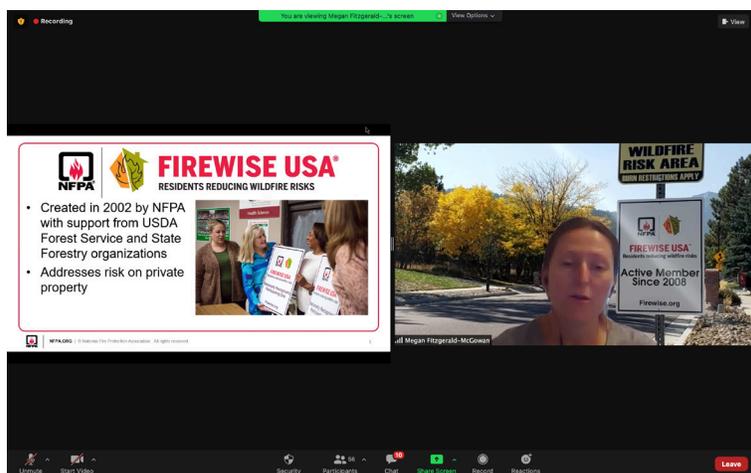
Safe and Effective Wildfire Response

- Innovative ways to help innovators. Conservation districts work with landowners to come up with solutions for land-based problems, whether it is increased invasive species, livestock loss, or ice storm damage to the trees. There is a need to collaboratively participate in the community groups that work together to solve the issues in the community, such as local emergency management committees, local volunteer fire/emergency response organizations. In areas where there are no organized response, the conservation district can be the foundational member to work with starting a community wildfire protection plan. Funding is available from FEMA through a hazard mitigation grant program. Conservation districts can partner with local/county/state emergency managers early before they are needed during an event.
- Plan where to plug in during a disaster event, conservation districts can reach out to the emergency service agencies in their local area and ask what they can do to help. Setting up the relationships and talking about what the role of the conservation district could be based on their local capacity. If there is a gap, the conservation district could reach out to other districts and their region reps for input.
- Local community response organizations often have equipment. Conservation districts help during response and recovery in ways such as organized hay drops for livestock, utilization of ag spray planes for fire detection and suppression, anything that is needed, local community members come to help, if they can. When communities are overwhelmed during recovery, faith-based organizations and conservation districts are the stable entity able to organize to extend assistance during and after the outside agencies have left. Everyone brings their equipment and resources, such as food and their own two hands to help. Often during evacuation, local community members are hauling their livestock out of harm's way, such as during flooding, wildfires and other events. Conservation districts could assist with establishing evacuation plans for livestock and household animals. Districts are often familiar with the whole family, including older members that may need assistance with mobility and evacuation. Because ranches are often larger land holdings, landowners typically know people from nearby towns and have family members living close. When a family member or friend that lives in the nearby town shows up to help, it is a much quicker response than most regional or national response organizations.
- NRCS has authorization to utilize waivers for recovery on the land. This ability to do work quickly to restore lands is extremely important and should be explored for utilization during all damaging landscape events. More information is needed to identify the specifics of the authority and identify procedures to expand its use on the millions of burned, flooded and wind-damaged lands.
- Review opportunities to work with DNR and NWTF together with conservation districts and private landowners. Focus on actions, develop a solid path of communication and integration of conservation district representation where most beneficial for getting work done on the ground.
- Several grant processes require more matching funds than local communities have available to meet that fiscal requirement. Often local community critical infrastructure and damaged lands stay as they are when damaged because of the inability to meet the match, leaving landowners without drinking water, waste management systems, or public services, such as

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grocery stores, gas stations, city buildings. There is a critical need to identify a programmatic solution for communities that desperately need recovery funds to be able to still qualify for funding, perhaps waiving the 'match' requirement.

- Small landowners need help with doing site preparation, burning, and other treatments.
- Hiring individuals that have local knowledge is particularly important. There are problems with staff that have come from out of the area and try to implement a practice that has no chance of working in this region. It results in a waste of time and money. Leadership of the agencies need to increase the point structure perhaps when hiring to account for local knowledge.



NACD WINDS, WATER & WILDFIRES SUMMIT – NORTHEAST

The third and final Winds, Water & Wildfires Summit – Northeast was held on Tuesday and Wednesday, May 25 and 26, 2021. Two half-day Zoom meetings were well attended. Initial registration on the first day of the summit was at 102, with two additional registrants on the list for day two. At the peak of attendance, 86 individuals were present, like the West summit attendance.

Overarching

- Most attendees had some knowledge and skills to enhance prevention and mitigation. Time to "de-silo". Our relationships and lines of communication are crucial. Public education is crucial. Relationships. Long before the incident. Incidents will MAGNIFY stressors on relationships.
- Education of land management principles, fuel reduction/management, prescribed fire for watershed management, harvest techniques, recreation opportunities, tourism impacts, and employment, etc.
- Do your maps work with other maps? Coordinate and communicate with other agencies developing maps and have response authorities. Connect with road departments from all levels of government to be sure road markings are clear and in place. (Local, state, federal)
- Participate. Assist with all levels of planning for coordinating communications amongst partners and with the public. Local or county planning commissions, metropolitan planning organizations (MPOs), council of governments (COG) – Any local, state, federal emergency planning.
- Expand on the sharing of data from conservation districts to inform the NE RSC data portal and build a strong bridge/relationship with partner organizations and agencies.

Training

- Help form wildland fire modules for prescribed burning and wildfire response.
- Explore training for grant application opportunities and success of planning projects together

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with partners to reduce competition and expand successful landscape level treatments to protect communities. Show how to engage now, how to provide information to the planning process at all stages of plan development and completion. If a district wants to be part of a plan, but finds out it is completed and in a five-year update cycle, what do they do now?

- Training for buffer protections, tree health, i.e., insects and disease identification, developing plans for forest stewardship. Managing riparian buffers.
- Training to promote public understanding of personal responsibility for their homes, rental properties, and green spaces or common areas with subdivisions.

Restore and Maintain Resilient Landscapes

- Collaboration. Encourage districts to partner with state forestry depts, private lands programs. Funding. Advocate stable consistent funding for state PFM programs done in partnership with conservation districts, local partners. Prioritize, Target, Measure (PTM). Support development of PTM based PFM service delivery approaches. Start with key drivers facing your state. Grow PFM. Add on services – Firewise, tree planting for carbon, etc. Climate Change. Recognize and promote PFM as a big winner when it comes to carbon sequestration and USDA’s future focus on this. Support increase of block grants to pass through to conservation districts. Need to have a clear path to funding districts’ work.
- Encourage USDA to utilize block grant funding to state PFM programs for technical assistance and state cost share programs. Address territorial behaviors between agencies. Some DNR or state forestry organizations do not have jurisdiction over every acre in the state, fire departments and conservation districts share prevention effort responsibilities. Suggest promoting areas where we can work together.
- In the Northeast, districts provide technical assistance and outreach/education to: Farmers Private land-owners Urban and rural communities Local governments Working in collaboration with regional, state, and federal partners. Focus on increasing the ‘stacking’ of benefits. Show the collaborations and benefits of working together accomplishing multiple goals of the Cohesive Strategy.
- Connecticut’s North Central Conservation District worked on control of phragmites dominated wetlands restoring to native species. Promote additional work on restoration of wildlife habitat and native species.
- Conservation Districts coordinate landscape scale projects that require implementation at the local level. Watershed management, Soil health, Invasive species management.
- Flood mitigation, Drought resilience, Urban stormwater management, Streambank stabilization practices can be expanded to achieve the resilient landscape’s goal of the Cohesive Strategy.
- Conservation districts coordinate with DEC on New York’s Post-flood Stream Repair program. They have developed a training program aimed at emergency repair of streams using sound science and knowledge of stream processes.
- Support prescribed burning to improve habitat, improve watershed performance, reduce fuels, manage invasive species, etc. – work with fire depts., state forestry, department of defense, form Prescribed Burn Assns. working with state Prescribed Fire Councils, The Nature Conservancy, etc. Get ahead of the burn footprint.
- Help implement fuel reduction projects, i.e., fuel breaks, (thinning, chipping) to manage landscapes and protect property, communities.
- Help fund/manage prescribed fire equipment trailers for communities/neighborhoods.
- Focus efforts on including youth organizations to promote education and outdoor experiences.

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Fire Adapted Communities (prepared)

- Ready, Set, Go. Evacuation plans, involve your local FD, and law enforcement. Contingency Plans. FIREWISE conversations. Working with the fire department on access. Work with fire departments on property identifications. Working with FD on water supply.
- More education and engagement with local planning, work with agencies such as the Office of Emergency Management, and advocacy groups such as the American Planning Association. Review and implement Planning the Wildland Urban Interface in your area.
- Research FEMA funding, such as BRIC – Building Resilient Infrastructure and Communities funds. Get additional education and apply for funding to assist communities becoming fire adapted.
- Provide leadership in communities by promoting Fire Adapted Communities programs such as: RSG! WFAP, community planning, i.e. Firewise USA, Community Wildfire Protection Plans, updating the wildland urban interface boundary line, values at risk, areas for fuels reductions, and measures to reduce structural vulnerability, etc.
- Support fuel reduction activities in the wildland urban interface (WUI).
- Facilitate partnerships with local fire departments, building and development departments.

Safe and Effective Wildfire Response.

- Conservation districts have expertise in GIS, interpreting real time stream and tidal gauges, and can be an integral part of the Emergency Operations Center.
- Districts also form a technical network to assist municipalities following an emergency.
- The Vermont Association of Conservation Districts has been the sponsor of the Vermont Rural Fire Protection program since 2013. Originally an RC&D project, VACD has been credited with “saving the program.” Dry hydrant programs are an easy fit for conservation districts.
- Start sharing information about successful dry hydrant programs to prompt expansion in areas showing interest.
- Lead/facilitate/participate in community planning, implement programs such as RSG! And Firewise USA
- Sponsor wildland fire training, work with states, fire departments, prescribed fire councils, etc.



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**IMPLEMENTATION OF
AGGRESSIVE STRATEGY
GOAL AREAS**

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Fire Adapted Communities

Engagement in Your Fire/Emergency Response Community

Evaluate the local agency structure for wildfire planning and project work. Utilize tools to find out how the fires in your area have started and take action to reduce human-caused fires in your sphere of influence.

Our wildland fire system – the ecological, environmental, the economic and the cultural parts of all of wildland fire – is really changing before our very eyes: extreme weather, record shattering heat, tinder dry fuels, stalled weather fronts, hot and dry winds. Recent decades have seen an upward trend in the number of acres burned along with a rise in severe consequences to communities and landscapes. A number of key issues must be addressed to alter these trends:

- Planning and building fire adapted communities and increased engagement at the local level – local governments and communities in all parts of the country need assistance to understand their risk from natural disasters and to take action to eliminate loss of life and property;
- Forest and range management and restoration around communities – collaboration across jurisdiction and ownership boundaries is necessary to achieve healthy landscape management;
- Routine risk reduction has to be on the minds of every landowner/manager. Home/barn “hardening” or reducing structural vulnerability/wildfire risk and creating defensible space or managing hazardous fuels around your buildings is a personal responsibility and needs to be done – whether by prescribed fire, mechanical or biological means.

Many of the issues facing our nation’s communities and natural resources are not well understood and clear solutions are even less so. There has been limited funding for emergency preparedness and prevention education when disasters are occurring more frequently. There is an urgent need for public education about taking personal action to reduce risk. The complexities of fire and fuels management in forested landscapes, building codes, and ever-changing climate impacts on our urban landscapes make it extremely difficult for the public to understand, much less accept and act on reducing their own risk. Trends indicate more people are moving to rural areas, again changing and increasing the need for awareness and preparation for natural disasters.

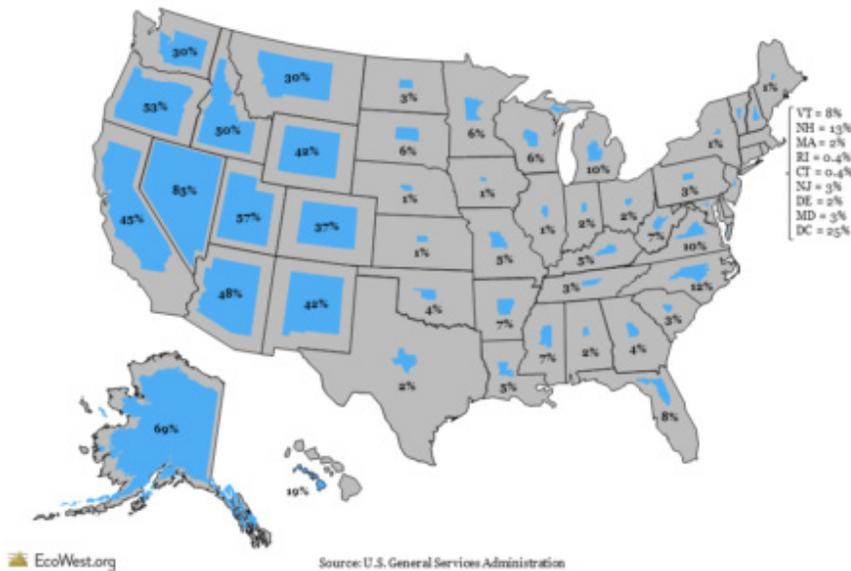
To understand the complexity of wildland fire, it is helpful to look at the agencies responsible for wildfire management, as well as fire departments and the critical need for collaboratively developed, dynamic community wildfire plans. By learning about the numbers and causes of fires or disastrous events in your area, you will learn to understand the differences in agencies’ responsibilities and their role in responding to these events.

States are responsible for responding to wildfires that begin on nonfederal (state, local and private) lands, except for lands protected by federal agencies under cooperative agreements. The federal government is responsible for responding to wildfires that begin on federal lands. The Forest Service (FS)—within the U.S. Department of Agriculture—carries out wildfire management and response across the 193 million acres of the National Forest System (NFS). The Department of the Interior (DOI) manages wildfire response for more than 400 million acres of national parks, wildlife refuges and preserves, other public lands and Indian reservations. The land management

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agencies mentioned do not have the responsibility of extinguishing a structural fire in your home, barns and other outbuildings. Some federal and state wildland firefighters have experience with structural fires due to their personal involvement with a volunteer or local fire department in their community. When working for a wildland fire protection agency, previous structural fire qualification and/or experience does not mean you have the responsibility to suppress a structure fire. There may be individual organization agreements in place that allow for exceptions during mutual aid response.

Portion of each state that is federal land



More information about publicly managed lands can be found on ecowest.org or the U.S. General Services Administration.

If you live within a fire district and pay taxes or assessments for structural fire protection, the local, city and county fire departments are responsible to respond. Not all structures and lands in the country have a designated response agency. When a fire occurs in an unprotected area, it takes time to figure out if an agency has lands threatened by a reported fire and if they will respond. Often, but not always, neighbors help neighbors.

In multiple fire situations or national disasters, a draw-down or a limited amount of resources are available for responding. Simply, sometimes there is nobody or no engine available to respond. For decades, fire agencies have been trying to inform the public there is NOT a truck for every home. You must prepare your home and an evacuation kit.

While it is ultimately the homeowner's responsibility to be prepared, there are also many renters who are not prepared and do not understand they are ultimately responsible for being informed and educated on when to evacuate. It could be as simple as owning a fire extinguisher. If you are working with a lawnmower or other equipment, have a charged, working fire extinguisher readily available.

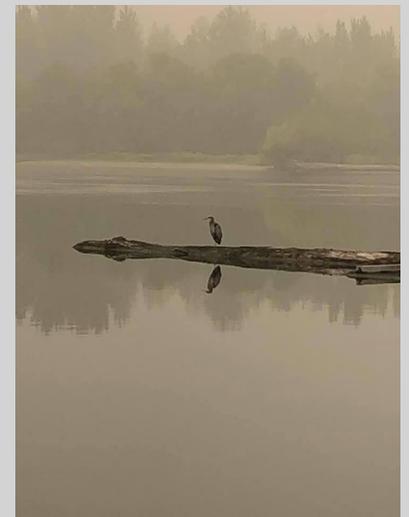
Are you prepared to evacuate? For decades, fire agencies have been trying to inform the public there is NOT a truck for every home. You must prepare your home and your family for an evacuation. Start with a plan and a kit!

For information on your kit, go to: Build A Kit www.ready.gov/kit or Survival Kit Supplies www.redcross.org/get-help/how-to-prepare-for-emergencies/survival-kit-supplies.html

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Fire prevention and preparedness is not only a local issue. When writing the Cohesive Strategy, recognizing the need to identify a response agency for every acre in the country was identified as a national priority action. Efforts must be increased in every community and all residents to learn and practice Ready, Set, Go!. States were identified as the potential leader to take action and to work with local areas to identify the needs for under-protected or unprotected lands. One example of implementation of this specific action can be found in Oregon. The Oregon Wildfire Council Final Report contains several recommendations found in the Cohesive Strategy, and other states have done the same thing to truly implement the foundational goal of a 'cohesive' strategy for all.

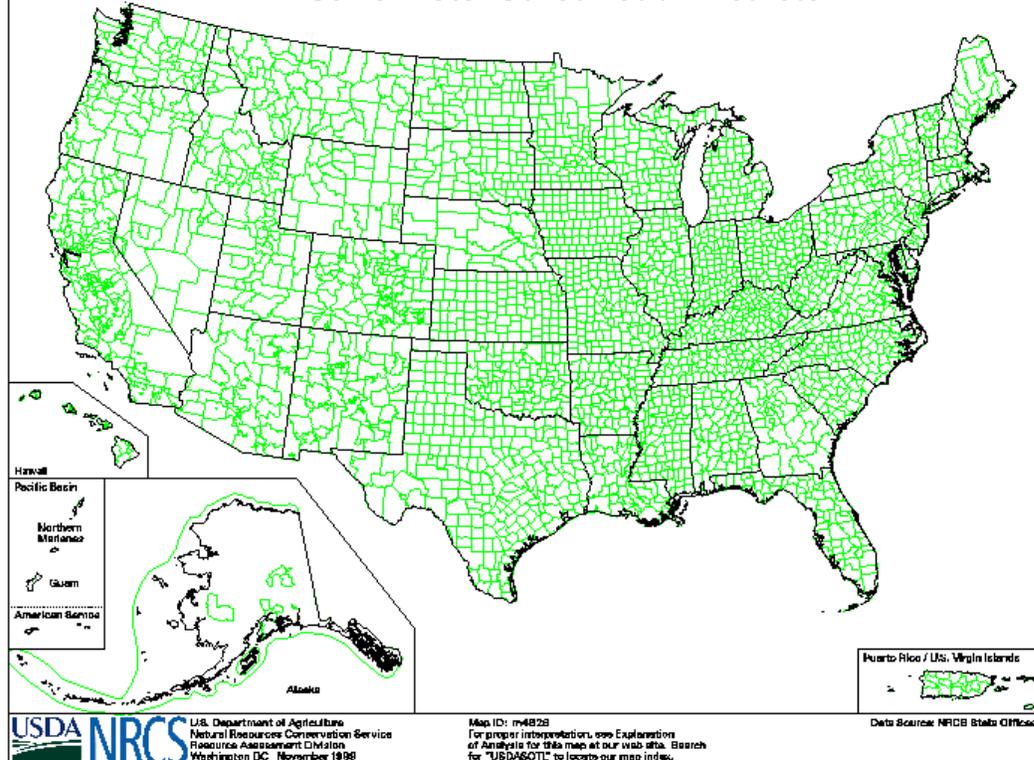
In many cases, preparedness plans are developed and need to be implemented with an urgency and at the scale comparable to the size of disturbances, but there is rarely enough money. We have plenty of examples of assessments clearly outlining data and indices that point to where the extreme wildfire or flood will happen. We need the help of all local land and emergency response organizations to come together to address implementation of these plans if we want to change the trajectory of loss of lives, homes and damage to our landscapes and wildlife habitat from wildfires. Conservation districts are the local level.



During the 2020 Labor Day Fires in Oregon, the smoke was the worst in the world, and the public was cautioned to stay inside, close all windows and vents, including clothes dryers, change air filters regularly, and wear N95 masks if you had to be outside. Hospitalizations skyrocketed for upper respiratory ailments during the multi-day, extremely hazardous air quality index. Learn more about the air quality index at [aqi.org](https://www.aqi.org). There are several websites for monitoring air quality, such as: <https://www.iqair.com/us/usa>.

Wildfire Smoke Guide for Public Officials: <https://www.airnow.gov/wildfire-smoke-guide-publications/>

Soil & Water Conservation Districts



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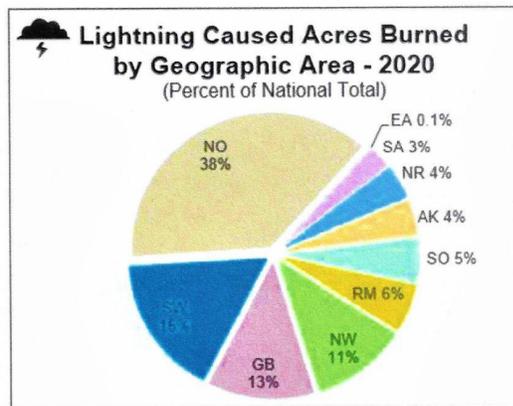
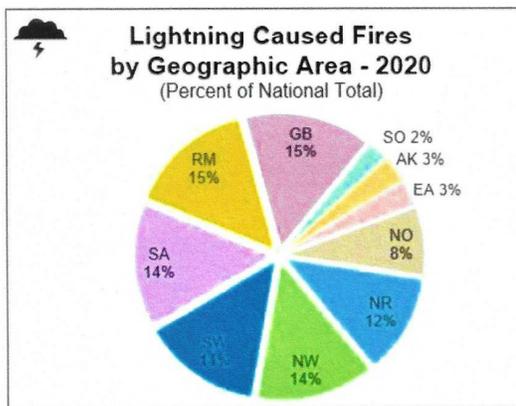
How can conservation districts play a role in current fire prevention, response and recovery efforts?

The nation's fire problem isn't only about one hundred years of wildfire suppression on federal land or lack of forest management, it has a prime component of human-caused ignitions.

National wildfire tracking - Below is a chart from the National Interagency Coordination Center - 2020 Report. The charts indicate lightning and human-caused wildfires by geographic area. The full report can be found at www.nifc.gov.

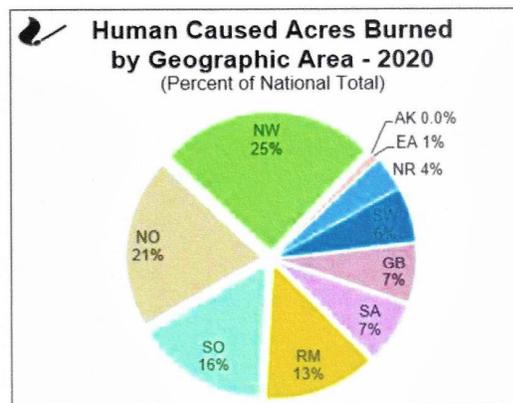
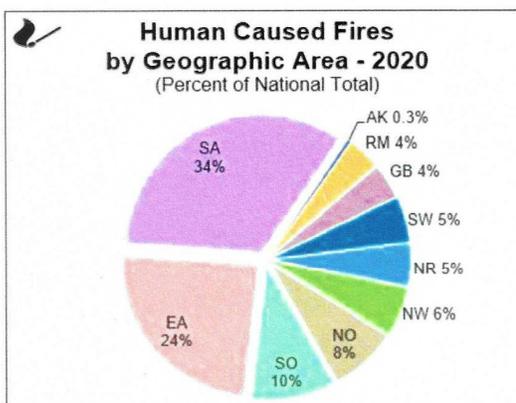
Lightning Fires and Acres by Geographic Area

Year: 2020	AK	EA	GB	NO	NR	NW	RM	SA	SO	SW	Total
Fires	168	171	804	430	625	746	789	784	124	746	5,387
Acres	180,885	3,178	517,325	1,549,012	172,118	467,060	229,955	115,994	216,492	671,504	4,123,523



Human Caused Fires and Acres by Geographic Area

Year: 2020	AK	EA	GB	NO	NR	NW	RM	SA	SO	SW	Total
Fires	181	13,004	2,154	4,248	2,779	3,107	2,063	17,989	5,295	2,743	53,563
Acres	284	59,858	431,487	1,229,991	230,928	1,516,910	791,996	440,908	927,722	368,729	5,998,813



Take a look at the chart to see what is the most significant cause of wildfires in your state. The most probable cause is NOT lightning. Local emergency response organizations have this data, and you can see where fire prevention efforts are needed most.

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At all levels of community planning, conservation districts can provide local technical expertise that enhances strategies to protect lives, natural resources and property by informing the groups with water availability, community education and management techniques. Conservation districts can provide an important link of communication to the landowner about fire prevention, and how to protect their homes, outbuildings and crops.

If your conservation district is not currently engaged in community planning efforts for emergency preparedness and response, please take time to identify the groups working on these important efforts near you. Education and involvement with local groups such as the Youth Conservation Corp (YCC), FFA and others can provide an opportunity to teach the next generation of land and water managers the importance of building a program of resiliency for the lands and resources in your area, as well as instilling a need to help your fellow neighbor. Constant changes in land ownership present their own set of challenges, and conservation districts can provide first-hand local knowledge that will help new owners and producers for years to come.

Check out www.fireadaptednetwork.org for information on community fire planning and take action to help your community. Maybe organize and develop a strategic program or presentation to share with new groups in order to provide them with a clear understanding of what soil health, playas development or community groups and program education services you are familiar with and can share with their group. Your expertise could also include activities such as event planning, soil or natural resource research, tools for including local landowners, and recovery or restoration of lands.

Remember to identify and share the successes in your district with the local and regional groups working on emergency preparedness, response and recovery.

Landowners are most often volunteers in their local rural fire and emergency medical response departments. Take advantage of opportunities to promote volunteering and participating with local response organizations when participating in other community groups or religious organizations and in your day-to-day activities. Everyone can be an educator about the need for reducing human-caused ignitions. Planning early and with people you know will help enhance efficiency when working together during stressful events.

Community Mitigation Assistance Teams (CMAT) – To assist communities to be prepared when a fire occurs in their neighborhood, a CMAT pilot was developed in 2014.

A CMAT, 1-9 experts in mitigation and community education, can help build a robust mitigation-focused community.

NACD is focused on climate smart agriculture. The engagement with counties, leadership, conservation, and mitigation before a fire is an opportunity!

The CMAT is ordered through the U.S. Forest Service and requires full participation from both the community and the local U.S. Forest Service office. The outcomes are cohesive, cross-boundary processes to work together to take action on the ground. Trust is critical. CMAT deployment has occurred 12 times since 2015. The team was developed as an interagency resource, but hasn't received any requests from other agencies. A request form can be found at: <https://www.fs.fed.us/managing-land/fire/cmat>.

NACD Special Report on Cohesive Strategy. https://www.nacdnet.org/wp-content/uploads/2021/02/SpecialReport_Winter21.pdf

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Each Cohesive Strategy region has a coordinator, and they often welcome opportunities to promote your local successes in implementing the goals of the Cohesive Strategy. The RSC coordinators have an expansive network with local, regional and national non-traditional partners, as well as government and non-government groups.

Washington's Cascadia Conservation District (CCD) has worked with landowners and partners on wildfire recovery. On the heels of the 2018 Cougar Creek Fire that burned over 45,000 acres, CCD organized a workshop on post-fire recovery efforts. Federal, state and local partners were able to attend.

“We saw a lot of landowners that were impacted by the fires and didn't really know what the next steps were to recover their land. The topography and inherently the landowner and what they're doing on the property informs those next steps, which make this process unique to each landowner,” CCD Program Director Mike Cushman said.

The full story can be found at: <https://www.nacdnet.org/2019/01/23/district-provides-much-needed-post-fire-support/>.

Natural resource professionals across the country are challenged with wildfire. New Jersey implemented a Community Wildfire Protection Plan (CWPP), which is based on lessons learned from the tragic 2007 wildfires. The plan was developed by local communities with expertise, including the Mercer County Soil Conservation District. Learn more at <https://www.forestsandangelands.gov/strategy/news/barnegat.shtml> and https://northeasternwildfire.net/wp-content/uploads/2019/09/2015_newjersey_learning_hub.pdf.

Adopt and implement planning efforts to reduce risk to communities.

Planning efforts to reduce wildfire risk start with developing a CWPP as defined in the Healthy Forest Restoration Act. Multiple guides exist to assist your community in developing this most important guidance. In some areas of the country, the state's FEMA All Hazard Mitigation Plan will have a wildfire chapter that contains the locally developed CWPP. By including the CWPP in the FEMA HMP, both are able to be updated at one time due to the annual revision requirements.

Access the IAFC Leaders CWPP Wildfire Guide online: <https://www.iafc.org/topics-and-tools/resources/resource/community-wildfire-protection-plan-leaders-guide-supplement>. A CWPP Community Guide is available here: www.communitiescommittee.org/pdfs/cwpphandbook.pdf.

A CWPP is a plan developed in the collaborative framework established by the Wildland Fire Leadership Council and agreed to by state, tribal and local governments, local fire departments, federal land management agencies and other stakeholders managing land in the vicinity of the planning area. A CWPP identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment on federal and non-federal land that will protect one or more at-risk communities and essential infrastructure and recommends measures to reduce structural ignitability throughout the at-risk community. A CWPP may address issues such as wildfire response, hazard mitigation, community preparedness, and structure protection -

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or all of the above. A good tool to help you to understand the plan can be found at the USFA website: <https://www.usfa.fema.gov/wui/communities/assess-risk.html>.

An advanced CWPP will often include a wildland-urban interface (WUI) code, which is specifically designed to mitigate the risks from wildfire to life and property for the area covered by the plan. Implementing a WUI code promotes safer development by ensuring that life and property are uniformly protected from wildfire risk. Conservation districts are active in all areas including WUI, rural and metro. The actions conservation districts do to promote soil health, post-event recovery and plant sales all lend themselves to public education about the benefits of trees and plants.

To combat increased loss of homes and critical infrastructure, many local cities and counties have adopted standards regarding set-backs for trees and buildings. More regulations are put into place, such as a Wildland-Urban Interface, or WUI, code. A WUI code of standards will vary according to the scope that a community is willing to adopt and enforce. Opposition exists to more regulation in some areas, but studies have shown homes built under new building codes based on advanced research and disaster after-action research have saved homes from washing into the ocean. Some neighborhood conservation districts have been developed to protect and preserve historic buildings and greenways. States, counties and cities in flood zones, high-risk wildfire zones and hurricane-prone areas have various codes and policies in place; most of these examples can be found online.

A WUI code often works in conjunction with other codes, such as the jurisdiction's fire code and building code. References to these other codes should be included in a WUI code. The local authority responsible for a WUI code is typically the local fire district/department, land use department or building department. To be successful, the adopting jurisdiction should ensure there is enough internal capacity to enforce the code. Conservation districts can lend their expertise to developing relationships with landowners during the phase of building public awareness.

Model WUI codes can be useful in providing jurisdictions with examples of language for required mitigation and guidance. It is rare that jurisdictions adopt model WUI codes in full; rather, they adopt them in part and/or with local amendments. WUI codes also work best in concert with other voluntary and outreach programs that encourage resident awareness and education.

During lightning storms, multiple fires exist on the land, and a response is not always guaranteed as soon as you call. And, during evacuation, it is not guaranteed that a state police, sheriff's deputy or city police officer will notify you when to leave. Home owners, renters and occupants must educate themselves on their responsibilities to get information during an emergency; phone trees with your neighbors, other alert systems may exist for the area you live. Be sure you know them before you need to know them.

Emergency responders are noticing a dependency on social media sites for information, but during disaster events, dispatchers are prioritized to communicate with their responding resources, and social media sites are not the first priority for their time. Also, cell towers may become damaged and social media updates are not readily available. You must establish how you will get emergency notices BEFORE you need them. Call the non-emergency number for your local police/fire/medical response organization.

Nevada County RCD (www.ncrcd.org) in California is part of the Fire Adapted Communities Network - the following interests align with FAC:

*Community Wildfire Protection Plans
Evacuation outreach
Evacuation planning
Firewise Communities / Defensible space
Forest/ecosystem management
Fuels treatment / Prescribed fire
Fuels treatment economics
Ignition-resistant home construction
Watershed protection/management
Wildfire recovery
Wildfire risk assessment*

*Preparing Homes for Wildfire
Guidance: <https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Preparing-homes-for-wildfire>*

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Here are a few possible components to a WUI code -

- Protection capabilities - adequate response, sprinkler systems in-home and around structures, proper propane tank storage, and ember-resistant openings/spark-arresters
- Emergency vehicle access/egress
- Water sources
- Vegetation management
- Structure density and location
- Building materials and construction
- Plans for animal evacuations, pets and livestock

If codes and government planning are not what your area prefers to implement, here are some incentive-based programs for home and structural resilience. Check out the following reports and programs:

[Building a Wildfire-Resistant Home](#): Codes and Costs - Headwaters Economics, an independent, nonprofit research group's mission is to improve community development and land management decisions.

[Are YOU Wildfire Ready?](#) - Implement Ready, Set, Go!, Firewise USA(r), and other incentive based options.

[NFPA](#) - The National Fire Protection Association (NFPA) is a global self-funded nonprofit organization, established in 1896, devoted to eliminating death, injury, property and economic loss due to fire, electrical and related hazards. NFPA delivers information and knowledge through more than 300 consensus codes and standards, research, training, education, outreach and advocacy; and by partnering with others who share an interest in furthering our mission. Our mission is to help save lives and reduce loss with information, knowledge and passion.

[Firewise USA](#) - Firewise USA® is a voluntary program that provides a framework to help neighbors get organized, find direction, and take action to increase the ignition resistance of their homes and community.



Photo credit - Debbie & Bart Roberts, Colton, Oregon.

In the face of high or extreme risk to wildfire, defensible space and measures are needed. This homeowner installed a sprinkler system, which ultimately saved his home, shop and storage buildings in Colton, Oregon during the devastating, extreme wind-driven wildfires over Labor Day weekend in 2020.

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Engage non-governmental organizations and non-traditional partners, such as recreation, wildlife habitat, transmission companies, etc.

Conservation districts often meet with new landowners and community partners. All private and public sector entities and landowners care about the land for one reason or another. These values are not always the same, but the result of a damaging flood, tornado or wildfire will always bring these differing opinions to the table during recovery efforts.

Differing values bring a variety of entities and organizations as well as opportunities to the table. One person may value wildlife over forests or rangelands. Bird hunters and watchers often have two very different perspectives, yet both are very concerned about the loss of habitat from a disastrous event.

One non-traditional partner recently invited to the planning or prevention effort is public and/or private energy companies. Rights-of-way were identified as problem areas and needing priority fuels reduction work because of evacuation access and egress during an event. Lessons learned from the development of the Cohesive Strategy included identifying work needed to be done to reduce hazardous fuels in and around these areas to save lives. Most fatalities occur during evacuation.

After many years of mega-fires in California, many energy companies are now actively engaging in conducting assessments of their assets and expediting the removal of dated equipment while implementing public safety power shut-down programs to reduce loss of lives, property and our nation's critical infrastructure. An example of how energy companies are contributing to fire programs can be found in California. Power company aircraft are utilized for fire detection and coordinate very closely with first responders for wildfires and post-wind events.

Align public investments in fuels treatments to demonstrable risk reduction activities by community and landowners; benefits of protecting critical infrastructure, water quality and quantity.

By engaging private landowners, conservation districts provide proactive assistance in putting voluntary conservation practices on the ground. These practices have far-reaching benefits, including improved water quality and mitigate the effects of climate events, including drought and flooding. Conservation practices also help minimize the impacts of major weather events; for example, soil health practices increase infiltration, improve nutrient uptake, reduce runoff, and protect water quality. With earned trust and a proven ability to form partnerships at the local level, conservation districts are well-positioned to play a key role in addressing water quality challenges in local communities.

The most successful approach to reducing risks to communities starts with collaboration. Before a disaster strikes, land and water management agencies come together with conservation districts and private landowners to identify areas of invasive species, drought impacts, and insect and disease impacts. Creating a clear picture of the highest at-risk communities and values at risk will

Wyoming Partners - <https://www.nacdnet.org/2018/05/10/wyoming-partners-pool-resources-with-nwtf/>

West Cohesive Strategy 2020 Annual Report highlights the importance of collaboration with utility companies and their role in response to protect communities at risk: <http://wildfireinthewest.org/wp-content/uploads/2021/03/2020-WRSC-Annual-Report-1.pdf>.

Creating a clear picture of the highest at-risk communities and values at risk will make a difference in guiding your efforts and actions.

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make a difference in guiding your efforts and actions.

Conservation district employees often attend meetings of other conservation-focused groups. The National Wild Turkey Federation (NWTf) and the National Association of Conservation Districts (NACD) have signed an agreement that promotes conservation districts working with their local NWTf organization on land and hazardous fuels management. Protecting wild turkey habitat is a direct mutual benefit of conservation districts.

To protect communities, the latest focus on hazardous fuels reduction has been to develop fuel breaks around identified high-risk communities. With a heightened public awareness of the need for increased management on public and private lands near communities, it becomes obvious the amount of acreage needing treatment doesn't come close to the available funds to treat them.

The complexity of the overgrown landscape, now filled with homes and urban-rural sprawl, increases over the multitude of agency-developed and community-developed risk assessments and the number of organizations vying for public and private funds. In order to achieve a level of protection adequate to survive straight-line winds, hurricanes, flooding and wildfire spread, multiple landowners and agencies have to come together to plan the best approach to protect these neighborhoods and critical infrastructure.

Significant investments have been made in many high risk communities all across the country. Wildfires and hurricanes have caused severe negative impacts in areas that most assessments claimed were susceptible to 500-year events but are now experiencing them every decade. Policy changes, sometimes intended to have positive outcomes, ultimately can cause unintended consequences. Policies written without involvement of the neighborhoods that are directly affected by them could be improved by involving local conservation districts and landowners in the development process.

Conservation districts and coordinating agencies involved in post-disaster recovery can come together to help people and communities. Multiple websites; agency regulations; differing reports of who, what and where to get aid are only a few of the very confusing issues a landowner will experience when affected by a disaster. Sadly, the majority of the organizations responsible for helping recovering landowners are now providing education via the internet. If you have been impacted by the disaster, you may not have electricity, a home, or access to the internet or a computer. Local relationships built on trust, such as those between conservation districts and landowners, will help to enhance communication and coordination with emergency preparedness efforts and investments, as well as emergency recovery efforts.

Reaching out to landowners in the areas identified in risk assessments and most likely to be affected by an event will help significantly. Before, during and after disastrous events, the familiar face of the conservation district employee may be most welcomed. Education provided by the conservation district, as well as access to federal funds to recover private lands, are reassuring during such disruption, loss and confusion.

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Prioritize community protection within fuels management programs.

Recent floods and fires have decimated millions of acres. Thousands of homes and buildings have been destroyed, and federal disaster funding has come available to counties in every part of the country. Whether it is the Natural Resources Conservation Service (NRCS), USFA/FEMA, or state and county disaster funding, having a plan for your property provides a roadmap to recovery. Identified water sources, landscape treatments and pre-event conditions are helpful when applying for federal disaster funds. Joint planning by all partners, conservation districts, emergency managers, water managers and private industry can all benefit by learning the local values and developing a workforce capable of making improvements on the land and reducing risk to homes and communities. Local management plans should tie to county and state action plans, such as all-hazard mitigation planning.

Within a CWPP, one of the requirements is to identify and prioritize hazardous fuels reduction priorities to protect communities. Landowners' conservation plans are an important part of maintaining healthy lands and soils. These plans highlight areas that are in need of work, such as invasive species management, thinning overstocked forests, and improving water quality and quantity. Conservation district staff work with each landowner to provide information and education about all of these areas and opportunities to improve the land and water in their communities. Having a conservation plan also opens the door to federal funding for managing lands pre- and post-disaster. Your local plan may also be included in the state forest action plan, depending on your relationship with the state forestry or department of natural resources department. Currently, there is no template that all state foresters must follow, so this could be an opportunity to share your local priorities, projects and expertise.

Educate landowners to reduce flammability and manage their fire risk to property.

It is understandable that your conservation district may not have a fire or flammability expert on staff. However, a local volunteer or professional fire/medical department is likely in or near your community and available to help with identifying ways to reduce wildfire risk to homes, barns/outbuildings, and the community. Below are examples of programs that specifically focus on the area around your home/barn. The National Wildfire Coordinating Group has a definition for this area: 'home ignition zone'. The Home Ignition Zone can also be applied to barns and outbuildings. The National Wildfire Coordinating Group offers a glossary of commonly used home ignition zone terms at: <https://www.nwccg.gov/term/glossary/home-ignition-zone-hiz>.

Two models in Washington State have proven successful, both for those new to creating effective programs and those seasoned. When it comes to supporting communities in wildfire preparedness initiatives, the key to success is in the development of effective partnerships that are tailored on a local level. Washington's Cascadia Conservation District, Whidbey Island Conservation District, and the Washington Department of Natural Resources Wildfire Northwest and Southeast Regions developed a webinar that was nationally broadcasted through NACD's Urban and Community (U&C) webinar series, sponsored by The Scotts Miracle-Gro Foundation and U&C Resource Policy Group (RPG). View the webinar at <https://youtu.be/O36Md6Lhbf4>.

View NFPA's blog at: www.nfpa.org/News-and-Research/Publications-and-media/Blogs-Landing-Page/Fire-Break?page=1 and find NFPA information for work around homes at: www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Preparing-homes-for-wildfire.

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Examine and develop solutions to better prepare for post-event recovery and utilization of grant programs.

Most often, recovery resources, local community aid organizations and landowners will be overwhelmed. Evacuation and disruption causes significant stress. Health services organizations and local governments are trying to learn how to coordinate with displaced homeowners and evacuate restaurants, government buildings and gas stations. The typical services needed by responders can be unavailable, and if there are out-of-area resources coming to help, they're not familiar with your support services that are available. What conservation districts can do is communicate with local and county government leaders to inform them of available restoration services and grant funding available even before the fire is out. You may wish to reach out to landowners to see what damage may have occurred on their property and get an application for aid completed.

The sooner you can identify roles and resources to bring to any disaster event, the better prepared you will be, and recovery efforts can start before the event is over. Success happens when pooling human and financial resources to help restore the community and damaged lands. Collaboration works; everyone brings something different to the table. One important component of communication with the community during an event is to establish a 'navigator' to coordinate with the Incident Management Team; this may be the city manager or a local leader in the community. This point of contact can be helpful with establishing a solid line of communication to the response and recovery organizations assisting you.

Another opportunity to educate the public about possible grant opportunities is during community meetings, which are often held during disruptive, long-duration events. The meetings include stakeholders, landowners and fellow-conservation partners. Another suggestion would be to engage the local leaders and landowners in an extensive brainstorming session about the current needs for recovery, such as an after-action review, and include possible grant programs available to promote landowners preparing for a disaster. Neighborhood drills for Ready, Set, Go or other programs to facilitate a smooth evacuation and return to closed areas are very important to plan before any event occurs. Be sure to include post-fire or recovery plans in your CWPP.

Often FEMA grant funds for recovery require a state hazard mitigation plan, as well as a county plan. Have you incorporated your CWPP as your wildfire chapter of your All Hazard Mitigation Plan? Developing clear coordination between levels of government prior to an event provides a better path for allocating disaster funds and priorities for funding before the event occurs. Additional resources specific to funding sources are located in the Appendix.

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Restore and Maintain Resilient Landscapes

Assist landowners in understanding the management of risk and hazardous fuels.

Catastrophic wildfires and the corresponding loss of lives, homes and natural resources have continued to grow, partly because our land management treatments have been uncoordinated and not at the right scale. Although locally successful, we have rarely succeeded at the scale needed for lasting impacts across landscapes. There is significant need for increased engagement with local landowners, and conservation districts are the lynch pin in the natural resources field, with connections in forestry, aquaculture, agriculture, education and outreach, and many other fields.

Each acre of land has value and risk. Multiple agencies have assessed values and risks on property, both private and public. These assessments are often developed and used for determining land management techniques, taxes and assessment fees by local or state government services and for private insurance costs. Emergency response land management agencies also conduct assessments on lands and look at historic hazards in your area, such as straight-line winds or tornadoes, flooding and wildfires. State and local assessors and land managers, such as fire protection managers, work with landowners to assess their wildfire threats, as well as provide education on applicable environmental laws and guidelines while implementing their forest management goals. Similarly, conservation planners work with landowners to evaluate their specific resource needs and develop a tailored plan to meet their stewardship goals. How do these planning efforts intersect and help the landowner, or do they confuse them?

Working together, local practitioners provide resources and give landowners the confidence and know-how to implement conservation practices on their land, and in many instances also help landowners apply for financial assistance, such as farm bill conservation program funding and other sources to accomplish conservation goals and achieve improved healthy landscapes. NACD and America's conservation districts are actively engaged in supporting voluntary water quality programs in watersheds across the country. Conservation district members have helped develop state Watershed Implementation Plans for the Chesapeake Bay; collaborated with producer, governmental and other conservation groups through the USDA Regional Conservation Partnership Program (RCPP) on water conservation

The Big Sioux River Watershed Project, sponsored by the City of Watertown, is an EPA Section 319 project committed to protecting and restoring surface water quality for the City of Watertown and surrounding drainage areas. Learn more at: <https://www.watertownsd.us/854/Upper-Big-Sioux-River-Watershed-Project>.

In a recent letter to President Biden, the NASF recognizes the importance of state foresters and conservation districts working together across the U.S. to deliver forestry programs and wildfire protection on a national scale. The August 10, 2021 letter can be found on www.stateforesters.org.

The National Wild Turkey Federation (NWTf)'s Save the Habitat. Save the Hunt. initiative uses purchased equipment to conserve/enhance acres. <https://www.nwtf.org/conservation/article/drilling-in-on-conservation-dividends>.

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projects countrywide; and led payments for ecosystem services projects, such as the Big Sioux River Watershed Project in South Dakota.

Despite having a desire to implement the best conservation practices, many landowners do not have the technical or scientific expertise to evaluate their land's unique resource needs – such as sediment runoff or wind erosion – and need financial assistance to address their unique resource concerns. More information on financial sources can be found in the Appendix.

Partnerships are crucial for private and public land management to work efficiently.

Country-wide, there are opportunities to partner with state agencies and conservation districts to promote and implement fire and land management programs together. Local partnerships are key, and these relationships occur in most federal and state legislation, which sometimes come with funding opportunities. All partners are encouraged to highlight the need for increased collaboration and support the strengthening of state, federal and local conservation district relationships.

When properly coordinated and actively managed, crops, rangelands and forests provide a wealth of benefits for all. Forests provide clean drinking water for over 68,000 American communities, millions of recreational and job opportunities, and critical wildlife habitat. There are many organizations spread across the country that provide support for improvement of specific ecosystems, wildlife habitat, utilities and sport recreationists. For information on state forestry contacts, go to: www.stateforesters.org.

NACD and the National Wild Turkey Federation (NWTf) have a strong partnership. The NWTf is working hard to improve wildlife habitat for wild turkeys and at the same time, improve the health of the landscapes in which they live. When NWTf was founded in 1973, there were about 1.3 million wild turkeys in North America. After decades of dedicated work, that number has hit almost seven million turkeys. Partners coming together will be instrumental in not only enhancing wild turkey populations in the future, but also in the continuation of hunting and quality habitat for countless species.

In an area not often considered part of the managed landscape, the NWTf has been working closely with the energy industry, surface landowners/agencies and a variety of stakeholders to encourage the installation and maintenance of diverse early successional habitat and promote methods to maintain that habitat while reducing long-term maintenance costs and ensuring safe energy delivery for utilities and the public. They've also developed the Integrated Vegetation Management (IVM) approach to manage vegetation on energy rights-of-way that promotes herbaceous plant diversity, reduces overall maintenance costs, provides better control of invasive exotic species, and improves habitat for a wide range of wildlife. IVM, as defined by the U.S. Environmental Protection Agency (EPA), is a practice that reduces the need for pesticides, promotes healthy ecosystems, and provides measurable results, such as greater natural species diversity along rights-of-way and better control of invasive species. For more diverse landscape resiliency work, check out their website, and be sure to look for the landowners' tool kit. The NWTf Chapters can also help with wildlife seed purchases. People can find their nearest chapter by using the interactive map found at www.nwtf.org/about/nation. For information about burn equipment available for public use, go to the Appendix.

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The Nature Conservancy also partners to unite people and organizations to solve tough, complex problems we face together. The collaborative outreach from The Nature Conservancy (TNC) is exciting. Staff from TNC are constantly looking for new partnerships to meet organizational goals of conserving our lands and waters. Conserving nature is as much about people as it is anything else. Projects vary greatly and are applicable to the needs in the area. Whether it be pollinators or more prescribed fire, partners such as the Oklahoma Association of Conservation Districts (OACD) are working together with TNC. Learn more at: www.nature.org and <https://www.nature.org/en-us/about-us/where-we-work/united-states/oklahoma/stories-in-oklahoma/year-in-review/>.

Collaboratively identify and actively conduct cost-effective land management projects.

Where do you start? How do you determine an area of priority for improvement or repair? If you find yourself in a position to be working on recovery of damaged lands, you may already have a seedling sale that fits perfectly with restoring landscapes. Your efforts around plant sales and restoring the landscape in your conservation district should be identified in your locally developed Community Wildfire Protection Plan (CWPP). When developing the Community Wildfire Protection Plan as defined in the HFRA, priority hazardous fuels reduction projects or areas were identified. If not, look at the county-level risk maps and assessments. The Appendix of this desk guide contains a number of websites where you can obtain free data to get started on your assessment.

To establish a list of priority projects, all interested stakeholders need to be engaged in the process. If not directly engaged, groups should provide for public input. This is a great opportunity to engage landowners and local leaders. When completing a

One Million Acres of Good Fire in the Osage-Oklahoma

Like rain or sunshine, fire is a natural event that plays an important role in the health of many habitats across Oklahoma. The use of prescribed fire coupled with sustainable grazing practices provides healthy habitats for a myriad of plant and animal species that call the tallgrass prairie home. As of spring 2020, the prescribed burn team at the Joseph H. Williams Tallgrass Prairie Preserve has burned over one million acres on the preserve and neighboring ranchers' properties in Osage County.

The Future of Forestry - The Minnesota seedling project is similar to many across the country.

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CWPP, groups often apply for grant funding to provide cost-share funds to help pay for the priority projects. Some groups have been successful at getting a grant but never engaged landowners in the planning process, so they weren't able to sign up landowners to do work on their property. This occurred for many reasons, most often the reason being a lack of trust in the government and uncertainty of required actions or resulting tax requirements.

Conservation districts that routinely work with landowners are able to identify the most pressing resource concerns over a geographic area. Conservation planners and landowner management plans could easily inform the CWPP-determined priorities, ultimately helping producers and land managers achieve greater yields and decreased maintenance costs. One example is their work on tracking invasive species. Sharing information and working together early on builds the relationships needed to see a community through any type of disaster-related event.



Western Governors' Association hosted a podcast on Invasive Species data sharing with Keith Owen, NACD Director of Education from Oklahoma, called "Invasive Species Data."

This episode is the first in a series for the WGA Invasive Species Data Mobilization Campaign, which encourages land managers, landowners, conservation groups and NGOs to standardize and share invasive species data in the West. They discussed how invasive species impact the work of conservation districts, and why it is important to share invasive species data.

www.westgov.org

Encourage advancement of biomass utilization, biochar, forest products markets, cross-laminated timber, etc.

Forests in the United States represent an important potential energy and biobased product resource. NACD, in collaboration with federal, state and local partners, is working to raise awareness about the potential for woody biomass as a primary feedstock for such products. Communities today are challenged to develop effective strategies that support forest ecosystem health, mitigate the effects of climate change, satisfy growing energy needs, and provide local economic opportunities. For some communities, woody biomass may be a viable option for meeting these needs and deserves serious consideration. NACD developed a Woody Biomass Desk Guide and Toolkit to help local conservation districts to understand and build a program that fits your community.

Agricultural biomass is a relatively broad category of biomass that includes the food-based portion of crops (such as corn, sugarcane and beets), the nonfood-based portion of crops (such as corn stover [the leaves, stalks, and cobs], orchard trimmings and rice husks), perennial grasses and animal waste. Traditionally, there have been high costs associated with recovering most agricultural residues, and therefore, they have not yet been widely used for energy purposes. However, they can offer a sizable biomass resource if technology and infrastructure are developed to economically recover and deliver this type of biomass to processing facilities.

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Biochar is simply a specialized form of charcoal that is suitable for use as a soil amendment (typically combined with compost) to increase agricultural crop yields and conserve nutrients and water. Biochar is able to fulfill these functions because of its unique physical structure, with millions of tiny pores that hold nutrients and water for plants' roots to access and enjoy. In many ways, it's akin to a coral reef in the ocean, acting as a natural attractant, sanctuary and incubator by creating infrastructure for billions of organisms to thrive.

Biochar Webinar Hosted by NACD:
<https://www.nacdnet.org/event/nacd-forestry-rpg-webinar-is-biochar-a-growth-area-for-conservation-districts/>

Biochar is made by heating woody waste materials (of many different types) in the absence of oxygen, in a process called "pyrolysis." The wood is not burned, but at temperatures of about 450 to 700 degrees Celsius, gases are produced that feed the pyrolysis process, leaving behind essentially pure carbon with its millions of microscopic pores.

The biochar is then placed into the soil by farmers: in their fields of crops, orchards or vineyards. They plow it in or till it in just like they normally do with regular compost or with chemical fertilizers. Field tests have shown that the worse the soil's characteristics are when biochar is added, the more positive the impact on crop yields. There are several conservation districts with programs supporting biomass and biochar activities.

Some relatively new approaches to encouraging management of the land for achieving resilient landscapes is cross-laminated timber (CLT) and Carbon Farm planning. CLT is a large-scale, prefabricated, solid engineered wood panel. Lightweight yet very strong, with superior acoustic, fire, seismic and thermal performance, CLT is also fast and easy to install, generating almost no waste onsite. CLT offers design flexibility and low environmental impacts. A CLT panel consists of several layers of kiln-dried lumber boards stacked in alternating directions, bonded with structural adhesives, and pressed to form a solid, straight, rectangular panel. CLT panels consist of an odd number of layers (usually, three to seven), and may be sanded or prefinished before shipping. While at the mill, CLT panels are cut to size, including for door and window openings. Finished CLT panels are exceptionally stiff, strong and stable, handling load transfer on all sides.

The Carbon Farm planning component of comprehensive conservation plans developed through the LandSmart™ program, identifying practices that would allow agricultural operations to increase carbon sequestration and reduce greenhouse gas emissions. These practices would provide multiple benefits for climate change resiliency by reducing atmospheric CO₂ levels while improving soil health, water holding capacity, and crop and forage production. These practices also promote water conservation and reduce irrigation needs, reducing stream withdrawals and thereby enhancing water quality and instream habitat. Finally, practices such as hedgerows and windbreaks work to both sequester CO₂ while enhancing on-farm wildlife and pollinator habitat.

Good Neighbor Authority

Congress' intent for Good Neighbor Authority (GNA) was to increase the pace and scale of forest, rangeland and watershed restoration across jurisdictional boundaries through collaborative partnerships. These collaborative partnerships are empowered by a critical element of GNA that allows states to utilize their own contracting processes and procedures to improve project efficiencies and cost savings. To date, GNA has been utilized by state forestry agencies and the U.S.

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Forest Service (USFS) to reduce hazardous fuels, improve wildlife habitat, support local communities and their economies, address insect and disease infested trees, increase watershed health and more.

Recognizing the need for increased management of public land, the GNA was first authorized by Congress with the 2014 Farm Bill. More than half the states in America have activities occurring on well over a hundred GNA projects. As a result of GNA's success, Congress expanded Good Neighbor Authorities to allow necessary road reconstruction and repairs (with the Fiscal Year 2018 Appropriations omnibus) and to empower tribes and counties to enter into GNA agreements (with the 2018 Farm Bill). Through these GNA projects, states are contributing to the restoration of federal forests on a scale never before realized. Conservation districts are engaging with federal and state agencies to lend their local expertise.

As with any program, tools like GNA can be discussed, developed and funded, but they will not make a difference on the ground until they're implemented. The leadership relationships between agencies and budgets can come together and collaboratively move forward to gain public support. Where local conservation districts have engaged with county and state agencies on other projects or disaster recovery, they've developed strong partnerships and trust, which can lead to successful implementation of the GNA. These trustworthy relationships lead to clarity and transparency with regards to the specifics of the desired outcomes of the project, and then become part of the agreement.

Every GNA is different, place-based and developed within detailed parameters. In some states, advisory committees have been established to work through the challenges between public interest groups and agencies prior to developing contracts for project work. Getting involved in these efforts early is important. Identify the state forester or county department relevant and discuss a project to work on together. These early discussions and interagency committee efforts reduce and remove opposition and litigation.

Often, these committees work with other state committees to learn more about successful strategies, management practices and reporting. As an emerging program built on collaboration, GNA is being improved, and changes are inevitable. The relationships between local conservation districts and landowners could be the best hope for work occurring on federal lands that put private lands at risk.

Good Neighbor Authority. <https://www.law.cornell.edu/uscode/text/16/2113a>

“The Good Neighbor Authority Timber Sale in Libby is a promising step forward as we work to more actively manage our federal lands. I’m committed to increasing our use of the Good Neighbor Authority so we can have healthier forests, prevent catastrophic wildfires, improve wildlife habitat, increase recreational opportunities, and bring back good-paying Montana timber jobs,” Montana Governor Gianforte said.

“It’s giving us an opportunity to expand our knowledge locally and do research with the Forest Service on eradicating nonnative species,” Madison County SWCD Director Tyler Ross said. <https://www.nacdnet.org/2020/04/14/swcd-fighting-forest-invasives-through-good-neighbor-authority/>

Madison County SWCD is working with the Appalachian Ranger District ranger and botanist and NEPA officer to develop projects that fall under the GNA agreement. Each will focus on invasive species eradication on federally managed lands, on the Appalachian Ranger District of the Pisgah National Forest. Ross and Soil Conservationist Brandon Young have earned chainsaw certification for the Forest Service and licensure for public pesticide operations. They also have the ability to assist with prescribed burns.

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Go online and see what projects have been identified already, get an idea of what type of projects are being put together, and call the contact listed. Discuss options with your local state forestry office, as well as other county offices and neighboring conservation districts to collaborate. Just like wildfire, invasive species on the land and in our waters don't respect jurisdictional boundaries. More work needs to be done using the GNA.

For more specific locations and contacts for GNA projects, visit: <https://www.fs.usda.gov/managing-land/farm-bill/gna>.

Secure Rural Schools - Projects on county and U.S. Forest Service lands

For many years, traditional federal mineral and land management programs, such as the USFS contracting and procurement for timber sales, worked well. Changes in federal policies significantly changed forest, range and wildlife management across the country, along with their procurement processes. A portion of Forest Service funds generated through multi-use activities, such as grazing, timber production and special use permits, are distributed to eligible counties. When the policies changed, the percentage of receipts for products such as harvested timber or minerals that paid for schools, corrections programs and other local and state government programs changed too. By the year 2000, after decades of declining agency revenues, Congress passed the Secure Rural Schools and Community Self Determination Act to help stabilize the funds available to rural counties and to aid in fire prevention and forest health improvements.

Payments are divided into three distinct categories or titles: Title I for roads and schools, Title II for projects on federal lands, and Title III for county projects. The lack of funding to local governments and schools has created decades of budget concerns in rural counties. As a result, Congress passed the Secure Rural Schools (SRS) legislation, or the 'Safety Net'. Some counties have experienced over 20 percent unemployment for decades, and the SRS payment is truly a 'safety-net.' In addition, many of these areas may now have very unhealthy landscapes, such as forests overgrown and invaded by insects and diseases and rangelands covered in cheatgrass. Payments of SRS are not stable, but where counties use Title III for developing a CWPP, this serves to provide broader education for the need to implement the goals of the Cohesive Strategy. More information on SRS can be found at <https://www.fs.usda.gov/working-with-us/states/secure-rural-schools>.

Shared Stewardship - Landscape Stewardship

Forest land managers face a range of urgent challenges, including catastrophic wildfires, increased public demand, degraded watersheds, and epidemics of forest insects and disease. People in every generation should understand how to think about land management in today's world, as well as to know what they can do to help.

For more than a century, partnerships have been at the heart of state forestry agencies' work to conserve and protect our nation's forests and grasslands. State and private forests make up 66 percent—over 520 million acres—of the forested acreage in the United States. State forestry agencies in all 50 states, the District of Columbia, and eight U.S. territories work hand-in-hand with private landowners to manage and protect these forests. The federal government is directly responsible for the remaining third held in public trust.

The focus on stewardship means different things to different people and places. In the lake states

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and New England, Landscape Stewardship Initiative focused on forestland protection and water in a more cold and wet climate. For more information on example projects and a link to the Landscape Stewardship Guide on the U.S. Forest Service website, go to: www.fs.usda.gov/managing-land/forest-stewardship/program.

Primary landowners are private, with a mix of public/private. Both programs are needed. Each state has unique mixes of ownership patterns and socio-economic demographics that need to be considered when applying a shared stewardship approach specific to each state. Check with your local state forester for ideas on adding your expertise to the collaborative project development and coordination with the state forest action plan. State Forest Action Plans can be found at: www.stateforesters.org and the NASF webpage on shared stewardship is also a valuable resource: <https://www.stateforesters.org/shared-stewardship/>.



Tribal Forest Protection Act and the Indian Self-Determination and Education Assistance Act

The [Tribal Forest Protection Act](#) authorizes the Secretaries of Agriculture and Interior to give special consideration to tribally-proposed Stewardship Contracting or other projects on Forest Service or Bureau of Land Management (BLM) land bordering or adjacent to Indian trust land to protect the Indian trust resources from fire, disease, or other threat coming off of that Forest Service or BLM land. It is critically important to the tribes that resources are safeguarded through proactive management that protects the communities, economies and traditional uses.

Effective management provides long term stability to the health and welfare of families and supports ecological and cultural needs. Without changes in policies and investments in the tribal lands equal to those on comparable non-tribal lands, many areas will continue to experience extensive wildfires, significant economic and ecological losses and community impacts at both local and regional scales.

The Intertribal Timber Council (ITC) has been working on implementing the goals of the Cohesive Strategy since the very beginning. The ITC assists tribes from across the country with communications between tribes, as well as with partners. Two publications that showcase cross-boundary work with the tribes and partners are the “Cross Boundary Collaboration Between Tribes and the United States Forest Service, Success Stories from Forest Systems Using the Tribal Forest Protection Act” and the report titled “Improving Efficiency, Equity and Effectiveness of Wildfire Impacts on Tribal Trust Resources”. These documents, the Intertribal Timber Council and more information about the successful work that tribes are doing on the landscape can be found at www.itcnet.org.

NACD formed the Tribal Outreach and Partnership Resource Policy Group (Tribal RPG) to promote and support NACD member efforts to establish partnerships with tribes that help put additional conservation on the ground.

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Promote training for desired management options, i.e. soil health, targeted grazing, water quality and quantity and prescribed fire certification.

Although not often mentioned, soil health is a very critical feature of any growth on the landscape. The 575 million acres of public and private grazing lands nationwide are vital to the economic and environmental well-being of America. The livestock raised on these lands provide protein to people around the world. If sustainably managed, grazing and rangelands can also help protect and enhance habitat for a diverse array of wildlife. Today's grazing practices maintain and improve the health of rangeland soils while also allowing producers to meet the nation's need for food and fiber.

Rangeland managers face a number of challenges today, including the effects of climate change, wildfire, invasive species and land development. Addressing these and other issues is often highly complex. NACD believes conservation-minded, responsible grazing practices remain the key to protecting the productivity of soils on private ranches and public rangeland. In 2015, NACD established the Soil Health Champions Network, which is made up of more than 300 farmers, ranchers and woodland owners from across the nation who practice good soil health management on their operations and promote the use of soil health management systems in their communities. This broad effort to promote soil health education and outreach among America's farmers, ranchers and forestland owners aligns perfectly with the Cohesive Strategy goal of restoring and maintaining healthy landscapes. Hundreds of landowners and operators who implement conservation practices on their land and champion the benefits of soil health within their communities have working relationships with their local conservation districts and U.S. Department of Agriculture (USDA) service centers and are often community leaders and early adopters of conservation practices. <https://www.nacdnet.org/get-involved/soil-health-champions-network/>

Natural forest disturbances—whether caused by pests, severe wind, lightning or other means—change the structure and composition of forests and allow for regeneration. Many forest types need one natural disturbance in particular to regenerate, and that's managed fire.

NACD's Soil Health Champions Network members are charged to conduct soil health outreach in their communities. Forms of outreach include holding farm tours, hosting field demonstrations, speaking at conferences and meetings, giving media interviews, presenting at seminars or workshops, and manning educational booths at community events.

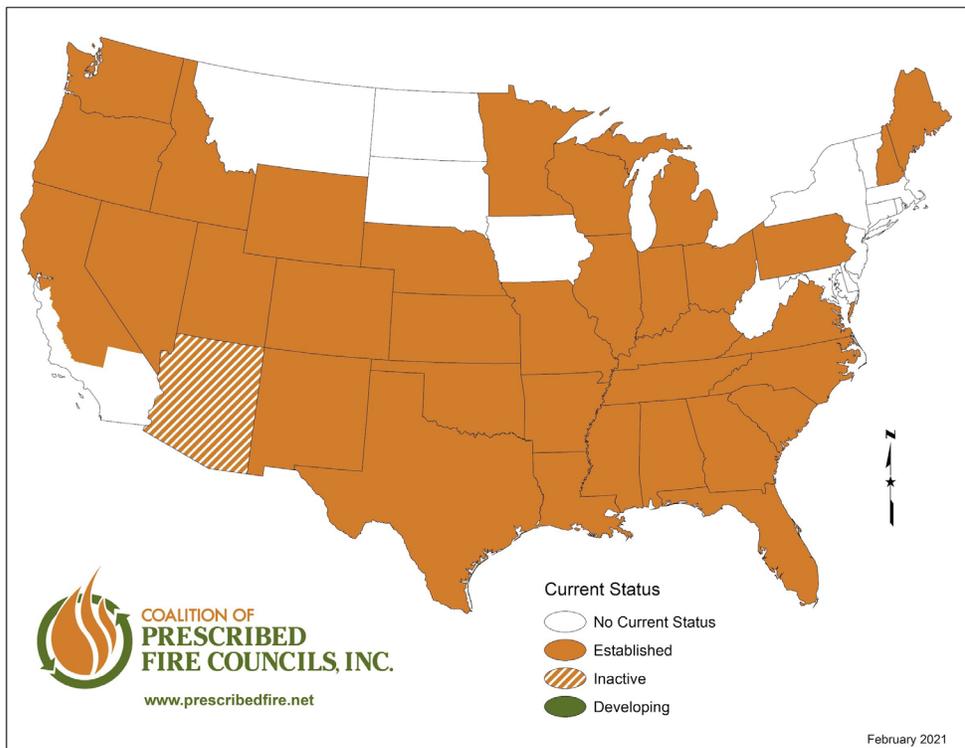
“The wise use of prescribed fire will be an increasingly important tool in the future to help overcome the nation's fire deficit.”

***– Mark A. Melvin
The Jones Center at
Ichauway Prescribed
Fire Management
Specialist***

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Prescribed Fire and Smoke Management

The Cohesive Strategy calls for a variety of management options, such as mechanical, biological or other non-fire methods, and increased use of prescribed fire as described by the federal and state agencies. Private landowners and local conservation districts are using fire as a tool. The name for this tool varies across regions, as well as the social acceptance of its use. To increase the safety and education to those individuals using fire as a management tool, Prescribed Fire Councils (Coalition of Prescribed Fire Councils: prescribedfire.net) are being established to provide a network of professionals focused on utilizing fire as a benefit to land management and identifying significant opportunities within the vast emerging network. The Coalition's core mission is to promote the appropriate use of prescribed fire for enhancing public safety, managing resources, and sustaining environment quality. In addition, the Coalition encourages and facilitates the organization of prescribed fire councils in states that lack active councils. Partnering prescribed fire councils' efforts, which collectively represent 12 million acres of annual prescribed fire use, has created a forum to voice and address issues of national concern. The Coalition's work facilitates communication among interested parties in the field of prescribed fire, provides a focal point for sharing ideas and information, and creates opportunities for prescribed fire collaboration.



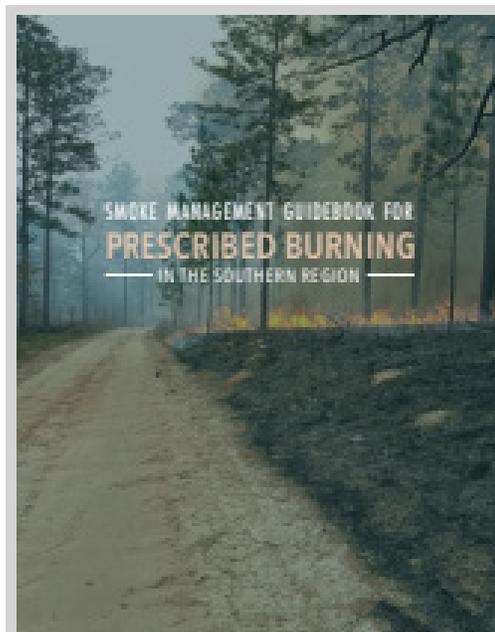
The Coalition of Prescribed Fire Councils (CPFC) worked collaboratively with the National Association of State Foresters (NASF) to produce the 2020 National Prescribed Fire Use Report. Since 2011, the two organizations have partnered to prepare triennial reports (in 2012, 2015 and 2018) on prescribed fire activity, state-level programs and barriers to prescribed fire implementation. These reports remain the only fire surveys that assimilate state forestry agencies' fire intelligence for use among the prescribed fire community. Nationwide, agricultural burning is treated differently from forestry/rangeland burning, in that it is less likely to be regulated or tracked.

Conservation districts are strategically placed, experienced and often very willing to teach interested stakeholders how to use fire, the tool they use most frequently, and to show the success they've experienced from using it. Utilize these guides to identify partner agencies and additional educational tools to work with landowners in your area.

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In the southern part of the U.S., a landowner-focused smoke management guidebook was created through a collaboration between the Environmental Protection Agency (EPA), North Carolina State University, Southern Fire Exchange, Southern Regional Extension Forestry (SREF), and the University of Georgia Warnell School of Forestry and Natural Resources. The goal of the guidebook is to help southeastern U.S. landowners understand smoke management for prescribed burning and various techniques that can be used to help manage the smoke that is created by prescribed fire. It will be useful to many more areas of the U.S.

Though differing views on burning range and forest lands exist, prescribed fire may be the only option to treat the expansive acres that have suffered from the most destructive diseases and insect pests across the country, such as the Asian Longhorned Beetle in the Northeast, the Mountain Pine Beetle in the West, and the Southern Pine Beetle and other bark beetles. Bark beetles have negatively affected millions of acres of forest across the country. The name 'pine' beetle is commonly used, because beetles have caused decades of destruction in Lodgepole, Ponderosa and Pinyon Juniper in many states. The most destructive insect in the southeastern states is the Southern Pine Beetle, which can be found all the way north to New Jersey. More information can be found at: <https://www.fs.fed.us/foresthealth/applied-sciences/mapping-reporting/national-risk-maps.shtml>.



The goal of the guidebook is to help southeastern U.S. landowners understand smoke management for prescribed burning and various techniques that can be used to help manage the smoke that is created by prescribed fire, but is useful for all regions of the country.

https://www.warnell.uga.edu/sites/default/files/publications/WSFNR-20-91A_Campbell.pdf

Arkansas example: <https://www.uaex.edu/publications/pdf/FSA-5009.pdf>



National Insect & Disease Risk Map: <https://www.fs.fed.us/foresthealth/applied-sciences/mapping-reporting/national-risk-maps.shtml>

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The issues that surround prescribed fire cross jurisdictional boundaries and call for interagency communication, policy and program coordination, especially managing smoke and air quality. They are greater than any one agency or organization can effectively address alone and can impact a range of public/private resources and partnerships. In an effort to better address these challenges, WFLC members, along with EPA and CDC, are committed to working in a collaborative manner to support the use of prescribed fire in ways that improve ecosystem health and services, reduce wildfire risk, and prioritize public health and safety. Government agencies are working together to provide the public information on the effects of smoke—including information on steps people can take to reduce their exposure and protect their health from smoke. Web resources for air quality, smoke and wildfire information are:

<http://www.airnow.gov/fires>

<https://www.cdc.gov/disasters/wildfires>

<http://www.wildlandfiresmoke.net>



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Wildfire Response

Increase Response Capabilities by Recognizing Trained Natural Resource Personnel

Recognize Agricultural Activities in Wildfire Response

Tornadoes, severe thunderstorms, hurricanes, ice and other storm events can severely impact our landscapes. Unhealthy trees are particularly vulnerable to the stress of wind, ice and rain during storm events. Powerful storms can wreak havoc in a matter of minutes – it is important to have a quick local response. Conservation districts are a critical piece to increasing our resources available to combat damaging wildfire and to help communities during stormy weather. Boots on the ground is what matters most when it comes to landscape conservation and extinguishing wildfires. The increasing wildland fire-related fatalities and acres burned in our country should make it clear to everyone: there is an urgent need for more resources and for residents to engage and take action to assist their communities.

Agricultural equipment use in wildfire response is becoming more and more common as severe storms are impacting the landscapes. Single engine air tankers play a vital role in America's wildfire suppression efforts. In addition to spray planes, drones, tractors and tractor plows are used by local, state and federal fire response agencies under an annual contract or as a call-when-needed contract. When neighboring agencies can't send additional resources to help, requests for additional resources are made through the mutual assistance process, and resources/equipment used in fire response by federal, state, local, NGOs and RFDs has to meet minimum safety standards.

The Aitkin County Soil and Water Conservation District (SWCD) is taking to the sky to improve forest management in Minnesota. Due to interest from Forestry Technician Kyle Fredrickson and other SWCD staff, the conservation district recently purchased a drone and began using it to view shoreline properties, buffers and areas where landowners have reported problems in an effort to gain a broader view of concerns and build solutions. Drones are more and more commonly used by licensed fire professionals authorized to do so for fire detection, during a wildfire, and when monitoring prescribed fires. Unauthorized use can prevent other winged response resources from being able to respond. More information can be found on the Federal Aviation Administration website: https://www.faa.gov/uas/media/FAA_drones_wildfires_toolkit.pdf.

Ice storms and wildfires alike cause damage in the woods, and response agencies are spread too thin to help landowners remove debris safely.

Hurricane Michael was an intense and destructive storm that struck the Florida panhandle as a powerful Category 5 in October, 2018. It entered into Georgia and had a devastating impact on counties all across Georgia. Forest and agricultural losses were tremendous. Recovery continues in many parts of Georgia, and there are a number of programs and resources available to landowners impacted by Hurricane Michael.



Photo credit: Colorado Agricultural Aviation Association – Jessica Freeman

“We can see project areas from a whole new perspective,” Aitkin County SWCD Forestry Technician Kyle Fredrickson said. “Satellite and pictometry help, but nothing is like being on the ground and seeing the area from a higher perspective.”

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Photo credit: Debbie & Bart Roberts, Colton, Oregon, 2020

Opportunities to Obtain Training

Local conservation districts and industry landowners in the natural resource field possess skills and training that lend themselves to qualifying for wildland fire and aviation management positions.

Incident management teams need people to train and assist with burned area evaluation, community/public information, and aviation response coordination. Conservation district staff or a landowner who flies may want an opportunity to help with detection flights or even integrate their technical expertise to a position in the Aviation Unit of an Incident Management Team.

The Incident Command System (ICS) is how wildfires and some emergency events are managed. This system allows scalability to fit the complexity of an event. Personnel from multiple federal agencies, various states and local fire districts all follow the ICS, including public utilities. For more information on incident management team organizational structure, position descriptions/responsibilities, and assigned geographic dispatch locations, please see www.nifc.gov.

All positions have a task book for documenting all the necessary training requirements and trainee assignments depending on the position. Check with the National Wildfire Coordinating Group at the NIFC for position information/task books: <https://www.nwccg.gov/positions>. Often, there are support positions assisting the Incident Management Team (IMT), such as equipment time recorders or security and ground support personnel, that are not part of the established IMT, but have required task books and are ordered and filled through dispatch by other offices or agencies. The task book and required training allow for consistency when filling team and support orders. This system provides for a shared understanding that a person with a completed task book has fulfilled the necessary qualifications and experience to perform the position.

Conservation districts may have several staff or volunteers that are trained to fill support or IMT positions. If you are interested in finding ways to obtain the necessary training, please contact your local fire department, state forestry office or federal agency office. Basic task book and position information can be found online. It will be helpful to you to know the boundaries of these agencies. If you are unsure of the district boundaries, you can go to forestsandangelands.gov to find the national level organizations and contact their information desk.

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One way to find out what types of positions are needed locally or on a team is to check out the following websites:

- Positions may be available at your local fire department/emergency response organization. Contact them to identify how to become certified and eligible to respond to incidents. For information on available training needed to qualify for a position, please check out: <https://www.nifc.gov/programs/training>
- The Incident Qualifications and Certification System (IQCS) and the Incident Qualification System (IQS) are information management systems that track training and certifications for Wildland Firefighters. For a complete list of all NWCG recognized Position Codes, refer to the Position Codes link at the following website: <https://iqcs.nwcg.gov/>
- Overhead positions/personnel must be requested by the description found in the Wildland Fire Incident Management Field Guide, PMS 210: <https://www.nwcg.gov/publications/210>
- The National Incident Management System (NIMS) Wildland Fire Qualification System Guide, PMS 310-1 or other agency approved qualifications guides: <https://www.nwcg.gov/publications/310-1>

Increase Fire Prevention at the Local Level

Human-caused fires are a significant concern in every part of the world. What can local landowners and conservation districts do to help reduce these wildfires?

Often fire prevention awareness campaigns are implemented at the grade school level in most communities by an interagency fire prevention cooperative or through the local emergency response organization. Many use standard, publicly available, prevention materials found on the USFA website: <https://www.usfa.fema.gov/blog/ci-060821.html>. Materials are available online to help provide education to the public about preventing human caused wildfires, such as mowing. Here is one example: <https://www.usfa.fema.gov/img/share/safety-tips-prevent-accidental-wildfires-mowing.1200x600.gif>. Prevention blogs are available online, here is an example: <https://www.usfa.fema.gov/blog/ci-060821.html>.

Volunteers are often needed to teach kids to not play with matches and how to Stop, Drop, and Roll. Fire departments, state fire and forestry agencies, federal agencies and emergency response programs come together to bring prevention programs to most young, grade school children. Interagency prevention groups provide information on emergency preparedness and wildfire prevention during Wildfire Awareness Week, which is held at different times of the year depending on where you're located. Some states have a state-level fire prevention organization, such as in Georgia, Oregon and Idaho. For more information on these programs and to implement a similar program in your area, please reach out to them. They'd be glad to help you!



Oregon - The mission of Keep Oregon Green is to promote healthy landscapes and safe communities by educating the public of everyone's shared responsibility to prevent human-caused wildfires. www.keeporegongreen.org

Georgia - Firewise Day - Statewide virtual meeting of Firewise communities and the extremely successful Fire on the Farm event. For more information, visit: www.Fireadaptednetwork.org

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Human-caused Fires – Prevention – Do Your Part, Be More Careful

As conservation districts engage with community groups and private landowners to provide them with information about reducing their threats from wildfire, wind events and flooding, the landowner will be more informed and will take precautions when burning on their lands and during inclement weather-related events. The key to fire prevention is to do your part to prevent wildfires by being careful when burning yard debris.

Careless debris burning is the number one cause of wildfires in many areas of the country. When burning, you should have fire suppression tools handy (shovel for throwing dirt on the fire, a water hose or bucket of water, etc.), always keep a watch on your fire, and

make sure it is fully extinguished before leaving. Do not leave it unattended. You can also do your part by discarding cigarettes, charcoal and other hot ashes appropriately, such as in a metal container. Water sources, such as ponds and pools are sometimes the only readily available suppression tool.

Actively protect your watershed! Encourage the protection of water sources and provide for education on the importance of water quality and quantity for your community. Water is the lifeblood of all communities. Without adequate water for your community, it will suffer to exist. While developing your community assessments, it is important to include your source of drinking water. Here is one example of a very small fire department that created a drone video of their watershed and explained the importance of wildfire awareness and prevention: [Colton Fire Target Hazard Assessment](#). Check out this drone video of a wildfire prevention message focused on the Colton watershed protection project: <https://www.youtube.com/watch?v=hG8jAer63IA>.

Most programs recommend being prepared with a list for evacuation; they show what to take of value that can't be replaced. More information on evacuation can be found on the www.fireadaptednetwork.org website or at: <https://www.wildlandfirersg.org/s/are-you-wildfire-ready>. Ready, Set, Go! also provides evacuation information, including a step-by-step program to help you be 'wildfire ready' and develop an evacuation plan: www.wildlandfirersg.org.

Local firefighters and land managers are considered to be some of the most trusted leaders in communities. Can conservation districts be a convener to determine if their communities have sufficient emergency response capability? Is there a volunteer fire department? Can local, city/county planning commissions pull together a strategic community wildfire protection plan? Agriculture producers, ranchers and farmers have local expertise and understand the benefits of wildland fire on the land. With additional training, paired with local landscape knowledge, fire becomes one of the best tools to maintain a healthy landscape and to fight fire with fire, but training should occur, and it needs to be done safely.

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Prescribed or “controlled burns” can be learning experiences for local landowners. When a fire is out of control, experience with seasonal winds and low relative humidities makes a big difference with fire behavior. Most burns are conducted mid- to late spring, or in the fall when weather conditions are better for controlling the fire, but vary depending on what part of the country you live in. Conservation districts understand that burning to help desired grasses may take place just as they are starting to green up, when the soil surface is moist. In winter, the weather typically has low humidity, and the dead vegetation can quickly ignite and get out of control, which is why most burns are done in the fall before everything dries up, or in the spring, as everything is turning green. Higher humidity keeps prescribed burns moving slowly so they are more effective, burning deeper and more completely, removing the hazardous fuel conditions that make large uncontrollable wildfires. It is very important to keep areas around homes and structures cleared. Barns, sheds and homes burn in a matter of minutes when there is fuel, such as dead limbs or leaves, close to the structure. Increasing education about fire behavior and suppression tactics is needed in most areas of the U.S.

Assist Local Response Agencies Identify Areas Needing Increased Mobilization Capacity

In areas where wildfires and disaster-related events are more frequent, you may see airplanes and helicopters fly overhead, ambulances and fire trucks, tractor-plows on lowboys, volunteer firefighters and residents all headed to answer the call for help. Not every place has these resources readily available when needed. Local fire and emergency response organizations often do not have the funding or equipment and personnel to take care of the higher demand seen recently in all parts of the country. Conservation districts can work with local emergency management and find out what is needed to provide what is often called “surge-capacity.” These resources are identified and listed in planning documents for when the local responders become overwhelmed and need your help.

When additional resources respond, they often check in with the Initial Attack Incident Commander (IAIC) on the incident. The IAIC’s job is to form a strategic plan for the incident and communicate to responding resources and the main dispatch center.

As a landowner, you jump to take up any nearby tool you can find to mitigate the hazard, sometimes before you talk to anyone. Communication is very important and may save your life. Communication with the incident commander, or “command”, should be set up before you respond. Responding equipment and personnel may not be familiar with the area. Be sure you can communicate with your neighbors, the local fire chief or incident commander so they know where you are and what tactics you are taking to address the fire or disaster-related event. Not everyone has a radio or a cell phone. Towers can be damaged during these types of events. Safety is of utmost importance, know how you will be communicating with others responding and the person in charge or IC.

When local resources are exhausted, requests for more personnel, equipment, teams and aircraft can go all the way to the National Interagency Coordination Center, located in Boise, Idaho. This national dispatch center coordinates and provides resources, such as personnel, equipment, radio/communications, aircraft and supplies to incidents all over the world. For several years, the national system of fire response has been challenged to provide resources during multiple event situations in more than one region in the country, such as wildfires in the West and hurricanes and flooding in the South and Northeast. Work needs to be done to increase our personnel and

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equipment available to assist locally during the initial attack on wildfires so it stays small and you won't need to request additional help. All information about the wildland fire system in the U.S. and coordination amongst countries can be found on the following website: www.nifc.gov.

Identify How Private Landowners and Conservation Districts are Responding to Wildland Fire Post-fire Response

Post-fire, flood and wind events take a significant collaborative response to help those in need. Often public service professionals are also pulled away to evacuate their homes. You and your community will need help with a lot of things, like food, clothing and shelter. Managing volunteers and organizations wanting to help takes coordination. Often faith-based organizations and emergency management officials work to provide evacuation centers or housing for those displaced and no longer have a home or that can't go back into a disaster area to get their things. Restaurants that have been told to evacuate may want to provide meals so their food doesn't go to waste. Organizing these helpful gestures and recognizing those who want to help others in need can help you in so many ways.



Wildfire smoke smothers the state capitol in Salem, Oregon during the 2020 Labor Day wildfires

States that have experienced multiple disasters often develop websites for community assistance and access information for evacuation needs, such as housing, transportation, meals and finances. One example: <https://wildfire.oregon.gov/>

One example of a state-wide effort to help coordinate the multiple areas of response and to assist people and communities as they recover from a devastating event/wildfire, such as the Labor Day wildfires of 2020 in Oregon, can be found on the Oregon website. This website covers multiple areas of recovery. Recovery means a lot of different things, involves multiple processes, and has no set timeline. Returning to your property may not be allowed for weeks or months depending on the fire/flood event. Hazardous materials review and removal protocols required by EPA and FEMA need to be followed so you don't get denied post-disaster funding assistance. Private wells and public water systems may be contaminated, and emergency housing/food for families all need to be evaluated. Public officials can try to make accommodations. Additional resources should be identified for communities that no longer have a post office, school, grocery store, critical infrastructure such as electricity, drinking water and passable roads. Each event and community are different, conservation districts know the landowners and where the resources may be that can fill the need. Communication between conservation districts and emergency management is very important to help during and after a devastating fire or flood.

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Organized Regional Response, Rangeland Fire Protection Associations and Compacts

Rangeland Fire Protection Associations

In 2015 and 2016, the National Association of Conservation Districts (NACD), in partnership with the United States Forest Service (USFS), conducted five forest health listening sessions across the western United States. Session attendees, which included conservation district employees, partners and agency representatives, discussed a wide variety of topics that included the [National Cohesive Wildland Fire Management Strategy](#) and the growing concern over very large wildfires occurring on unprotected lands. A common theme heard among attendees was the lack of cohesive, organized fire responses in unprotected areas. In these areas, it is uncertain which agency, if any, will show up to put out a fire, and if individuals involved will have adequate training, equipment and personal protective equipment knowledge to do so effectively.

To provide for the safety of the public and firefighters, some states have begun creating Rangeland Fire Protection Associations (RFPAs) that help address this issue. Rangeland Fire Protection Associations help stop fires when they're small, because they are the closest forces: <http://www.nwfirescience.org/RangelandFireProtectionAssociations>.

RFPAs are volunteer groups of landowners that become trained and authorized to respond to wildfires. These landowners often live closer to where wildfires start rather than agency-organized wildfire suppression crews. Multiple states, including Idaho, [Oregon](#) and Nevada, have adopted programs to allow these associations to exist and to fill the gap for providing quick response to protect natural resource-rich lands, such as valuable sage grouse habitat. [A federal study](#) was conducted and indicates support for developing unprotected lands programs. With more and more human-caused fires occurring, there is a need to implement plans for increasing local response capabilities in protected areas, too.

In Idaho, [nine RFPAs](#) have been created through a program started by Governor Butch Otter. Through a collaborative effort between local ranchers, the federal Bureau of Land Management (BLM) and the Idaho Department of Lands, these RFPAs provide quick, effective initial attacks to wildland fires.

In most areas, collaboratively planned training efforts across agencies and jurisdictions result in better understanding of interagency response and enhanced communications. Predictive services, such as weather and fire behavior, are in more widespread use and available to all responders, making wildland firefighters more informed. Wildfires are often included in a national database found at www.inciweb.org.

“The number one benefit of these associations is smaller fires,” Darcy Helmick said. “These associations benefit the resource the most, because we’re able to work together and put out these fires when they’re small.”

Helmick, who currently serves as the secretary for Idaho’s Saylor Creek RFPA and on the board for both Three Creek RFPA and Black Canyon RFPA, played a role in creating the Saylor Creek and Three Creek RFPAs.

At first, she was skeptical about the success of the associations because of the polarized views of local ranchers and BLM employees. However, she was pleasantly surprised by the effectiveness and camaraderie that was created through these associations.

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Alliance of Forest Fire Compacts

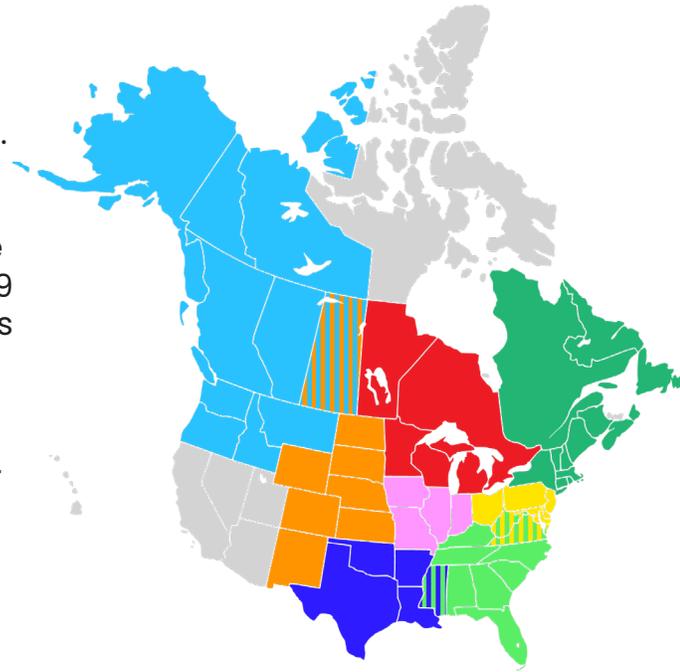
One way that states can mobilize resources between states and across the country are through compact agreements, such as the Alliance of Forest Fire Compacts. Many states are part of a forest fire compact. The AFFC is a consortium of the eight existing forest fire compacts representing 43 states and all of Canada, except one province and one territory. The first Interstate Forest Fire Compact was established by Congress in 1949 to promote effective prevention and control of forest fires in the Northeastern Region of the United States. In 1952, Congress approved the addition of Canadian provinces and territories that were interested in international mutual aid. Alliance of Forest Fire Compacts provides for mobilizing of resources, such as crews, engines, aircraft and overhead positions from country to country, region to region or state to state when resources are needed: affcompacts.org.

This alliance establishes a more formal partnership among the compacts so that common issues can be addressed for the good of all compacts, rather than as separate and individual initiatives. Forest fire compacts facilitate the sharing and coordination of information, prevention efforts, training, fire management knowledge, lessons learned and resources. The alliance is a true, cross-international boundary collaboration to help each other during times of need.

Boundary lines and member states and provinces can be found at: <https://affcompacts.org/>.

FEMA Resources:

- <https://www.usfa.fema.gov/prevention/>
- [U.S. Fire Administration/National Fire Academy courses](#)
- Some tribes ([Tribal Forest Protection Act](#)) and states ([Good Neighbor Authority](#)) are using authorities to increase treatments on federal lands
- Landscape Scale Restoration and [state forest action plans](#) are driving the USFS State and Private Forestry funding to look more at the landscape level and leveraging across boundaries and funding mechanisms.



Regional and state assessment websites are available to assist you to determine your wildfire risk level.

*Regional example-
SouthWRAP:
<https://www.southernwildfirerisk.com/>*

*State example-Colorado
Forest Atlas:
coloradoforestatlas.org/*





SCIENCE AND ASSESSMENTS

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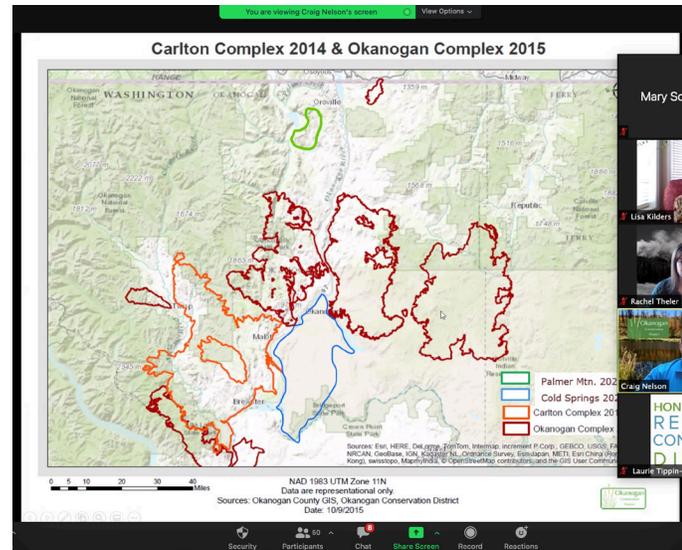
National, Regional, Local and Burned Area Emergency Response

The Cohesive Strategy, The National Science and Analysis Team

Assessments are needed to learn about the conditions around your home and on the land as well as identify priority areas for action. Drought and extreme wind events have been scientifically connected and coincide with megafires that destroy or threaten thousands of homes. For example, clean up and recovery from hurricanes and ice storms continue for many years. While progress is being made, the damage done to trees and critical infrastructure will impact forests and communities for years to come. Many conservation districts have educational workshops and materials to assist communities with determining risk, and often an assessment of some type needs to be done in order to apply for funds.

Not one agency or suppression program within a federal, state or local government can combat these large fires or devastating wind events alone; all must come together in shared leadership using the best available science to inform land management practices and advanced technology. Each protection agency has a different mission and administers different rules about restoration of damaged lands, suppression and reforestation. With varying points of view and differences between agency responses, the best available data and practitioners' experiences needed to be the center point of the National Cohesive Wildland Fire Management Strategy. The member agencies of the Wildland Fire Leadership Council established the National Science and Analysis Team (NSAT) to provide the foundational support for the development and implementation of the National Cohesive Wildland Fire Management Strategy.

It was agreed that the best available science needed to be in the forefront when working on our nation's wildfire problem. In addition to the NSAT, a national science advisory committee was assembled to support the NSAT and complete the national analysis. More than 60 people representing numerous agencies and organizations contributed to the NSAT's efforts.



NACD Winds, Water and Wildfires Summit – Washington wildfire perimeter information presented by Craig Nelson, Washington

The Cohesive Strategy provides a greater consistency and specificity in understanding national challenges, their underlying causes, and the management opportunities available to address them. The full NSAT reports can be found at www.forestsandrangelands.gov.

Within the Cohesive Strategy, an agreed upon scientific foundation was used to inform national priorities for allocation of limited human and financial resources.

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The members of the advisory committee included representation from the International Association of Fire Chiefs, The Nature Conservancy, National Association of State Foresters, U.S. Forest Service, the Department of Interior, and from each of the regional strategy committees.

The Cohesive Strategy provides strategic national direction across all lands, and much of the information generated by the NSAT formed the basis of recommendations for management options. The analytical basis comes from information originally assembled and used within the regional analyses, which was reanalyzed from a national perspective along with supplemental national information. The NSAT and advisory committee, a large and diverse group of agency representatives, all committed to creating a new, bold, cohesive



way to present data designed to combat wildfire and address all three goal areas within the U.S. This decision was made for several reasons, including to visibly inform all firefighters, community members, land and resource managers and political figures that learning and implementing the strategy was not politically biased, but based solely on scientific data from each unique region. As time goes on, scientific data and studies are brought into the regional strategy committees and drive the direction of priorities.

Representatives were selected for each of the regional committees, similar to the representation on the Wildland Fire Leadership Council. The NSAT worked with each of the regions to identify relative county-level data sets, such as critical risk factors and ignition causes, to determine management options. Recommendations and action plans were developed based on scientific data from the National Science and Analysis Team. Learn more at: <https://cohesivefire.nemac.org/>.

The NSAT developed a national characterization, and with input from the regional strategy committees identified challenges and opportunities, which were then applied to community clusters and landscape classes data layers. Priority actions based on local/regional input and data analysis formed the national strategy/thematic actions. The NSAT analyses identified counties that shared a significant amount of private ownership and separated out the forested and non-forested regions, but didn't go too far into any particular guidance beyond the usual mix of better coordination, wildland fire prevention, and prescribed fire (and smoke) where appropriate.

Recommendations included the need for more local level discussions, which would ultimately revolve around resources and partnerships needed to enhance protection to communities at risk of wildfire. Additional conversations about engaging more with agricultural communities (e.g., rangelands) and private landowners would improve future efforts of analyses. The regional and national action plans contain important information about the critical needs for management and response on private lands by landowners and the responsible protection agencies. Review these action plans and verify if these actions may be needed in your locality. You can utilize these plans

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to identify potential actions for your local emergency response preparedness plans and checklists to use when assessing the needs of your neighborhoods.

Major findings indicate the area around communities that are potentially exposed to fire is in general about 5 to 50 times larger than the CWPP boundaries, not counting county-wide plans. Ultimately, identifying the CWPP boundary as a mismatch between the current community planning efforts and the scale of disturbances that have impacted them. For additional NSAT technical and data information, contact the Eastern Threat Center.

National Assessments - U.S. Geological Survey 2021

To continue integrating science assessments and data to inform future actions, you will need to look at all levels of assessments. Some of the member agencies of the Wildland Fire Leadership Council have research programs that serve their agencies. Only one agency has a clear mission in natural hazards to develop and apply hazard science to help protect the safety, security and economic wellbeing of the nation across all lands. The costs and consequences of natural hazards can be enormous, and each year more people and infrastructure are at risk. The U.S. Geological Survey's (www.usgs.gov) scientific research, founded on detailed observations and improved understanding of responsible physical processes, can help to understand and reduce natural hazard risks. The USGS uses data to make and effectively communicate reliable statements about hazard characteristics, such as frequency, magnitude, extent, onset, consequences, and where possible, the time of future events.

To accomplish its broad hazard mission, the USGS maintains an expert workforce of scientists and technicians in the earth sciences, hydrology, biology, geography, social and behavioral sciences, and other fields, and engages cooperatively with numerous agencies, research institutions and organizations in the public and private sectors, across the country and the world.

The USGS works with many partners to monitor, assess and conduct targeted research on a wide range of natural hazards, including wildfires, flooding, landslides and impacts to critical infrastructure, such as the vulnerabilities of our electrical grid. This effort provides policymakers and the public access to information to understand the need to enhance preparedness, response and resilience.

The USGS works with the Joint Fire Science Program-funded Fire Science Exchange Network - 15 regional consortia that are focused on fire science delivery through tours, workshops and seminars to practitioners and managers, as well as for knowledge exchange in all directions. On their website, you can find contacts for all 15 exchanges, which are great connections for conservation districts.

Fire Science Information websites provide a magnitude of data to help you in many ways.

Joint Fire Science Program: <https://www.firescience.gov>

Fire Science Exchange Network: https://www.firescience.gov/JFSP_exchanges.cfm

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The USGS' First Wildland Fire Science Strategic Plan

The USGS' first Wildland Fire Science Strategic Plan has been published and is now available. Links are provided within this document to access the strategic plan, fact sheet and other information about the program.

Wildfires in the United States can be devastating, with 2017, 2018 and 2020 being particularly damaging and costly. To help minimize the detrimental impacts of wildfires while allowing for fire's beneficial aspects to unfold, the U.S. Geological Survey has developed a new five-year science strategy that defines critical science needs and directions for its wildland fire research. The strategy was developed by scientists and communications specialists at USGS and informed from interviews with 40 different stakeholder organizations.

The new strategy guides USGS research in the 21st century. It prioritizes the production of innovative science, tools and resources that inform land management and provides an understanding of fire's role in ecosystems and in human communities, before, during and after wildfires.

The USGS wildland fire strategy emphasizes working with stakeholders to identify, develop and share essential information that supports critical decision-making by fire, resource and emergency managers. These include threat characterization and management planning before a fire and providing real-time satellite and field data to incident commanders and others during a fire. It also includes assessing fire's impacts on infrastructure, terrain, water supply, ecosystems, species and other vital resources after the smoke clears.

The new USGS fire science strategic plan prioritizes the production of state-of-the-art, actionable fire science. USGS seeks to collaborate in this effort with federal, tribal, state and other stakeholders to ensure that data and tools are timely, relevant and widely disseminated. Finally, the plan sets up an organizational structure that helps ensure these outcomes.

To review the plan and other wildland fire science resources at USGS, visit:

U.S. Geological Survey Wildland Fire Science Strategic Plan: 2021-26
<https://doi.org/10.3133/cir1471>

Fact Sheet on Wildland Fire Science at the USGS
<https://doi.org/10.3133/fs20193025>

12-year Compendium of Wildland Fire Science at the USGS
<https://doi.org/10.3133/ofr20191002>

USGS Wildland Fire Science Webpages
<https://www.usgs.gov/fire>
www.firescience.gov

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U.S. Forest Service Fire Resources and Science – Research Stations

The U.S. Forest Service provides a great deal of resources and science to inform our wildfire community. Diverse and extensive work is done in the network of research stations and risk centers. The following information is often used nationally and internationally. These resources were pulled together by a team from the Rocky Mountain Research Station, specifically for NACD members, to help with informing conservation districts and the private landowners they work so closely with to create and maintain resilient landscapes.

Potential Operational Delineations (PODs)

PODs give land managers a formal process for developing landscape-scale wildfire response options before the fire season even begins. The PODs' risk-based framework helps managers weigh a portfolio of landscape values, including human assets and natural resources, current conditions, responder safety, and likely fire outcomes, to identify appropriate fire management objectives.

<https://www.fs.usda.gov/rmrs/groups/wildfire-risk-management-science-team/potential-operational-delineations-pods>

West-Wide Rangeland Fuel Assessment

In this monthly recorded series, Dr. Matt Reeves analyzes current rangeland fuel conditions across the West, with emphasis on emerging hotspots. Projections are based on Reeves' Fuelcasting system, a new program that provides projections of expected fuel conditions this grazing season. It is an important component of the Rangeland Production Monitoring System.

<https://www.fs.usda.gov/rmrs/events/tealeaves>

Wildfire Research Team (WiRē)

The WiRē (Wildfire Research) Team is a partnership between wildfire practitioners and researchers. The team focuses on innovation and new approaches to integrating local social science into wildfire education and mitigation programs. WiRē brings diverse expertise in economics, sociology and wildfire risk mitigation to a multiyear research project.

<https://www.fs.usda.gov/rmrs/groups/wire-wildfire-research>

Southwest After Fire Toolkit

This online toolkit provides information on several existing post-fire resources to increase the capacity of individuals, communities, private landowners and other resource managers to implement management actions to reduce risks associated with these post-fire hazards.

<https://www.fs.usda.gov/rmrs/tools/after-fire-toolkit-southwest>

Fire Risk Management Assistance Team (RMA)

RMA provides products to help line officers, agency administrators, fire managers, incident management teams, area commands, geographic area coordination centers and multi-agency coordination groups make more risk-informed decisions to achieve safer and improved outcomes.

nifc.maps.arcgis.com/apps/MapSeries/index.html?appid=c5bc811ee22e4da0bde8abec7c20b8b4

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WildfireSAFE

WildfireSAFE is a real-time, incident-specific mobile application integrating best-available fire danger science to support decision-making in the field.

<https://wfsafe.technosylva.com/>

Wildfire Risk to Communities

Interactive online maps, charts and resources to help community leaders understand and reduce wildfire risk.

<https://www.fs.usda.gov/managing-land/fire/wildfirerisk>

Fireshed Registry

The Fireshed Registry maps wildfire transmission from wildlands to communities and identifies priority firesheds for forest and fuel management investments.

usfs.maps.arcgis.com/apps/MapSeries/index.html?appid=24b59a92c6f043c0b23cbc99a4d7ea51

Wildland Fire Decision Support System (WFDSS)

The Wildland Fire Decision Support System (WFDSS) was developed by R&D to provide a risk-based process for making decisions on how to respond to and manage wildfires. The system enables managers to access information about assets, ownership, public and firefighter safety and likelihood of damage or enhancement of those values.

https://wfdss.usgs.gov/wfdss/WFDSS_Home.shtml

Firing Up the Fireshed Registry for Science-Based Decision Support

The Fireshed Registry is an interactive geospatial portal providing data on past, present and future trends regarding wildfire exposure to communities and forest and fuel management. It provides a consistent, all-lands, scalable framework for classifying fireshed conditions in terms of underlying wildfire transmission, the potential to mitigate exposure and risk, and allow for safe use of fire. A recently published Forest Service report describes the development and application of the Fireshed Registry, including the process of building the system, sources of data, and its application within the agency for decision support and reporting on multiple ongoing programs.

<https://www.fs.usda.gov/treesearch/pubs/62641>

Cross-Boundary Fire Risk Mitigation Webinars

Wildland fire respects no boundaries, so effective preparation and response requires good coordination among public and private landowners. A new Forest Service monthly webinar series explores cross-boundary fire risk mitigation and how natural resource managers can improve collaborative efforts that support and enable successful adaptation to wildfire among different land ownerships and jurisdictions.

<https://www.fs.usda.gov/rmrs/events/cross-boundary-fire-risk-mitigation-webinar-series>

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Post-Fire Recovery and Species Shifts in a Warming World

Wildfires are a regular occurrence for many Western forests, but increases in their size and severity have led to concerns about long-term forest recovery. Forest Service scientists and colleagues studied long-term forest regeneration (13-28 years) after fires in eastern Washington state. Their results showed species-level climatic tolerances and seed dispersal limits that may predict future challenges to regeneration with expected future climate warming and increased fire activity.

<https://www.fs.usda.gov/pnw/pnw-research-highlights/climate-change-likely-alter-postfire-forest-restoration-patterns>

Your Ally in Fire Behavior Prediction: WindNinja

WindNinja is a Forest Service tool that delivers high-resolution wind predictions within seconds for emergency fire responders making on-the-ground decisions. These analyses are extremely important for accurate fire behavior predictions. A mobile WindNinja app is now also available for iOS and Android that allows users to set up and run simulations on a remote server and then download and view the results on a mobile device.

https://www.fs.usda.gov/rmrs/sites/default/files/documents/sycu_5_windninja_06042021.pdf

An additional resource for wildfire risk, which was done by the U.S. Forest Service and Headwaters Economics can be found at: <https://wildfirerisk.org>

Regional Assessments

To coordinate the regional assessments and implement the Cohesive Strategy for many years to come, three Regional Strategy Committees (RSC) were formed, one for each region delineated in the Cohesive Strategy. Below are the websites for the RSCs. The most current assessment data is available by contacting the RSC Coordinator.

- Wildland Fire in the South (Southeast Region - WFLC) - The SouthWRAP or Southern Wildfire Risk Assessment Portal can be found at www.southernwildfirerisk.com
- Southeast Cohesive Wildland Fire Strategy website: <http://www.southernwildfire.net/>
- Wildfire in the West (West Region - WFLC): <http://wildfireinthewest.org/>
- Northeast Region - WFLC: <https://northeasternwildfire.net/>

The Northeast-Midwest State Foresters Alliance (NAASF) work closely with other regional partners to facilitate collaborative assessments for setting priorities and performance measures used for evaluating projects under an agreed upon set of performance measures, the Criteria and Indicators of Forest Sustainability (known as the Montreal Process), in the Northeastern Area.

There are several collaborative networks developing assessments of all kinds. It is most important to identify what is in the assessment model to be sure that it will provide your local group with relevant outcomes or an assessment that will help your planning group. These assessments, as well as state assessments, are used to determine priorities for funding of projects.

One example of a regional wildfire risk assessment is the Southern Group of State Foresters' Wildfire Risk Assessment Portal. Public viewer and professional viewer options are available online and can be used by conservation districts to help communities identify their wildfire risk.

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The Southwest Fire Science Consortium is a member of the Fire Science Exchange Network and another example of a regional source for science.

Nonprofit groups work very closely with agencies to provide existing data and information resources to identify hazard risks on a specific sector, such as on non-industrial private forest lands. The American Forest Foundation and the Spatial Informatics Group worked with 11 Western states to model potential impacts of those hazards on public goods, such as key water supplies, areas of high carbon sequestration value, and areas of high wildlife habitat importance. Data used for this project came from the West-wide Wildfire Risk Assessment dataset, a previous assessment of wildfire risk done for the American Forest Foundation, the USDA Forest Service's Forests to Faucets and Forest Inventory and Analysis datasets, the USGS' Public Water Use dataset, the National GAP Analysis Program, and the Fish and Wildlife Service's Critical Habitat database (DOI). All of these datasets were strong but had gaps around the above issues, which needed to be analyzed from a holistic perspective. For more information, visit: <https://sig-gis.com/projects/western-states-wildfire-assessment/>.

Private industry is helping agencies with the tasks of assessments and data management, too. The Arizona Association of Conservation Districts is engaged with a firm called the Timmons Group to develop a project tracking and assessment portal for the state. The Timmons Group is also working with 20 Northeastern states to develop a database to help the Northeast-Midwest State Foresters Alliance. They have been involved in many models and portals for a variety of assessments and information, such as SouthWRAP, COWRAP (Colorado) and others.

State-Level Assessments and Project Data Tracking

Multiple sources of risk assessments and data are available online. A state-level assessment has been done through the guidance of the National Association of State Foresters and within their state forest action plans. You can identify your local area at stateforesters.org. Keep in mind, this is a state-level assessment of wildfire risk, and a locally-developed assessment should be more refined and at a community-level or neighborhood level. In addition to assessments, there are websites/portals of data where layers of information exist, such as fire occurrence and hazardous fuels reduction projects have been conducted.

State conservation associations have taken steps to highlight work of districts and can communicate successful project work with partners, which lead to increased communication and larger landscape projects to enhance resiliency. The [ConserveAZ Portal!](#) was created by the [Arizona Association of Conservation Districts](#) (AACD) in cooperation with the Natural Resources Conservation Service (NRCS) and with technical support from the Timmons Group.

SouthWRAP is the primary mechanism for the Southern Group of State Foresters and Texas A&M Forest Service to deploy risk information and create awareness about wildfire issues across the state, which means that its cloud capabilities must always be on point. The portal also comprised a suite of cloud-based web-mapping applications that are tailored to support workflow and information requirements for the public, local community groups, government officials, professional hazard-mitigation planners and wildland fire managers. Collectively, the applications work together via the cloud to provide baseline information needed to support mitigation and prevention efforts across the state and 13 Southeastern states.

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Local Assessments – Homes, Barns, Outbuildings

As a local practitioner or producer, you may ask, ‘How does science in a national strategy fit into locally addressing wildfire issues in my community?’ Most landowners and managers of public and private land will tell you local analysis is best for identifying clear focus areas for improvement of response capabilities, assessment of hazardous fuels, and community capacity building. Regional Strategy Committees worked on developing their unique strategies and action plans that addressed local challenges. The Cohesive Strategy establishes a national vision: “to safely and effectively extinguish fire, when needed; use fire where allowable; manage our natural resources; and as a Nation, live with wildland fire.” In order to achieve this vision, decisionmakers must address all three goals of the Cohesive Strategy and work together, collaboratively, at unprecedented levels.

The attributes of counties falling within each combination of community clusters and landscape classes were considered. The match between county characteristics and thematic actions were then used to suggest relative priorities from a national perspective.

Taking it to the local level means communities as a whole and landowners individually assessing and preparing their properties. Conservation districts have been active in holding Firewise workshops, Firewise on the Farm events, and assisting with local wildfire prevention campaigns in schools. When large wildfires hit your neighborhood, as educators, you have a great opportunity to really share information that will matter to landowners.

Below are some tools from Firewise that can help to educate communities and landowners about safe evacuation, reducing hazardous fuels in the home ignition zone, and hardening your home. In addition, the information links listed in this document can explain how to apply for federal aid, coordinating hazardous debris assessments by environmental agencies, and organizations that can help with homelessness due to losing your home in a disaster.

The Clackamas County Soil and Water Conservation District in Beavercreek, Oregon, has worked with communities on education about Firewise tactics to protect your home and property: <https://conservationdistrict.org/2020/protect-your-forest-from-fire.html?highlight=wildfire> Work was done by the conservation district to provide a website to help educate landowners about applying for federal aid: <https://conservationdistrict.org/2020/2020-wildfire-resources.html?highlight=wildfire>. Here are additional national resources for local assessments:

Online learning opportunities (Understanding the Wildfire Threat to Homes and Community Risk Assessment Tutorial)

<https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA/Online-learning-opportunities>

Research fact sheet series:

<https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA/Firewise-USA-Resources/Research-Fact-Sheet-Series>

Print resources that you can order for free:

<https://catalog.nfpa.org/Firewise-USA-C3407.aspx>

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U.S. Forest Service Fireshed Data (Fireshed Registry)

Fireshed boundaries and a significant amount of data about them are loaded into an ArcGIS online portal (Fireshed Registry) and published in the Forest Service data repository.

Burned Area Emergency Response Teams

A [Burned Area Emergency Response \(BAER\) Team](#) is designed to identify and assess post-fire risks to resources. BAER assessments are often a cooperating and coordinated effort between many federal agencies such as the U.S. Forest Service, the National Park Service, the Bureau of Land Management, and the U.S. Fish and Wildlife Service to assess burned areas on federal lands. As we all know, fire knows no boundaries, but the BAER teams for federal lands do not assess private lands. BAER teams are staffed by specially trained professionals: hydrologists, soil scientists, engineers, biologists, vegetation specialists, archaeologists and others who rapidly evaluate the burned area and prescribe emergency stabilization treatments. Science is science, and it shouldn't matter which agency the scientist works for when it comes to a more frequent, chronic annual 10 million acres burned. A BAER assessment usually begins before the wildfire has been fully contained.

Some fires cause damage that requires special efforts to prevent additional problems afterwards. Loss of vegetation exposes soil to erosion; water runoff often increases and causes flooding; sediment often moves downstream and damages houses or fills reservoirs, putting endangered species and community water supplies at risk. The first priority is emergency stabilization in order to prevent further damage to life, property or natural resources. The stabilization work begins before the fire is out and may continue for up to a year. The longer-term rehabilitation effort to repair damage caused by the fire begins after the fire is out and continues for several years. Federal rehabilitation focuses on the lands unlikely to recover naturally from wildland fire damage.

The federal lands Burned Area Emergency Response (BAER) program is designed to address these emergency situations through its key goals of protecting life, property and critical natural and cultural resources. The objective of the BAER program is to determine the need for and to prescribe and implement emergency treatments on federal lands to minimize threats to life or property resulting from the effects of a fire or to stabilize and prevent unacceptable degradation to natural and cultural resources.

In most cases, only a portion of the burned area is actually treated. Severely burned areas, very steep slopes, places where water runoff will be excessive, fragile slopes above roads, trails, campgrounds and other valuable facilities are focus areas. The treatments must be installed as soon as possible, generally before the next damaging storm. Time is critical if treatments are to be effective. There are a variety of emergency stabilization techniques that the BAER team might recommend. Reseeding of ground cover with quick-growing or native species and mulching with straw or chipped wood are some common hillslope stabilization techniques used. The team also assesses the need to modify road and trail drainage mechanisms by installing debris traps, modifying or removing culverts to allow drainage to flow freely, adding additional drainage dips,

San Diego County – State of California 2007 – First state BAER team report for the Harris Fire.

<https://interwork.sdsu.edu/fire/resources/documents/BAERHarrisFire.pdf>

More recently, the BAER for the Carr Fire in California was so large, it took members from multiple agencies to assess the devastated landscape.

<https://www.nps.gov/articles/a-baer-of-a-task-a-multi-agency-team-s-mission-to-assess-parkwide-damage-in-whiskeytown-nra-following-the-carr-fire.htm>

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and constructing emergency spillways to keep roads and bridges from washing out during floods. These are only a few examples of stabilization techniques.

In the spirit of learning by doing, Washington state learned how to fund and deploy nonfederal BAER teams in 2014 and again in 2015, and thought others could learn from their efforts. In the state, there were federal teams that did BAER evaluations on lands they had responsibility for. In many cases, because federal lands can be uphill from private lands, conservation districts have learned that trained staff can take a federal evaluation and extrapolate their data down to state and private lands if a report is available. More often than not, what is anticipated on the upslope landscape will likely have to be dealt with downstream. Furthermore, the severity of burns is also similar in many cases, so that can lead to the identification of additional hazards and risks below these jurisdictional boundaries.

After FEMA agreed to reimburse the Forest Service under the Presidential Disaster Declaration, the Okanogan Conservation District BAER team worked for over a week and concluded with two public presentations to inform the community about the findings. The team provided copies of the report online and to local emergency management and agency partners. The final report influenced the location of the 14 emergency notification rain gauges in and around the burn area. It was also used to update the list of eligible structures for the USDA NRCS Emergency Watershed Protection Program, which would be implemented to help protect 15 homes at high risk of debris flows and flash flooding. Additionally, the Okanogan Conservation District used the data to obtain funding for emergency post-wildfire seeding in critical locations. The study also resulted in the installation of flash flood warning signs.

Following the 2015 Okanogan and North Star Complexes which burned a combined 465,880 acres, the Okanogan Conservation District once again deployed a state and private lands BAER team. At the request of the Stevens County Conservation District and Washington State Emergency Management, the Okanogan CD deployed a state and private lands BAER team for the Carpenter Road fire the same year. Both of these teams were deployed without federal guidance, making them truly state and local resource teams.

To fund these teams, which cost anywhere from \$30,000 to \$50,000, the Okanogan CD used funds initially appropriated by the Washington State Conservation Commission, which were

Washington state - Carlton Complex 86,000 federal acres, 590 tribal acres, 69,885 acres, and 98,753 acres of private land needed assessments. Conversations with the USFS Region 6, FEMA Region 10, and the Washington Department of Emergency Management advanced the effort for the Okanogan Conservation District to reach out to other districts to form a BAER team.

FEMA agreed to reimburse the Forest Service (which they could do because the state had received a Presidential Disaster Declaration) for three experienced BAER team leads to guide the district on this training endeavor.

Carlton Complex, Okanogan Conservation District BAER team report had significant influence on future monitoring to help protect homes at high risk of debris flows and flooding.

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ultimately backfilled by the Washington State Legislature. The legislature approved \$1.1 million during the 2015 legislative session for fire recovery work including the BAER teams, match for the Emergency Watershed Protection work, emergency grass seeding, emergency rain gauges, and work the district did to assist landowners with fire recovery. Following the 2015 fires, the Washington State Legislature approved over \$6 million to be distributed by the Washington State Conservation Commission to conservation districts working to help private landowners with fire recovery from the 2015 fires statewide. Much of the justification for those funds came from a combination of the BAER team reports and the on-the-ground individual site assessments completed by conservation district staff to assess primarily agricultural and forest land losses on private lands.

Since 2015, the conservation district, Washington State Conservation Commission, Washington Department of Natural Resources and Washington Department of Natural Resources have been in conversations about how to fund and deploy teams in future years to provide residents and emergency management with timely and accurate recovery information. Thankfully, a state and private lands BAER analysis has not been necessary.

The Carpenter Road BAER team was the least expensive, but still cost more than \$30,000. The Carlton Complex BAER team cost the most due to the size of the team and the fact that it took a couple of days longer than the others. That bill was over \$50,000. The Okanogan Complex BAER team bill was in the middle of the other two. All three were funded by the Washington State Conservation Commission, who initially used existing funds from other programs and grants to fund the Carlton Complex initial response and BAER team.

In 2020, the Clackamas Soil and Water Conservation District was also faced with providing analysis for private lands in Clackamas County, Oregon, following the Labor Day Fires.

Minnesota - Fire Needs Assessment for Minnesota

The Lake States Fire Science Consortium has developed presentations showing how to develop a Fire Needs Assessment. Their presentations are available for assessments in Illinois, Wisconsin, Michigan, and Minnesota, and may have developed more after the development of this guide. For more information contact the Consortium.

One Watershed One Plan - Assessments, graphics and maps are available to show you an example of a watershed plan, which indicates an informed process of setting priority treatments for protection of water sources.

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Dynamics of a Changing Climate

Climate is changing our fire environment, increasing hazardous fuels and droughts and causing higher-density homes from displaced human populations

Wildland fire encompasses numerous interactive and complex social, ecological and physical factors. The analysis and discussion is organized around four national challenges that include Vegetation and Fuels; Homes, Communities, and other Values at Risk; Human-caused Ignitions; and Effective and Efficient Wildfire Response.

Sometimes, large fires start in areas where the land management agency allowed a fire to burn to restore the land and reduce the fuel-loading that leads to larger uncontrolled fires. This is often called unplanned ignitions, fire-use, or fire being managed for resource benefit. To a neighboring landowner or governmental jurisdiction, this use of fire transfers risk to their lives, property and natural resources, causing life-changing conditions and resulting conflicts.

Prompted by a reduction in active forest management, changing climate conditions, such as high winds, record hot temperatures, increased vegetation and low humidity, unprecedented wildfires have burned throughout the world. Wildfires and exposure to wildfire smoke pose multiple human health threats from burns and injuries to respiratory illnesses and mental health issues. Traditional knowledge of burning practices is important to review.

Multiple tribes have continued with local practices that have worked to maintain healthy landscapes for a very long time. A recent podcast/website has focused on this effort: <https://www.niehs.nih.gov/research/programs/geh/podcasts/index.cfm#a909511>

Flash Drought

Flash drought has serious real-world implications. The 2017 Northern Plains flash drought resulted in fires that burned 4.8 million acres and U.S. agricultural losses in excess of \$2.6 billion dollars. Neither the drought's swift onset nor its severity were forecasted. Episodes like this have sparked intense interest in flash drought in both the research community and the end user/applications community. Clear conceptualization of flash drought is important to both communities, as there are differing understandings and confusion on what flash drought is and how it differs from other droughts. To address this need, NIDIS held a virtual workshop in December 2020 that convened researchers and end users to begin developing a shared understanding/definition of flash drought and to identify research and tools needed to improve flash drought early warning.

Drought and Climate

Concerns about our changing climate continue, and there are numerous national efforts working on understanding the challenges of a changing climate. Strategies will be updated to identify new actions to reduce negative impacts of extreme weather to communities and the land based on data that drives assessments and policy. The following graph shows the counties that experienced drought in 2020.

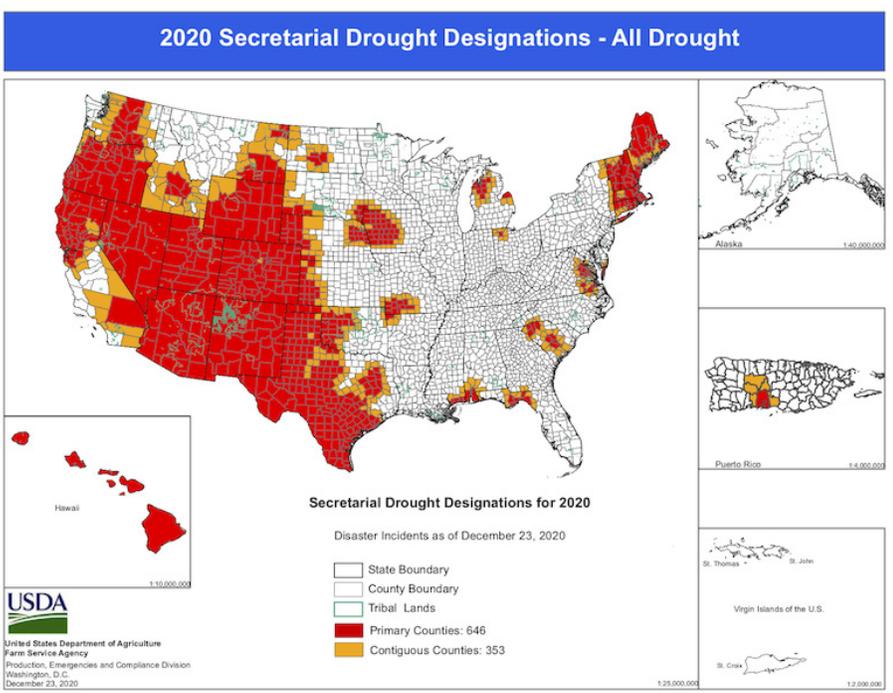
The U.S. Secretary of Agriculture is authorized to designate counties as disaster areas to make emergency loans (EM) available to producers suffering losses in those counties and in counties

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that are contiguous to a designated county. In addition to EM eligibility, other emergency assistance programs, such as Farm Service Agency disaster assistance programs, have historically used disaster designations as an eligibility trigger. Across the country, from the Plains to the West Coast, the Northeast, Hawaii, as well as pockets in the Midwest and South/Southeast, numerous counties received drought designations in 2020.

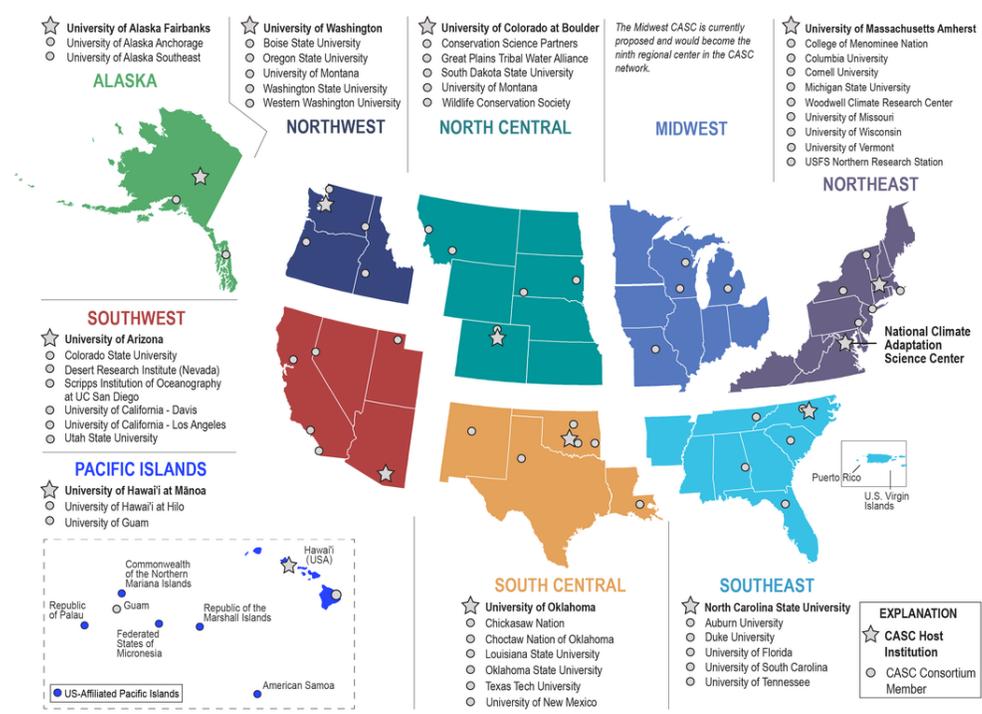
Recognizing how fire can be used as a tool to restore the land, multiple management options needed to be evaluated to determine where the risk was lower to the public and where communities could accept the short-term risk to provide long-term benefits from prescribed fire treatments.

Climate data is a very critical piece of information for decision-makers. In addition, conflicts in communities and between agencies continue. The need is even greater today for all land managers and practitioners to come together to share their knowledge in each community, locally, and identify the place-based, best option that provides for safety to firefighters, the public, and improves the health of the land.



Climate Adaptation Science Center (CASC) Regions

The CASCs collaborate across boundaries to address shared ecosystems, watersheds, and landscapes



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Future Climate Initiatives and Efforts by USDA and DOI

One effort introduced to show climate mitigation opportunities is the report titled, “CLIMATE 21 PROJECT (2021).” A few key points found in the report from the sections specific to the U.S. Department of Interior Bureaus and the U.S. Department of Agriculture may provide a view into the future proposed actions by some national policy makers:

CLIMATE 21 PROJECT – Department of the Interior

The Department of Interior’s vast land and mineral management responsibilities, multi-faceted mission, and numerous sub-agencies provide substantial climate mitigation opportunities as well as significant management and policy challenges. DOI manages a huge swath of America’s lands, waters, subsurface resources and cultural heritage for the benefit of the American people; it implements the nation’s trust responsibilities to Tribes, Alaska Natives and affiliated island communities; and it provides scientific support for natural resource-related activities.

DOI’s greatest climate mitigation opportunities lie in reducing greenhouse gas emissions from fossil resources owned by the public and Tribes, boosting renewable energy production on public lands and waters, enhancing carbon sequestration on public lands, and indirectly, by educating the public and DOI’s own staff about the science and impacts.

Four bureaus hold most of these mitigation opportunities: Bureau of Land Management (BLM); Bureau of Ocean Energy Management (BOEM); Bureau of Safety and Environmental Enforcement (BSEE); and U.S. Geological Survey (USGS). These and other DOI bureaus also have extensive climate adaptation and resilience opportunities, but this set of recommendations focuses only on mitigation, and it also does not attempt to address the immense needs of Indian Country. Realizing the full potential of these mitigation opportunities will not be easy.

Making climate mitigation happen will require strong leadership and sustained focus from the Secretary and leaders of key bureaus, as well as effective support from the Office of the Solicitor. Restoring staff morale will be critical, and for many DOI staff, climate mitigation also requires a shift in their understanding of their jobs and mission. DOI will need clear direction, ongoing reinforcement, a cross-DOI climate oversight body, action on multiple fronts, and implementation follow-through. Finally, given DOI’s current limitations, near-term progress will require a substantial number of relatively senior political appointees to help get the job done.

CLIMATE 21 PROJECT – Department of Agriculture

TOP RECOMMENDATIONS: MANAGEMENT, BUDGET AND STRUCTURE

- Rebuild and restore staff capacity and morale by reinvesting in science capacity, especially in the National Institute of Food and Agriculture and the Economic Research Service, and addressing workforce and performance protocols that reward staff for climate change innovation.
- Reset the narrative of agriculture and forestry as climate change solutions with rural stakeholders by emphasizing producers’ and landowners’ historic commitment to stewardship, and economic opportunities presented by investments in climate mitigation and resilience.

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TOP RECOMMENDATIONS: KEY PROGRAM OPPORTUNITIES

- Issue a Secretarial Order on Climate Change and Rural Investment to signal climate change as a top priority of the department, frame USDA's interest in investing in agriculture, forestry, technology, innovation, and rural economies, and to set agendas for policy and programmatic actions needed to act on climate.
- Invest in natural climate solutions by establishing a Carbon Bank using the Commodity Credit Corporation to finance large-scale investments in climate smart land management practices; prioritizing climate smart practices in implementation of farm bill conservation programs; and identifying opportunities to invest in natural infrastructure.
- Incentivize climate smart agriculture and rural investment through financial tools including crop insurance, rural development grants and loans, and USDA procurement.
- Decarbonize rural energy and promote green energy and smart grids through the vast reach of Rural Development grants and loans to rural utilities and by dramatically increasing use of methane digesters, biofuels and wood energy and wood product innovation.
- Prioritize federal investment to address wildfire by establishing a Wildfire Commission, co-chaired by the Secretaries of Agriculture and Interior and a Democratic and Republican governor, to offer recommendations to increase the pace and scale of ecologically-sound forest restoration on federal, state, tribal and private forest lands, modernize firefighting response in the U.S., address development in the wildland-urban interface, and increase the use of prescribed fire.





APPENDIX

RESOURCES

Examples of Cohesive Strategy in Action

Here are links to the NACD YouTube channel playlists for all three of the Winds, Water and Wildfire Summits:

- [Winds, Water and Wildfires Summits - Northeast Region](#)
- [Winds, Water and Wildfires Summits - Southeast Region](#)
- [Winds, Water and Wildfires Summits - West](#)

RESOURCES BY REGION

After a devastating event, such as straight-line winds exceeding 100 miles per hour that flatten thousands of acres of pines; flooding of whole neighborhoods and crop fields; or multiple mega-wildfires erasing everything in their paths, consuming lives and property, your communities will need assistance. Many sources of information and tools exist to help people, communities, counties, states and organizations to work together to recover. It can be an extremely confusing process, and it requires significant time and effort to work with others who are going through the challenging process of seeking resources to help with recovery. Many organizations develop post-fire, flooding and community recovery tips and websites.

Often, organizations are regionally-based and not necessarily in your neighborhood, county or neighboring county. Immediately following a disaster, state and regional-level agencies and organizations often require time to get organized to provide assistance, so help may not be readily available. That's when the local conservation district becomes the front line of response with local law enforcement, first responders and county emergency managers.

To assist conservation districts as they find themselves in the position of 'response personnel' for an incident, we've identified several resources that are available for you. These resources, tips and tools were provided by attendees of the NACD Winds, Water & Wildfires Summits. With each summit focusing on a region with the country, these resources provide a contact and connection who may have gone through similar events and grant processes.



Doug Jorgensen, homeowner, created defensible space around his home and shop after being evacuated due to wildfire.

Removing limbs near powerlines is dangerous and it is important to contact your utility company prior to conducting any work.

WEST REGION

- New Mexico - After Wildfire - <https://afterwildfirenm.org/>
- Oregon - 2020 Wildfire Resources - Clackamas SWCD (conservationdistrict.org)
- California - Creek Fire Recovery Efforts - Lessons Learned Sierra Resource Conservation District | Helping conserve 3,063 square miles of Fresno County's Natural Resources (sierrarcd.com)
- Colorado - COCO (Coalitions & Collaboratives, Inc. - Provides mitigation, best practices training; concentrates on science, methods and tools that will help you engage communities, residents while also helping you to eliminate ineffective practices. For information and a toolbox of resources, go to: <https://co-co.org/toolbox>.)

RESOURCES

SOUTHEAST REGION

Firewise-on-the-Farm – September 26 – William Harris Historic Homestead | Walton County, GA

By Laurel Kays, Southwest NC RC&D: Kim McCollum & Frank Riley, Chestataee-Chattahoochee RC&D

Monroe, Georgia – Wildfire on farms and ranches is a constant risk that most farmers ignore, assuming that a destructive fire will never happen to them. They gamble their entire livelihoods and all their ancestors' hard work by ignoring the small things that, if left unchecked, could make all their investment and hard work disappear very quickly, never to be recovered. Historic farm buildings are irreplaceable even with insurance; fences cost \$10,000 per mile; farm equipment is very expensive; cows and calves can cost \$1,500 or more; and timber losses are multiplied, because not only is the value of the timber lost, but the years growing the trees are wasted.

Common sense attention to details and spotlighting the small things that can help prevent these losses is the purpose of our Firewise-on-the-Farm events. When I was 15, we were burning a hay field with no thought of defensible space around the hay barn on the other end, and we burned the hay barn, full of hay, because of lack of attention to simple things like a fire break around the barn. It happened very quickly and was easily preventable, but what can you expect from a 15-year-old! I still can see the expression on my father's face from 50 years ago when he pulled up to the smoking ruins and it wasn't pleasant...at least I saved the baler!

In February 2017, Chestataee-Chattahoochee Resource Conservation and Development (RC&D) Council attended the Georgia Association of Conservation Districts (GACD) Annual Meeting at Lake Lanier Islands in Buford, Georgia, as an exhibitor. Our display consisted of brochures and banners about our Fire Adapted Communities program. Two district supervisors, Sonny Turner and Dan Bennett from Walton County Soil and Water Conservation District (SWCD), approached the booth and started asking questions about how they could help their county and their local homeowners and farmers. Dan Bennett is the Walton County Soil and Water Conservation District Chairman and the Past President of the Georgia Association of Conservation Districts (GACD). Sonny Turner is a Walton County Soil and Water Conservation District Supervisor and Georgia Association of Conservation Districts Group III Alternate Vice President. That conversation became the "spark plug" for this event.

Each year, wildland fires consume hundreds of homes and buildings across our state. Studies show as many as 80 percent of homes and farm buildings could have been saved if the owner had followed simple, fire-safe practices. This field day focused on steps landowners can take to develop defensible spaces around their farm buildings and homes to reduce the spread of fire, including landscaping for new and existing homes. Local county and city fire departments along with Georgia forestry personnel conducted demonstrations on what to do if a fire breaks out in the home or on the farm. Georgia Farm Bureau's Georgia Farm Monitor was on hand to interview and film the event for distribution across the Farm Bureau's state network.

About the Walton County Soil and Water Conservation District:

The Walton County Soil and Water Conservation District is part of a larger, federal conservation effort that was started in the 1930s in reaction to the Dust Bowl. Walton County joined the Ocmulgee District in 1939 before becoming their own district. Conservation districts were formed to provide federal assistance on soil and water conservation to local citizens under local direction and

RESOURCES

priorities set forth by the chairman and supervisors of each district. Since the start of conservation districts in the state of Georgia, the soil and water on two-thirds of Georgia's 37 million acres have been protected from soil erosion, and now we can start to work on losses by fire.

The 2021 Supervisors for the Walton County SWCD are:

George Nathan Malcom
Crista Carrell
Dale Wiley
Howard (Sonny) Turner
Dan Bennett (Chairman)
District Community Relations Coordinator: John Redding

After the event was held, Kim McCollum and Frank Riley from Chestatee-Chattahoochee RC&D asked Dan and Sonny the following questions:

Why was this event important to you and the area?

Sonny Turner – “We are all about education and local leadership here in Walton County. We host field days that include grazing, drip irrigation, pollinators, and now the first-ever in Georgia “Firewise on the Farm” to educate our citizens about the risks of losing their property to a wildfire.”

What do you expect the outcome from this event to be?

Dan – “Spreading fire safety and risk reduction across the county, state and the Southeast. Helping to co-sponsor events with other agencies like Chestatee-Chattahoochee RC&D, soil and water conservation districts, the Georgia Forestry Commission, local fire departments, and the Natural Resources Conservation Service.”

What do you hope that people will learn from this event?

Dan & Sonny – “We want to help the people develop a common-sense approach to protecting their homes and farms from losses by a wildfire.”

What is the next step?

Dan – “We want to duplicate this event in as many of Georgia's 40 soil and water conservation districts as we can, and as an officer of the GACD, I can promote it through the state organization with RC&D and NRCS support.”

The Firewise-on-the-Farm event had over 100 in attendance, including farmers, school students, homeowners and emergency agency personnel from around the area. Three of the Appalachian RC&D FAC Coalition members traveled from North Carolina to attend the event and plan to duplicate the event in the Appalachian area of Western North Carolina. The event also piqued interest for four similar events in other counties in North Georgia.

RC&D's Mission is to conserve natural resources, support economic development, enhance the environment, and improve the standard of living for all citizens. What better way to fulfill this mission than to help people save their hard earned property from losses by fire.

RESOURCES

NORTHEAST REGION

Northeast Regional Strategy Committee newsletter provides great updates on a monthly basis. Check out <http://northeasternwildfire.net>

PLACE-BASED OR INTEREST-BASED RESOURCES

Natural Resources University is a podcast network focused on delivering science-based natural resource management. <https://naturalresourcesuniversity.libsyn.com/>

UNIVERSITY PROGRAMS RESOURCES

Many state universities have extensive wildfire programs providing public education, such as Mississippi, Oregon, Alabama, Minnesota and others. Often, these programs have collaboratively worked with state forestry and fire organizations, but sometimes are not aware of the conservation districts working on fire prevention and community preparedness.

Here are multiple links to resources from universities, extension services, such as Mississippi State, University of Idaho, Oregon State and others:

<http://extension.msstate.edu/publications/living-fire-guide-for-mississippi-homeowners>

<https://extension.msstate.edu/news/feature-story/2000/fire-manages-forests-when-used-correctly>

<https://extension.oregonstate.edu/ask-expert/featured/what-best-way-reduce-fire-fuel-my-property>

<https://sref.info/articles/southeastern-wildland-fire-success-stories>

<https://sref.info/articles>

<https://anrep.org/newfi/newfi-national-extension-wildland-fire-initiative>

<https://www.uidaho.edu/extension/forestry/topic/fire>

<https://archives.joe.org/joe/2003june/a3.php>

<https://extension.psu.edu/prescribed-fire-does-it-have-a-place-on-my-land>

FEDERAL RESOURCES

Conservation Districts and FEMA – Building Community Resilience before the Disaster!

It is a common saying among emergency managers that “disasters are not the time to exchange business cards for the first time.” As extreme weather events and disasters grow in frequency and severity, conservation districts can play a role in building community resilience before a disaster strikes. Conservation districts should consider reaching out to their local emergency managers and planners, who are engaged in not just disaster response but also day-to-day hazard mitigation and disaster preparedness, to explore ways to involve conservation in these efforts—before a disaster strikes:

RESOURCES

Hazard Mitigation

Conservation districts can help connect conservation with activities that reduce or eliminate long-term risk to people and property from future disasters, also known as [hazard mitigation](#).

Conservation practices like stream restoration or vegetation management can help reduce risk from floods or wildfires while also protecting soil and water quality. Conservation districts, equipped with knowledge of local hazards and these “nature-based” ways of reducing risk, can be important contributors to their community’s hazard mitigation planning process, if they reach out for a seat at the table.

Hazard Mitigation Planning

Hazard mitigation plans identify hazards, assess vulnerabilities and capabilities, and identify projects to reduce risks. Projects must be identified in these plans to be eligible for hazard mitigation grant funding from the Federal Emergency Management Agency (FEMA). Check on the status of your local jurisdiction’s plan using this [interactive map](#) and contact your local emergency planners to learn more about how to become involved.

The Jefferson Conservation District in Colorado is an example of a conservation district that engaged in their community’s hazard mitigation planning efforts and then accessed federal funding to strengthen both conservation and resilience. The Jefferson Conservation District worked with community partners to develop the [Jefferson County Multi-Hazard Mitigation Plan](#) and identified projects to reduce wildfire risk. With grant application support from the Colorado Division of Homeland Security & Emergency Management, the conservation district received a hazard mitigation grant from FEMA for a vegetation management project to reduce hazardous fuels in a high-risk neighborhood.

State Hazard Mitigation Officers

How can a conservation district learn more and get involved? In addition to reaching out to local emergency managers and planners, consider connecting with your state or territory’s State Hazard Mitigation Officer. State and territory associations can facilitate contact using this [listing of State Hazard Mitigation Officers](#). These state and territory “SHMOs” can provide more information about planning and funding opportunities and help link conservation districts and associations with partners for disaster resilience.

Disaster Preparedness – Business Preparedness

It is important for conservation districts to prepare themselves for disasters. Local emergency managers and planners may be able to provide resources to help conservation districts get started or strengthen their existing plans. In a crisis, your office may need to be evacuated; do you have a plan for evacuating your office? Ready Business is a national planning resource.

[Ready Business](#) provides toolkits and how-to guides to help businesses and other organizations prepare for disasters.

COMMUNICATIONS

Another way conservation districts can help prepare their communities and clients for disasters is by helping to amplify the disaster preparedness messaging of local and state emergency managers and planners, or by initiating their own messaging.

RESOURCES

Preparedness Messaging Calendar

The national Ready campaign has an annual [Preparedness Messaging Calendar](#) that offers different preparedness themes each month, (e.g., May is [National Wildfire Awareness Month](#)) along with customizable resources to help promote individual and community preparedness throughout the year. These can be adapted to hazards that impact your local area.

Social Media Toolkits

[Social media toolkits](#) are also available for many weather and climate events such as extreme heat, floods, hurricanes, wildfires and much more.

COMMUNITY PREPAREDNESS

Conservation district officials and employees may also be interested in engaging in some of these disaster preparedness groups and activities that may be operating in their communities.

Community Emergency Response Team (CERT)

The Community Emergency Response Team (CERT) program educates volunteers about disaster preparedness for the hazards that may impact their area and trains them in basic disaster response skills such as fire safety, light search and rescue, team organization, and disaster medical operations. Find your local CERT program: www.ready.gov/cert

Air Quality - www.airnow.gov

Citizen Corps Councils

[Citizen Corps Councils](#) bring together local government, business and community leaders who work to prepare their communities for disaster and to make them more resilient. Councils harness the power of every individual through education, training and volunteer service to make communities safer, stronger and better prepared to respond to the hazards and threats facing their community.

Prepathon

[Prepathon](#) events give people in a community the chance to practice hands-on what to do during an emergency.

Multiple resources for prevention, mitigation, and training are available through the U.S. Fire Administration and FEMA. For more information go to:

<https://www.usfa.fema.gov/prevention/>

<https://usfa.fema.gov/wui/>

<https://usfa.fema.gov/training/nfa/>

USDA FSA Disaster Assistance At A Glance: https://www.farmers.gov/sites/default/files/2020-04/FSA_DisasterAssistance_at_a_glance_brochure.pdf

USDA FSA - What Is The Emergency Conservation Program (ECP)? <https://www.fsa.usda.gov/programs-and-services/conservation-programs/emergency-conservation/index>

The Emergency Conservation Program (ECP) helps farmers and ranchers to repair damage to

RESOURCES

farmlands caused by natural disasters and to help put in place methods for water conservation during severe drought. The ECP does this by giving ranchers and farmers funding and assistance to repair the damaged farmland or to install methods for water conservation.

FSA also has a related program for emergency forest restoration. The Emergency Forest Restoration Program (EFRP) helps the owners of non-industrial private forests restore forest health damaged by natural disasters. The EFRP does this by authorizing payments to owners of private forests to restore disaster damaged forests. The local FSA County Committee implements EFRP for all disasters with the exceptions of drought and insect infestations. In the case of drought or an insect infestation, the national FSA office authorizes EFRP implementation.

NRCS Financial Assistance - www.nrcs.usda.gov/wps/portal/nrcs/main/ca/programs/financial/

NATIONAL/INTERNATIONAL ASSOCIATION RESOURCES

NFPA - NATIONAL FIRE PROTECTION ASSOCIATION

Firewise USA - [Taking Control of Your Fire Risk](#)

Fire Causes and Risks: <https://www.nfpa.org/public-education/fire-causes-and-risks/wildfire>

IAFC - INTERNATIONAL ASSOCIATION OF FIRE CHIEFS

This organization has multiple tools available for communities, fire departments and leaders to utilize in wildland and structural fire organizations. <https://www.iafc.org>

SOURCE WATER COLLABORATIVE

Focus on source water protection - Includes guides on how to collaborate and to find a group in your area. <https://sourcewatercollaborative.org/how-to-collaborate-toolkit/map/>

NATIONAL WILD TURKEY FEDERATION

The NWTF website provides conservation advice and tools for landowners: <https://www.nwtf.org/conservation/category/landowners-tool-box>

NWTF Chapters can help with wildlife seed purchases. Find your nearest chapter by using the interactive map located here: <https://www.nwtf.org/about/nation>

For information about burn equipment available for public use, try reaching out to one of these program leaders. This information was provided by permission from the NWTF.

Taking control of YOUR WILDFIRE RISK



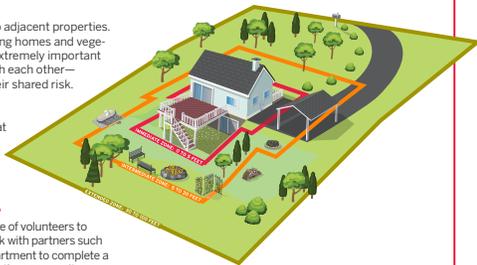
What Is the Fire Problem?
Every year, devastating wildfires burn across the United States. At the same time, a growing number of people are living where wildfires are a real risk. While these fires will continue to happen, there are things you can do to protect your home and neighborhood as well as your family's safety. NFPA® has found that in many cases of home destruction during wildfires, the homes were more flammable than the surrounding brush and trees. By taking action now, before a fire starts, you can increase your chances of having an ignition resistant home and community.

What Can Be Done About It?
Research shows that embers (burning pieces of airborne wood and/or vegetation that can be carried more than a mile through the wind) and small surface fires are the primary source of home ignitions during wildfires. To make your home safer, you need to prepare it to withstand embers and keep flames or surface fire from touching the home or any attachments. You can do this by limiting the amount of flammable vegetation, choosing ignition-resistant building materials and construction techniques, and conducting periodic outdoor maintenance within the three home ignition zones (HIZ). [Learn more about the HIZ at Firewise.org](#)

WORKING WITH NEIGHBORS
Home ignition zones often overlap onto adjacent properties. This makes the conditions of neighboring homes and vegetation a part of the wildfire threat. It's extremely important that neighbors work collaboratively with each other—and talk with each other—to reduce their shared risk.

FIREWISE USA® PROGRAM
Firewise USA® is a voluntary program that provides a framework to help neighbors get organized, find direction, and take action to increase the ignition resistance of their homes and community.

HOW DOES THE PROGRAM WORK?
Organize it: Create a board or committee of volunteers to represent your community. They will work with partners such as local forestry agencies or the fire department to complete a wildfire risk assessment and present it to the community.
Plan it: The wildfire risk assessment should highlight recommendations for action. From this risk assessment, the board will identify and prioritize action items for reducing ignition risk to homes. This action plan may span several years.
Do it: Host an outreach event and work with neighbors on addressing items in the action plan.
Tell us about it: New and renewal applications can be completed at portal.firewise.org. Tell us about the actions and efforts in your community to engage residents and complete mitigation work at the home level.



VISIT FIREWISE.ORG TO:

- Find tools to organize your community
- Download and share research fact sheets on wildfire and home construction
- Hear from other residents about importance of work at the home and community level
- Learn the basics of wildfire and what actions to take around your homes

This publication was produced in cooperation with: The National Fire Protection Association® (NFPA), the USDA Forest Service, the US Department of the Interior, and the National Association of State Foresters. Firewise USA® is a registered trademark of the National Fire Protection Association. NFPA is an equal opportunity employer.

NFPA **FIREWISE USA®**
RESIDENTS REDUCING WILDFIRE RISKS

RESOURCES

Burn Equipment Available for Public Use

The below burn equipment and or programs have in some way been supported by NWTf

State	Partner	Additional Information/Contact Information	Additional Information
Illinois	Menard County SWCD	217-632-7590	
Illinois	Clark County SWCD	217-382-4123	
Illinois	Jo Daviess County USDA	815-858-9100	May require Prescribed Burn Association Membership
Illinois	SI Prescribed Burn Association	618-967-4213	May require Prescribed Burn Association Membership
Kansas	Prescribed Burn Associations	https://sites.google.com/site/ksgrazinglandscoalition/kansas-prescribed-fire-council	https://sites.google.com/site/ksgrazinglandscoalition/kansas-prescribed-fire-council/kansas-prescribed-burn-associations
Missouri	Sullivan County USDA	660-425-2770 or 660-265-3440	May require Prescribed Burn Association Membership
Missouri	Adair County USDA/MDC	660-234-3009	
Missouri	Carter County USDA/MDC	573-322-0170	May require Prescribed Burn Association Membership
Missouri	Lebanon MDC	417-532-7612	
Missouri	Macon County USDA/MDS	660-346-8620	
Missouri	Moniteau County USDA/MDC	573-796-0286	
Missouri	Monroe County USDA/MDC	573-694-5316 or 660-327-4117	May require Prescribed Burn Association Membership
Missouri	Pettis County USDA/MDC	660-826-3339	May require Prescribed Burn Association Membership
Missouri	Shannon County USDA/MDC	573-226-3241	
Missouri	Vernon County USDA/MDC	417-839-0635	May require Prescribed Burn Association Membership
Nebraska	Quail Forever/Pheasants Forever	https://nebraskapf.com/prescribed-burn-associations-pba/	https://nebraskapf.com/prescribed-fire/
Oklahoma	Oklahoma Prescribed Burn Association	https://www.ok-pba.org/	
Texas	Texas Parks and Wildlife Department	https://pbatexas.org/Associations.aspx	

Stafford Act, as Amended, and Related Authorities

Homeland Security Act, as amended (Emergency Management-related Provisions)

FEMA P-592, May 2019



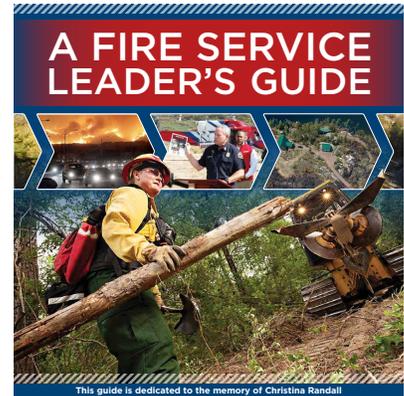
Policy Resolution 2020-06
Western Agriculture

- A. BACKGROUND**
1. Agriculture in the western states and territories is significantly different from that in other regions of the country. The West has greater variations in soil, climate, terrain, commodities, production practices and water availability. That difference is even greater for Alaska, Hawaii and the U.S. territories.
 2. Farms and ranches are important contributors to the economies and quality of life of western states. Among other important values, western agricultural lands are primary sources of open space, wildlife habitat, water supplies, and diverse rural economic opportunities in the recreation, food, fiber, energy and bio-based product industries.
 3. Agriculture and food industry members support vibrant local economies and robust and stable food security systems across the West.
 4. The U.S. Department of Agriculture (USDA), through the National Agricultural Statistics Service, conducts the Census of Agriculture every five years. Census of Agriculture data provides valuable insights on the average age of producers, new and young entrants to the agriculture sector, net cash income, crop insurance payments, specialty crop production and other useful metrics. State-acquired data must also be considered when evaluating industry metrics.
 5. The 2017 Census of Agriculture includes many useful findings regarding the agricultural workforce in western states. Notably, only 6 percent of primary producers are age 35 or younger, while over 25 percent are between 65 and 74 years old. Additionally, approximately 14 percent of primary producers in western states have served or serve in the U.S. military. Women's role in agriculture has grown substantially as well, constituting over 38 percent of the agricultural workforce in 2017, versus under 23 percent in 2012. Minority communities and seasonal and temporary workers also make significant contributions to agricultural production and distribution across the West.
 6. The 2017 Census of Agriculture illustrates the importance of specialty and high-value crop production in western states. In terms of total cash value of agricultural production, the top ten producing counties are all located in western states.
 7. Trade promotion plays an important role in ensuring that western agricultural products have an opportunity to compete with products produced and subsidized internationally. The United States-Mexico-Canada Agreement and programs offered by USDA and the Small Business Administration (SBA) all help improve international market opportunities for American growers and value-added product manufacturers.
 8. The West's network of land-grant universities and colleges, as well as Cooperative Extension Service programs and Agricultural Experiment Stations, provide national leadership in research to develop more resilient seeds and crops, manage soil health,

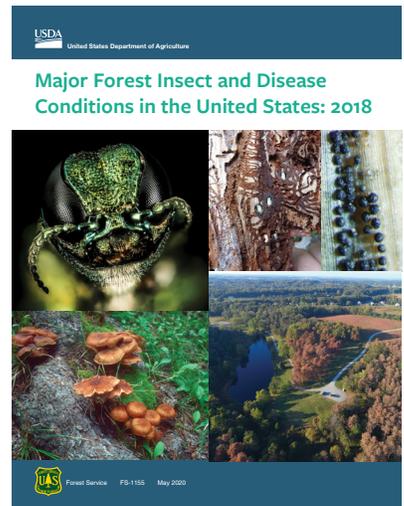
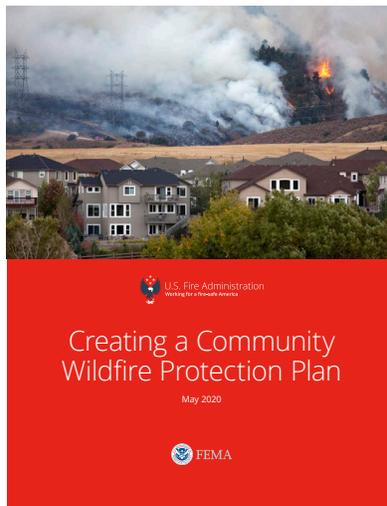
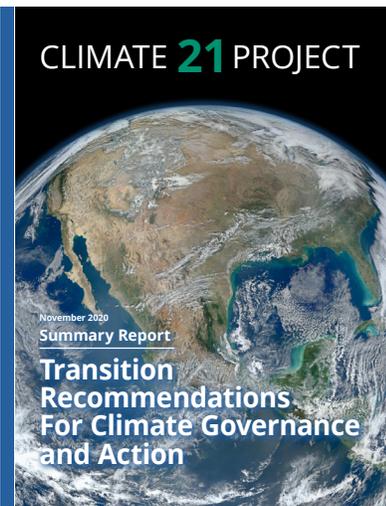
Western Governors' Association

1 of 5

Policy Resolution 2020-06



To Preparing a
Community Wildfire
Protection Plan



FUNDING

Hazard Mitigation Assistance Grant Funding

Conservation districts are eligible to receive Hazard Mitigation Assistance grant funding from FEMA, but account for less than one percent of all subgrantees. Two recent changes should give conservation districts cause to reconsider this federal funding source:

Nature-Based Solutions

FEMA has grown more receptive to mitigation projects with nature-based or green infrastructure approaches. FEMA's three [Hazard Mitigation Assistance \(HMA\) programs](#) now fund [aquifer storage and recovery, floodplain and stream restoration, flood diversion and storage, and green infrastructure methods](#).

FEMA's "[Building Community Resilience with Nature-Based Solutions: A Guide for Local Communities](#)," discusses practices like green infrastructure, low impact development, natural infrastructure and engineering with nature that yield benefits to communities and ecosystems that many conservation districts are familiar with. It also provides a list of other potential federal funding sources for projects.

Building Resilient Infrastructure and Communities (BRIC)

Nationwide funding for FEMA's new annual [Building Resilient Infrastructure and Communities \(BRIC\)](#) grant program has the potential to grow into the billions following recent changes to how it is funded.

Fire Management Assistance Grant -

<https://www.fema.gov/assistance/public/fire-management-assistance>

The Fire Management Assistance Grant (FMAG) is available to states and local and tribal governments for the mitigation, management and control of fires on publicly or privately owned forests or grasslands, which threaten such destruction as would constitute a major disaster. The FMAG declaration process is initiated when a state submits a request for assistance to the FEMA Regional Director at the time a "threat of major disaster" exists. The entire process is accomplished on an expedited basis, and a FEMA decision is rendered in a matter of hours.

The FMAG Program is provided through the President's Disaster Relief Fund and provides a 75 percent federal cost share; the state pays the remaining 25 percent for actual costs. Before a grant can be awarded, a state must demonstrate that total eligible costs for the declared fire meet or exceed either the individual fire cost threshold - which applies to single fires, or the cumulative fire cost threshold, which recognizes numerous smaller fires burning throughout a state.

Eligible firefighting costs may include expenses for field camps; equipment use, repair and replacement; tools, materials and supplies; and mobilization and demobilization activities. These grants do not provide assistance to individual home or business owners and do not cover other infrastructure damage caused by the fire. The Disaster Recovery Reform Act of 2018 authorizes FEMA to provide HMGP Post-Fire funds to eligible states and territories that receive Fire Management Assistance declarations and federally recognized tribes that have land burned within a designated area.

FUNDING

U.S. DEPARTMENT OF HOMELAND SECURITY, FEDERAL EMERGENCY MANAGEMENT AGENCY

Assistance to Firefighters Grant

The purpose of the AFG Program is to enhance the safety of the public and firefighters with respect to fire and fire related hazards. The program provides direct financial assistance to eligible fire departments, nonaffiliated emergency medical service (EMS) organizations, and State Fire Training Academies (SFTA). The funds provide critically needed resources that equip and train emergency personnel to recognized standards, enhance operational efficiencies, foster interoperability, and support community resilience.

Any applicants requiring assistance should visit <https://www.fema.gov/grants/preparedness/firefighters/assistance-grants>, call the FEMA AFG Program Help Desk at (866) 274-0960, and/or email them at firegrants@fema.dhs.gov.

FEMA Advisories/FEMA Office of External Affairs, Congressional & Intergovernmental Affairs Division:

- Congressional Affairs at (202) 646-4500 or at FEMA-Congressional-Affairs@fema.dhs.gov
- Intergovernmental Affairs at (202) 646-3444 or at FEMA-IGA@fema.dhs.gov
- Tribal Affairs at (202) 646-3444 or at FEMA-Tribal@fema.dhs.gov
- Private Sector Engagement at (202) 646-3444 or at nbeoc@max.gov

U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE

The Conservation Technical Assistance (CTA) program helps landowners become better stewards of their natural resources by assisting them with resource assessment, practical design, planning, and monitoring of conservation practices. NRCS uses CTA funding, along with farm bill programs, to hire the critical staff in local NRCS offices who work directly with landowners. Without sufficient NRCS staff in place, as is the case today, USDA's customer service and conservation program implementation are negatively impacted. NRCS also oversees the Emergency Watershed Program (EWP), which generates about \$2 billion worth of improved water quality and erosion control benefits annually. These benefits help rural communities strengthen their local economies and restore ailing infrastructure like dams and water storage facilities.

Conservation Operations (CO), which includes Conservation Technical Assistance (CTA), is administered by the Natural Resources Conservation Service (NRCS) and helps provide funding for NRCS staff in local offices. Technical assistance helps landowners become better stewards of their natural resources by assisting with resource assessment, practical designs, planning, and monitoring of conservation practices. Other programs included in CO are the snow survey, soil survey and plant material centers.

Relevant NRCS-related scenarios include:

- Wildfires ravaged a hillside, turning all trees and vegetation into piles of ash and leaving the soil exposed and vulnerable to the next heavy rainfall.
- A tornado flattened homes, businesses and other infrastructure, depositing the debris in local creeks, streams or drainage ditches.
- A major snowstorm dumped two feet of snow on a community, and the resulting runoff from a rapid melt flooded everything in its path, even eroding local streambanks.
- Torrential rains from a powerful hurricane scattered debris into drainage ways, causing waterways to overflow their banks and wreak havoc in coastal areas.

FUNDING

Over decades, conservation districts across the country have stepped up to sponsor these projects, which often require significant financial resources and long-term technical assistance. Conservation districts often partner with local NRCS offices to provide technical and financial assistance, including through the EWP, along with continued support for conservation programs authorized in the 2018 Farm Bill.

To apply for EQIP, contact your local USDA Service Center or apply online at farmers.gov. To apply for RCPP and see what is available in your area, call your local USDA Service Center or lead partner for the RCPP Project. To apply for ACEP, contact your local USDA Service Center.

- **General EQIP:** In Oregon, general EQIP dollars are only available to producers within a Conservation Implementation Strategy (CIS) area. CISes are locally-led projects developed by farmers and partners through the NRCS Local Work Group process. See a map of current CISes on the NRCS Oregon homepage.
- **Organic EQIP:** Offers assistance to USDA certified organic producers and to producers wishing to transition their operation to obtain an organic certification.
- **Seasonal High Tunnel EQIP:** Offers assistance to install a seasonal high tunnel (hoop house) to extend seasonal crop production to strengthen local and regional food markets while reducing pesticide use and energy inputs.
- **On-Farm Energy EQIP:** Assists producers to conserve energy on their farms through an on-farm energy audit and provides assistance to implement various recommended measures identified in an energy audit.
- **Sage Grouse Initiative EQIP:** Focuses on making measurable and significant progress toward treating threats to rangeland health including sage grouse habitat on private lands.
- **Animal Feeding Operation (AFO) Initiative:** Available to AFO producers statewide to address water quality and air quality resource concerns by developing a Comprehensive Nutrient Management Plan to manage manure and organic byproducts; and to implement conservation practices identified in that plan.
- **Joint Chiefs Landscape Restoration Initiative:** These projects focus on reducing the risk of catastrophic wildfire on private forestlands and adjacent federal lands managed by the U.S. Forest Service.
- **National Water Quality Initiative:** NRCS works closely with conservation partners to select priority watersheds where on-farm conservation investments will deliver the greatest water quality improvements.

STATE FIRE/FORESTRY AGENCY

The members of the National Association of State Foresters manage and protect state and private forests, which encompass nearly two-thirds of the nation's forests. The majority of wildfires occur on state and privately owned lands. For more information on grants available from the state forestry/department of natural resources agencies, check out: www.stateforesters.org

Secure Rural Schools

The Secure Rural Schools (SRS) and Self-Determination Act provides assistance to rural counties and school districts affected by the decline in revenue from timber harvests on federal lands. Multiple states and counties have SRS funds, most commonly referred to as Title 2 or Title 3 money, available for fire prevention programs. The allocation to the county, its use, and disbursement

FUNDING

varies in each location. See naco.org or your local county commissioner for more information. This is NOT just a western program.

Historically, rural communities and schools have relied on a share of receipts from timber harvests to supplement local funding for education services and roads. During the 1980s, national policies substantially diminished the revenue-generating activity permitted in these forests (see history of the negative impacts to communities following the listing of the Northern Spotted Owl and the Endangered Species Act). The resulting steep decline in timber sales decreased the revenues that rural counties and school districts received from forest management activities.

In response to this decline, SRS was enacted in 2000 (P.L. 106-393) to stabilize payments to counties and to compensate for lost revenues. In October 2008, SRS was reauthorized (P.L. 110-343) and amended to continue on a sliding payment scale. SRS provided \$262 million and \$243 million respectively to approximately 700 rural counties, parishes and boroughs across the nation. SRS was reauthorized on December 20, 2019, for fiscal years (FY) 2019 and 2020. SRS was set to expire at the end of FY 2020.

The expiration of SRS will create dramatic budgetary shortfalls if Congress fails to renew this long-standing federal obligation to county governments. Enactment of a sustainable long-term program to share revenues generated from the management of designated federal lands with forests, counties and schools will ensure that students receive essential education services and rural communities have critical funding for roads, conservation projects, search and rescue missions and fire prevention programs.

MISCELLANEOUS ORGANIZATIONS - CONSERVATION

The Network for Landscape Conservation advances cross-border, collaborative conservation as a vital approach to sustain nature, culture and community. We are fiscally sponsored by the Center for Large Landscape Conservation. The Catalyst Fund strives to accelerate the pace and practice of landscape conservation across the United States by making strategic investments in strengthening the collaborative capacity and process of place-based, community-grounded Landscape Conservation Partnerships.

A portion of the Catalyst Fund is dedicated to supporting indigenous leadership in landscape conservation. We especially invite partnerships that are led by indigenous peoples, organizations and communities to apply. For more information go to: <https://landscapeconservation.org/catalyst-fund/>

CASE STUDIES

CASE STUDY AND CONTACT DEVELOPMENT - FROM THE WINDS, WATER & WILDFIRES SUMMITS

FIRE ADAPTED COMMUNITIES GOAL

WYOMING - ROBB SKROI

OREGON - LISA KILDERS, Clackamas County Soil & Water Conservation District
Fire preparedness flyer and community meeting.

CALIFORNIA - KAREN BARR/State Association of Conservation Districts
Sierra RCD - STEVE HAZE
Honey Valley Lake RCD - LAURIE TIPPIN

MINNESOTA - Dovetail Partners <https://dovetailinc.org/blogdetail.php?id=60e89b8261fbe>

RESILIENT LANDSCAPES GOAL

ARIZONA - DEB SMITH/State Association of Conservation Districts. Software website of fuels assessment data and projects from all districts. (Resilient Landscapes goal)

NEW MEXICO - Procurement process, including conservation district project types by the NM State Lands Office. (Resilient Landscapes goal)

OREGON - LISA KILDERS, Clackamas County Soil & Water Conservation District
Fire preparedness flyer and post-fire recovery analysis on private lands.

WASHINGTON - CRAIG NELSON, Okanogan Conservation District, Burned Area Emergency Rehabilitation analysis.

NATIONAL WILD TURKEY FEDERATION -

This is a great story about Western wildfires and NWTF's efforts: <https://www.nwtf.org/conservation/article/a-tale-of-fire>

This is about a watershed level project in Arizona: <https://www.nwtf.org/conservation/article/healthy-habitats-clean-water>

WILDFIRE RESPONSE GOAL

CALIFORNIA - SIERRA RCD GUNS AND HOSES

Get involved in the local/county and state hazard mitigation plans and recognized early in the delegation of authority/Incident management team deployment!

SOURCE DOCUMENTS

National Cohesive Wildland Fire Management Strategy (Cohesive Strategy) -

All phases of the Cohesive Strategy and National Action Plan can be found at:

www.forestsandrangelands.gov

National Barriers and Critical Success Factors - Cohesive Strategy Crosswalk & Strategic Alignment

As part of the development of the National Cohesive Wildland Fire Management Strategy, the Regional Strategy Committees identified national barriers and critical success factors that would impact the successful implementation of the Cohesive Strategy at the national level. The Cohesive Strategy regions were then asked to identify, from the original list of over 50 items, those barriers and critical success factors that required action at the national level to address and were cross-cutting across the three Cohesive Strategy regions. The resulting list of the top priority barriers and CSFs was submitted to the Wildland Fire Executive Committee. This list became a foundational document of the Cohesive Strategy. Later, a cross walk was developed by the USFA to provide strategic alignment with the strategy.

https://www.usfa.fema.gov/downloads/pdf/cohesive_strategy_crosswalk_and_strategic_alignment_report.pdf

Climate 21 Project - Duke University

<https://nicholasinstitute.duke.edu/project/climate-21>

Stafford Act, as Amended, and Related Authorities

Homeland Security Act, as amended (Emergency Management-related Provisions)

FEMA P-592, May 2019



Policy Resolution 2020-06
Western Agriculture

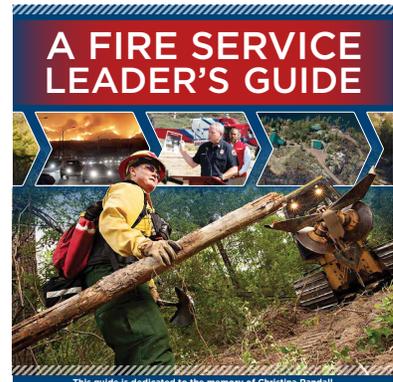
A. BACKGROUND

1. Agriculture in the western states and territories is significantly different from that in other regions of the country. The West has greater variations in soil, climate, terrain, commodities, production practices and water availability. That difference is even greater for Alaska, Hawaii and the U.S. territories.
2. Farms and ranches are important contributors to the economies and quality of life of western states. Among other important values, western agricultural lands are primary sources of open space, wildlife habitat, water supplies, and diverse rural economic opportunities in the recreation, food, fiber, energy and bio-based product industries.
3. Agriculture and food industry members support vibrant local economies and robust and stable food security systems across the West.
4. The U.S. Department of Agriculture (USDA), through the National Agricultural Statistics Service, conducts the Census of Agriculture every five years. Census of Agriculture data provides valuable insights on the average age of producers, new and young entrants to the agriculture sector, net cash income, crop insurance payments, specialty crop production and other social metrics. State-acquired data must also be considered when evaluating industry metrics.
5. The 2017 Census of Agriculture includes many useful findings regarding the agricultural workforce in western states. Notably, only 6 percent of primary producers are age 35 or younger, while over 25 percent are between 65 and 74 years old. Additionally, approximately 14 percent of primary producers in western states have served or serve in the U.S. military. Women's role in agriculture has grown substantially as well, constituting over 38 percent of the agricultural workforce in 2017, versus under 35 percent in 2012. Minority communities and seasonal and temporary workers also make significant contributions to agricultural production and distribution across the West.
6. The 2017 Census of Agriculture illustrates the importance of specialty and high-value crop production in western states. In terms of total cash value of agricultural production, the top ten producing counties are all located in western states.
7. Trade promotion plays an important role in ensuring that western agricultural products have an opportunity to compete with products produced and subsidized internationally. The United States-Mexico-Canada Agreement and programs offered by USDA and the Small Business Administration (SBA) all help improve international market opportunities for American growers and value-added manufacturers.
8. The West's network of land-grant universities and colleges, as well as Cooperative Extension Service programs and Agricultural Experiment Stations, provide national leadership in research to develop more resilient seeds and crops, manage soil health,

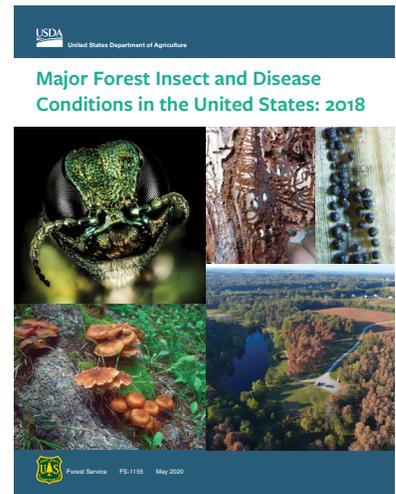
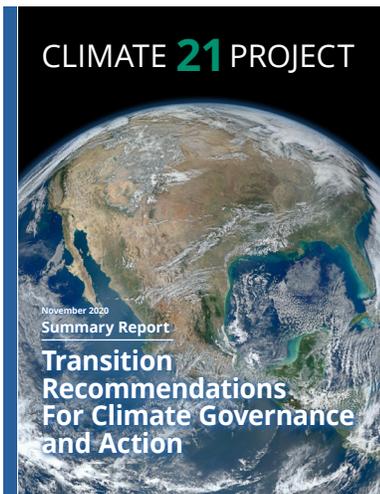
Western Governors' Association

1 of 5

Policy Resolution 2020-06



To Preparing a
Community Wildfire
Protection Plan



GLOSSARY

USDA Glossary can be found at: <https://www.usda.gov/glossary>

National Wildfire Coordinating Group Glossary (NWCG)

An extensive glossary of fire management terminology and acronyms is maintained by the National Wildfire Coordinating Group (NWCG). It can be found at <https://www.nwcg.gov/pms//pubs/glossary/index.htm>.

Some of the important terms used in this document that have specific meaning in the context of wildland fire management, but are not currently found in the NWCG glossary, are defined below:

Affected party

A person or group of people who are affected by the outcome of a decision or action.

Fire-adapted community

Human communities consisting of informed and prepared citizens collaboratively planning and taking action to safely coexist with wildland fire.

Fire-adapted ecosystem

An ecosystem is “an interacting natural system, including all the component organisms, together with the abiotic environment and processes affecting them.” (NWCG Glossary). A fire-adapted ecosystem is one that collectively has the ability to survive or regenerate (including natural successional processes) in an environment in which fire is a natural process.

Fire community

A term that collectively refers to all those who are engaged in any aspect of wildland fire-related activities.

Fire exclusion

The land management activity of keeping vegetation or ecosystems from burning in a wildland fire.

Fire management community

A subset of the fire community that has a role and responsibility for managing wildland fires and their effects on the environment.

Fire science community

A subset of the fire community consisting of those who study, analyze, communicate, or educate others on the components of fire management that can be measured, such as fire behavior, fire effects, fire economics, and other related fire science disciplines.

Indian Country

The British passed the Proclamation of 1763 which created a boundary line between the British colonies and the American Indians lands west of the Appalachian Mountains. The proclamation forbade the British colonists from moving beyond the proclamation line into Indian Territory.

Important legislation passed by the United States Congress in early United States history and over time did many things, including regulating relations defining “Indian Country.”

GLOSSARY

Resilient

Generally referred to in this document as “resilient ecosystems,” which are those that resist damage and recover quickly from disturbances (such as wildland fires) and human activities.

Stakeholder

A person or group of people who has an interest and involvement in the process and outcome of a land management, fire management, or policy decision.

Wildland Urban Interface

The Healthy Forest Restoration Act provides expedited NEPA procedures for authorized fuel-reduction projects on National Forest Service and DOI Bureau of Land Management lands in the WUIs of at-risk communities. Under HFRA Section 101(1), an at-risk community is one that:

- Is an interface community as defined in the Federal Register notice of January 4, 2001 (66 FR 753), or a group of homes and other structures with basic infrastructure and services (such as utilities and collectively maintained transportation routes) in or adjacent to federal land.
- Has conditions conducive to a large-scale wildland fire.
- Faces a significant threat to human life or property as a result of a wildland fire.
- The HFRA is intended to build on work carrying out fuel treatments in and around communities under the National Fire Plan (<http://www.fireplan.gov>) and A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy Implementation Plan (May 2002, <http://www.fireplan.gov/reports/11-23-en.pdf>).

The International Wildland Urban Interface Code can be found at:

<https://codes.iccsafe.org/content/IWUIC2018/effective-use-of-the-international-wildland-urban-interface-code>

ACRONYMS

CWPP	Community Wildfire Protection Plan
DOI	Department of the Interior
EMDS	Ecosystem Management Decision Support system
FEMA	Federal Emergency Management Agency
FLAME Act	Federal Land Assistance, Management, and Enhancement Act
FPA	Fire Program Analysis
FPU	Fire Planning Unit
GAO	General Accounting Office
HVR	Highly Valued Resource
IAFC	International Association of Fire Chiefs
NASF	National Association of State Foresters
NFPA	National Fire Protection Association
NICC	National Interagency Coordination Center
NIFC	National Interagency Fire Center
NVC	Net Value Change
NWCG	National Wildfire Coordinating Group
PDSI	Palmer Drought Severity Index
USDA	U.S. Department of Agriculture
USFA	U.S. Fire Administration
USFS	U.S. Forest Service
WFDSS	Wildfire Decision Support System
WFEC	Wildland Fire Executive Council
WFLC	Wildland Fire Leadership Council
WUI	Wildland Urban Interface

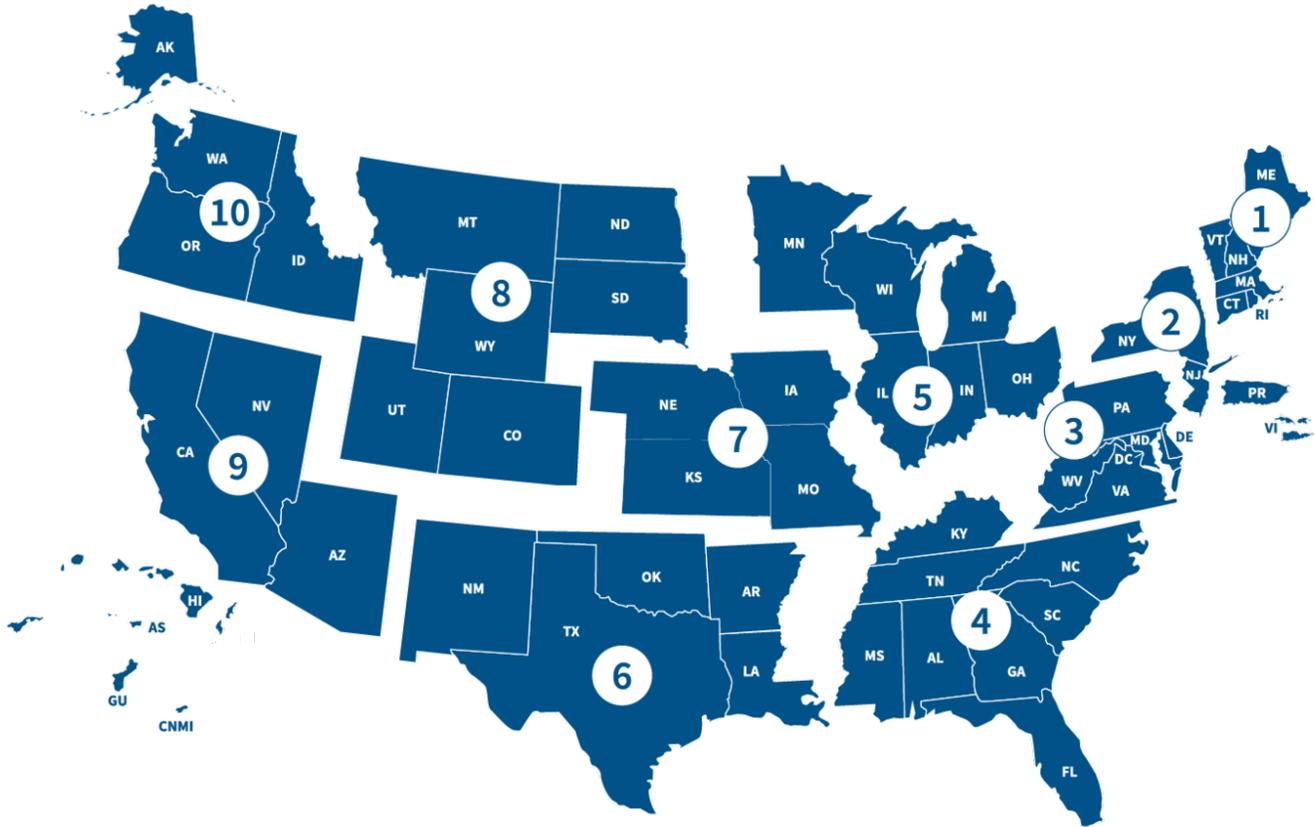
SOCIAL MEDIA

The future of public education is rooted in the internet. This section provides a link for each of the key organizations and agencies recommended for engagement on implementation and acceleration of the goals of the Cohesive Strategy. In addition to the list below, a great place to start local conservation district engagement is outlined by one conservation district in Washington. Engagement with local elected officials and thought-leaders is critical at several levels - for issue clarification, partnership building, funding and other reasons. Learn how to engage early and often, such as before a legislative session, rather than during or after. An example of how and when to share information about your conservation district can be found in the [Marketing Tool Kit](#). It contains branding ideas, fact sheets on conservation districts, tips to engage elected officials and decision makers, social media best practices and examples, and much more.

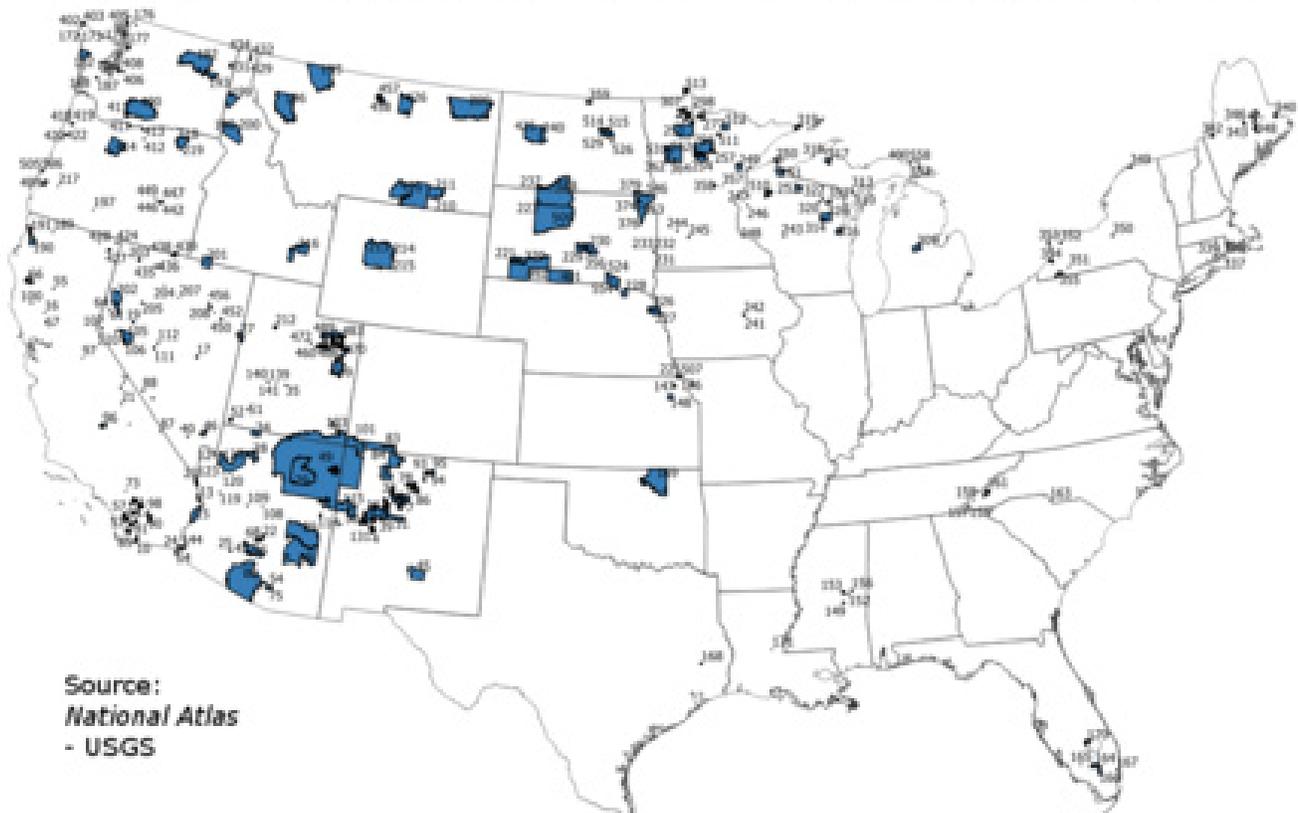
- Website for NACD
<https://www.nacdnet.org/>
- Website for WFLC
<https://www.forestsandrangelands.gov/>
- Website for NRCS
<https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/>
- Website for USFA
<https://www.usfa.fema.gov/wui/outreach/>
- Website for NASF
<https://www.stateforesters.org/>
- Website for Joint Forestry Team
<http://jointforestryteam.com/>
- Website for RSC NE
<http://northeasternwildfire.net/>
- Website for RSC SE
<http://southernwildfire.net/>
- Website for RSC WEST
<http://wildfireinthewest.org/>
- StoryMaps - Pacific Islands Pacific Islands StoryMap June 2021
<https://storymaps.arcgis.com/stories/deed7994e9ea432688330c74f0ce7a9e>

MAPS

FEMA REGION MAP



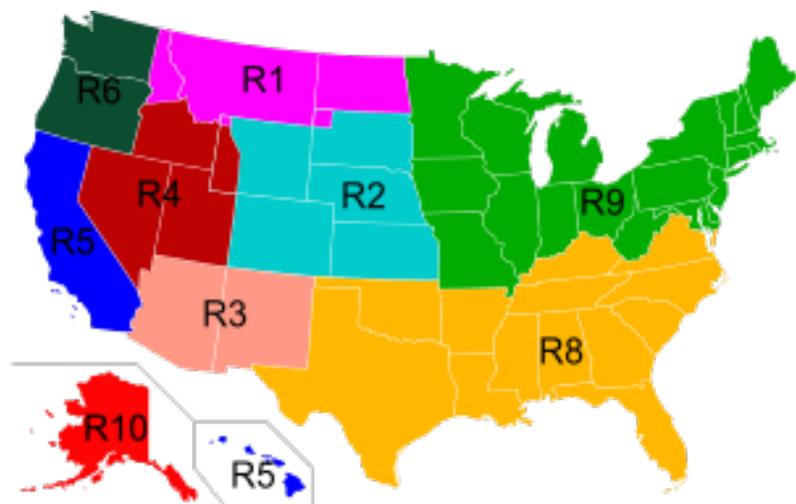
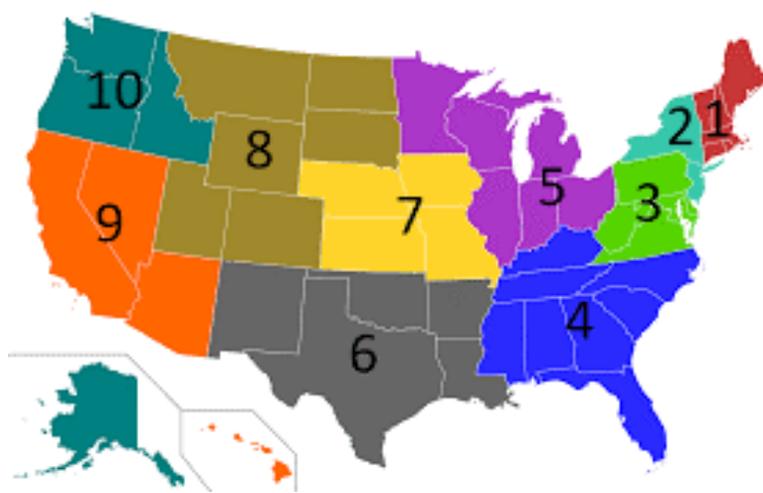
Native American Reservations in the Continental United States



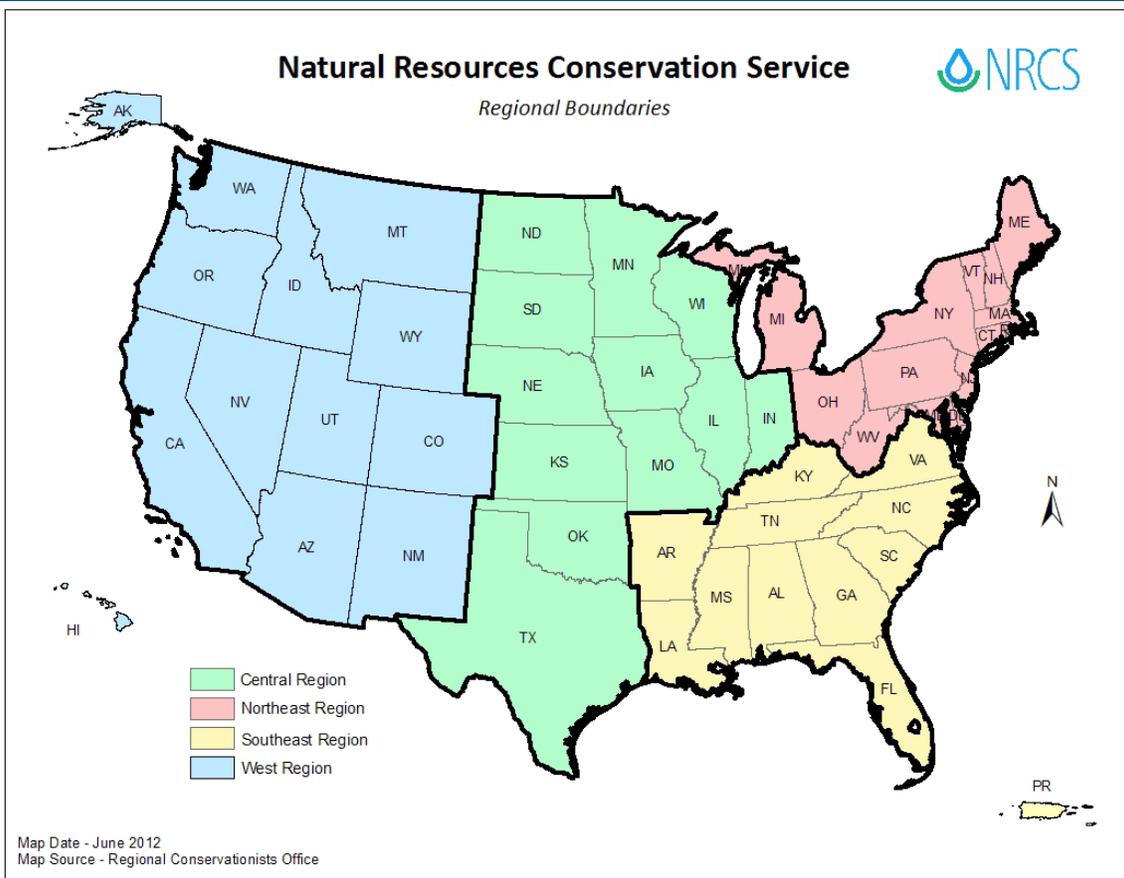
MAPS

Our National Forest System

We have 9 Regions with 191 million acres of land



MAPS



National Cohesive Strategy Regions



MAPS

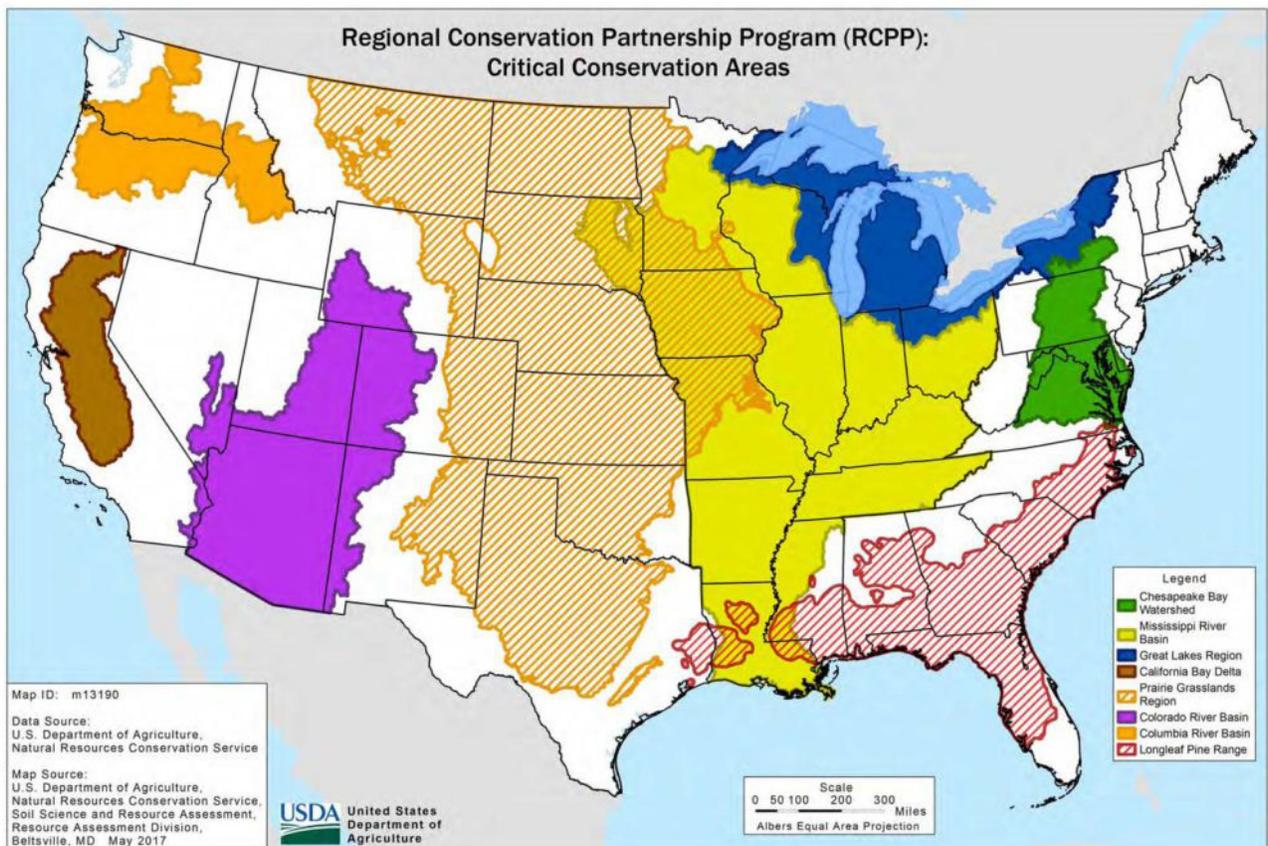
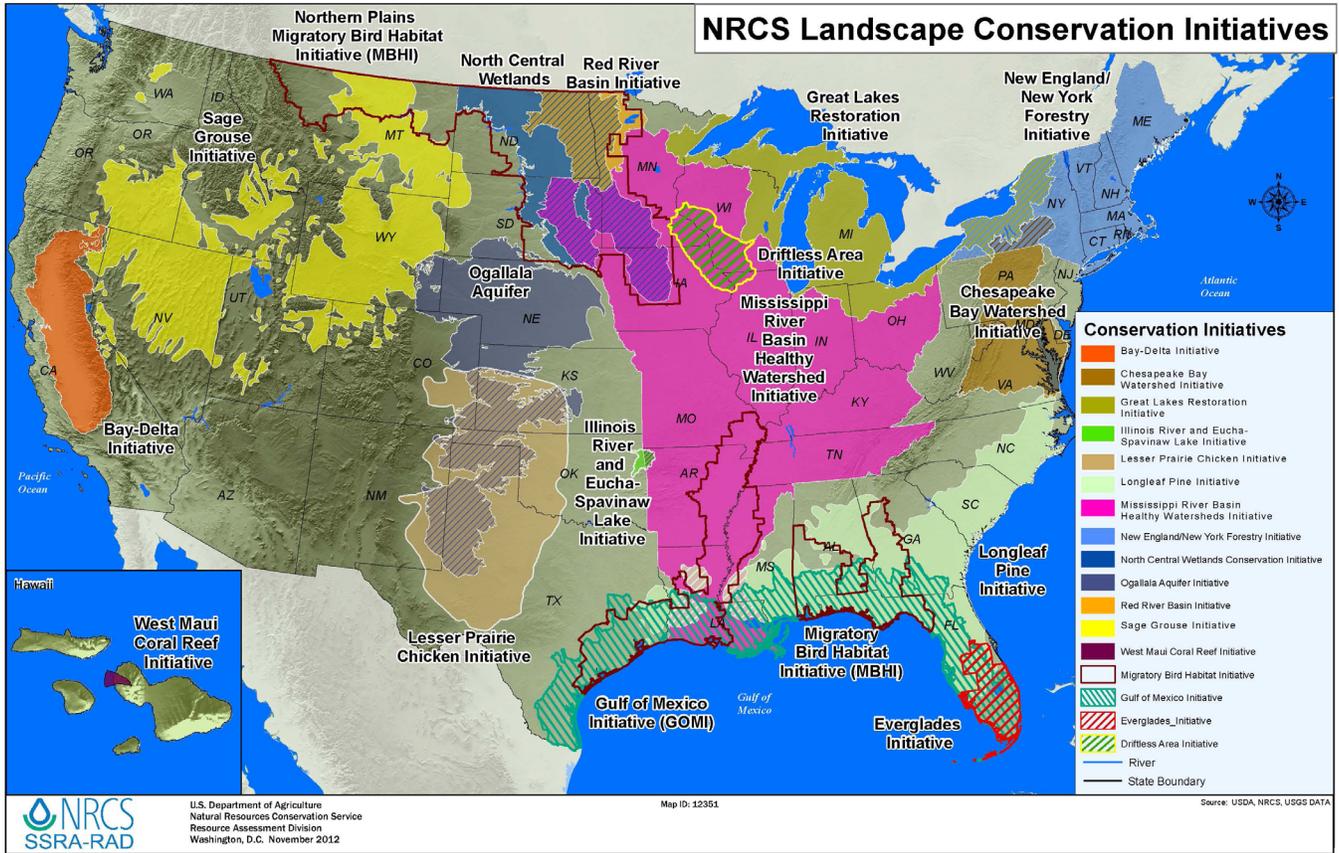
12 Interior Region Names Based on Watersheds



National Park Service Regions



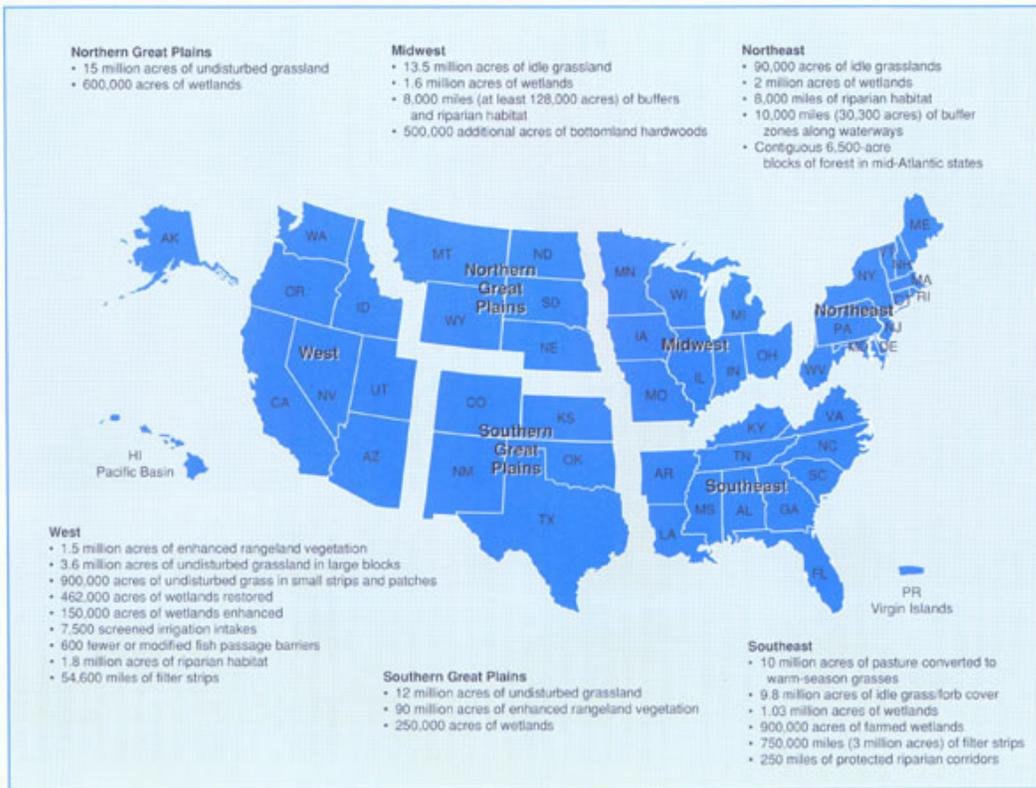
MAPS



MAPS

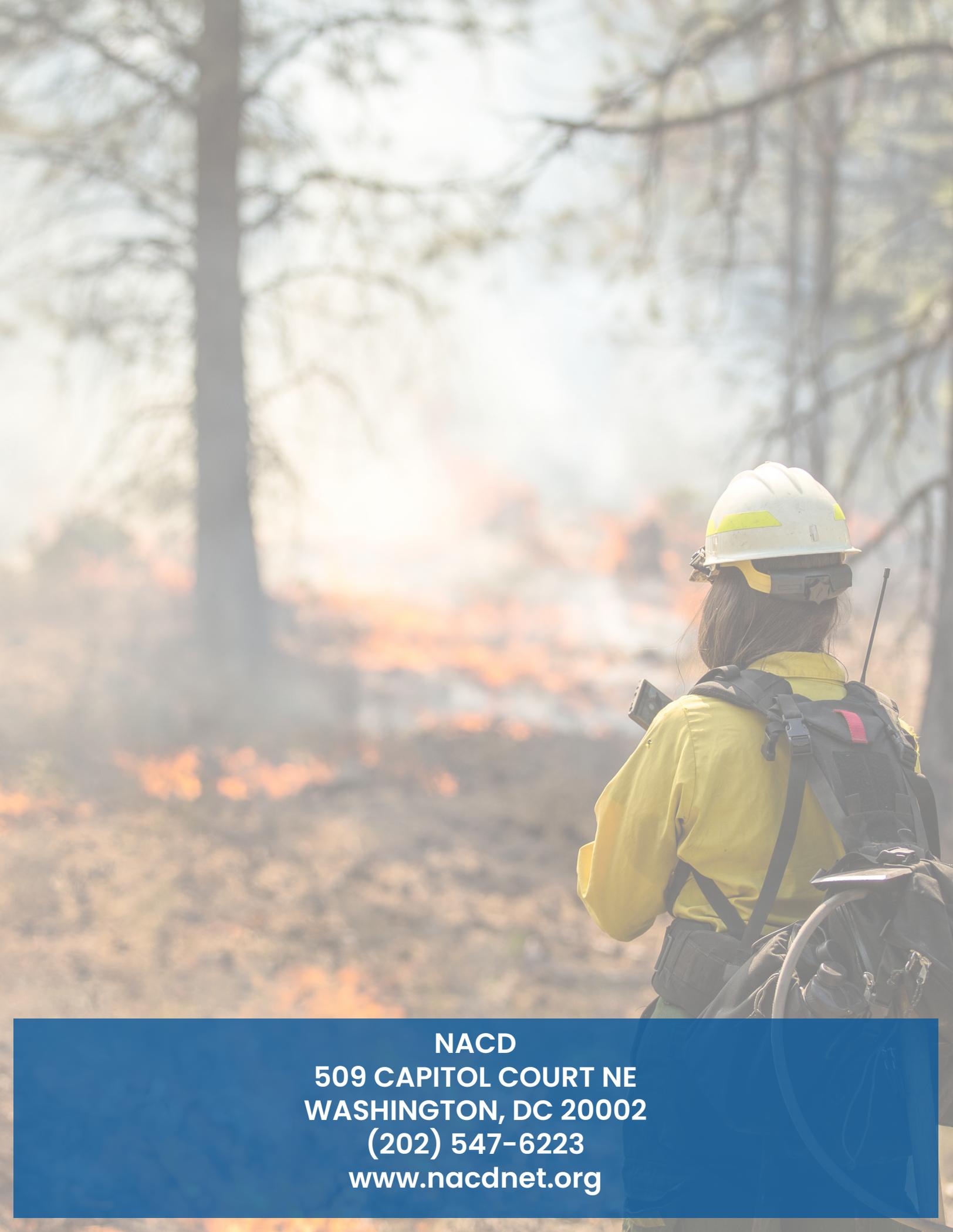
Regional agricultural wildlife habitat needs, beyond baseline conditions

Source: "How Much is Enough?" A Wildlife Management Institute Report, February 1995.



U.S. FWS COMPREHENSIVE CONSERVATION PLANS (Wildlife Refuge System)





NACD
509 CAPITOL COURT NE
WASHINGTON, DC 20002
(202) 547-6223
www.nacdnet.org